Metropolitan Policy Program at BROOKINGS

Degrees of Separation: Education, Employment, and the Great Recession in Metropolitan America

Alan Berube[1]

"Regional changes in employment mask what are often significant differences in the recession's impacts on workers with different levels of educational attainment."

FINDINGS

An analysis of the share of people who are employed, by educational attainment, for working-age adults in the 100 largest metro areas in 2007 and 2009 reveals that:

- **During the Great Recession, employment dropped much less steeply among college-educated workers than other workers.** The employment-to-population ratio dropped by more than 2 percentage points from 2007 to 2009 for working-age adults without a bachelor's degree, but fell by only half a percentage point for college-educated individuals.

- **Metro areas with highly educated populations experienced more modest declines in employment during the recession than other metro areas.** Among the 20 metro areas with the highest rates of bachelor's degree attainment, only four registered declines in their overall employment-to-population ratio from 2007 to 2009 that exceeded the national average. Additionally, employment for workers without a high school diploma was also less impacted in these highly educated metro areas than in other markets.

- **The metro areas in which less educated workers were most severely affected by the recession differed from those in which highly educated workers were most affected.** Workers without a high school diploma bore the brunt of the recession's employment impacts in Sun Belt and manufacturing belt metro areas, while those with a college degree were more likely to experience small setbacks in large labor markets like New York, Los Angeles, and San Diego. Several manufacturing-focused metro areas saw a "hollowing out" of employment opportunities during the recession, with employment levels dipping for workers with at least a high school diploma, but less than a bachelor's degree.

Education appeared to act as a pretty good insurance policy for workers during the Great Recession. But how workers fared also depended on the metropolitan labor market in which they were located. That variation may reflect differences in the industries in which different educational groups worked, or in their ability and opportunity to deploy their skills in new ways as economic circumstances changed. National and state policies to help displaced workers back into the labor market should provide regions flexibility to tailor their economic and workforce development responses to the specific groups most affected by the downturn.

INTRODUCTION

Each of the economic downturns buffeting the United States in the last two decades has been greeted with claims by some that it is affecting professional, "white-collar" workers more severely than other workers, or than in past recessions.[2] When the full impact of these recessions is measured, however, those with higher levels of education have con-

sistently done better than those with lower levels of education, including during the recent "Great Recession."[3]

Yet the recent relationship between education and changes in employment has not been uniform across the country. On one hand, as was true before the recession, people with more schooling are more likely to be employed than their less educated counterparts in every major metropolitan area. On the other hand, the regions in which workers without a high school diploma have suffered most from the recession are not the same as those in which workers with a bachelor's degree have been most affected. Thus, regional changes in employment mask what are often significant differences in the recession's impacts on workers with different levels of educational attainment.

This report examines the relationship between educational attainment and employment status during the two years of the "Great Recession," from 2007 to 2009. It places particular focus on the nation's 100 largest metropolitan areas, the regional economies that account for two-thirds of the nation's workers and three-quarters of its Gross Domestic Product.

METHODOLOGY

The U.S. Bureau of Labor Statistics (BLS), which generates the monthly employment reports that attract so much attention from the recession-and-recovery watchers, regularly publishes statistics on employment status for workers with different levels of educational attainment. These statistics are derived from the monthly Current Population Survey (CPS), and are national in scope. However, we know that the Great Recession's impact has been anything but uniform across our major metropolitan labor markets.[4]

This report uses new data from the Census Bureau's American Community Survey (ACS) to analyze the impact of the recession on the employment status of workers with different levels of educational attainment. The ACS is a much larger survey than the CPS, and permits identification of these impacts for individual large metropolitan areas.[5] As in other Brookings State of Metropolitan America reports, this analysis focuses on trends for individuals in the nation's 100 largest metropolitan areas. These collections of cities and suburbs have combined populations of at least 500,000, and represent the labor markets that contain more than two-thirds of U.S. workers, who in turn generate three-quarters of U.S. Gross Domestic Product.

