

MEASURES OF PROSPERITY AND PRODUCTIVITY ADJUSTED FOR THE COST OF LIVING

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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



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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

	Total	Population-Weighted Mean		
		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
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 in-migration 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				
		Per Capita	Per Capita	Per Employee		
	Modified Region	Gross Product	Personal Income	Gross Product	Per Employee Earnings	Population in Millions
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 At Least 3 Million	4,328	\$46.7 55.7	\$38.1 45.4	\$86.3 93.1	\$51.8 57.7
Tucson 1,000,000 to 2,999,999 500,000 to 999,999	992	34.6 55.1 45.0	37.5 45.7 42.0	69.5 91.4 79.9	46.0 56.9 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 200,000 to 299,999	202	28.8 42.4	28.9 40.7	69.3 75.1	45.7 48.8
Flagstaff	136	37.4	35.4	60.7	40.2
Sierra Vista-Douglas 125,000 to 199,999	132	32.2 40.9	38.9 40.4	74.4 73.9	51.6 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

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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.