



MEASURES OF PROSPERITY AND PRODUCTIVITY ADJUSTED FOR THE COST OF LIVING

August 2014

Tom Rex, M.B.A.

**Associate Director, Center for Competitiveness and Prosperity Research;
and Manager of Research Initiatives, Office of the University Economist**

MEASURES OF PROSPERITY AND PRODUCTIVITY ADJUSTED FOR THE COST OF LIVING

**A Report from the Productivity and Prosperity Project (P3),
Supported by the Office of the University Economist**

August 2014

Tom Rex, M.B.A.

Associate Director, Center for Competitiveness and Prosperity Research;
and Manager of Research Initiatives, Office of the University Economist

Center for Competitiveness and Prosperity Research
L. William Seidman Research Institute
W. P. Carey School of Business
Arizona State University
Box 874011
Tempe, Arizona 85287-4011

(480) 965-5362
FAX: (480) 965-5458
EMAIL: Tom.Rex@asu.edu
wpcarey.asu.edu/research/competitiveness-prosperity-research
economist.asu.edu



TABLE OF CONTENTS

| | |
|---|----|
| Summary | 1 |
| Cost of Living | 2 |
| “Cost-of-Living Index” | 2 |
| Regional Price Parity | 3 |
| Comparison of RPP and COLI | 10 |
| Explaining the Variation in Cost of Living Across Metro Areas | 11 |
| Prosperity and Productivity Measures | 12 |
| States | 12 |
| Metropolitan Areas | 17 |
| Appendix I: Regional Price Parity and Prosperity and Productivity Measures Adjusted for the Cost of Living, by State | 22 |
| Appendix II: Regional Price Parity and Prosperity and Productivity Measures Adjusted for the Cost of Living, by Metropolitan Area, 2012 | 24 |

LIST OF TABLES

| | |
|---|----|
| 1. Regional Price Parities by State in 2012, Organized by Region | 4 |
| 2. Regional Price Parities in 381 Metropolitan Areas by Population Size and Region in 2012 | 7 |
| 3. Regional Price Parities for Populous Western Metropolitan Areas in 2012, Listed by 2012 Population | 8 |
| 4. Regional Price Parities in 358 Metropolitan Areas by Population Size And Region In 2012 | 9 |
| 5. Regional Price Parities in Arizona’s Metropolitan Areas Compared to the National Population-Size-Class Average, 2012 | 9 |
| 6. Prosperity and Productivity Measures by State, Adjusted for the Cost of Living, Organized by Modified Region | 14 |
| 7. Measures of Prosperity and Productivity, Arizona | 16 |
| 8. Prosperity and Productivity Measures Adjusted for Regional Price Parity in 381 Metropolitan Areas by Population Size and Region in 2012 | 18 |
| 9. Productivity and Prosperity Measures Adjusted for Cost of Living for Populous Western Metropolitan Areas in 2012, Listed by 2012 Population | 20 |
| 10. Productivity and Prosperity Measures Adjusted for Cost of Living in Arizona’s Metropolitan Areas Compared to the National Population-Size-Class Average, 2012 | 21 |

SUMMARY

A new measure of the cost of living for each state and each metropolitan area in the United States was released officially for the first time in 2014 by the U.S. Department of Commerce's Bureau of Economic Analysis. These "regional price parity" data are available annually for 2008 through 2012.

The cost of living varies significantly by geographic region of the country. The highest cost of living is along the Atlantic Coast from New Hampshire to the District of Columbia, and in Hawaii, Alaska, and along the Pacific Coast of California. Living costs are lowest in the South and in the Great Plains. Living costs also vary with population size, highest in very populous metro areas and lowest in nonmetro areas. Most of the variation in living costs from one place to another is explained by region and size, with most of this variation resulting from large differences in housing costs. Fluctuations in the costs of goods and of other services are far less.

Arizona's cost of living in 2012 was 2 percent less than the national average. Costs in the nonmetropolitan portion of the state were a little higher than the national nonmetro average and costs in six of the state's seven metro areas were near the size-class average. However, the Phoenix area had a cost of living much less than the norm of very populous metro areas.

Socioeconomic indicators measured in dollars or based on dollar figures (such as the poverty rate) that are not adjusted for living costs produce misleading comparisons of conditions across states and metro areas. Five indicators of prosperity and productivity measured in dollars are examined in this paper.

The fluctuations across the states and metro areas in the levels of the productivity and prosperity measures are reduced by adjusting the figures for the cost of living. The remaining variation is partially explained by the geographic region of the country. Four regions rank highest on the productivity and prosperity measures after adjusting for the cost of living: Plains, South Central, New England, and Central Atlantic. Three regions have values near the national average: Great Lakes, Pacific Coast, and South. Two regions have values far below the national average: the West and Southeast. In metro areas, the cost-of-living-adjusted productivity and prosperity figures also vary with population size. In particular, metro areas with more than 1 million residents have significantly higher values than smaller metro areas.

Arizona ranked among the bottom eight states on each of the prosperity measures and among the bottom 15 states on each of the productivity measures after adjusting for living costs. Though western states in general have low figures, Arizona compared poorly on measures of productivity and prosperity even among 10 western comparison states. The nonmetropolitan portion of Arizona and most of the metro areas, including Phoenix and Tucson, compared unfavorably to similarly sized areas nationally.

Even after considering the cost of living, region, and population size, considerable variation from one state to another or from one metro to another still remains in the productivity and prosperity measures. In Arizona, an industrial mix tilted to low-wage jobs, low wages even after adjusting for the industrial mix, and a low workforce participation rate, even among those of prime working age, are among the factors contributing to the low ranking on prosperity measures.

COST OF LIVING

Various estimates of the cost of living for places, metropolitan areas, and states have been published over the years, but most of the estimates, especially those by state, have been highly derived and have not been produced on a continuing basis. The only ongoing series that has been directly measured is the “Cost-of-Living Index” produced by the Council for Community and Economic Research, but this is limited to place-level estimates for participating communities. Though not entirely directly measured, an alternative is now available for all states and all metropolitan areas for 2008 through 2012 — the “regional price parity” data released officially for the first time in 2014 by the U.S. Department of Commerce’s Bureau of Economic Analysis (BEA). Corresponding to the latest data, the focus in this paper is 2012.

From the place and metro area cost-of-living data that have been compiled over the years, two strong relationships have consistently been seen: living costs rise with population size and living costs vary by geographic region of the United States. The average differential in living costs between very populous and very small metro areas is substantial. Similarly, even after controlling for population size, living costs vary by region of the country, with the highest cost of living along the Pacific Coast and along the central Atlantic Coast. Thus, geographic analyses of dollar measures, such as the average wage, that do not adjust for living costs provide misleading results, as discussed in the second section of this paper.

“Cost-of-Living Index”

Previously known as the “ACCRA Cost-of-Living Index” produced by the American Chamber of Commerce Researchers Association, this index (COLI) has been produced quarterly since 1968. (In recent years, figures have been produced for each of the first three quarters of the calendar year, with an annual average of the three quarters also published.) The information is available only on a subscription basis, but many public libraries subscribe.

The study is voluntarily conducted by local chambers of commerce. The geographic area covered typically is a city or town, but some of the participating chambers now cover entire counties or metro areas. Many metro areas are not included; in 2012, only 204 (54 percent) of the nation’s 381 metro areas were represented. In some metro areas, multiple chambers of commerce participate, often producing widely different estimates of the cost of living. These differences within a metro area often reflect true variations in living costs, primarily in housing costs.

A major advantage of the COLI is that it is based on primary research — the collection of price data by local chambers of commerce for a specified market basket of goods and services. However, the market basket is relatively small and the collection of data by relatively untrained personnel who have a vested interest in the results is a concern.

The market basket is divided into six categories: groceries, housing, utilities, transportation, health care, and miscellaneous other. Like most efforts to estimate living costs, the COLI does not include taxes. Weights — of the individual items in the market basket and of the categories — are based on the Consumer Expenditure Survey conducted annually by the U.S. Bureau of Labor Statistics and are applied equally for all places. For each participating place, an index is produced in each quarter for each category and for the overall total, with 100 set equal to the average of the places participating in the survey. While a margin of error is not reported, a

difference of several percentage points in the indexes of two areas may not be significant, particularly for individual categories.

Regional Price Parity

The methodology used by the BEA to produce the regional price parity (RPP) measures is much different from that used in the COLI. Most of the RPP is based on data collected by the U.S. Bureau of Labor Statistics (BLS) for their Consumer Price Index (CPI) and Consumer Expenditure Survey (CES). Since the BLS data are limited to 38 geographic areas within the United States, the BEA methodology uses these data to estimate living costs for each metro area and state. However, the housing portion of the RPP — the most-heavily weighted — is based on rental data specific to each metro area, obtained from the American Community Survey (ACS), an ongoing survey conducted by the U.S. Census Bureau. In order for the ACS sample size to be adequate to report data for smaller metro areas, the BEA combines the results from five consecutive years of the ACS.

The BEA considers owned housing to be a capital good (an investment) rather than a consumption item. Instead of measuring either the price of the home or the mortgage payment, the BEA instead measures “owners’ equivalent rent” — the amount of rent that could be collected if the owner were to place the housing unit in the rental market. (The BLS also uses owners’ equivalent rent in the calculation of the CPI.) In contrast, in the COLI, homeowners’ costs are directly measured by mortgage principal and interest payments based on current mortgage interest rates and the current average price of a standard home (new four-bedroom, two-bath house of 2,400 square feet on a lot of 8,000 square feet).

While the RPPs are largely derived rather than based on primary data collection, the BEA’s methodology is more sophisticated than that used in previous efforts to indirectly measure the cost of living. The BEA produces RPPs for three categories: goods, rents, and services other than rents. The geographic variation in the index is substantial for rents. The indexes in the other two categories, especially goods, display little geographic variation.

RPPs by State

The overall RPPs by state in 2012 ranged from 118.2 in the District of Columbia and 117.2 in Hawaii to 86.4 in Mississippi: living costs were 36 percent higher in Hawaii than in Mississippi. Since several populous states, such as California and New York, have a high cost of living, only 16 states had an index greater than 100. Arizona’s index was 98.1, ranking 23rd highest among the 51 “states.”

The Census Bureau divides the United States into nine regions based on states, as shown in Table 1. A very strong regional pattern exists in the cost of living, with the highest costs in states near the East Coast as far south as Virginia and those bordering the Pacific Ocean (including Alaska and Hawaii). Most of the Great Plains states and most of the southern states have the lowest costs (exceptions include Florida and Texas, which have moderate costs). Living costs vary in the Rocky Mountain and Great Lakes states, but generally are moderate.

TABLE 1
REGIONAL PRICE PARITIES BY STATE IN 2012, ORGANIZED BY REGION

| | Total | Goods | Rents | Other Services |
|---------------------------|--------------|--------------|--------------|---------------------------|
| Pacific Coast | | | | |
| Alaska | 107.1 | 103.0 | 142.1 | 99.6 |
| California | 112.9 | 103.1 | 147.4 | 105.6 |
| Hawaii | 117.2 | 107.5 | 159.0 | 104.2 |
| Oregon | 98.8 | 98.3 | 99.1 | 99.3 |
| Washington | 103.2 | 103.1 | 111.0 | 99.9 |
| Mountain | | | | |
| Arizona | 98.1 | 100.6 | 93.6 | 98.0 |
| Colorado | 101.6 | 101.7 | 106.5 | 98.8 |
| Idaho | 93.6 | 98.7 | 78.8 | 96.7 |
| Montana | 94.2 | 99.2 | 80.3 | 95.6 |
| Nevada | 98.2 | 97.4 | 98.8 | 98.9 |
| New Mexico | 94.8 | 97.9 | 83.2 | 98.1 |
| Utah | 96.8 | 97.7 | 92.1 | 98.4 |
| Wyoming | 96.4 | 99.0 | 90.6 | 95.9 |
| West North Central | | | | |
| Iowa | 89.5 | 93.7 | 74.8 | 91.3 |
| Kansas | 89.9 | 94.7 | 75.0 | 91.7 |
| Minnesota | 97.5 | 98.5 | 95.7 | 97.2 |
| Missouri | 88.1 | 92.8 | 74.1 | 90.5 |
| Nebraska | 90.1 | 94.5 | 76.2 | 91.9 |
| North Dakota | 90.4 | 93.5 | 79.3 | 91.1 |
| South Dakota | 88.2 | 93.2 | 70.8 | 90.8 |
| West South Central | | | | |
| Arkansas | 87.6 | 95.6 | 63.0 | 92.4 |
| Louisiana | 91.4 | 96.9 | 77.4 | 93.2 |
| Oklahoma | 89.9 | 96.2 | 70.3 | 92.8 |
| Texas | 96.5 | 97.9 | 89.3 | 99.0 |
| East South Central | | | | |
| Alabama | 88.1 | 96.7 | 64.3 | 93.1 |
| Kentucky | 88.8 | 95.3 | 68.1 | 92.5 |
| Mississippi | 86.4 | 95.1 | 62.1 | 92.0 |
| Tennessee | 90.7 | 96.6 | 75.5 | 93.1 |
| East North Central | | | | |
| Illinois | 100.6 | 101.4 | 100.5 | 99.7 |
| Indiana | 91.1 | 96.6 | 75.8 | 93.9 |
| Michigan | 94.4 | 97.7 | 82.4 | 97.2 |
| Ohio | 89.2 | 95.1 | 73.9 | 91.9 |
| Wisconsin | 92.9 | 95.7 | 87.6 | 92.1 |
| New England | | | | |
| Connecticut | 109.4 | 104.9 | 118.9 | 109.5 |
| Maine | 98.3 | 98.6 | 99.5 | 97.5 |
| Massachusetts | 107.2 | 98.0 | 121.4 | 110.9 |
| New Hampshire | 106.2 | 98.1 | 123.4 | 107.3 |
| Rhode Island | 98.7 | 98.4 | 101.6 | 97.3 |
| Vermont | 100.9 | 98.6 | 116.6 | 97.1 |
| Middle Atlantic | | | | |
| New Jersey | 114.1 | 101.4 | 136.8 | 115.5 |
| New York | 115.4 | 108.1 | 134.9 | 113.2 |
| Pennsylvania | 98.7 | 100.0 | 89.8 | 102.1 |
| South Atlantic | | | | |
| Delaware | 102.3 | 102.3 | 98.9 | 104.4 |
| District of Columbia | 118.2 | 107.0 | 157.2 | 112.0 |
| Florida | 98.8 | 98.3 | 104.8 | 95.9 |
| Georgia | 92.0 | 97.1 | 79.8 | 93.8 |
| Maryland | 111.3 | 103.4 | 125.1 | 111.0 |
| North Carolina | 91.6 | 96.7 | 79.1 | 93.1 |
| South Carolina | 90.7 | 96.9 | 76.3 | 93.3 |
| Virginia | 103.2 | 100.2 | 114.6 | 100.8 |
| West Virginia | 88.6 | 95.7 | 63.3 | 93.6 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Arizona sometimes is compared to nine other western and southwestern states: California, Colorado, Idaho, Nevada, New Mexico, Oregon, Texas, Utah, and Washington. Among these 10 states (including Arizona), California had the highest cost of living in 2012 with an index of 112.9, followed by Washington (103.2) and Colorado (101.6). Each of the other states had an index below 100; Arizona's figure of 98.1 ranked sixth highest, though barely lower than in Nevada and Oregon. The lowest costs were in New Mexico (94.8) and Idaho (93.6); Texas and Utah also had an index lower than in Arizona.