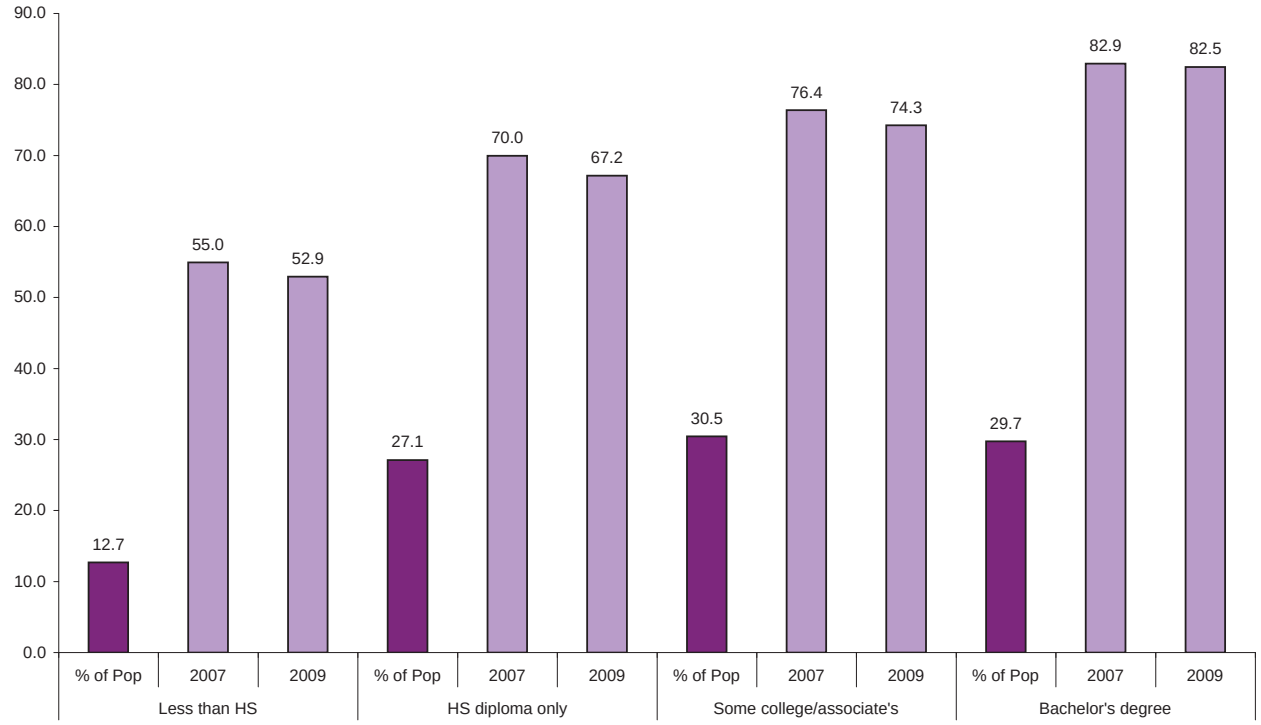
The broadest measure of the employment situation is the ratio of the number of people in jobs to the total population, or the employment-to-population ratio. This report uses ACS data to measure the ratio for adults aged 25 to 64 in the 100 largest metro areas in 2007 and 2009.[6] This two-year period coincides with the greatest impact of the recent recession on the U.S. labor market, when the July unemployment rate reported by BLS rose from 4.6 percent to 9.4 percent. This report does not, notably, measure the impact of the recession on labor market outcomes beyond employment, such as wages and hours. Those outcomes may follow different patterns by worker educational attainment than the employment outcomes analyzed here, although initial evidence suggests that the wage premium for college-educated workers continued to rise from 2007 to 2009.[7]

FINDINGS

A. During the Great Recession, employment dropped much less steeply among college-educated workers than other workers.

Demographic data on workers' educational attainment are typically reported in four educational categories. Roughly comparable shares of U.S. adults aged 25 to 64 (27 to 31 percent) had attained only a high school diploma, completed some college or an associate's (two-year) degree, or completed a bachelor's degree in 2009 (Figure 1). A smaller share (less than 13 percent) did not possess a high school diploma.

Figure 1. Share of Population and Employment-to-Population Ratio by Educational Attainment, Adults Age 25 to 64, United States, 2007-2009



Source: Brookings analysis of 2007 and 2009 American Community Survey data. All changes from 2007 to 2009 are significant at 90% confidence interval.

Differences in employment levels by educational attainment are enormous. Roughly 30 percentage points separated the employment-to-population ratio for college-educated adults (82.5 percent) from that for adults without a high school diploma (52.9 percent) in 2009. Higher levels of educational attainment are clearly associated with greater employability, higher returns to work in the form of compensation and job quality, and/or motivation to work that causes individuals to seek more education in the first place.

These data also confirm reports that the Great Recession has affected the 30 percent of workers near the top of the educational attainment spectrum much less severely than others. While the employment-to-population ratio for groups without a four-year college degree fell between 2 and 3 percentage points from 2007 to 2009, the ratio for college-educated workers dipped by only half a percentage point. College-educated workers were not unaffected by the recession; there were considerably more unemployed workers in that group in 2009 than 2007. But as the total number of working-age adults with college degrees increased over the two-year period, the number of employed individuals in the group rose at a similar rate. By contrast, declines in the number of employed adults with no more than a high school diploma outpaced the declines in their total population. And a significant increase in the number of employed adults with some college or an associate's degree failed to match the even faster increase in their overall numbers, resulting in a significant decline in their employment-to-population ratio.

B. Metro areas with more highly educated populations experienced more modest declines in employment during the recession than other metro areas.

The relationship between educational attainment and employment for individuals has implications for the employment trajectory of metropolitan areas during the recession, given their populations' differing rates of higher educational attainment. In the Washington, D.C.

metro area, for instance, more than three times as many working-age adults as a share of population hold bachelor's degrees (48 percent) as in the Bakersfield, CA metro area (14 percent). Moreover, a significant body of academic research suggests that cities with highly educated populations grow more rapidly over the long run, in part because human capital enables people to adapt well to changes.[8]

Given the generally smaller employment declines experienced by college-educated workers, the impact of the Great Recession on the most highly educated labor markets was generally much less severe than in other places. In fact, among the 20 large metro areas with the highest shares of college degree earners, only four experienced declines in their ratios that exceeded the national average of 1.6 percentage points: Bridgeport, Chicago, Raleigh, and San Diego (Table 1).[9]

Table 1. Change in Employment-to-Population Ratio† by Educational Attainment, 20 Metro Areas with Highest Share of College Graduates, 2007 to 2009

