

# The Young and Restless in a Knowledge Economy

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## Executive Summary

The U.S. is on the verge of a seismic shift in labor markets, and fault lines will emerge to threaten a city's economic future unless it succeeds in attracting the young, college-educated workers who propel today's knowledge-based economy.

It is difficult to overstate the impact that the college-educated 25 to 34 year-olds we call the Young and Restless will have on a city's future prosperity. They are well-educated, adaptable, mobile and relatively inexpensive, comprising an important part of the so-called creative class. With rising demand for their skills and with competition for them now on a global scale, cities must be magnets for these highly-coveted workers or they will fail, because in the knowledge economy, it is the creativity and talent inherent in a city's workforce that will shape its economic opportunities.

**The calculus of urban economic success has changed. Talent, particularly well-educated young adults, now plays a decisive role.**

The immediate challenge for cities is to attract young, college-educated workers who, more than any previous generation, have greater mobility, and they use it, moving to cities with the assets, ethos and opportunities that they seek. In understanding these young, educated workers, cities have their best chance of succeeding in the most competitive economic environment in history.

But, first, cities have to shake off the complacency that comes from four decades of an ever expanding, seemingly inexhaustible labor force. For decades, the U.S. economy has been fueled by increases in the size and improvements in the quality of the nation's workforce: the tide of baby boomers entering the labor force, the doubling of women's participation in paid work outside the home and the impact of the number of college-educated adults increasing from 10 million to 50 million over the past four decades.

But, over the next decade, all of the forces that converged to create our abundance of talent will collapse or reverse. This research on the Young and

Restless identifies trends that are early warning signs for our nation's cities and concludes that:

- Young educated people are the most mobile people in the U.S. population.
- Young educated people are an indicator of a city's economic vitality, but they are also a key contributor to economic vitality.
- People in the 25 to 34 year-old group are the most entrepreneurial in our society.
- For the first time, women in this age group are better educated than men, making them key to developing a base of talent.
- Place matters: young educated people are being disproportionately drawn to certain cities, and once in them, they are more likely to choose vibrant, close-in neighborhoods than other Americans.

## During the 1990s, the preference of young adults for close-in neighborhoods increased sharply.

The importance of these young, educated workers will become increasingly apparent as the baby boom generation, now in its peak earning years, retires in substantial numbers in the next few years; women's labor force participation—now nearly the same as men's—won't increase further; and the college graduation rate is hitting a plateau, with no sign of a national or local commitment to increase capacity dramatically.

These unfolding changes demand a new calculus for cities' economic development. Both nationally and locally, we have taken for granted the ready supply of workers, but companies and cities continue to do so at their own peril. Already, signs of shortage are surfacing in industries and regions that depend on highly-skilled, long-tenured employees—skilled nursing shortages are widespread, skilled manufacturing workers are in tight supply and the entire utility industry faces a huge brain drain in the years ahead.

Also, these talented young adults are not simply workers. They are also more likely to be entrepreneurs, forming the next generation of growth companies that power metropolitan and national growth.

Once rooted in place, the Young and Restless represent a tremendous economic asset for a region.

Not surprisingly, then, competition for these talented young adults is heating up. That competition is complicated by the fact that those now in their late 20s and early

30s are choosing to live in different places than the young adults who preceded them. Some of the pattern of change is accounted for by overall national movement to the South and West. But young adults are disproportionately favoring certain metropolitan areas. The growth in the number of college-educated young adults is fueling prosperity in places like Austin, Charlotte, Atlanta, Portland and Phoenix. The growing concentration of talented young people in fewer and fewer cities makes those cities even more attractive places for talented people, creating a powerful gravitational pull for other young people and forming a positive feedback loop.

Even within metropolitan areas, place is playing an increasingly important role. During the 1990s, the preference of young adults for close-in neighborhoods increased sharply. In 1990, 25 to 34 year-olds were about 10 percent more likely than other residents in the metropolitan area to live in the close-in neighborhoods within 3 miles of the region's center. By 2000, these young adults were more than 30 percent more likely than other metropolitan residents to live in these close-in neighborhoods. Between 1990 and 2000, the likelihood that young adults would choose to live in a close-in neighborhood increased in every one of the nation's 50 largest metropolitan areas.