Prices of goods do not vary much by state — 42 states had a goods index within 5 percent of the national average in 2012. Goods cost the most in New York (an index of 108.1), and least in Missouri (92.8), a differential of only 16 percent. With an index of 100.6, Arizona ranked 13th nationally and fourth among the 10 western states. Among the 10 comparison states, California and Washington had the highest indexes at 103.1; Nevada was lowest at 97.4.

Prices of services other than rent vary somewhat more by state than the cost of goods, but 39 states had an index between 90 and 99.9 in 2012. These services cost the most in New Jersey, with an index of 115.5, and least in Missouri (90.5), a differential of 28 percent. With an index of 98.0, Arizona ranked 22nd nationally and ninth among the 10 comparison states. Among the comparison group, California had the highest index at 105.6; the lowest was in Idaho at 96.7.

The indexes in the rental category range widely, from 159.0 in Hawaii to 62.1 in Mississippi in 2012, a differential of 156 percent. Among the 10 comparison states, the range was from 147.4 in California to 78.8 in Idaho, a differential of 87 percent. Arizona's figure of 93.6 ranked sixth in the comparison group and 23rd nationally. Thus, rents are responsible for most of the geographic variation in the cost of living.

Metropolitan Versus Nonmetropolitan. The population-weighted average RPP of the metropolitan portion of the nation was 102.1 in 2012, compared to an index of 87.9 in the nation's nonmetropolitan portion, a difference of 16 percent. In every state, the metro RPP was higher than the nonmetro RPP. The metro RPP ranged from 122.7 in Hawaii to 89.0 in Alabama and Arkansas, while the nonmetro RPP was highest in Hawaii at 103.9 and lowest in Mississippi at 82.9. Among the comparison states, the metro RPP was highest in California at 113.6 and also exceeded 100 in Washington and Colorado. Arizona ranked fifth at 98.9; Idaho was lowest at 94.1. The nonmetro RPP was highest among the 10 comparison states in California at 98.1. Arizona's nonmetro RPP was ninth highest at 89.6; only Texas was lower (88.0).

In Arizona, the metro RPP of 98.9 was 10 percent higher than the nonmetro RPP of 89.6. Living costs in nonmetro Arizona were a little higher than the national average for nonmetro areas, while the opposite was true in metro areas. The cost of goods in metro Arizona was only 1 percent higher than in nonmetro Arizona; the differential was 4 percent in the services other than rent category. In contrast, rents were 52 percent higher in metro Arizona than in nonmetro Arizona.

As discussed in the following subsection, the difference in living costs between metropolitan and nonmetropolitan areas reflects a more generalized relationship between living costs and

population size. Thus, in addition to regional location, a state's RPP is influenced by the proportion of the state's population living in metro areas and the size of the metro areas.

RPPs by Metro Area

Based on the 2010 census, the federal government identified 381 metro areas across the 50 states and District of Columbia. The BEA reports the overall regional price parity for each of the 381 metropolitan areas relative to a national metro average of 100. Since the state RPPs are expressed relative to the national average, the state and metro RPPs cannot be directly compared; the metro area indexes must be adjusted to the national average. Relative to the national average of 100, metro areas had an average index of 102.1 in 2012.

Only 56 of the 381 metro areas (15 percent) had a RPP at least as high as the national metro average of 100 in 2012, but 46 percent of the U.S. metro population lived in these 56 areas. At the extremes, 12 metro areas — that accounted for 19 percent of the national metro population — had a RPP of at least 116, while nine metros (with only 0.4 percent of the metro population) had an index of less than 84.

The RPP in a metro area is positively correlated with the population of the metro area; across the 381 metros, the correlation in 2012 was 0.44. As seen in Table 2, the nation's largest metro areas had a cost of living considerably higher than other metros in 2012 — the population-weighted average of the 17 metro areas with a population of at least 3 million was nearly 111, while the average even of the metros with between 1-and-3 million residents was only 97. While living costs declined with metro size, the average in the 1-to-3 million category was only 7 percent higher than the mean in the 50,000-to-124,999 category. The mean in the latter category was 3.5 percent higher than the nonmetro average. Thus, geographic differences in the cost of living are not that substantial except among a small number of very populous metro areas.

The RPP of metro areas also is correlated geographically. Neither the Census Bureau's regional definition, shown in Table 1, nor an alternative definition used by the Bureau of Economic Analysis, which divides the nation into eight regions, provides as close a correlation to the geographic pattern of the cost of living as a modified set of regions that incorporate aspects of both the Census Bureau divisions and the BEA regions. Compared to the Census Bureau's divisions, several states are moved from one region to another in the modified set. In addition, in the modified set, the metro areas in California are split, with those along the ocean placed into the Pacific Coast region (along with the metros in Alaska and Hawaii) while California's inland metros, along with metros in Oregon and Washington, are placed in a West region along with the Rocky Mountain states. The population-weighted means for the Census Bureau's regions and for the modified regions are shown in Table 2.

For the nation's metro areas, the variation by region is somewhat greater than the variation by population size. Living costs in 2012 were highest in three regions: Pacific Coast, Central Atlantic (ranging from New York to the District of Columbia, matching the BEA's definition of its Mideast region), and New England (six New England states, as defined by both the Census Bureau and the BEA). The population-weighted average was just more than 100 in the West. Living costs were lower across the rest of the country. In four regions, the average index was

TABLE 2
REGIONAL PRICE PARITIES IN 381 METROPOLITAN AREAS
BY POPULATION SIZE AND REGION IN 2012

| | Population- Weighted Mean |
|------------------------------|--|
| ALL METROS | 102.1 |
| Population | |
| At Least 3 million | 110.8 |
| 1,000,000 to 2,999,999 | 97.2 |
| 500,000 to 999,999 | 96.9 |
| 300,000 to 499,999 | 95.3 |
| 200,000 to 299,999 | 95.4 |
| 125,000 to 199,999 | 92.3 |
| 50,000 to 124,999 | 90.9 |
| Census Bureau Regions | |
| Pacific | 111.4 |
| Mountain | 98.9 |
| West North Central | 93.9 |
| West South Central | 95.8 |
| East North Central | 96.5 |
| East South Central | 90.4 |
| New England | 107.3 |
| Middle Atlantic | 111.7 |
| South Atlantic | 99.2 |
| Modified Regions | |
| Pacific Coast | 118.5 |
| West | 100.5 |
| Plains | 96.4 |
| Great Lakes | 96.5 |
| South Central | 96.3 |
| South | 89.9 |
| New England | 107.3 |
| Central Atlantic | 112.2 |
| Southeast | 96.0 |

Source: Calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

between 96.0 and 96.5. Costs were lowest in the South (states not bordering the Atlantic Ocean, ranging from West Virginia to Missouri and south to Mississippi and Alabama).

Table 3 shows the RPPs for western metro areas with a moderate-to-large population. A geographic relationship can be seen, with the highest RPPs in metro areas located along the Pacific Coast. The relationship with population also is obvious.

Population-weighted RPPs, overall and for the three categories, are shown in Table 4 by population size and by modified region. Since the BEA does not publish the category indexes for 23 small metro areas, the indexes in this table, including the overall index, are for a subset of 358 metro areas. Most of the variation in the overall RPP, both by size and by region, results from the large variation across metro areas in rents. Goods and other services are each most expensive in the largest metro areas, but otherwise vary little by size, though the costs are lowest in the

TABLE 3
REGIONAL PRICE PARITIES FOR POPULOUS WESTERN METROPOLITAN
AREAS IN 2012, LISTED BY 2012 POPULATION

| | | Regional Price | |
|-----------------------------------|-----------------|----------------|-------------|
| | Modified Region | Parity | Population* |
| Los Angeles-Long Beach-Santa Ana | Pacific Coast | 118.2 | 13.04 |
| Dallas-Fort Worth-Arlington | South Central | 101.0 | 6.70 |
| Houston-Sugar Land-Baytown | South Central | 100.7 | 6.18 |
| San Francisco-Oakland-Fremont | Pacific Coast | 121.3 | 4.45 |
| Riverside-San Bernardino-Ontario | West | 106.3 | 4.34 |
| Phoenix-Mesa-Glendale | West | 99.7 | 4.33 |
| Seattle-Tacoma-Bellevue | West | 107.0 | 3.55 |
| San Diego-Carlsbad-San Marcos | Pacific Coast | 119.0 | 3.18 |
| Denver-Aurora-Broomfield | West | 104.3 | 2.65 |
| Portland-Vancouver-Hillsboro | West | 100.5 | 2.29 |
| San Antonio-New Braunfels | South Central | 93.9 | 2.23 |
| Sacramento-Arden-Arcade-Roseville | West | 102.4 | 2.19 |
| Las Vegas-Paradise | West | 99.3 | 2.00 |
| San Jose-Sunnyvale-Santa Clara | Pacific Coast | 122.0 | 1.89 |
| Austin-Round Rock-San Marcos | South Central | 98.5 | 1.84 |
| Salt Lake City | West | 99.1 | 1.12 |
| Tucson | West | 97.0 | 0.99 |
| Fresno | West | 97.6 | 0.95 |
| Albuquerque | West | 96.6 | 0.90 |
| Bakersfield-Delano | West | 97.3 | 0.86 |
| Oxnard-Thousand Oaks-Ventura | Pacific Coast | 114.6 | 0.83 |
| El Paso | South Central | 90.8 | 0.83 |
| McAllen-Edinburg-Mission | South Central | 85.0 | 0.81 |
| Stockton | West | 100.6 | 0.70 |
| Colorado Springs | West | 98.6 | 0.67 |
| Boise City-Nampa | West | 94.7 | 0.64 |
| Ogden-Clearfield | West | 96.4 | 0.61 |
| Provo-Orem | West | 96.9 | 0.55 |
| Spokane-Spokane Valley | West | 95.9 | 0.53 |
| Modesto | West | 99.1 | 0.52 |

* In millions

Source: U.S. Department of Commerce, Bureau of Economic Analysis (RPPs) and Census Bureau (population).

smallest metro areas. (The index for nonmetro areas is less than in the smallest metro size class in each of the three categories, though the differential in the goods category is minimal.) More variation is present in the goods and other services categories by region than by population size, but the range is much less than it is for rents.