Metro Area††	Overall	Bach. Degree	Less than H.S.
Washington, DC-VA-MD-WV	-0.2	0.1	-0.4
Bridgeport, CT	-2.2 *	-0.9	1.5
Boston, MA-NH	-1.0 *	-0.5	2.6
San Francisco, CA	-1.0 *	-0.7	-0.8
San Jose, CA	-1.4 *	-1.9 *	1.4
Raleigh, NC	-2.1 *	-1.1	-6.2 *
Madison, WI	1.1	3.6 *	9.3 *
Minneapolis, MN-WI	-1.3 *	-1.0 *	-2.0
Austin, TX	-0.9	0.4	-3.3
Denver, CO	-1.5 *	-0.1	-4.3 *
Seattle, WA	-1.2 *	-0.1	-2.1
New York, NY-NJ-PA	-0.8 *	-0.9 *	0.3
Hartford, CT	-1.5 *	-0.5	-3.2
Baltimore, MD	0.7	0.2	-0.1
Colorado Springs, CO	-1.4	-1.3	-5.0
Portland, ME	0.0	0.8	1.0
Des Moines, IA	0.0	2.3 *	0.0
Worcester, MA	-1.3	0.3	6.1 *
Chicago, IL-IN-WI	-2.0 *	-0.8 *	-3.4 *
San Diego, CA	-2.0 *	-1.5 *	-2.0
100 Largest Metro Areas	**-1.5 ***	**-0.5 ***	**-1.8 ***
United States	**-1.6 ***	**-0.5 ***	**-2.0 ***

† Changes shown in percentage points. †† Metro area names are abbreviated.

* Change was significant at 90% confidence interval.

Source: Brookings analysis of 2007 and 2009 American Community Survey data

While these metro areas' higher shares of college-educated, less-impacted workers largely explain their better overall employment performance during the recession, the least educated workers also seemed to benefit from being in these metros. Among the 20 highest-educated metro areas, only three (15 percent) registered a significant decline in employment-to-population ratio for adults without a high school diploma. That compared with 32 of the remaining 80 metro areas (40 percent).[10] It may be that these workers

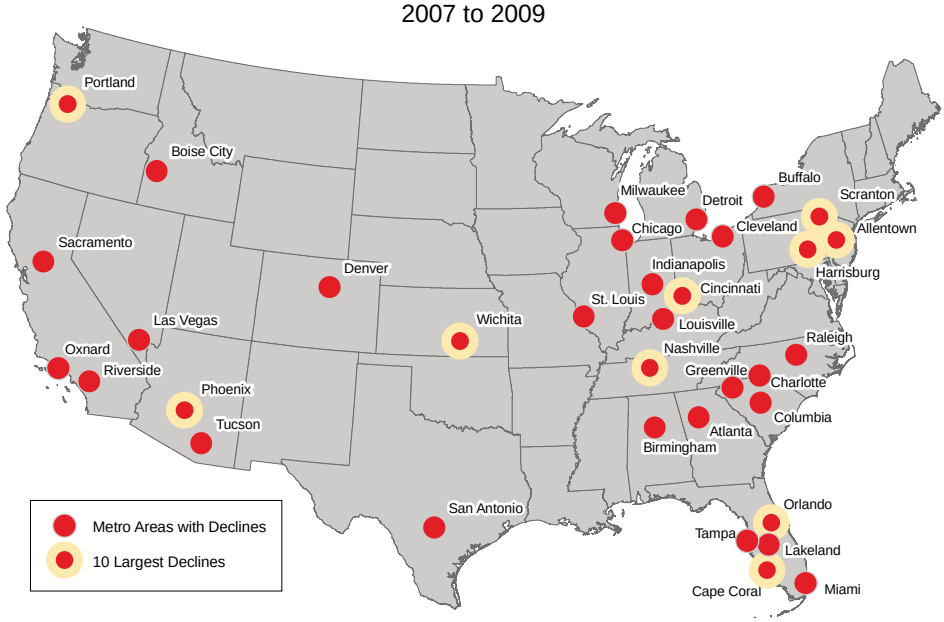
complement highly-skilled labor in the production of specific goods and services, or that high-skilled workers consume goods and services that disproportionately employ lower-skilled labor (e.g., household cleaning, restaurants, etc.). The smaller impacts of the recession on college-educated workers in these metro areas may thus have insulated their less educated workers from more severe employment declines.[11]

C. The metro areas in which less educated workers were most severely affected by the recession differed from those in which highly educated workers were most affected.

National and metro-level relationships between educational attainment and employment disguise the fact that *how* different educational groups fared during the recession depended on *where* they were located. While there was some geographic overlap between the locations where the least- and most-educated workers were affected, there were notable differences.

Workers without a high school diploma were most severely affected by the Great Recession in Sun Belt housing-bubble markets such as Cape Coral, Orlando, and Phoenix, as well as older industrial metro areas in the Northeast (especially Pennsylvania) and Midwest (Map 1). This may reflect their over-representation in these areas in heavily affected industries like construction and lower-skilled manufacturing. Notably, none of the 10 most affected metro areas for workers without a high school diploma registered a statistically significant drop in employment among the college-educated. Overall, the employment-to-population ratio for this group fell by a statistically significant margin in 35 of the 100 largest metro areas.