## Urban leaders need to emphasize talent and those aspects of cities that make them attractive to talented workers.

As urban leaders consider how to make their cities more appealing to young adults, they must keep in mind that young adults are much more diverse than the overall U.S. population. The fastest growing group in this age cohort is young Hispanic-American adults, who now constitute one in five 25 to 34 year-olds living in the nation's 50 largest metropolitan areas. The number of Asian-Americans has increased as well. The change in the number of African-American young adults has been smaller (although precise measurement is complicated by the change in definitions by the Census). In general, this age group is becoming more dispersed in nearly all metropolitan areas, and the traditional regional concentrations of minority groups—African-Americans in the South and industrial Northeast and Midwest, Asian-Americans in the West and Hispanic-Americans in the Southwest—have become less pronounced.

Urban leaders must also focus on the influential new role that young women are playing in the economic success of cities. For the first time, 25 to 34 year-old women are more likely than their male counterparts to have a four-year degree. (As recently as 1960, men were more than twice as likely to have bachelor's degrees.) Because women, particularly those with the highest educational attainment, are remaining single longer, the location decisions of talented, single young women are increasingly influential to metropolitan economic success.

Taken together, this fundamental shift in labor markets, the growing demand for talent in our knowledge-based economy and the distinctive location preferences of young adults calls for a new approach to metropolitan economic development in the years ahead. The focus of urban leaders must shift to the development, attraction and retention of talent. It is the critical resource driving and enabling metropolitan economic growth.

As urban leaders work to develop new economic strategies for the 21st Century, they will increasingly need to emphasize talent and those aspects of cities that make them attractive to talented workers. ■

## Introduction

For too long, too little attention has been focused on people as the critical ingredient in economic success. In our growing knowledge economy the talent and creativity of those around us will increasingly be decisive in shaping economic opportunities. Prosperity now depends less and less on access to physical resources—coal, iron ore, oil, timber, deep draft ports—and more and more on the ability to create economically useful new ideas. And ideas, unlike natural resources, are not simply discovered or inherited; they are created—created by people. In a global economy, physical inputs and output and financial capital can easily be moved to places where they may be most productively used.

Talented people obey a different calculus, choosing places to live based not solely on productive considerations, but on amenities and consumption opportunities, community, social and family considerations.

## We are most mobile in our late adolescence and early adulthood. As we age, we move less frequently.

Americans are mobile, but there is a distinctive life cycle to individual mobility. We are most mobile in our late adolescence and early adulthood, as we leave the family nest, pursue higher education, explore the world of work and find ourselves as adults. But as we age, we move less frequently, and we begin building attachments to place—friends, routines, a network of associates, a resume, a mortgage and, typically, a family. All this “place-specific capital” progressively anchors us in particular locations as we age. The likelihood of moving across state or metropolitan lines falls roughly by half between one’s 25th and 35th birthdays and continues to decline right through retirement age.

Consequently, the best opportunity to attract talent and to root it in place occurs when people are in their young adult years, their 20s and early 30s. Our study of this particular group of people, whom we dub the Young and Restless, is a tale that reflects many of the key economic trends of the past decade and foreshadows the likely path of economic trends of the next two decades.

This paper describes the role of the Young and Restless in shaping economic prosperity in U.S. metropolitan areas. Our analysis unfolds in five parts. First, we discuss the importance of talented young workers to metropolitan economic success and how this is likely to be accentuated in the next two decades. Second, we review the broad demographic trends that are playing out in this age group. Third, we focus on the critical role of the most talented young adults, those who have completed a four-year college degree. Fourth, we examine which neighborhoods young adults are choosing in different metropolitan areas. We conclude with some recommendations for how this information can be incorporated into the work of urban leaders. ■

## The Economic Importance of the Young and Restless

The young adult population, which we define as persons between 25 and 34 years of age, plays a particularly important role in shaping regional economic growth and prosperity. The mid-20s and early 30s represent an age when most persons have completed their formal education, have started pursuing careers (or developing a formative work history) and are finding partners and starting families. While persons in their early 20s, particularly those with a four-year degree or higher level of education, are the most mobile age group in our society, the likelihood of moving to another state or metropolitan area declines sharply as people move into their early 30s. Consequently, the best opportunity to attract the population that will provide the workforce—the human capital—for a region's economic future is when those persons are young adults.