Metro Areas in Arizona. Each of Arizona's seven metro areas had an overall RPP in 2012 less than the population-weighted mean of 100.5 for the West region. The index ranged from 93.3 in Yuma to 99.7 in Phoenix (see Table 5). In each of the seven metro areas, the index in the rents category was below the regional figure of 105.1. In the other services category, the index ranged from 94.8 to 99.7, compared to the West's index of 99.8. In the goods category, the index in

TABLE 4
REGIONAL PRICE PARITIES IN 358 METROPOLITAN AREAS
BY POPULATION SIZE AND REGION IN 2012

| | Population-Weighted Mean | | | |
|-------------------------|--------------------------|-------|-------|----------------|
| | Total | Goods | Rents | Other Services |
| ALL METROS | 102.2 | 100.1 | 109.6 | 101.2 |
| Population | | | | |
| At Least 3 Million | 110.8 | 103.3 | 133.7 | 107.3 |
| 1,000,000 to 2,999,999 | 97.2 | 97.6 | 97.8 | 96.6 |
| 500,000 to 999,999 | 96.9 | 98.3 | 93.1 | 98.1 |
| 300,000 to 499,999 | 95.3 | 98.1 | 89.3 | 96.9 |
| 200,000 to 299,999 | 95.4 | 98.3 | 88.7 | 96.9 |
| 125,000 to 199,999 | 92.1 | 97.0 | 80.3 | 94.9 |
| 50,000 to 124,999 | 90.7 | 96.4 | 77.3 | 94.1 |
| Modified Regions | | | | |
| Pacific Coast | 118.5 | 104.9 | 170.5 | 107.4 |
| West | 100.5 | 99.3 | 105.1 | 99.8 |
| Plains | 96.5 | 98.3 | 92.9 | 96.7 |
| Great Lakes | 96.5 | 98.9 | 91.5 | 97.1 |
| South Central | 96.3 | 97.9 | 89.6 | 98.9 |
| South | 90.0 | 96.1 | 74.6 | 93.2 |
| New England | 107.3 | 99.6 | 122.6 | 108.8 |
| Central Atlantic | 112.5 | 104.4 | 132.0 | 111.3 |
| Southeast | 96.2 | 97.8 | 96.2 | 95.0 |

Source: Calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 5
REGIONAL PRICE PARITIES IN ARIZONA'S METROPOLITAN AREAS COMPARED
TO THE NATIONAL POPULATION-SIZE-CLASS AVERAGE, 2012

| | Population (000) | Total | Goods | Rents | Other Services |
|---------------------------------|---------------------|-------------|--------------|--------------|-------------------|
| Phoenix-Mesa-Scottsdale | 4,328 | 99.7 | 101.4 | 98.7 | 98.5 |
| At Least 3 Million | | 110.8 | 103.3 | 133.7 | 107.3 |
| Tucson | 992 | 97.0 | 96.9 | 92.4 | 99.7 |
| 1,000,000 to 2,999,999 | | 97.2 | 97.6 | 97.8 | 96.6 |
| 500,000 to 999,999 | | 96.9 | 98.3 | 93.1 | 98.1 |
| Lake Havasu City-Kingman | 203 | 93.8 | 96.9 | 78.9 | 99.7 |
| Prescott | 213 | 96.3 | 99.5 | 93.1 | 94.8 |
| Yuma | 202 | 93.3 | 96.9 | 77.5 | 99.7 |
| 200,000 to 299,999 | | 95.4 | 98.3 | 88.7 | 96.9 |
| Flagstaff | 136 | 98.4 | 99.5 | 102.3 | 94.8 |
| Sierra Vista-Douglas | 132 | 94.1 | na | na | na |
| 125,000 to 199,999 | | 92.1 | 97.0 | 80.3 | 94.9 |

na: not available

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

Phoenix was 101.4, higher than the West's figure of 99.3. The index was between 96.9 and 99.5 in the other six metro areas.

Phoenix is by far the largest (4.3 million residents in 2012) of Arizona's seven metros and also had the highest RPP in 2012. Relative to the population-weighted mean of 110.8 in metro areas of at least 3 million residents, the 99.7 index in Phoenix was substantially lower. Among the 17 metros with a population of at least 3 million, only Atlanta and Detroit had a lower cost of living. The difference in the goods category was modest — 101.4 in Phoenix versus the size-class average of 103.3 — but the index for rents was only 98.7 in Phoenix compared to 133.7 in the largest size class. The index in Phoenix also was lower in the other services category (98.5 versus 107.3).

With a population just short of 1 million, the Tucson area is on the border of two size classes. Its 2012 RPP of 97.0 was essentially equal to the average of both the 1-to-3 million and 500,000-to-999,999 size classes. The cost of goods was marginally lower than the average of each size class but the cost of other services was a little higher than the averages. The index for rents was lower than average, though only marginally compared to the figure for the 500,000-to-999,999 category.

The Lake Havasu City, Prescott, and Yuma metro areas each have a population of a little more than 200,000. Compared to the average of the 200,000-to-299,999 size class in 2012 (95.4), the Prescott area's RPP of 96.3 was slightly higher while indexes of 93.8 for the Lake Havasu City area and 93.3 for the Yuma area were a little lower. The Prescott index was higher, and the Lake Havasu City and Yuma indexes were lower, than average in the goods and rents categories, but the relationship was reversed in the other services category.

The Flagstaff and Sierra Vista metro areas each had a population of about 135,000 in 2012. Compared to the 125,000-to-199,999 size-class average RPP of 92.1, each had a higher figure (98.4 in Flagstaff and 94.1 in Sierra Vista). The category figures are not available for Sierra Vista. For Flagstaff, the index for the other services category (94.8) was nearly identical to the size-class average. The goods index of 99.5 exceeded the average of 97.0, and the RPP of 102.3 for rents was significantly higher than the average of 80.3. Small metro areas with a large university, such as Flagstaff, tend to be more expensive than similarly sized areas.

Comparison of RPP and COLI

This comparison is based on the subset of 204 metro areas for which COLI data are available in 2012. Since the U.S. average of the COLI data include nonmetro areas, and since the 204 areas represent barely more than half of all metro areas, the index values have been rebased such that the population-weighted average of the 204 areas is set equal to 100 for both the COLI and RPP.

In part because the COLI includes home prices, which vary more geographically than owners' equivalent rent, the overall COLI ranges more widely than the RPP across the 204 metro areas. The lower end of the range is comparable with indexes of 76.8 (RPP) and 76.2 (COLI) in 2012, but the highest RPP was 118.9 while the highest COLI was 149.3. Despite the difference in range, the RPP and COLI are highly correlated at 0.85.

The RPP and the COLI are correlated to the population of the metropolitan area, by 0.57 for the RPP and 0.49 for the COLI in 2012. Among metro areas of at least 3 million residents, the average COLI was higher than the average RPP, but in all of the other size classes, the average RPP was higher than the average COLI.

Correlations also are present with the modified regions. Metro areas along the Pacific Coast and in the New England and Central Atlantic regions in 2012 were on average more expensive than the national metro average based on both the COLI and the RPP. The average COLI was higher than the average RPP in these regions, but was lower in all other regions. The lowest regional averages were in the South and South Central regions.

Explaining the Variation in Cost of Living Across Metro Areas

A large share of the variation in the cost of living from one metro area to another can be explained simply by population size and region. A multiple regression of the 381 metro areas in which the RPP was the dependent variable and population and a series of dummy variables corresponding to the modified regions were the independent (explanatory) variables produced an adjusted R-squared of 0.71. Population was highly significant. The regions were expressed relative to the Southeast region. The Pacific Coast, New England, Central Atlantic, and West regions were significantly more expensive than the Southeast, and the South region was significantly less expensive. The regression results were similar using the Census Bureau's regions, but the adjusted R-squared was lower at 0.55.

Using the same regression structure, regressions were run for the subset of 204 metro areas for which the COLI is available. Using the RPP as the dependent variable, the results were quite similar to those using the full sample of 381 metro areas; the adjusted R-squared of the smaller sample was 0.74. Using the COLI as the dependent variable, the results were generally similar, with an adjusted R-squared of 0.77, though some differences were seen in the regional coefficients.

PROSPERITY AND PRODUCTIVITY MEASURES

Two measures of prosperity — per capita gross product (PCGP) and per capita personal income (PCPI) — and two proxies for measures of productivity — per employee gross product (PEGP) and per employee earnings (PEE) — are examined in this section by state and metropolitan area, before and after adjusting for the cost of living, as measured by the regional price parity. BEA data for 2012 are used to calculate each of the four measures.

In addition to these four measures, per capita income (PCI) from the American Community Survey is reviewed by state. (Per capita income for metropolitan areas is not examined since the ACS still classifies metropolitan areas by the old definitions and therefore its list of metro areas is inconsistent with the list used for the regional price parity data.) In order to reduce sampling error from the ACS, the average per capita income of the five years from 2008 through 2012 was used, adjusted by the five-year average RPP.

Correlations between the five measures vary from moderate to strong, measured both by states and by metro areas. The correlations between the per capita measures are around 0.75, though the correlation between per capita personal income and per capita income is nearly 0.9; the correlation between the two per employee measures also is around 0.75. The correlations between the per capita measures and the per employee indicators generally are also roughly 0.75. However, the correlation between each of the per capita income measures and per employee gross product is only about 0.5.

States

The fluctuations across the states in the levels of the productivity and prosperity measures are reduced by adjusting the figures for the cost of living. However, considerable variation remains after this adjustment is made — the ratio between the highest and lowest state (excluding the District of Columbia) was 2.01 for PCGP, 1.82 for PEGP, 1.66 for PCPI, 1.46 for PCI, and 1.42 for PEE.

For states with a RPP of less than 1, the adjustment for living costs raises the values of the productivity and prosperity measures. The 21 states with the lowest RPPs in 2012 — values of less than 94 — experienced an increase in their average rank across the four prosperity and productivity measures produced from BEA data for 2012. However, the magnitude of the change in the average rank is not closely correlated to the RPP. Mississippi, the state with the lowest RPP, had an average gain in rank of five places, while six states experienced an increase of between 9 and 12 places.

In contrast, 14 of the 16 states with a RPP of more than 1 experienced a decline in their average rank; in the other two, including the District of Columbia, which had the highest RPP, the rank did not change. The District of Columbia still ranked at the top on the productivity and prosperity measures after adjusting for the RPP. The average rank plummeted 26 places in Hawaii and 18 places in California. Three states along the East Coast had drops of between 10 and 14 places.

Most of the 14 states with a RPP between 94 and 100 experienced a decrease in their average rank despite below-average living costs. Among these states, Arizona had the largest drop in average rank (seven places).

After adjusting for the RPP, the ranks by state on each of the five productivity and prosperity measures are shown in Table 6. Generally for any state, the ranks across the five measures are relatively consistent, but in some states more significant variation occurs, even between the conceptually similar measures of per capita personal income and per capita income.

As seen in Table 6, a regional pattern is seen in the ranks of the five cost-of-living-adjusted prosperity and productivity measures. However, even within a region, the productivity and prosperity measures can vary widely by state. For example, in the West, Washington and Wyoming rank relatively high, Colorado and Oregon on average are in the middle, while Arizona, Idaho, Montana, Nevada, New Mexico, and Utah rank low. A number of factors other than the cost of living and region of the country affect a state's productivity and prosperity measures. Some of these factors are discussed in the following subsection.

Arizona

Before adjustment for living costs, Arizona was far below the national average on the two measures of prosperity based on data from the BEA, ranking among the 10 lowest states in 2012 (see the first two rows of Table 7). It was not as far below average on the proxy measures of productivity (the third and fourth rows of the table) and on per capita income from the ACS, ranking only a little below the middle. Given that the state's cost of living in 2012 was only a little less than the national average, the percent difference from the national average after adjusting for living costs was only slightly smaller on the five measures of prosperity and productivity. However, after adjustment for the cost of living, Arizona's rank among the states was even lower, with the difference from the unadjusted rank ranging from between four and 12 places across the five measures. After considering the cost of living, Arizona ranked among the bottom eight states on each of the per capita measures and among the bottom 15 states on each of the per employee measures.

Median household income also is available from the ACS. Arizona ranked a little higher on this measure at 35th after adjusting for living costs. However, because of variations by state in average household size, household income is not as good a measure of effective income or prosperity as the per capita measure. In most states, the rank based on household income is not much different than that based on per capita income, but in some states, the difference is wide. For example, Utah ranked ninth on median household income but 49th on per capita income in 2012.

Arizona also compares poorly on measures of productivity and prosperity among the 10 western comparison states, both before and after adjusting for the cost of living. After adjustment, it ranked ninth on PCGP, eighth on both PCPI and PEGP, seventh on PCI, and fifth on PEE in 2012. The ranks were nearly identical before adjustment for living costs. After adjustment for living costs, Texas and Washington compared most favorably across the five measures. California, Colorado and Oregon ranked next highest. Nevada and New Mexico generally ranked higher than Arizona, with Idaho and Utah comparing least favorably.

TABLE 6
PROSPERITY AND PRODUCTIVITY MEASURES BY STATE,
ADJUSTED FOR THE COST OF LIVING, ORGANIZED BY MODIFIED REGION

| | Rank, 1 = Highest | | | | |
|----------------------|--------------------------------|----------------------------------|-------------------------------------|-----------------------------|----------------------|
| | Per Capita Gross Product | Per Capita Personal Income | Per Employee Gross Product | Per Employee Earnings | Per Capita Income |
| Pacific Coast | | | | | |
| Alaska | 3 | 16 | 1 | 6 | 11 |
| California* | 31 | 34 | 19 | 22 | 39 |
| Hawaii | 44 | 47 | 47 | 49 | 47 |
| West | | | | | |
| Arizona | 46 | 49 | 41 | 37 | 44 |
| Colorado | 20 | 22 | 38 | 30 | 10 |
| Idaho | 51 | 50 | 49 | 47 | 50 |
| Montana | 43 | 35 | 48 | 51 | 38 |
| Nevada | 35 | 45 | 32 | 42 | 30 |
| New Mexico | 39 | 48 | 23 | 41 | 46 |
| Oregon | 16 | 42 | 11 | 39 | 28 |
| Utah | 32 | 51 | 42 | 45 | 49 |
| Washington | 15 | 24 | 9 | 12 | 14 |
| Wyoming | 4 | 4 | 4 | 27 | 12 |
| Plains | | | | | |
| Iowa | 12 | 8 | 25 | 20 | 16 |
| Kansas | 18 | 12 | 37 | 26 | 15 |
| Minnesota | 13 | 11 | 27 | 16 | 7 |
| Nebraska | 7 | 7 | 15 | 11 | 18 |
| North Dakota | 2 | 2 | 8 | 2 | 6 |
| South Dakota | 10 | 6 | 28 | 33 | 20 |
| Great Lakes | | | | | |
| Illinois | 17 | 19 | 13 | 8 | 19 |
| Indiana | 23 | 31 | 16 | 31 | 33 |
| Michigan | 41 | 39 | 35 | 29 | 32 |
| Ohio | 19 | 23 | 14 | 9 | 24 |
| Wisconsin | 25 | 20 | 39 | 32 | 17 |
| South Central | | | | | |
| Louisiana | 9 | 28 | 5 | 17 | 40 |
| Oklahoma | 29 | 21 | 30 | 18 | 37 |
| Texas | 11 | 26 | 6 | 7 | 35 |
| South | | | | | |
| Alabama | 42 | 37 | 34 | 34 | 41 |
| Arkansas | 37 | 40 | 29 | 40 | 48 |
| Kentucky | 38 | 41 | 40 | 36 | 43 |
| Mississippi | 50 | 44 | 44 | 44 | 51 |
| Missouri | 26 | 25 | 31 | 23 | 22 |
| Tennessee | 34 | 30 | 36 | 21 | 34 |
| West Virginia | 45 | 43 | 33 | 35 | 45 |