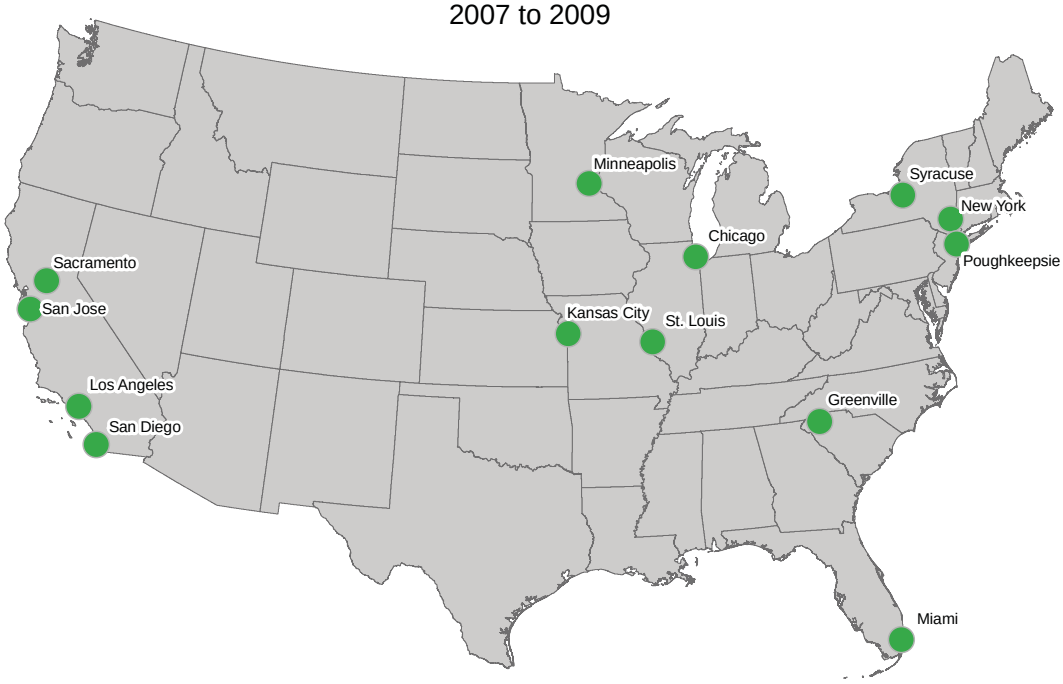
Map 1. Metro Areas Experiencing Declines in Employment for Adults Without a High School Diploma, 2007 to 2009



All changes are significant at the 90% confidence interval.
Source: Brookings analysis of 2007 & 2009 American Community Survey Data

At the other end of the educational spectrum, 13 of the 100 largest metro areas posted at least a modest decline in the employment-to-population ratio for workers with a college degree (Map 2). Of those, only five also saw employment levels drop among workers without a high school diploma.[12] New York, Los Angeles, San Jose, San Diego, and a few other large metro areas were among those that saw small dips for more-educated work-

Map 2. Metro Areas Experiencing Declines in Employment for Adults with Bachelor's Degree, 2007 to 2009



All changes are significant at the 90% confidence interval.
Source: Brookings analysis of 2007 & 2009 American Community Survey Data

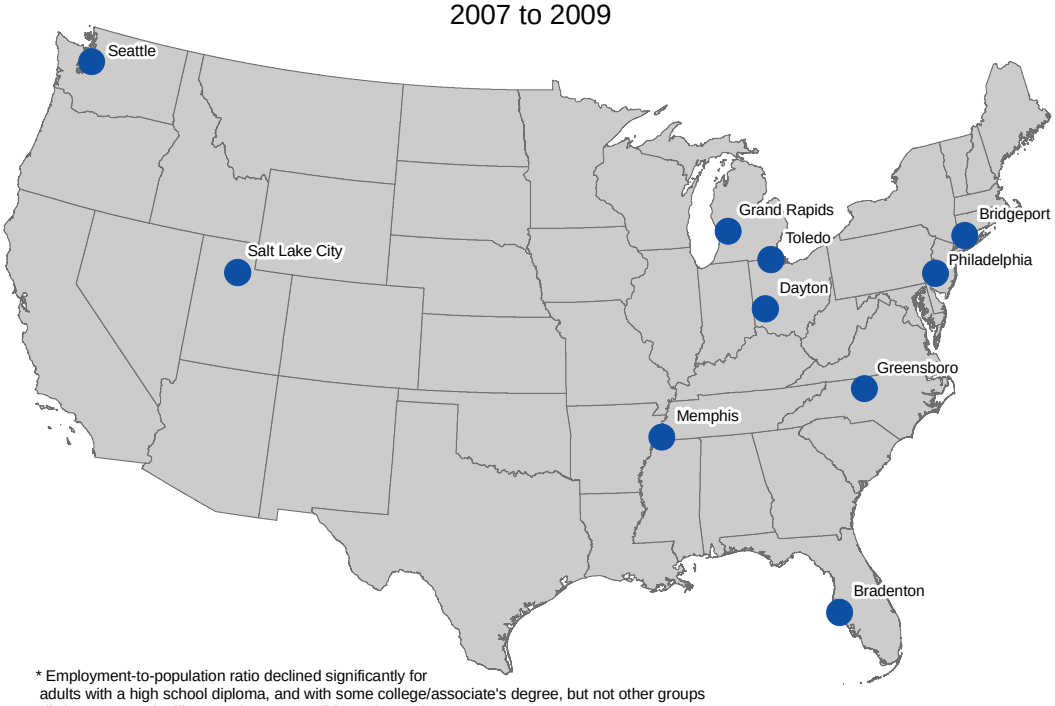
ers, while those without a high school diploma escaped significant decline.
A further 10 metropolitan areas showed evidence during the recession of a trend that some have referred to as "job polarization" (Map 3).[13] In these metro areas, the employment-to-population ratio fell significantly for workers with no more than a high school diploma, and also for those with some college or an associate's degree, while it remained unchanged (or even rose) for workers without a high school diploma and those with a college degree. The Great Recession may have continued, or accelerated, a longer-run trend in these areas of declining job opportunities in middle-skill white- and blue-collar occupations. Metro areas with concentrations in manufacturing employment, such as Toledo, Grand Rapids, Greensboro, Dayton, and Seattle, seemed especially susceptible to this outcome.