**One of the strongest predictors of income growth in metropolitan areas over the past decade is the level of education of the local population.**

Young workers are attractive to prospective employers for a variety of reasons. Today's 25 to 34 year-olds are more likely to have a college degree than their peers of one or two decades ago. While they have less work experience than their older peers, young workers have what economists term "recent vintage human capital." Less of what they learned in school has been made obsolete by changes in markets and technologies. Compared to baby boomers, for example, today's recent college graduates have always had computers. Wireless phones, globalization and the Internet are all familiar concepts. And while they lack the long resumes of their elders, this has two important advantages for employers. First, young workers frequently are still exploring career options and are still relatively flexible about the industries and occupations they will consider. Second, young workers can be hired more cheaply than their more experienced counterparts.

The importance of education to economic success has increased dramatically in the past two decades. The college/high school wage premium—the amount by which the average earnings of a person with a bachelor's degree exceed those

of a person with only a high school diploma, controlling for age, marital status, race and ethnicity—has nearly doubled from about 20 percent in the late 1970s to more than 40 percent today (Economic Policy Institute, 2005). What is true for individuals is also true for metropolitan areas. One of the strongest predictors of income growth in metropolitan areas over the past decade is the level of education of the local population. Places with a well-educated population have seen significantly greater growth in per capita income. The per capita income of the ten best-educated metropolitan areas grew 1.8 percent annually over the 1990s; the per capita income of the ten least well-educated large metropolitan areas grew only 0.8 percent (Gottlieb & Fogarty, 2003). A comprehensive statistical analysis of the causes of metropolitan growth showed that of all the variables examined, over the 1990s educational levels were the single biggest driver of economic growth. In particular, the percentage of adults with college degrees proved to be highly positive and significant for population, income, and wage growth, both at the city and at the MSA level (Weissbourd, 2004).

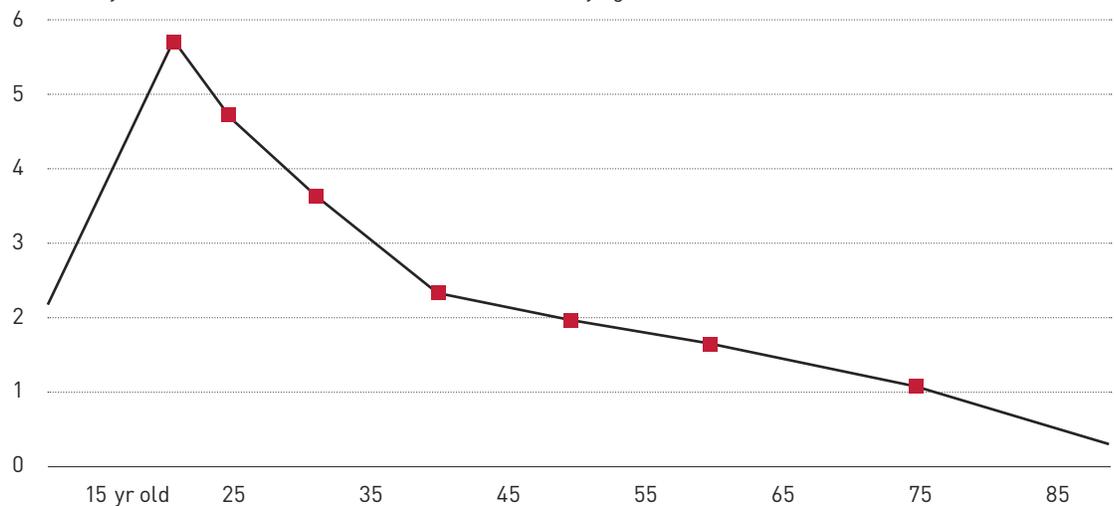
Young adults are the most mobile people in the American population. Over the five-year period from 1995 to 2000, some 6.6 million 25 to 34 year-olds moved from one metropolitan area to another.