(continued)

TABLE 6 (continued)
PROSPERITY AND PRODUCTIVITY MEASURES BY STATE,
ADJUSTED FOR THE COST OF LIVING, ORGANIZED BY MODIFIED REGION

| | Rank, 1 = Highest | | | | |
|-------------------------|--------------------------------|----------------------------------|-------------------------------------|-----------------------------|----------------------|
| | Per Capita Gross Product | Per Capita Personal Income | Per Employee Gross Product | Per Employee Earnings | Per Capita Income |
| New England | | | | | |
| Connecticut | 6 | 3 | 7 | 4 | 2 |
| Maine | 48 | 36 | 50 | 48 | 31 |
| Massachusetts | 8 | 5 | 12 | 3 | 3 |
| New Hampshire | 36 | 15 | 46 | 43 | 9 |
| Rhode Island | 30 | 14 | 21 | 19 | 13 |
| Vermont | 40 | 27 | 51 | 50 | 21 |
| Central Atlantic | | | | | |
| Delaware | 5 | 29 | 3 | 10 | 23 |
| District of Columbia | 1 | 1 | 2 | 1 | 1 |
| Maryland | 24 | 9 | 26 | 24 | 5 |
| New Jersey | 22 | 10 | 18 | 15 | 8 |
| New York | 14 | 17 | 10 | 5 | 26 |
| Pennsylvania | 28 | 18 | 24 | 14 | 25 |
| Southeast | | | | | |
| Florida | 49 | 32 | 45 | 46 | 36 |
| Georgia | 33 | 38 | 22 | 25 | 29 |
| North Carolina | 27 | 33 | 17 | 28 | 27 |
| South Carolina | 47 | 46 | 43 | 38 | 42 |
| Virginia | 21 | 13 | 20 | 13 | 4 |

* The inland portion of California is in the West region; the state is listed in the Pacific Coast region since a large majority of its population lives in this region.

Sources:

Per capita gross product, per capita personal income, per employee gross product, and per employee earnings all are for 2012 and are adjusted by the 2012 regional price parity — all are from the U.S. Department of Commerce, Bureau of Economic Analysis.

Per capita income is from the American Community Survey produced by the U.S. Department of Commerce, Census Bureau, and covers the 2008-to-2012 period. It is adjusted by the 2008-to-2012 average of the regional price parity.

TABLE 7
MEASURES OF PROSPERITY AND PRODUCTIVITY, ARIZONA

| | Difference from U.S. Average | | Rank* | |
|----------------------------|------------------------------|------------|------------|------------|
| | Unadjusted | Adjusted** | Unadjusted | Adjusted** |
| Per Capita Gross Product | -19.4% | -17.9% | 42 | 46 |
| Per Capita Personal Income | -17.1 | -15.5 | 42 | 49 |
| Per Employee Gross Product | -9.6 | -7.9 | 29 | 41 |
| Per Employee Earnings | -10.6 | -8.9 | 31 | 37 |
| Per Capita Income | -8.8 | -8.0 | 32 | 44 |

* Among 50 states and District of Columbia, with a rank of 1 assigned to the highest dollar value

** Adjusted for regional price parity

Sources:

Per capita gross product, per capita personal income, per employee gross product, and per employee earnings all are for 2012 and are adjusted by the 2012 regional price parity — all are from the U.S. Department of Commerce, Bureau of Economic Analysis.

Per capita income is from the American Community Survey produced by the U.S. Department of Commerce, Census Bureau, and covers the 2008-to-2012 period. It is adjusted by the 2008-to-2012 average of the regional price parity.

As explained in *The Magnitude and Causes of Arizona's Low Per Capita Income*, February 2010, accessible from <http://economist.asu.edu/p3/job-quality>, the BEA's measure of per capita personal income likely overstates the shortfall between Arizona and the nation, while the Census Bureau's measure of per capita income understates the differential. Arizona's large shortfall from the national average on prosperity measures was found to result from the state being below average on each of several factors:

- Workforce participation rate:
 - The state's age distribution — slightly above-average shares of both children and senior citizens — contributes to the low employment-to-population ratio.
 - The participation rate is below average among those 55 or older, in part due to the immigration of retirees from other states.
 - The participation rate is below average even in the prime 25-to-54 age group, likely in part due to the low educational achievement and attainment of some residents, which translates to inadequate labor force skills. Cultural factors related to the workforce participation of women probably also contribute to the subpar participation rate.
- Average wage:
 - The state's job quality — the mix of jobs as defined by industry and by occupation — is below average, particularly as measured by industry.
 - Even after considering the employment mix, wages are below average, presumably due to individuals willing to accept a lower wage in exchange for what they perceive to be a superior quality of life.
- Employee benefits. In addition to below-average wages, wage and salary workers in Arizona on average receive below-average amounts of other compensation.
- Proprietors' income per proprietor. The average income of those who are self-employed is considerably below average in Arizona.

- Other sources of income. The average Arizonan receives below-average amounts of dividends, interest and rent.

The most important factors are the low average wage and the low workforce participation rate.

Metropolitan Versus Nonmetropolitan

For the personal income and earnings measures, the BEA divides each state into a metropolitan portion and a nonmetropolitan portion. The combined figures for Arizona's seven metropolitan areas compared quite unfavorably to metropolitan areas in other states in 2012. Before adjustment for living costs, Arizona's metro portion was 19 percent below the national metro average on PCPI (ranked 46th) and 13 percent below average on PEE (ranked 38th). After adjustment for living costs, the ranks were a little lower at 49th on PCPI (16 percent below average) and 41st on PEE (11 percent below average).

The nonmetropolitan portion of the state also compares quite poorly on PCPI. Of the 47 states with a nonmetropolitan area, Arizona's nonmetro portion ranked last in 2012, both before and after adjustment for living costs. The adjusted figure was 23 percent below the nonmetro average. In contrast, Arizona's nonmetro portion ranked close to the middle on the per employee earnings measure at 25th (4 percent below average) after adjustment for living costs.

Metropolitan Areas

As in the states, some of the variation in the levels of productivity and prosperity measures across the nation's 381 metro areas is due to the variation in living costs. However, after adjusting for the cost of living, considerable differences remain. While population size and region each is correlated to the variations across the metro areas in the levels of cost-of-living-adjusted prosperity and productivity, as described below, they explain only a minority of the variation across the metro areas.

On each of the four measures of productivity and prosperity available by metro area, fewer than one-third of the metro areas had a cost-of-living-adjusted figure higher than the national population-weighted mean of the 381 metro areas in 2012. The metro area with the highest figure had a value at least 2.75 times as large as the metro area with the smallest figure on each measure.

Before adjusting for the cost of living, each of the measures of productivity and prosperity in 2012 were closely related to metro area population size, though the population-weighted mean in the 50,000-to-124,999 size class was similar to that in the 125,000-to-199,999 category. The range was greatest in the per capita gross product measure, with the average among metro areas of at least 3 million residents 17 percent above the national metro average and the mean among metros of less than 200,000 residents 28 percent less than the national average. The range was least on the per capita personal income measure, but still varied by size class from 12 percent above average to 17 percent below average.

Using the modified set of regions, productivity and prosperity in 2012 also varied widely by region before adjusting for living costs. The population-weighted means were highest in the Pacific Coast, New England, and Central Atlantic regions and lowest in the West, South, and Southeast regions.

After adjusting for the cost of living, the range in 2012 by population size was smaller, but still was significant, on the productivity and prosperity measures. As seen in Table 8, on each of the four measures, the size-class average was above the national average among metro areas of more than 1 million residents, with areas of at least 3 million residents having an average only slightly higher than metro areas of between 1-and-3 million. The averages in the 500,000-to-999,999 size class were substantially lower; the difference between this category and the 1-to-3-million category ranged from 9 percent on per capita personal income to 22 percent on per capita gross product. In the 300,000-to-499,999 size class, the averages were almost as high as in the 500,000-to-999,999 category. In metro areas of less than 300,000 residents, the productivity and prosperity values were a little lower, but did not differ much across the three size classes.

Adjusting for the cost of living also reduces the geographic variation in the productivity and prosperity measures, but significant differences remain. Four regions rank highest on the average of the four measures: Plains, South Central, New England, and Central Atlantic. Three regions have values on each of the four measures near the national metro average: Great Lakes, Pacific Coast, and South. The Pacific Coast and South regions were at opposite ends of the spectrum on an unadjusted basis. Two regions have values far below the national metro average across the four measures: the West, which had the lowest value on three of the four measures, and the

TABLE 8
PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR REGIONAL PRICE PARITY
IN 381 METROPOLITAN AREAS BY POPULATION SIZE AND REGION IN 2012

| | Population-Weighted Mean, in Thousands of Dollars | | | |
|-------------------------|---|----------------------------------|-------------------------------|--------------------------|
| | Per Capita Gross Product | Per Capita Personal Income | Per Employee Gross Product | Per Employee Earnings |
| ALL METROS | \$51.3 | \$44.1 | \$87.3 | \$54.9 |
| Population | | | | |
| At Least 3 million | 55.7 | 45.4 | 93.1 | 57.7 |
| 1,000,000 to 2,999,999 | 55.1 | 45.7 | 91.4 | 56.9 |
| 500,000 to 999,999 | 45.0 | 42.0 | 79.9 | 51.3 |
| 300,000 to 499,999 | 44.4 | 41.6 | 79.0 | 50.4 |
| 200,000 to 299,999 | 42.4 | 40.7 | 75.1 | 48.8 |
| 125,000 to 199,999 | 40.9 | 40.4 | 73.9 | 48.7 |
| 50,000 to 124,999 | 41.9 | 41.2 | 75.3 | 49.3 |
| Modified Regions | | | | |
| Pacific Coast | 52.5 | 43.4 | 87.9 | 54.5 |
| West | 44.3 | 39.1 | 81.6 | 50.9 |
| Plains | 58.5 | 47.6 | 88.1 | 55.2 |
| Great Lakes | 52.5 | 44.4 | 88.8 | 56.4 |
| South Central | 57.5 | 44.7 | 96.7 | 58.4 |
| South | 50.8 | 44.3 | 86.5 | 55.3 |
| New England | 55.2 | 51.0 | 86.7 | 58.1 |
| Central Atlantic | 53.3 | 47.2 | 88.9 | 58.1 |
| Southeast | 46.7 | 41.9 | 82.8 | 50.1 |

Source: Calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

Southeast. The magnitude of the variation across the nine regions was the same as the variation across the seven population size classes.

The uneven distribution of large metro areas across the regions affects the population-weighted means by region shown in Table 8. Taking this into consideration, the Plains region has the highest prosperity and productivity figures. The figures for the Central Atlantic and Pacific Coast regions are not as strong as they appear in Table 8.

Table 9 shows the productivity and prosperity measures for 2012 after adjustment for the cost of living for 30 western metro areas with a moderate-to-large population. Of the 16 metro areas with a population of at least 1 million, all but Riverside ranked among the top 16 of the 30 metros on the measures of productivity and prosperity. The Phoenix and Tucson metro areas each ranked lower than would be expected given their population.

Metro Areas in Arizona

Among the 17 metro areas nationally with more than 3 million residents, the Phoenix area ranked 15th and 16th on the per capita measures and 13th on each of the per employee measures after adjustment for the cost of living. Among the 52 metro areas with at least 1 million residents, the Phoenix area's ranks ranged from 37th on per employee gross product to 49th on per capita personal income. Among 65 metro areas with between 500,000 and 1.5 million residents, the Tucson area ranked 55th on each of the per capita measures and 57th on each of the per employee measures.

The cost-of-living-adjusted productivity and prosperity figures for the Phoenix area in 2012 ranged from 7-to-16 percent below the population-weighted means of the metro areas of 3 million or more residents. The Tucson area was similarly far below the means in the 500,000-to-999,999 size class. In four of Arizona's five smaller metro areas, the productivity and prosperity measures were even further below their size-class average (see Table 10). The figures for the Sierra Vista-Douglas area were above the average on the per employee measures and near average on the per capita personal income measure, but significantly below average on per capita gross product.