CONCLUSION

As in past recessions, higher education served as an implicit insurance policy against the most severe effects of the recent employment downturn. The share of working-age adults who were employed declined by much greater margins from 2007 to 2009 among those without a bachelor's degree than among those with a degree. And overall employment rates in the most highly educated metropolitan areas fell by smaller margins than elsewhere, including for workers without a high school diploma, suggesting that the benefits of having a highly skilled workforce during the Great Recession may have extended beyond a metro area's college-educated population alone.

This report also demonstrates that both national- and metropolitan-level trends in employment and unemployment often mask very different trajectories for different groups of workers. Categories of workers without a high school diploma, with a college degree, and somewhere in between each felt the worst impacts of the recession in somewhat different metro areas. This may be attributable to the differential impacts of the downturn by indus-

Map 3. Metro Areas Experiencing Declines in Employment for Middle-Skill* Workers Only, 2007 to 2009



* Employment-to-population ratio declined significantly for adults with a high school diploma, and with some college/associate's degree, but not other groups
All changes are significant at the 90% confidence interval.
Source: Brookings analysis of 2007 & 2009 American Community Survey Data

try, the degree to which different areas of the country specialized in those industries, and the educational profile of the workers in that industry. Construction workers in Phoenix, many of whom were lower-educated immigrants from Mexico and Latin America, suffered significant setbacks as the housing bubble burst and projects dried up. But those impacts were not nearly as severe in industries in Phoenix that employ mostly college-educated workers, such as education, information technology, and health care. In San Jose, by contrast, setbacks in the information and finance industries may have affected highly educated workers more acutely than other groups. And in Grand Rapids, manufacturing job losses hit middle-skilled workers hard, but spared higher- and lower-skilled workers by comparison.

Metropolitan labor markets have not behaved uniformly, even in the face of the most severe national economic downturn in generations. As a result, national and state policies to help workers get back on their feet must permit local and regional officials to tailor their responses to the particular groups most impacted by the downturn. Policies might reasonably prioritize assistance to displaced workers with lower levels of education, who may have a smaller economic cushion and more limited job opportunities for the future. But workers with higher levels of education and skills, even those with a college education in some cases, may need special assistance and guidance to re-integrate into the labor market in regions where they have borne the brunt of the downturn.

ENDNOTES

1. The author thanks Brookings colleagues Carey Nadeau for research assistance, and Howard Wial for comments on the draft report.

2. Michael Mandel, "This Time, the Downturn is Dressed in Pinstripes." *Business Week*, October 1, 1991, pp. 130–31; Bob Cox, "Underemployed and Overanxious in 'White-Collar' Recession." *Washington Post*, March 22, 1991, p. H02; Kemba J. Dunham and Greg Ip, "Work Shift: Slow Economy Takes Unusually Heavy Toll on White-Collar Jobs." *Wall Street Journal*, Nov 5, 2001, p. A1; Joel Dresang, "White Collar Workers Hit By Recession." *Milwaukee Journal Sentinel*, Feb 15, 2009.

3. Randall W. Eberts and Erica L. Groshen, "Is This Really a 'White-Collar Recession?'" Economic Commentary, Federal Reserve Bank of Cleveland, March 15, 1991. Conor Dougherty, "College Grads Expand Lead in Job Security." *Wall Street Journal*, September 20, 2010, p. A1; Michael Greenstone, "Evidence from May's Employment Numbers on the Benefits of Education" (Washington: Brookings Institution, 2010).

4. Howard Wial and Richard Shearer, "MetroMonitor: Tracking Economic Recession and Recovery in America's 100 Largest Metropolitan Areas" (Washington: Brookings Institution, 2010).

5. Unlike the ACS, the CPS is designed specifically to elicit information on labor force characteristics of the population. Fortunately, the two surveys yield very similar measures of the employment-to-population ratio in major metro areas. Among the 54 metro areas included in BLS's Geographic Profile of Employment and Unemployment for 2009 (which is derived from CPS data), the average difference between the employment-to-population ratio for adults age 16 and over reported by the ACS and the Profile was only 1.3 percentage points, or a little more than 2 percent of the average ratio of 61 percent in those metro areas.