Figure A

**Mobility of Young Adults**

Young Adults Most Likely to Move Across State Lines

Probability of an interstate move (Percent), 2002 to 2003, by age



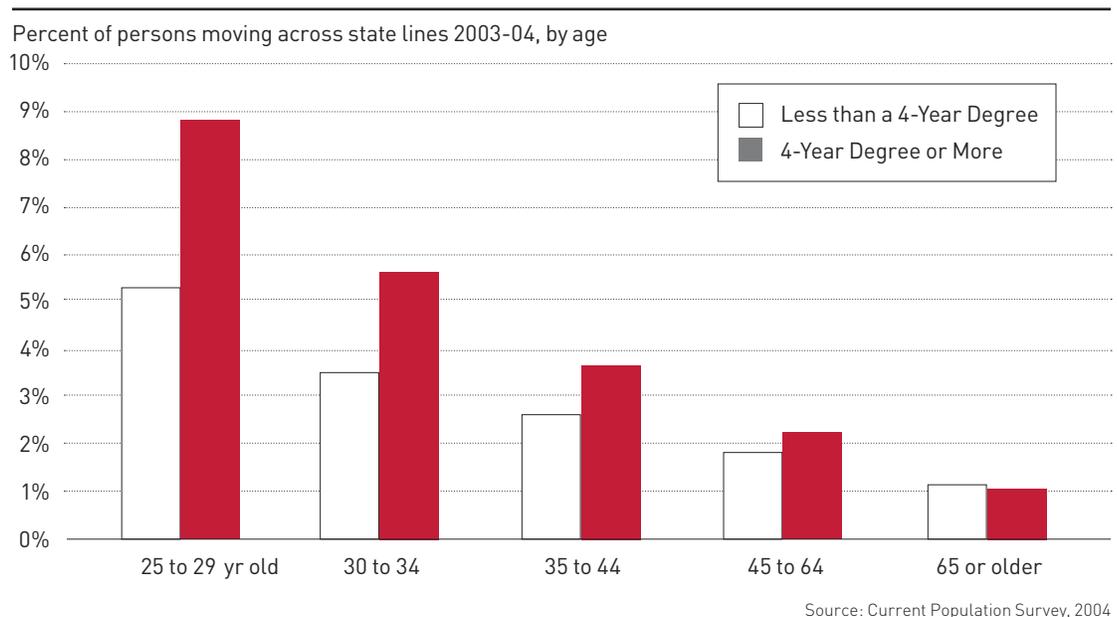
Source: Census Bureau

Those with the highest levels of education are the most likely to move. Careful studies of migration show that young adults with college degrees are the most likely to move and also tend to move the greatest distance. An analysis of the National Longitudinal Survey of Young Adults showed that about 19 percent of those with a high school degree changed their state of residence after high school, compared with nearly 37 percent of those with a bachelor's degree and 45 percent of those with advanced degrees (Kodrzycki, 2001). The college-educated are the most likely to move across state lines in every age group, and nearly 9 percent of all college-educated 25 to 34 year-olds move across state lines each year.

Figure B

**Mobility of College-Educated Young Adults**

College-Educated 25 to 34 Year-Olds Most Likely to Move



It's hard to generalize about the reasons that people move. Employment opportunities, family factors and housing are the most frequently cited reasons for moving (Schachter, 2004). While economic growth is still an important determinant of migration, many young adults, particularly the well-educated, seem to be putting a higher priority on quality of life factors than economic ones. An analysis of movement patterns of young adults showed that well-educated persons were actually more likely to move to a place with slower job growth than the place they left almost 60 percent of the time (Kodrzycki, 2001). This evidence buttresses the conclusions of Richard Florida (2002) who argues that talented workers are increasingly drawn to amenities, and also that of Edward Glaeser, who notes that the decisive economic advantage of cities increasingly derives from the kinds of public and private consumption opportunities they provide (Glaeser, Kolko, & Saiz, 2000).