TABLE 9
PRODUCTIVITY AND PROSPERITY MEASURES ADJUSTED FOR COST OF LIVING
FOR POPULOUS WESTERN METROPOLITAN AREAS IN 2012, LISTED BY 2012 POPULATION

| | | Dollar Value in Thousands | | | | Population in Millions |
|-----------------------------------|--------------------|--------------------------------|----------------------------------|----------------------------------|--------------------------|---------------------------|
| | Modified Region | Per Capita Gross Product | Per Capita Personal Income | Per Employee Gross Product | Per Employee Earnings | |
| Los Angeles-Long Beach-Santa Ana | Pacific Coast | \$49.6 | \$39.2 | \$84.9 | \$51.1 | 13.04 |
| Dallas-Fort Worth-Arlington | South Central | 62.1 | 45.7 | 99.2 | 59.3 | 6.70 |
| Houston-Sugar Land-Baytown | South Central | 72.3 | 50.7 | 121.1 | 71.1 | 6.18 |
| San Francisco-Oakland-Fremont | Pacific Coast | 66.7 | 54.9 | 104.7 | 65.0 | 4.45 |
| Riverside-San Bernardino-Ontario | West | 24.7 | 30.0 | 62.0 | 42.3 | 4.34 |
| Phoenix-Mesa-Glendale | West | 46.7 | 38.1 | 86.3 | 51.8 | 4.33 |
| Seattle-Tacoma-Bellevue | West | 68.1 | 49.8 | 107.9 | 63.2 | 3.55 |
| San Diego-Carlsbad-San Marcos | Pacific Coast | 46.9 | 41.8 | 79.0 | 50.3 | 3.18 |
| Denver-Aurora-Broomfield | West | 60.9 | 48.8 | 93.6 | 58.9 | 2.65 |
| Portland-Vancouver-Hillsboro | West | 63.9 | 42.9 | 107.4 | 54.3 | 2.29 |
| San Antonio-New Braunfels | South Central | 43.9 | 41.6 | 79.3 | 52.1 | 2.23 |
| Sacramento-Arden-Arcade-Roseville | West | 43.4 | 43.6 | 80.7 | 57.8 | 2.19 |
| Las Vegas-Paradise | West | 48.1 | 36.9 | 87.7 | 48.9 | 2.00 |
| San Jose-Sunnyvale-Santa Clara | Pacific Coast | 75.2 | 53.8 | 117.9 | 78.7 | 1.89 |
| Austin-Round Rock-San Marcos | South Central | 54.6 | 43.6 | 87.0 | 55.0 | 1.84 |
| Salt Lake City | West | 64.7 | 40.8 | 91.8 | 53.2 | 1.12 |
| Tucson | West | 34.6 | 37.5 | 69.5 | 46.0 | 0.99 |
| Fresno | West | 34.5 | 34.9 | 74.6 | 50.6 | 0.95 |
| Albuquerque | West | 44.5 | 37.5 | 83.1 | 49.0 | 0.90 |
| Bakersfield-Delano | West | 41.1 | 35.4 | 91.1 | 58.9 | 0.86 |
| Oxnard-Thousand Oaks-Ventura | Pacific Coast | 40.8 | 42.6 | 79.1 | 48.4 | 0.83 |
| El Paso | South Central | 39.4 | 33.2 | 79.5 | 48.3 | 0.83 |
| McAllen-Edinburg-Mission | South Central | 23.4 | 26.4 | 56.9 | 41.2 | 0.81 |
| Stockton | West | 28.8 | 32.8 | 73.1 | 48.9 | 0.70 |
| Colorado Springs | West | 42.5 | 41.6 | 74.8 | 50.4 | 0.67 |
| Boise City-Nampa | West | 45.4 | 37.3 | 80.0 | 47.6 | 0.64 |
| Ogden-Clearfield | West | 37.5 | 37.3 | 74.0 | 43.5 | 0.61 |
| Provo-Orem | West | 31.9 | 28.5 | 64.0 | 41.9 | 0.55 |
| Spokane-Spokane Valley | West | 39.9 | 38.5 | 74.2 | 47.8 | 0.53 |
| Modesto | West | 30.9 | 34.4 | 75.3 | 51.6 | 0.52 |

Source: Calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

TABLE 10
PRODUCTIVITY AND PROSPERITY MEASURES ADJUSTED FOR COST OF LIVING
IN ARIZONA'S METROPOLITAN AREAS COMPARED TO THE NATIONAL
POPULATION-SIZE-CLASS AVERAGE, 2012

| | Population (000) | Dollar Value in Thousands | | | |
|---------------------------------|---------------------|-----------------------------------|-------------------------------------|-------------------------------------|-----------------------------|
| | | Per Capita Gross Product | Per Capita Personal Income | Per Employee Gross Product | Per Employee Earnings |
| Phoenix-Mesa-Scottsdale | 4,328 | \$46.7 | \$38.1 | \$86.3 | \$51.8 |
| At Least 3 Million | | 55.7 | 45.4 | 93.1 | 57.7 |
| Tucson | 992 | 34.6 | 37.5 | 69.5 | 46.0 |
| 1,000,000 to 2,999,999 | | 55.1 | 45.7 | 91.4 | 56.9 |
| 500,000 to 999,999 | | 45.0 | 42.0 | 79.9 | 51.3 |
| Lake Havasu City-Kingman | 203 | 19.7 | 29.0 | 63.7 | 39.7 |
| Prescott | 213 | 22.1 | 32.8 | 57.0 | 35.3 |
| Yuma | 202 | 28.8 | 28.9 | 69.3 | 45.7 |
| 200,000 to 299,999 | | 42.4 | 40.7 | 75.1 | 48.8 |
| Flagstaff | 136 | 37.4 | 35.4 | 60.7 | 40.2 |
| Sierra Vista-Douglas | 132 | 32.2 | 38.9 | 74.4 | 51.6 |
| 125,000 to 199,999 | | 40.9 | 40.4 | 73.9 | 48.7 |

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

APPENDIX I
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY STATE

| | RPP | PCGP | PCPI | PCI | PEGP | PEE |
|----------------------|------------|-------------|-------------|------------|-------------|------------|
| United States | 100.0 | \$51,419 | \$43,735 | \$28,051 | \$89,866 | \$54,681 |
| Alabama | 88.1 | 44,617 | 40,779 | 26,325 | 85,019 | 51,849 |
| Alaska | 107.1 | 76,135 | 46,158 | 30,695 | 121,485 | 58,960 |
| Arizona | 98.1 | 42,233 | 36,945 | 25,819 | 82,790 | 49,811 |
| Arkansas | 87.6 | 46,060 | 40,453 | 24,805 | 86,136 | 49,259 |
| California | 112.9 | 49,494 | 41,166 | 26,446 | 91,161 | 54,597 |
| Colorado | 101.6 | 52,850 | 45,054 | 30,854 | 83,614 | 52,775 |
| Connecticut | 109.4 | 61,848 | 54,559 | 34,314 | 99,678 | 60,961 |
| Delaware | 102.3 | 64,646 | 43,230 | 28,766 | 110,809 | 56,708 |
| District of Columbia | 118.2 | 149,678 | 63,260 | 39,154 | 113,550 | 84,309 |
| Florida | 98.8 | 40,292 | 41,510 | 26,637 | 75,130 | 45,841 |
| Georgia | 92.0 | 48,028 | 40,705 | 27,121 | 87,593 | 54,023 |
| Hawaii | 117.2 | 44,437 | 38,197 | 25,079 | 71,810 | 43,569 |
| Idaho | 93.6 | 38,987 | 36,838 | 24,135 | 69,931 | 44,498 |
| Illinois | 100.6 | 54,363 | 45,558 | 29,349 | 93,418 | 57,953 |
| Indiana | 91.1 | 51,522 | 41,843 | 26,740 | 92,024 | 52,766 |
| Iowa | 89.5 | 56,919 | 49,089 | 29,679 | 87,465 | 54,703 |
| Kansas | 89.9 | 53,560 | 47,848 | 29,683 | 83,747 | 53,639 |
| Kentucky | 88.8 | 45,752 | 40,138 | 25,979 | 83,355 | 51,450 |
| Louisiana | 91.4 | 59,763 | 43,827 | 26,340 | 105,788 | 55,018 |
| Maine | 98.3 | 40,743 | 40,780 | 27,098 | 67,604 | 44,034 |
| Maryland | 111.3 | 51,375 | 48,352 | 32,430 | 87,463 | 54,534 |
| Massachusetts | 107.2 | 60,626 | 52,217 | 32,985 | 94,794 | 61,335 |
| Michigan | 94.4 | 44,670 | 40,562 | 26,858 | 84,174 | 52,834 |
| Minnesota | 97.5 | 56,872 | 48,128 | 31,656 | 86,868 | 55,311 |
| Mississippi | 86.4 | 39,376 | 38,955 | 23,473 | 76,836 | 48,821 |
| Missouri | 88.1 | 50,770 | 44,419 | 28,794 | 86,068 | 54,547 |
| Montana | 94.2 | 44,506 | 40,928 | 26,536 | 70,873 | 43,266 |
| Nebraska | 90.1 | 61,646 | 49,958 | 29,463 | 92,296 | 56,579 |
| Nevada | 98.2 | 47,576 | 38,922 | 27,117 | 85,372 | 49,015 |
| New Hampshire | 106.2 | 47,135 | 46,261 | 30,892 | 74,883 | 48,998 |
| New Jersey | 114.1 | 52,280 | 48,192 | 31,610 | 91,311 | 55,923 |
| New Mexico | 94.8 | 45,111 | 37,639 | 25,110 | 87,554 | 49,233 |
| New York | 115.4 | 56,710 | 46,136 | 27,970 | 97,061 | 59,843 |

(continued)

APPENDIX I (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY STATE

| | RPP | PCGP | PCPI | PCI | PEGP | PEE |
|----------------|------------|-------------|-------------|------------|-------------|------------|
| North Carolina | 91.6 | \$50,640 | \$41,387 | \$27,442 | \$91,603 | \$52,841 |
| North Dakota | 90.4 | 78,280 | 60,699 | 32,313 | 97,675 | 61,343 |
| Ohio | 89.2 | 53,268 | 44,907 | 28,679 | 92,928 | 57,082 |
| Oklahoma | 89.9 | 49,987 | 45,184 | 26,588 | 86,129 | 54,937 |
| Oregon | 98.8 | 54,572 | 39,642 | 27,230 | 95,232 | 49,285 |
| Pennsylvania | 98.7 | 49,998 | 45,677 | 28,613 | 87,485 | 56,053 |
| Rhode Island | 98.7 | 49,743 | 46,481 | 30,029 | 88,237 | 54,826 |
| South Carolina | 90.7 | 41,542 | 38,651 | 26,115 | 79,692 | 49,290 |
| South Dakota | 88.2 | 59,533 | 51,453 | 29,270 | 86,672 | 52,404 |
| Tennessee | 90.7 | 47,899 | 42,725 | 26,697 | 83,974 | 54,647 |
| Texas | 96.5 | 58,178 | 44,184 | 26,640 | 100,326 | 58,353 |
| Utah | 96.8 | 48,657 | 36,601 | 24,642 | 81,517 | 46,944 |
| Vermont | 100.9 | 44,997 | 44,148 | 28,806 | 66,673 | 43,558 |
| Virginia | 103.2 | 52,687 | 46,877 | 32,450 | 88,449 | 56,237 |
| Washington | 103.2 | 54,922 | 44,617 | 29,878 | 97,525 | 56,531 |
| West Virginia | 88.6 | 42,406 | 39,595 | 25,215 | 85,213 | 51,654 |
| Wisconsin | 92.9 | 51,146 | 45,340 | 29,573 | 83,538 | 52,742 |
| Wyoming | 96.4 | 75,296 | 52,455 | 30,060 | 110,620 | 53,181 |

Note: Data are for 2012 except for PCI, which is the average over the five years from 2008 through 2012.

Sources:

RPP: Regional Price Parity, U.S. Department of Commerce, Bureau of Economic Analysis.

PCGP: Per Capita Gross Product, calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

PCPI: Per Capita Personal Income, U.S. Department of Commerce, Bureau of Economic Analysis.

PCI: Per Capita Income, U.S. Department of Commerce, Census Bureau, American Community Survey.

PEGP: Per Employee Gross Product, calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

PEE: Per Employee Earnings, calculated from U.S. Department of Commerce, Bureau of Economic Analysis.