6. Like the CPS, the ACS questionnaire asks respondents to report on their employment situation in the week before they filled out the survey. The Census Bureau combines and weights monthly ACS data to produce a portrait of an entire calendar year. See Brookings Metropolitan Policy Program, *The State of Metropolitan America: On the Front Lines of Demographic Transformation* (Washington: Brookings Institution, 2010) for further details on survey methodology.

7. Lawrence Katz, "Long-Term Unemployment in the Great Recession." Testimony for the Joint Economic Committee, U.S. Congress, April 29, 2010.

8. See, e.g., Edward L. Glaeser and Albert Saiz, "The Rise of the Skilled City." *Brookings-Wharton Papers on Urban Affairs* 5(2004): 47–94.

9. Across the 100 largest metropolitan areas, there was no statistically significant relationship between the share of the metro area's working-age population with a bachelor's degree and the change in its total employment-to-population ratio from 2007 to 2009. The lack of a relationship may reflect the impact of a couple of unique regional economic circumstances. In Texas, a number of less educated metro areas such as McAllen, San Antonio, and El Paso were mostly unaffected by the recession, reflecting in part the state's lack of speculative mortgage lending practices that helped usher in the housing crash in other parts of the country. See Alyssa Katz, "The Lone Star Secret: How Texas Avoided the Worst of the Real Estate Meltdown." *The Big Money*, March 30, 2010. The metro areas of Baton Rouge and New Orleans, both of which also rank among the bottom 20 metro areas on educational attainment, were buoyed by continued federal investment to promote southeastern Louisiana's recovery from the aftermath of Hurricane Katrina in 2005. See Amy Liu and Alison Plyer, "The New Orleans Index at Five: Measuring Greater New Orleans' Progress Toward Prosperity" (Washington and New Orleans: Brookings Institution and Greater New Orleans Data Center, 2010). A statistically significant, though not particularly strong, relationship exists between educational attainment and employment change in large metro areas when Texas and Louisiana metros are excluded.

10. The smaller shares of adults who lack high school diplomas in these highly educated metros may have yielded smaller sample sizes for the ACS employment estimates, which in turn could reduce the chances that an estimated decline in the employment-

to-population ratio for that group would be statistically significant. However, the median change in the employment rate for less educated workers in these 20 large metro areas regardless of statistical significance was -0.6 percentage points, versus -3.0 percentage points in the other 80 large metro areas.

11. Notably, workers in the middle of the skill distribution—those with a high school diploma but no college, or some college or an associate's degree but not a bachelor's degree—were as likely to suffer employment declines in these metro areas as elsewhere. In 12 of the 20 metro areas, employment-to-population ratios for adults with no more than a high school education declined significantly (versus 63 out of 100), while ratios declined significantly for adults with some college or an associate's degree in 14 of the 20 (versus 46 out of 100).

12. Across the 100 largest metro areas, the correlation coefficient between changes in employment-to-population ratios for adults without a high school diploma, and adults with a bachelor's degree, from 2007 to 2009 was 0.31. The five metro areas in which employment rates for both workers without a high school diploma and with a bachelor's degree dropped by a statistically significant margin were Chicago, Greenville, Miami, Sacramento, and St. Louis.

13. David Autor, "The Polarization of Job Opportunities in the U.S. Labor Market" (Washington: Center for American Progress and Brookings Institution, 2010).

APPENDIX: PERCENTAGE POINT CHANGE IN CIVILIAN EMPLOYMENT-TO-POPULATION RATIO, BY EDUCATIONAL ATTAINMENT, 100 LARGEST METRO AREAS, 2007 TO 2009