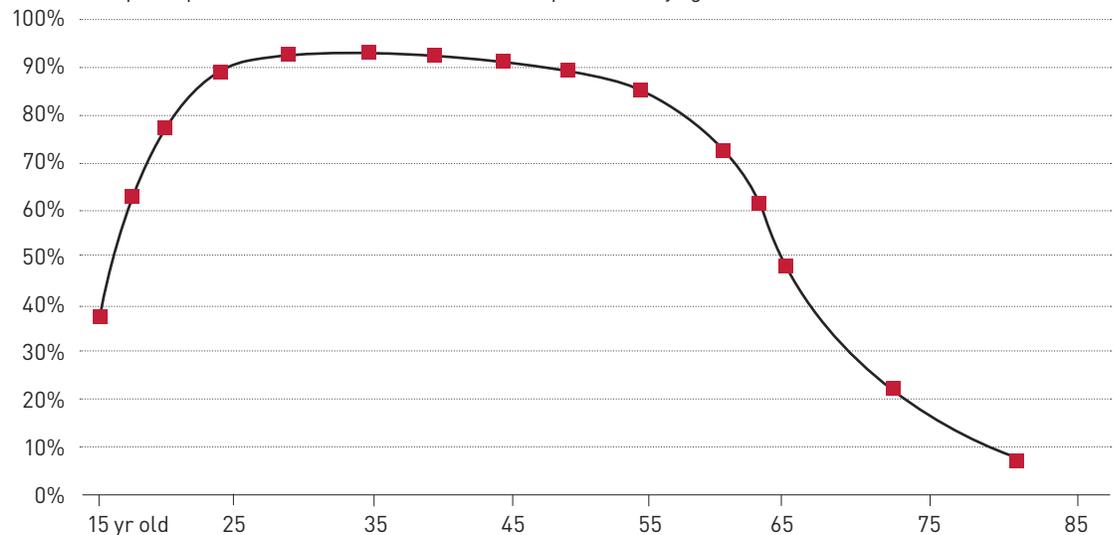
Young adults are also particularly likely to be in the labor force. By the time they have turned 25, most young adults have completed their formal education and are actively involved in the workforce. The labor force participation rate (the proportion of persons working or actively looking for work) for men peaks in their early 30s. It is somewhat lower for women because of child-bearing and child-rearing.

Figure C

**Labor Force Participation**

Labor Force Participation Peaks in Early 30s

Labor force participation rate (Percent) for white, non-Hispanic men by age, 2002



Source: Bureau of Labor Statistics

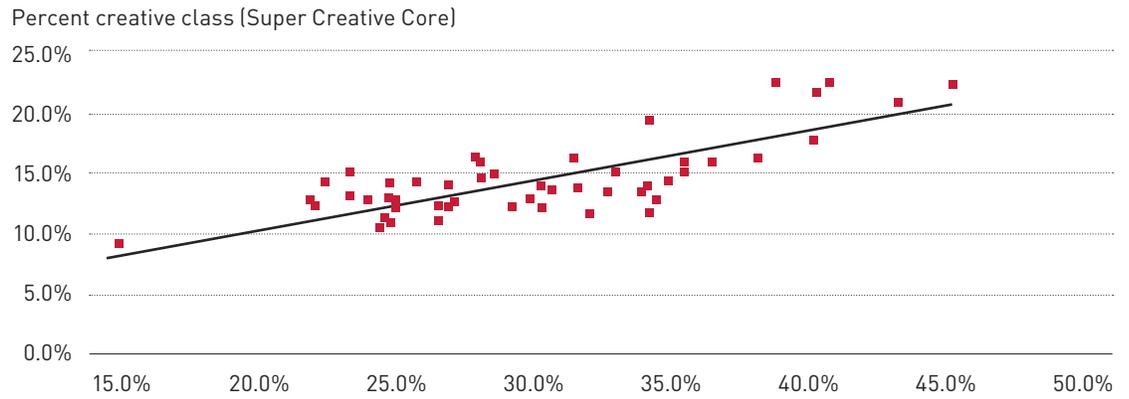
Richard Florida's book "The Rise of the Creative Class" has focused considerable attention on the important role that people in creative occupations play in driving the economic success of many metropolitan areas (Florida, 2002). Florida's measures classify about a third of all U.S. workers—most managers, educators, health professionals, as well as artists, engineers, architects, authors and accountants—as members of the creative class. Florida highlights the important role of the "super creative core" list of occupations.