APPENDIX II
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|---------------------------------------|------------|-------------|-------------|-------------|------------|
| Abilene, TX | 91.4 | \$39,272 | \$41,485 | \$65,654 | \$44,956 |
| Akron, OH | 88.4 | 47,465 | 47,490 | 82,063 | 56,896 |
| Albany, GA | 85.1 | 37,507 | 39,901 | 73,806 | 51,275 |
| Albany, OR | 93.7 | 29,647 | 33,067 | 68,190 | 45,770 |
| Albany-Schenectady-Troy, NY | 99.1 | 49,008 | 48,197 | 78,824 | 57,321 |
| Albuquerque, NM | 96.6 | 44,526 | 37,549 | 83,123 | 48,977 |
| Alexandria, LA | 87.7 | 42,091 | 42,693 | 80,594 | 51,652 |
| Allentown-Bethlehem-Easton, PA-NJ | 99.9 | 38,710 | 42,908 | 73,912 | 51,474 |
| Altoona, PA | 91.4 | 38,963 | 40,011 | 67,210 | 47,516 |
| Amarillo, TX | 92.8 | 45,019 | 41,315 | 73,103 | 49,281 |
| Ames, IA | 88.7 | 56,209 | 50,246 | 90,475 | 64,662 |
| Anchorage, AK | 110.9 | 65,735 | 47,214 | 109,389 | 60,904 |
| Ann Arbor, MI | 102.2 | 53,838 | 42,272 | 77,126 | 53,090 |
| Anniston-Oxford-Jacksonville, AL | 84.8 | 37,902 | 38,778 | 73,738 | 49,542 |
| Appleton, WI | 93.3 | 48,714 | 44,801 | 73,970 | 50,380 |
| Asheville, NC | 92.0 | 37,714 | 39,267 | 67,035 | 41,606 |
| Athens-Clarke County, GA | 91.8 | 37,927 | 36,027 | 67,053 | 45,410 |
| Atlanta-Sandy Springs-Roswell, GA | 95.6 | 56,460 | 42,848 | 96,326 | 57,584 |
| Atlantic City-Hammonton, NJ | 108.4 | 44,162 | 38,837 | 68,401 | 44,941 |
| Auburn-Opelika, AL | 87.0 | 32,588 | 34,754 | 66,781 | 43,019 |
| Augusta-Richmond County, GA-SC | 89.8 | 40,274 | 40,033 | 77,838 | 51,874 |
| Austin-Round Rock, TX | 98.5 | 54,615 | 43,555 | 87,014 | 54,964 |
| Bakersfield, CA | 97.3 | 41,136 | 35,409 | 91,089 | 58,940 |
| Baltimore-Columbia-Towson, MD | 109.4 | 52,212 | 49,543 | 83,599 | 56,003 |
| Bangor, ME | 97.0 | 38,281 | 36,969 | 65,148 | 43,681 |
| Barnstable Town, MA | 102.1 | 39,078 | 59,000 | 59,392 | 40,955 |
| Baton Rouge, LA | 93.2 | 62,787 | 43,181 | 104,012 | 53,901 |
| Battle Creek, MI | 90.5 | 41,476 | 39,362 | 84,888 | 59,032 |
| Bay City, MI | 88.9 | 31,589 | 39,097 | 71,100 | 49,141 |
| Beaumont-Port Arthur, TX | 90.6 | 64,306 | 42,356 | 120,134 | 56,422 |
| Beckley, WV | 85.8 | 43,022 | 41,246 | 91,279 | 54,394 |
| Bellingham, WA | 99.3 | 48,512 | 39,392 | 89,372 | 46,030 |
| Bend-Redmond, OR | 96.6 | 39,532 | 39,801 | 68,241 | 41,252 |
| Billings, MT | 95.5 | 54,688 | 43,504 | 82,310 | 47,224 |
| Binghamton, NY | 95.6 | 34,705 | 40,131 | 65,108 | 48,915 |
| Birmingham-Hoover, AL | 90.2 | 57,539 | 46,397 | 99,204 | 58,746 |
| Bismarck, ND | 94.0 | 54,521 | 49,215 | 74,122 | 50,623 |
| Blacksburg-Christiansburg-Radford, VA | 88.8 | 35,760 | 35,428 | 71,709 | 47,782 |
| Bloomington, IL | 94.6 | 59,521 | 45,908 | 92,248 | 59,450 |
| Bloomington, IN | 93.4 | 41,324 | 35,157 | 73,538 | 44,187 |
| Bloomsburg-Berwick, PA | 92.0 | 45,114 | 39,008 | 64,929 | 50,541 |
| Boise City, ID | 94.7 | 45,449 | 37,333 | 80,012 | 47,599 |
| Boston-Cambridge-Newton, MA-NH | 111.6 | 64,920 | 54,110 | 94,412 | 64,284 |
| Boulder, CO | 108.9 | 61,150 | 49,377 | 76,822 | 49,872 |
| Bowling Green, KY | 85.1 | 39,121 | 37,817 | 71,476 | 47,705 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|--|------------|-------------|-------------|-------------|------------|
| Bremerton-Silverdale, WA | 104.6 | \$34,238 | \$42,588 | \$72,491 | \$50,623 |
| Bridgeport-Stamford-Norwalk, CT | 121.5 | 76,095 | 66,722 | 113,777 | 69,659 |
| Brownsville-Harlingen, TX | 85.1 | 24,033 | 28,096 | 54,619 | 38,712 |
| Brunswick, GA | 86.1 | 34,419 | 40,044 | 72,162 | 47,441 |
| Buffalo-Cheektowaga-Niagara Falls, NY | 93.8 | 44,231 | 45,616 | 76,884 | 54,453 |
| Burlington, NC | 90.0 | 35,213 | 36,587 | 67,611 | 42,892 |
| Burlington-South Burlington, VT | 102.3 | 53,400 | 46,222 | 72,948 | 49,616 |
| California-Lexington Park, MD | 102.3 | 47,079 | 46,539 | 79,865 | 62,345 |
| Canton-Massillon, OH | 89.4 | 38,937 | 41,515 | 71,729 | 48,458 |
| Cape Coral-Fort Myers, FL | 95.0 | 34,103 | 45,441 | 72,567 | 42,811 |
| Cape Girardeau, MO-IL | 82.8 | 44,425 | 42,928 | 69,983 | 48,316 |
| Carbondale-Marion, IL | 84.1 | 40,800 | 42,503 | 70,820 | 50,488 |
| Carson City, NV | 98.0 | 50,483 | 43,098 | 73,348 | 51,116 |
| Casper, WY | 97.8 | 87,058 | 58,816 | 123,417 | 61,907 |
| Cedar Rapids, IA | 91.2 | 62,180 | 48,389 | 92,605 | 56,474 |
| Chambersburg-Waynesboro, PA | 95.9 | 29,516 | 38,314 | 59,249 | 44,524 |
| Champaign-Urbana, IL | 93.9 | 43,389 | 41,625 | 73,469 | 51,132 |
| Charleston, WV | 89.8 | 65,518 | 47,137 | 102,578 | 61,755 |
| Charleston-North Charleston, SC | 95.7 | 46,471 | 41,216 | 78,619 | 50,626 |
| Charlotte-Concord-Gastonia, NC-SC | 94.3 | 63,347 | 42,911 | 109,235 | 58,717 |
| Charlottesville, VA | 99.1 | 47,407 | 47,091 | 73,821 | 50,944 |
| Chattanooga, TN-GA | 90.5 | 46,026 | 41,136 | 81,332 | 52,695 |
| Cheyenne, WY | 96.3 | 59,437 | 52,706 | 88,369 | 51,908 |
| Chicago-Naperville-Elgin, IL-IN-WI | 106.6 | 56,252 | 45,314 | 94,403 | 58,169 |
| Chico, CA | 100.2 | 28,493 | 35,624 | 62,005 | 42,989 |
| Cincinnati, OH-KY-IN | 91.5 | 55,572 | 47,491 | 93,839 | 60,368 |
| Clarksville, TN-KY | 90.9 | 45,995 | 42,797 | 87,132 | 58,059 |
| Cleveland, TN | 83.0 | 38,838 | 39,938 | 82,412 | 55,445 |
| Cleveland-Elyria, OH | 89.2 | 60,628 | 50,196 | 97,721 | 62,869 |
| Coeur d'Alene, ID | 93.4 | 32,069 | 37,105 | 61,433 | 38,663 |
| College Station-Bryan, TX | 94.3 | 34,323 | 33,709 | 62,687 | 43,450 |
| Colorado Springs, CO | 98.6 | 42,533 | 41,562 | 74,825 | 50,410 |
| Columbia, MO | 92.2 | 45,820 | 42,903 | 66,125 | 48,025 |
| Columbia, SC | 92.1 | 47,459 | 40,493 | 81,728 | 51,002 |
| Columbus, GA-AL | 89.0 | 46,155 | 44,063 | 78,421 | 52,991 |
| Columbus, IN | 87.3 | 69,861 | 49,735 | 94,901 | 63,638 |
| Columbus, OH | 93.8 | 55,121 | 45,552 | 87,194 | 57,840 |
| Corpus Christi, TX | 92.6 | 54,143 | 44,056 | 95,015 | 55,556 |
| Corvallis, OR | 97.4 | 57,791 | 40,944 | 97,103 | 47,450 |
| Crestview-Fort Walton Beach-Destin, FL | 96.9 | 49,194 | 44,456 | 78,941 | 48,242 |
| Cumberland, MD-WV | 88.2 | 31,678 | 39,037 | 65,805 | 47,932 |
| Dallas-Fort Worth-Arlington, TX | 101.0 | 62,107 | 45,679 | 99,158 | 59,297 |
| Dalton, GA | 85.0 | 45,146 | 33,586 | 86,164 | 53,957 |
| Danville, IL | 79.4 | 39,690 | 42,742 | 83,578 | 57,307 |
| Daphne-Fairhope-Foley, AL | 89.0 | 33,604 | 43,313 | 68,490 | 37,577 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|--|------------|-------------|-------------|-------------|------------|
| Davenport-Moline-Rock Island, IA-IL | 92.1 | \$52,684 | \$47,608 | \$87,393 | \$56,852 |
| Dayton, OH | 91.0 | 46,452 | 43,837 | 81,322 | 56,569 |
| Decatur, AL | 86.9 | 37,574 | 38,121 | 79,706 | 48,852 |
| Decatur, IL | 89.7 | 57,390 | 47,142 | 96,545 | 60,086 |
| Deltona-Daytona Beach-Ormond Beach, FL | 95.5 | 23,725 | 36,294 | 62,478 | 40,169 |
| Denver-Aurora-Lakewood, CO | 104.3 | 60,851 | 48,836 | 93,550 | 58,871 |
| Des Moines-West Des Moines, IA | 94.5 | 75,689 | 49,474 | 107,621 | 58,262 |
| Detroit-Warren-Dearborn, MI | 97.8 | 49,642 | 43,212 | 90,307 | 57,738 |
| Dothan, AL | 85.0 | 36,971 | 42,137 | 71,749 | 47,178 |
| Dover, DE | 94.1 | 40,168 | 38,422 | 77,561 | 49,909 |
| Dubuque, IA | 92.9 | 55,623 | 43,457 | 75,569 | 48,937 |
| Duluth, MN-WI | 91.7 | 39,425 | 41,626 | 69,475 | 49,103 |
| Durham-Chapel Hill, NC | 95.0 | 79,992 | 46,625 | 111,287 | 64,405 |
| East Stroudsburg, PA | 99.9 | 29,544 | 33,815 | 64,986 | 43,951 |
| Eau Claire, WI | 92.3 | 44,529 | 42,403 | 67,531 | 46,806 |
| El Centro, CA | 92.2 | 29,170 | 33,508 | 70,364 | 54,863 |
| Elizabethtown-Fort Knox, KY | 86.7 | 47,804 | 44,961 | 90,638 | 57,195 |
| Elkhart-Goshen, IN | 91.6 | 57,604 | 38,810 | 82,270 | 50,926 |
| Elmira, NY | 94.2 | 36,010 | 40,399 | 67,122 | 51,479 |
| El Paso, TX | 90.8 | 39,396 | 33,245 | 79,540 | 48,343 |
| Erie, PA | 93.0 | 38,153 | 39,431 | 66,502 | 47,503 |
| Eugene, OR | 97.7 | 35,082 | 36,788 | 66,273 | 43,542 |
| Evansville, IN-KY | 90.4 | 55,551 | 44,732 | 95,374 | 55,269 |
| Fairbanks, AK | 106.8 | 51,312 | 42,539 | 87,684 | 59,209 |
| Fargo, ND-MN | 93.5 | 65,255 | 49,608 | 89,581 | 54,568 |
| Farmington, NM | 92.7 | 47,765 | 35,698 | 95,463 | 54,588 |
| Fayetteville, NC | 91.5 | 54,516 | 48,008 | 92,419 | 61,440 |
| Fayetteville-Springdale-Rogers, AR-MO | 90.3 | 47,124 | 39,842 | 83,195 | 52,535 |
| Flagstaff, AZ | 98.4 | 37,389 | 35,386 | 60,674 | 40,213 |
| Flint, MI | 93.8 | 29,845 | 34,564 | 66,099 | 44,005 |
| Florence, SC | 85.5 | 42,638 | 40,286 | 78,131 | 50,397 |
| Florence-Muscle Shoals, AL | 84.5 | 34,491 | 39,348 | 68,909 | 45,308 |
| Fond du Lac, WI | 85.8 | 44,952 | 45,989 | 78,122 | 53,777 |
| Fort Collins, CO | 100.3 | 39,898 | 41,188 | 62,889 | 42,474 |
| Fort Smith, AR-OK | 85.6 | 40,716 | 39,575 | 78,647 | 48,287 |
| Fort Wayne, IN | 91.1 | 49,466 | 40,862 | 81,698 | 51,694 |
| Fresno, CA | 97.6 | 34,470 | 34,912 | 74,610 | 50,638 |
| Gadsden, AL | 84.7 | 30,287 | 38,626 | 65,128 | 43,809 |
| Gainesville, FL | 96.3 | 40,463 | 39,507 | 66,798 | 46,933 |
| Gainesville, GA | 90.6 | 40,777 | 36,191 | 76,156 | 47,807 |
| Gettysburg, PA | 95.9 | 27,065 | 37,247 | 54,275 | 38,419 |
| Glens Falls, NY | 97.7 | 33,079 | 41,001 | 61,530 | 45,828 |
| Goldsboro, NC | 86.8 | 39,742 | 38,732 | 83,902 | 50,895 |
| Grand Forks, ND-MN | 92.8 | 47,925 | 47,324 | 67,997 | 49,779 |
| Grand Island, NE | 84.7 | 53,691 | 48,873 | 80,526 | 53,349 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|--|------------|-------------|-------------|-------------|------------|
| Grand Junction, CO | 95.1 | \$36,877 | \$37,567 | \$64,557 | \$42,841 |
| Grand Rapids-Wyoming, MI | 92.3 | 47,254 | 40,372 | 78,447 | 51,846 |
| Grants Pass, OR | 93.7 | 23,666 | 33,469 | 55,183 | 35,760 |
| Great Falls, MT | 94.3 | 41,757 | 43,290 | 68,716 | 47,198 |
| Greeley, CO | 97.6 | 30,964 | 32,435 | 65,454 | 45,895 |
| Green Bay, WI | 92.1 | 55,437 | 45,178 | 83,456 | 54,978 |
| Greensboro-High Point, NC | 90.4 | 55,418 | 40,537 | 93,684 | 51,908 |
| Greenville, NC | 88.4 | 45,536 | 40,433 | 83,920 | 51,128 |
| Greenville-Anderson-Mauldin, SC | 90.9 | 43,540 | 39,269 | 78,939 | 50,146 |
| Gulfport-Biloxi-Pascagoula, MS | 90.6 | 47,569 | 39,126 | 88,439 | 52,975 |
| Hagerstown-Martinsburg, MD-WV | 102.6 | 31,547 | 35,279 | 64,723 | 43,939 |
| Hammond, LA | 88.9 | 33,889 | 36,768 | 71,987 | 44,398 |
| Hanford-Corcoran, CA | 95.5 | 30,861 | 33,335 | 84,919 | 65,597 |
| Harrisburg-Carlisle, PA | 96.6 | 56,011 | 46,090 | 79,426 | 56,599 |
| Harrisonburg, VA | 92.1 | 56,610 | 35,829 | 93,316 | 45,925 |
| Hartford-West Hartford-East Hartford, CT | 100.9 | 65,835 | 53,790 | 100,334 | 65,050 |
| Hattiesburg, MS | 84.8 | 43,485 | 38,405 | 77,737 | 46,693 |
| Hickory-Lenoir-Morganton, NC | 89.0 | 37,898 | 36,228 | 72,060 | 44,273 |
| Hilton Head Island-Bluffton-Beaufort, SC | 91.9 | 42,407 | 44,454 | 80,565 | 46,409 |
| Hinesville, GA | 92.1 | 52,864 | 30,779 | 97,340 | 65,077 |
| Homosassa Springs, FL | 89.7 | 26,935 | 38,109 | 75,783 | 38,765 |
| Hot Springs, AR | 85.4 | 35,321 | 43,087 | 65,494 | 40,300 |
| Houma-Thibodaux, LA | 92.6 | 57,794 | 47,118 | 98,792 | 61,872 |
| Houston-The Woodlands-Sugar Land, TX | 100.7 | 72,254 | 50,650 | 121,066 | 71,123 |
| Huntington-Ashland, WV-KY-OH | 86.7 | 41,418 | 40,437 | 87,904 | 53,307 |
| Huntsville, AL | 91.3 | 55,167 | 45,559 | 88,354 | 61,814 |
| Idaho Falls, ID | 91.1 | 41,542 | 38,740 | 70,546 | 51,104 |
| Indianapolis-Carmel-Anderson, IN | 93.9 | 64,094 | 45,092 | 103,467 | 56,967 |
| Iowa City, IA | 95.9 | 54,309 | 47,155 | 71,976 | 49,712 |
| Ithaca, NY | 104.3 | 39,088 | 37,250 | 60,198 | 47,343 |
| Jackson, MI | 90.9 | 36,494 | 35,941 | 80,934 | 49,025 |
| Jackson, MS | 91.5 | 50,048 | 43,175 | 81,474 | 52,156 |
| Jackson, TN | 81.5 | 51,516 | 45,056 | 80,886 | 54,131 |
| Jacksonville, FL | 96.3 | 46,916 | 43,510 | 79,398 | 50,268 |
| Jacksonville, NC | 96.0 | 51,196 | 47,868 | 83,781 | 58,635 |
| Janesville-Beloit, WI | 92.8 | 34,964 | 38,637 | 72,158 | 50,369 |
| Jefferson City, MO | 80.8 | 49,735 | 45,219 | 75,751 | 52,376 |
| Johnson City, TN | 88.3 | 35,264 | 39,164 | 67,469 | 45,156 |
| Johnstown, PA | 87.2 | 33,241 | 40,848 | 63,864 | 47,082 |
| Jonesboro, AR | 81.7 | 44,799 | 41,941 | 81,464 | 51,226 |
| Joplin, MO | 87.8 | 39,906 | 37,744 | 68,306 | 46,038 |
| Kahului-Wailuku-Lahaina, HI | 112.9 | 38,324 | 33,577 | 61,199 | 36,964 |
| Kalamazoo-Portage, MI | 92.7 | 40,871 | 39,823 | 79,097 | 52,029 |
| Kankakee, IL | 99.1 | 31,074 | 35,314 | 63,581 | 42,631 |