	Less than High School Diploma	High School Diploma	Some College or Associate's Degree	Bachelor's Degree or Higher	All Adults
Akron, OH	-1.1	-4.3*	-1.2	1.1	-1.7*
Albany-Schenectady-Troy, NY	-3.9	-0.1	-0.7	-0.7	-0.3
Albuquerque, NM	2.9	1.1	-2.2	1.7	0.6
Allentown-Bethlehem-Easton, PA-NJ	-8.7*	-1.3	-2.5*	-1.0	-2.2*
Atlanta-Sandy Springs-Marietta, GA	-5.1*	-4.5*	-3.1*	-0.8	-2.7*
Augusta-Richmond County, GA-SC	-3.1	-4.3*	-1.6	1.3	-1.3
Austin-Round Rock, TX	-3.3	-1.1	-2.0*	0.4	-0.9
Bakersfield, CA	0.3	-0.1	-3.6*	0.2	-0.9
Baltimore-Towson, MD	-0.1	-0.9	1.7*	0.2	0.7
Baton Rouge, LA	3.3	2.2*	-1.3	-0.2	1.0
Birmingham-Hoover, AL	-5.0*	-3.5*	-2.2	0.2	-1.4
Boise City-Nampa, ID	-6.8*	-10.9*	-3.2	-2.9	-5.4*
Boston-Cambridge-Quincy, MA-NH	2.6	-4.0*	-1.0	-0.5	-1.0*
Bradenton-Sarasota-Venice, FL	-4.2	-6.4*	-4.7*	-3.0	-4.6*
Bridgeport-Stamford-Norwalk, CT	1.5	-5.4*	-4.0*	-0.9	-2.2*
Buffalo-Niagara Falls, NY	-4.3*	1.2	-2.0	2.7*	0.3
Cape Coral-Fort Myers, FL	-10.9*	-3.9*	-5.8*	-3.4	-5.1*
Charleston-North Charleston-Summerville, SC	-2.9	-0.2	-3.4	-0.5	-1.3
Charlotte-Gastonia-Concord, NC-SC	-3.6*	-4.3*	-2.4*	-0.5	-2.1*
Chattanooga, TN-GA	-0.5	-1.7	-2.6	-2.0	-1.4
Chicago-Naperville-Joliet, IL-IN-WI	-3.4*	-3.2*	-2.9*	-0.8*	-2.0*
Cincinnati-Middletown, OH-KY-IN	-7.0*	-3.4*	-1.9*	-0.2	-2.1*
Cleveland-Elyria-Mentor, OH	-5.3*	-4.8*	-3.5*	-1.1	-3.3*
Colorado Springs, CO	-5.0	-0.9	-3.1*	-1.3	-1.4
Columbia, SC	-6.3*	-1.9	-2.0	-1.6	-2.0*
Columbus, OH	-2.9	-3.2*	-1.9	0.3	-1.2*
Dallas-Fort Worth-Arlington, TX	-1.2	-1.9*	-0.7	0.2	-0.7*
Dayton, OH	-2.3	-3.2*	-4.1*	0.7	-2.3*
Denver-Aurora-Broomfield, CO	-4.3*	-3.1*	-2.0*	-0.1	-1.5*
Des Moines-West Des Moines, IA	0.0	-1.9	-2.1	2.3*	0.0
Detroit-Warren-Livonia, MI	-5.3*	-5.8*	-5.8*	-0.3	-4.0*
El Paso, TX	5.1*	0.9	3.6*	2.8*	3.5*
Fresno, CA	-2.4	-3.6*	-2.6	0.0	-2.1*
Grand Rapids-Wyoming, MI	5.2	-6.0*	-2.4*	-1.5	-2.1*
Greensboro-High Point, NC	-1.1	-3.9*	-4.7*	-0.3	-2.4*
Greenville-Mauldin-Easley, SC	-5.1*	-7.2*	-3.0	-2.6*	-3.8*
Harrisburg-Carlisle, PA	-7.0*	-3.1*	-2.2	1.4*	-1.8*
Hartford-West Hartford-East Hartford, CT	-3.2	-2.1	-3.1*	-0.5	-1.5*
Honolulu, HI	1.4	-0.1	3.3	1.8	2.0*
Houston-Sugar Land-Baytown, TX	1.0	-2.0*	-0.1	0.4	0.0
Indianapolis-Carmel, IN	-5.6*	-3.8*	-3.4*	-0.3	-2.6*
Jackson, MS	-6.0	-11.8*	-1.4	1.0	-3.9*
Jacksonville, FL	-2.1	-3.6*	0.1	-0.7	-1.1
Kansas City, MO-KS	1.7	0.4	-2.9*	-0.9*	-0.8*
Knoxville, TN	-2.9	-4.6*	-1.6	-0.1	-1.8
Lakeland-Winter Haven, FL	-5.3*	-4.9*	-2.7	1.2	-3.2*
Las Vegas-Paradise, NV	-5.6*	-1.5*	-2.3*	-0.8	-2.2*
Little Rock-North Little Rock-Conway, AR	-2.4	-3.8*	-1.0	0.9	-1.2
Los Angeles-Long Beach-Santa Ana, CA	0.1	-1.8*	-1.6*	-0.9*	-0.9*
Louisville-Jefferson County, KY-IN	-5.7*	-4.1*	-0.4	-0.7	-1.7*