| Kansas City, MO-KS | 92.7 | 59,839 | 48,291 | 95,521 | 59,655 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|---|------------|-------------|-------------|-------------|------------|
| Kennewick-Richland, WA | 97.1 | \$42,528 | \$38,217 | \$85,071 | \$55,904 |
| Killeen-Temple, TX | 92.4 | 43,226 | 42,717 | 82,394 | 56,517 |
| Kingsport-Bristol-Bristol, TN-VA | 86.9 | 38,629 | 40,247 | 75,964 | 51,873 |
| Kingston, NY | 102.6 | 25,890 | 41,849 | 55,513 | 41,397 |
| Knoxville, TN | 91.6 | 45,839 | 41,336 | 80,013 | 52,342 |
| Kokomo, IN | 88.2 | 50,990 | 38,670 | 89,492 | 55,505 |
| La Crosse-Onalaska, WI-MN | 93.7 | 47,975 | 43,568 | 68,554 | 46,585 |
| Lafayette, LA | 91.8 | 58,290 | 46,894 | 94,044 | 58,265 |
| Lafayette-West Lafayette, IN | 93.9 | 45,563 | 36,019 | 78,938 | 48,947 |
| Lake Charles, LA | 88.5 | 82,664 | 42,063 | 145,991 | 56,039 |
| Lake Havasu City-Kingman, AZ | 93.8 | 19,656 | 29,019 | 63,670 | 39,702 |
| Lakeland-Winter Haven, FL | 93.9 | 29,543 | 38,068 | 68,984 | 44,413 |
| Lancaster, PA | 98.5 | 40,378 | 40,698 | 70,761 | 47,175 |
| Lansing-East Lansing, MI | 94.4 | 44,024 | 37,563 | 78,049 | 49,655 |
| Laredo, TX | 88.9 | 30,160 | 29,381 | 63,661 | 44,820 |
| Las Cruces, NM | 92.5 | 28,952 | 33,364 | 66,445 | 45,890 |
| Las Vegas-Henderson-Paradise, NV | 99.3 | 48,120 | 36,934 | 87,731 | 48,926 |
| Lawrence, KS | 95.5 | 34,068 | 38,043 | 60,819 | 40,211 |
| Lawton, OK | 91.5 | 41,565 | 40,428 | 79,937 | 53,761 |
| Lebanon, PA | 94.9 | 31,889 | 43,486 | 65,377 | 45,684 |
| Lewiston, ID-WA | 91.7 | 36,114 | 40,436 | 65,327 | 45,631 |
| Lewiston-Auburn, ME | 95.0 | 39,363 | 38,966 | 67,109 | 44,262 |
| Lexington-Fayette, KY | 92.2 | 53,478 | 43,303 | 80,578 | 52,825 |
| Lima, OH | 89.0 | 55,688 | 37,128 | 90,702 | 51,801 |
| Lincoln, NE | 92.9 | 55,163 | 44,762 | 80,778 | 50,047 |
| Little Rock-North Little Rock-Conway, AR | 91.1 | 52,544 | 45,732 | 86,848 | 54,294 |
| Logan, UT-ID | 90.8 | 33,605 | 32,206 | 58,254 | 38,440 |
| Longview, TX | 91.9 | 57,139 | 45,642 | 90,381 | 55,934 |
| Longview, WA | 94.1 | 34,685 | 37,053 | 78,812 | 52,616 |
| Los Angeles-Long Beach-Anaheim, CA | 118.2 | 49,633 | 39,202 | 84,884 | 51,138 |
| Louisville/Jefferson County, KY-IN | 90.9 | 55,194 | 45,072 | 92,103 | 56,021 |
| Lubbock, TX | 93.8 | 39,790 | 38,458 | 66,821 | 44,638 |
| Lynchburg, VA | 90.6 | 37,646 | 38,900 | 70,794 | 44,582 |
| Macon, GA | 88.0 | 39,444 | 41,907 | 68,844 | 45,501 |
| Madera, CA | 96.4 | 27,593 | 32,333 | 71,157 | 55,546 |
| Madison, WI | 97.9 | 64,661 | 49,056 | 86,337 | 52,208 |
| Manchester-Nashua, NH | 108.9 | 50,503 | 46,654 | 80,005 | 53,995 |
| Manhattan, KS | 91.9 | 34,488 | 46,207 | 64,007 | 42,490 |
| Mankato-North Mankato, MN | 88.3 | 49,728 | 45,359 | 71,871 | 49,862 |
| Mansfield, OH | 88.8 | 33,828 | 36,528 | 65,489 | 45,996 |
| McAllen-Edinburg-Mission, TX | 85.0 | 23,375 | 26,353 | 56,915 | 41,175 |
| Medford, OR | 98.0 | 31,560 | 37,030 | 58,526 | 40,505 |
| Memphis, TN-MS-AR | 92.1 | 54,041 | 43,743 | 89,971 | 56,955 |
| Merced, CA | 95.8 | 25,652 | 31,973 | 71,759 | 52,983 |
| Miami-Fort Lauderdale-West Palm Beach, FL | 105.0 | 45,300 | 42,116 | 78,233 | 45,353 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|---|------------|-------------|-------------|-------------|------------|
| Michigan City-La Porte, IN | 84.4 | \$40,323 | \$39,573 | \$80,614 | \$48,728 |
| Midland, MI | 86.9 | 49,505 | 52,270 | 86,701 | 63,246 |
| Midland, TX | 97.9 | 111,404 | 84,830 | 139,762 | 93,173 |
| Milwaukee-Waukesha-West Allis, WI | 95.2 | 59,465 | 49,309 | 94,840 | 60,164 |
| Minneapolis-St. Paul-Bloomington, MN-WI | 103.0 | 62,460 | 48,796 | 92,765 | 57,318 |
| Missoula, MT | 96.5 | 44,559 | 37,911 | 65,518 | 41,071 |
| Mobile, AL | 88.2 | 45,961 | 37,156 | 81,959 | 50,987 |
| Modesto, CA | 99.1 | 30,942 | 34,448 | 75,279 | 51,629 |
| Monroe, LA | 87.3 | 43,955 | 40,644 | 77,572 | 48,297 |
| Monroe, MI | 96.7 | 28,405 | 39,712 | 76,935 | 46,865 |
| Montgomery, AL | 90.1 | 45,393 | 42,070 | 77,371 | 51,441 |
| Morgantown, WV | 88.5 | 56,453 | 41,726 | 94,566 | 56,517 |
| Morristown, TN | 82.5 | 35,941 | 37,485 | 72,289 | 47,609 |
| Mount Vernon-Anacortes, WA | 98.7 | 47,230 | 40,988 | 88,349 | 43,947 |
| Muncie, IN | 89.7 | 34,424 | 36,029 | 68,446 | 46,249 |
| Muskegon, MI | 89.0 | 31,579 | 35,602 | 65,750 | 45,140 |
| Myrtle Beach-Conway-North Myrtle Beach, SC-NC | 93.3 | 38,212 | 33,952 | 79,135 | 38,551 |
| Napa, CA | 118.5 | 44,742 | 46,251 | 66,858 | 44,704 |
| Naples-Immokalee-Marco Island, FL | 99.0 | 41,482 | 61,001 | 74,304 | 42,320 |
| Nashville-Davidson--Murfreesboro--Franklin, TN | 94.1 | 58,338 | 48,048 | 91,348 | 61,578 |
| New Bern, NC | 86.5 | 45,388 | 45,262 | 84,723 | 57,569 |
| New Haven-Milford, CT | 113.5 | 40,932 | 44,959 | 72,161 | 49,290 |
| New Orleans-Metairie, LA | 96.7 | 71,494 | 45,435 | 118,433 | 56,164 |
| New York-Newark-Jersey City, NY-NJ-PA | 122.2 | 56,053 | 47,793 | 95,025 | 60,427 |
| Niles-Benton Harbor, MI | 90.1 | 39,974 | 41,914 | 75,996 | 49,260 |
| North Port-Sarasota-Bradenton, FL | 98.8 | 34,429 | 50,301 | 63,998 | 38,954 |
| Norwich-New London, CT | 101.3 | 47,603 | 48,834 | 78,161 | 55,828 |
| Ocala, FL | 92.0 | 23,119 | 38,663 | 57,821 | 38,067 |
| Ocean City, NJ | 108.8 | 40,781 | 48,048 | 62,219 | 34,418 |
| Odessa, TX | 93.7 | 60,806 | 45,569 | 96,139 | 60,851 |
| Ogden-Clearfield, UT | 96.4 | 37,516 | 37,328 | 73,967 | 43,535 |
| Oklahoma City, OK | 92.3 | 52,926 | 46,959 | 85,793 | 58,127 |
| Olympia-Tumwater, WA | 104.6 | 34,339 | 42,043 | 68,606 | 46,917 |
| Omaha-Council Bluffs, NE-IA | 94.3 | 62,119 | 49,391 | 95,505 | 58,795 |
| Orlando-Kissimmee-Sanford, FL | 98.0 | 48,698 | 37,155 | 81,458 | 46,334 |
| Oshkosh-Neenah, WI | 92.5 | 54,056 | 43,858 | 84,244 | 58,525 |
| Owensboro, KY | 86.7 | 48,142 | 42,262 | 84,701 | 49,923 |
| Oxnard-Thousand Oaks-Ventura, CA | 114.6 | 40,789 | 42,615 | 79,079 | 48,396 |
| Palm Bay-Melbourne-Titusville, FL | 95.8 | 34,534 | 41,513 | 71,181 | 48,588 |
| Panama City, FL | 96.3 | 37,846 | 38,671 | 66,780 | 41,836 |
| Parkersburg-Vienna, WV | 87.0 | 41,793 | 38,719 | 75,859 | 48,428 |
| Pensacola-Ferry Pass-Brent, FL | 94.5 | 33,394 | 39,723 | 68,592 | 46,164 |
| Peoria, IL | 91.5 | 61,185 | 50,723 | 102,143 | 63,660 |
| Philadelphia-Camden-Wilmington, PA-NJ- DE-MD | 109.0 | 55,485 | 47,265 | 96,122 | 59,343 |
| Phoenix-Mesa-Scottsdale, AZ | 99.7 | 46,716 | 38,120 | 86,292 | 51,844 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|---|------------|-------------|-------------|-------------|------------|
| Pine Bluff, AR | 85.3 | \$39,374 | \$38,424 | \$81,944 | \$51,862 |
| Pittsburgh, PA | 93.4 | 56,046 | 51,244 | 92,109 | 61,224 |
| Pittsfield, MA | 96.6 | 42,900 | 48,582 | 67,002 | 44,975 |
| Pocatello, ID | 90.5 | 32,292 | 33,118 | 61,164 | 40,590 |
| Portland-South Portland, ME | 100.8 | 51,482 | 45,389 | 77,199 | 47,765 |
| Portland-Vancouver-Hillsboro, OR-WA | 100.5 | 63,867 | 42,889 | 107,382 | 54,260 |
| Port St. Lucie, FL | 95.8 | 27,744 | 40,791 | 63,378 | 38,346 |
| Prescott, AZ | 96.3 | 22,113 | 32,832 | 56,961 | 35,332 |
| Providence-Warwick, RI-MA | 99.8 | 43,506 | 45,483 | 80,721 | 52,711 |
| Provo-Orem, UT | 96.9 | 31,898 | 28,471 | 63,966 | 41,941 |
| Pueblo, CO | 92.4 | 29,550 | 35,950 | 62,703 | 46,532 |
| Punta Gorda, FL | 95.3 | 20,702 | 38,787 | 49,305 | 33,407 |
| Racine, WI | 93.4 | 38,848 | 43,372 | 83,123 | 56,144 |
| Raleigh, NC | 95.2 | 54,257 | 44,863 | 92,638 | 54,710 |
| Rapid City, SD | 92.4 | 44,651 | 46,178 | 68,796 | 45,511 |
| Reading, PA | 96.8 | 37,995 | 41,790 | 70,402 | 50,025 |
| Redding, CA | 98.6 | 28,759 | 38,127 | 59,240 | 42,957 |
| Reno, NV | 99.5 | 47,258 | 43,535 | 81,880 | 48,584 |
| Richmond, VA | 96.4 | 57,772 | 46,882 | 93,262 | 56,693 |
| Riverside-San Bernardino-Ontario, CA | 106.3 | 24,653 | 30,009 | 62,035 | 42,327 |
| Roanoke, VA | 91.3 | 48,729 | 44,654 | 77,443 | 50,417 |
| Rochester, MN | 93.7 | 52,444 | 48,775 | 76,246 | 55,995 |
| Rochester, NY | 97.7 | 44,749 | 44,811 | 76,082 | 53,283 |
| Rockford, IL | 91.9 | 41,845 | 39,563 | 77,900 | 51,290 |
| Rocky Mount, NC | 86.8 | 46,725 | 37,977 | 93,187 | 48,574 |
| Rome, GA | 82.2 | 41,286 | 41,642 | 78,035 | 50,956 |
| Sacramento--Roseville--Arden-Arcade, CA | 102.4 | 43,375 | 43,595 | 80,659 | 57,750 |
| Saginaw, MI | 89.4 | 38,708 | 37,001 | 72,515 | 49,667 |
| St. Cloud, MN | 93.0 | 45,919 | 40,598 | 67,509 | 46,780 |
| St. George, UT | 95.2 | 27,594 | 30,039 | 54,089 | 33,610 |
| St. Joseph, MO-KS | 88.1 | 46,680 | 40,940 | 82,326 | 49,850 |
| St. Louis, MO-IL | 88.9 | 54,991 | 50,197 | 91,839 | 60,692 |
| Salem, OR | 96.8 | 33,017 | 35,859 | 67,403 | 46,393 |
| Salinas, CA | 107.1 | 38,898 | 40,181 | 73,263 | 49,802 |
| Salisbury, MD-DE | 90.0 | 39,208 | 42,742 | 75,340 | 44,879 |
| Salt Lake City, UT | 99.1 | 64,720 | 40,791 | 91,793 | 53,198 |
| San Angelo, TX | 92.1 | 40,329 | 43,117 | 66,440 | 44,288 |
| San Antonio-New Braunfels, TX | 93.9 | 43,855 | 41,554 | 79,334 | 52,132 |
| San Diego-Carlsbad, CA | 119.0 | 46,925 | 41,781 | 79,003 | 50,345 |
| San Francisco-Oakland-Hayward, CA | 121.3 | 66,683 | 54,898 | 104,729 | 65,014 |
| San Jose-Sunnyvale-Santa Clara, CA | 122.0 | 75,247 | 53,836 | 117,914 | 78,728 |
| San Luis Obispo-Paso Robles-Arroyo Grande, CA | 106.9 | 38,521 | 40,877 | 67,529 | 41,890 |
| Santa Cruz-Watsonville, CA | 121.4 | 29,562 | 43,198 | 55,864 | 40,121 |
| Santa Fe, NM | 99.2 | 43,325 | 44,454 | 73,324 | 45,697 |
| Santa Maria-Santa Barbara, CA | 108.2 | 44,883 | 44,235 | 75,069 | 49,215 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|--|------------|-------------|-------------|-------------|------------|
| Santa Rosa, CA | 118.2 | \$34,962 | \$40,507 | \$64,421 | \$40,965 |
| Savannah, GA | 94.9 | 41,079 | 42,884 | 71,752 | 48,617 |
| Scranton--Wilkes-Barre--Hazleton, PA | 92.1 | 39,424 | 42,455 | 70,562 | 47,833 |
| Seattle-Tacoma-Bellevue, WA | 107.0 | 68,096 | 49,840 | 107,927 | 63,212 |
| Sebastian-Vero Beach, FL | 91.8 | 33,780 | 57,576 | 69,464 | 42,445 |
| Sebring, FL | 89.7 | 21,222 | 34,645 | 53,958 | 36,170 |
| Sheboygan, WI | 91.1 | 52,141 | 49,154 | 82,004 | 58,446 |
| Sherman-Denison, TX | 91.5 | 32,966 | 37,874 | 68,771 | 44,528 |
| Shreveport-Bossier City, LA | 91.2 | 50,613 | 45,212 | 87,255 | 53,426 |
| Sierra Vista-Douglas, AZ | 94.1 | 32,157 | 38,922 | 74,459 | 51,610 |
| Sioux City, IA-NE-SD | 90.1 | 50,940 | 46,044 | 79,478 | 53,705 |
| Sioux Falls, SD | 93.2 | 75,299 | 50,490 | 101,156 | 52,942 |
| South Bend-Mishawaka, IN-MI | 91.0 | 46,390 | 41,680 | 89,109 | 53,486 |
| Spartanburg, SC | 88.4 | 43,715 | 37,086 | 87,250 | 55,205 |
| Spokane-Spokane Valley, WA | 95.9 | 39,872 | 38,497 | 74,166 | 47,786 |
| Springfield, IL | 92.4 | 50,898 | 45,028 | 83,404 | 54,840 |
| Springfield, MA | 96.8 | 36,505 | 43,696 | 68,659 | 50,409 |
| Springfield, MO | 89.2 | 40,938 | 38,052 | 68,630 | 44,674 |
| Springfield, OH | 89.4 | 30,580 | 40,908 | 65,322 | 45,993 |
| State College, PA | 102.2 | 40,149 | 40,013 | 55,604 | 45,092 |
| Staunton-Waynesboro, VA | 89.7 | 42,945 | 40,799 | 80,489 | 45,491 |
| Stockton-Lodi, CA | 100.6 | 28,847 | 32,827 | 73,102 | 48,939 |
| Sumter, SC | 88.9 | 34,781 | 37,090 | 70,739 | 52,212 |
| Syracuse, NY | 95.9 | 44,890 | 43,560 | 78,566 | 54,073 |
| Tallahassee, FL | 95.1 | 37,495 | 39,308 | 65,460 | 46,148 |
| Tampa-St. Petersburg-Clearwater, FL | 99.4 | 42,439 | 41,109 | 79,631 | 49,272 |
| Terre Haute, IN | 88.3 | 40,765 | 37,908 | 79,702 | 49,133 |
| Texarkana, TX-AR | 89.1 | 39,720 | 39,079 | 74,592 | 48,088 |
| The Villages, FL | 89.7 | 20,416 | 39,055 | 71,687 | 47,524 |
| Toledo, OH | 89.8 | 51,793 | 41,975 | 87,366 | 56,054 |
| Topeka, KS | 89.7 | 46,905 | 44,740 | 78,245 | 50,873 |
| Trenton, NJ | 111.5 | 69,172 | 49,967 | 96,062 | 65,369 |
| Tucson, AZ | 97.0 | 34,648 | 37,459 | 69,499 | 45,970 |
| Tulsa, OK | 91.1 | 55,227 | 49,780 | 91,883 | 62,438 |
| Tuscaloosa, AL | 88.6 | 47,272 | 39,356 | 90,639 | 52,796 |
| Tyler, TX | 94.7 | 46,118 | 43,695 | 75,457 | 51,862 |
| Urban Honolulu, HI | 122.9 | 47,136 | 39,486 | 73,829 | 44,969 |
| Utica-Rome, NY | 93.0 | 33,929 | 40,805 | 64,393 | 48,979 |
| Valdosta, GA | 83.3 | 37,268 | 38,862 | 72,169 | 49,253 |
| Vallejo-Fairfield, CA | 116.3 | 29,998 | 36,418 | 74,642 | 48,939 |
| Victoria, TX | 90.7 | 53,369 | 48,219 | 89,389 | 54,157 |
| Vineland-Bridgeton, NJ | 105.0 | 31,139 | 34,811 | 67,106 | 50,121 |
| Virginia Beach-Norfolk-Newport News, VA-NC | 99.3 | 50,258 | 44,633 | 85,365 | 53,472 |
| Visalia-Porterville, CA | 95.6 | 27,784 | 32,748 | 67,197 | 50,349 |
| Waco, TX | 91.6 | 41,276 | 37,835 | 73,468 | 46,284 |

(continued)

APPENDIX II (continued)
REGIONAL PRICE PARITY AND PROSPERITY AND PRODUCTIVITY MEASURES
ADJUSTED FOR THE COST OF LIVING, BY METROPOLITAN AREA, 2012

| | RPP | PCGP | PCPI | PEGP | PEE |
|--|------------|-------------|-------------|-------------|------------|
| Walla Walla, WA | 95.6 | \$39,928 | \$39,408 | \$69,429 | \$45,920 |
| Warner Robins, GA | 91.0 | 38,712 | 39,181 | 75,110 | 54,146 |
| Washington-Arlington-Alexandria, DC-VA-MD-WV | 120.4 | 63,598 | 51,282 | 93,481 | 63,017 |
| Waterloo-Cedar Falls, IA | 91.6 | 52,998 | 45,130 | 77,941 | 50,956 |
| Watertown-Fort Drum, NY | 95.7 | 50,221 | 46,291 | 83,099 | 57,785 |
| Wausau, WI | 92.4 | 48,002 | 42,640 | 74,688 | 49,587 |
| Weirton-Steubenville, WV-OH | 86.8 | 33,223 | 38,078 | 77,674 | 48,750 |
| Wenatchee, WA | 96.3 | 34,606 | 38,491 | 59,738 | 40,276 |
| Wheeling, WV-OH | 86.3 | 47,444 | 41,866 | 84,397 | 50,135 |
| Wichita, KS | 91.3 | 51,043 | 45,073 | 85,425 | 57,229 |
| Wichita Falls, TX | 91.0 | 43,991 | 44,372 | 75,500 | 51,535 |
| Williamsport, PA | 92.9 | 41,287 | 41,161 | 68,129 | 47,796 |
| Wilmington, NC | 93.9 | 46,507 | 38,886 | 82,934 | 47,054 |
| Winchester, VA-WV | 91.9 | 44,862 | 40,212 | 78,912 | 47,821 |
| Winston-Salem, NC | 90.9 | 45,667 | 41,392 | 86,526 | 50,667 |
| Worcester, MA-CT | 105.5 | 34,709 | 44,457 | 67,468 | 48,983 |
| Yakima, WA | 94.8 | 34,630 | 36,589 | 69,782 | 46,395 |
| York-Hanover, PA | 96.3 | 37,513 | 41,666 | 74,026 | 50,117 |
| Youngstown-Warren-Boardman, OH-PA | 88.9 | 35,392 | 39,663 | 69,342 | 48,189 |
| Yuba City, CA | 98.3 | 28,227 | 35,365 | 67,539 | 49,715 |
| Yuma, AZ | 93.3 | 28,764 | 28,934 | 69,302 | 45,700 |

RPP: Regional Price Parity
PCGP: Per Capita Gross Product
PCPI: Per Capita Personal Income
PEGP: Per Employee Gross Product
PEE: Per Employee Earnings

Source: U.S. Department of Commerce, Bureau of Economic Analysis.

THE PRODUCTIVITY AND PROSPERITY PROJECT

The Productivity and Prosperity Project: An Analysis of Economic Competitiveness (P3) is an ongoing initiative begun in 2005, sponsored by Arizona State University President Michael M. Crow. P3 analyses incorporate literature reviews, existing empirical evidence, and economic and econometric analyses.

Enhancing productivity is the primary means of attaining economic prosperity. Productive individuals and businesses are the most competitive and prosperous. Competitive regions attract and retain these productive workers and businesses, resulting in strong economic growth and high standards of living. An overarching objective of P3's work is to examine competitiveness from the perspective of an individual, a business, a region, and a country.

THE CENTER FOR COMPETITIVENESS AND PROSPERITY RESEARCH

The Center for Competitiveness and Prosperity Research is a research unit of the L. William Seidman Research Institute in the W. P. Carey School of Business, specializing in applied economic and demographic research with a geographic emphasis on Arizona and the metropolitan Phoenix area. The Center conducts research projects under sponsorship of private businesses, nonprofit organizations, government entities and other ASU units. In particular, the Center administers both the Productivity and Prosperity Project, and the Office of the University Economist.

**CENTER FOR COMPETITIVENESS AND PROSPERITY RESEARCH
L. WILLIAM SEIDMAN RESEARCH INSTITUTE
W. P. CAREY SCHOOL OF BUSINESS
AT ARIZONA STATE UNIVERSITY**

P. O. Box 874011 – Tempe, AZ 85287-4011
Phone (480) 965-5362 – FAX (480) 965-5458
wpcarey.asu.edu/research/competitiveness-prosperity-research