Madison, WI	9.3*	-2.7*	-1.5	3.6*	1.1
McAllen-Edinburg-Mission, TX	1.2	-0.8	4.1	5.0*	2.3*
Memphis, TN-MS-AR	1.0	-4.7*	-5.3*	0.2	-2.8*
Miami-Fort Lauderdale-Pompano Beach, FL	-3.1*	-5.3*	-2.6*	-1.7*	-3.2*
Milwaukee-Waukesha-West Allis, WI	-3.0*	-2.0*	-1.6	-0.1	-1.2*
Minneapolis-St. Paul-Bloomington, MN-WI	-2.0	-2.7*	-0.7	-1.0*	-1.3*
Modesto, CA	3.8	-3.4	-3.1	-2.1	-1.4
Nashville-Davidson--Murfreesboro--Franklin, TN	-9.2*	-1.7	-3.1*	0.1	-1.6*
New Haven-Milford, CT	-3.3	-2.6*	-2.7	3.3*	-0.8
New Orleans-Metairie-Kenner, LA	-1.4	-0.5	0.6	-0.6	0.2
New York-Northern New Jersey-Long Island, NY-NJ-PA	0.3	-1.6*	-1.1*	-0.9*	-0.8*
Ogden-Clearfield, UT	-4.1	-2.1	-1.9	0.3	-1.4
Oklahoma City, OK	3.1*	-2.5*	-1.6	1.2*	-0.5
Omaha-Council Bluffs, NE-IA	3.0	2.9*	-1.8	0.5	0.5
Orlando-Kissimmee, FL	-7.1*	-6.7*	-2.2*	-0.9	-3.6*
Oxnard-Thousand Oaks-Ventura, CA	-5.2*	-1.8	-3.2*	0.3	-2.0*
Palm Bay-Melbourne-Titusville, FL	0.4	-5.7*	-2.3	0.8	-2.3*
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	-1.5	-2.6*	-3.0*	-0.6	-1.5*
Phoenix-Mesa-Scottsdale, AZ	-7.5*	-2.5*	-2.9*	-0.8	-2.6*
Pittsburgh, PA	-3.2	-2.5*	-1.0	0.1	-1.0*
Portland-South Portland-Biddeford, ME	1.0	1.9	-4.2*	0.8	0.0
Portland-Vancouver-Beaverton, OR-WA	-7.5*	-5.3*	-3.5*	-0.9	-3.0*
Poughkeepsie-Newburgh-Middletown, NY	4.1	-3.5*	1.5	-3.0*	-0.9
Providence-New Bedford-Fall River, RI-MA	-3.2	-2.8*	-1.4	0.9	-0.9
Provo-Orem, UT	-0.3	-7.6*	-1.2	0.1	-1.9*
Raleigh-Cary, NC	-6.2*	-3.4*	-2.8*	-1.1	-2.1*
Richmond, VA	-3.3	0.0	-2.4	-1.0	-1.1
Riverside-San Bernardino-Ontario, CA	-2.0*	-4.4*	-3.3*	-1.2	-2.7*
Rochester, NY	-1.2	-0.9	-0.8	0.1	-0.2
Sacramento--Arden-Arcade--Roseville, CA	-4.3*	-4.9*	-4.6*	-1.9*	-3.6*
Salt Lake City, UT	1.2	-5.0*	-3.6*	0.7	-2.1*
San Antonio, TX	-3.6*	1.5	0.6	-1.6	-0.1
San Diego-Carlsbad-San Marcos, CA	-2.0	-2.5*	-2.7*	-1.5*	-2.0*
San Francisco-Oakland-Fremont, CA	-0.8	-1.4	-1.6*	-0.7	-1.0*
San Jose-Sunnyvale-Santa Clara, CA	1.4	-0.4	-3.0*	-1.9*	-1.4*
Scranton--Wilkes-Barre, PA	-7.5*	-3.9*	-2.0	-1.1	-2.5*
Seattle-Tacoma-Bellevue, WA	-2.1	-2.6*	-1.8*	-0.1	-1.2*
Springfield, MA	-2.5	-1.5	-2.4	0.7	-1.1
St. Louis, MO-IL	-4.2*	-2.9*	-2.6*	-2.0*	-2.0*
Stockton, CA	0.2	1.4	-3.8	0.3	-0.7
Syracuse, NY	-1.6	-1.6	-1.1	-3.2*	-1.1
Tampa-St. Petersburg-Clearwater, FL	-5.1*	-6.1*	-3.0*	-1.0	-3.7*
Toledo, OH	-1.9	-6.9*	-4.3*	-1.0	-4.4*
Tucson, AZ	-6.0*	-5.2*	-2.5	0.9	-3.1*
Tulsa, OK	-3.7	-1.5	0.2	0.9	-0.3
Virginia Beach-Norfolk-Newport News, VA-NC	2.1	-1.3	-0.3	1.1	0.2
Washington-Arlington-Alexandria, DC-VA-MD-WV	-0.4	-1.3*	-0.4	0.1	-0.2
Wichita, KS	-10.1*	-0.6	1.5	-1.4	-0.8
Worcester, MA	6.1*	-4.4*	-3.4*	0.3	-1.3
Youngstown-Warren-Boardman, OH-PA	-1.1	-2.1	-3.9*	-1.5	-2.5*
100 Largest Metro Areas	**-1.8***	**-2.8***	**-2.0***	**-0.5***	**-1.5***
United States	**-2.0***	**-2.8***	**-2.1***	**-0.5***	**-1.6***

*For adults aged 25 to 64. * Change is significant at the 90% confidence interval. Source: Brookings analysis of 2007 and 2009 American Community Survey data*

About the State of Metropolitan America

The State of Metropolitan America is a signature effort of the Brookings Metropolitan Policy Program that portrays the demographic and social trends shaping the nation's essential economic and societal units—its large metropolitan areas—and discusses what they imply for public policies to secure prosperity for these places and their populations.

Reports in the State of Metropolitan America series focus on five key dimensions of demographic transformation in the United States through the lens of these large metro areas: growth, diversity, aging, educational attainment, and income.

Visit the State of Metropolitan America, including an interactive demographic mapping tool for the nation's 50 states, 100 largest metro areas, and their cities and suburbs online at: **www.brookings.edu/metroamerica**

The Brookings Metropolitan Policy Program thanks the Rockefeller Foundation for its generous financial and intellectual support of the State of Metropolitan America project.

About the Metropolitan Policy Program at the Brookings Institution

Created in 1996, the Brookings Institution's Metropolitan Policy Program provides decision makers with cutting-edge research and policy ideas for improving the health and prosperity metropolitan areas including their component cities, suburbs, and rural areas. To learn more visit: **www.brookings.edu/metro**

BROOKINGS

1775 Massachusetts Avenue NW
Washington, DC 20036-2188
telephone 202.797.6000
website www.brookings.edu

Metropolitan Policy Program
at BROOKINGS
telephone 202.797.6139
fax 202.797.2965
website www.brookings.edu/metro