Our data show there is a strong correlation at the metropolitan level between places that have a strong super creative core and places that have relatively large numbers of talented young adults. As Figure 4 shows, metropolitan areas with a relatively high fraction of 25 to 34 year-old workers in the super-creative core also have the highest young adult college attainment rate. (The correlation coefficient between these two series is .81.) Because they are mobile and adaptable, these college-educated 25 to 34 year-olds are the part of the creative class that is, in essence, up for grabs.

Figure D

**Correlation of Creative Class and College-Educated Young Adults**

Creative Class and College-Educated Young Adults Are Closely Correlated



College attainment rate for 25 to 34 year-olds

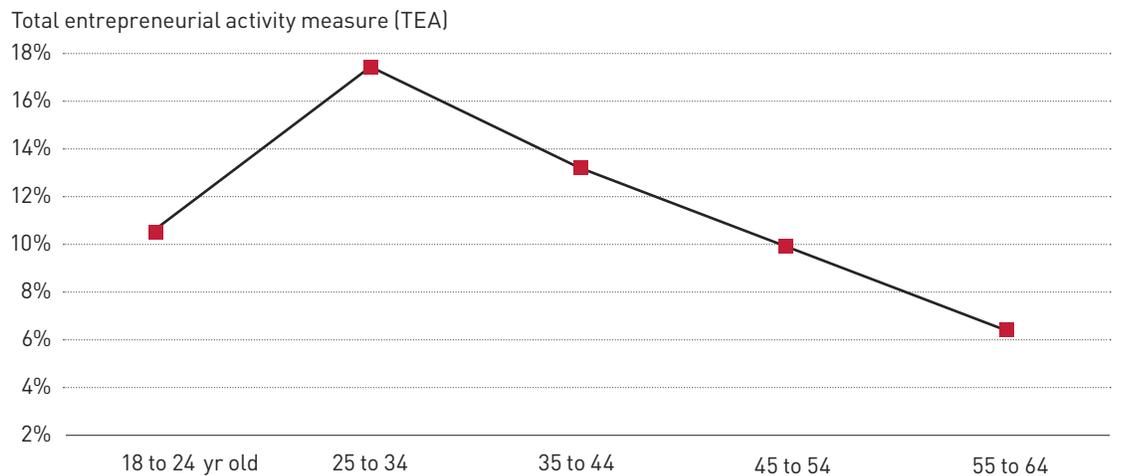
Source: Impresa calculations from 2000 Census data

The most obvious and direct economic impact of the Young and Restless is their contribution to the labor supply. A less predictable, but equally important contribution is likely to come from the new businesses started by young adults. Keep in mind that many of the most significant new enterprises in the U.S. were started by iconoclastic entrepreneurs in their 20s, Michael Dell, Steve Jobs, and Bill Gates, to name just three. National surveys of entrepreneurship show people in the 25 to 34 year-old age group are the most entrepreneurial in our society.

Figure E

**Entrepreneurship among Young Adults**

Entrepreneurship Highest among 25 to 34 Year-Olds



Source: Global Entrepreneurship Monitor

It is actually difficult to overestimate the economic impact of college-educated young workers on the economic well-being of a metropolitan area. Recent data from the National Longitudinal Survey of Youth confirm the great variation in economic outcomes associated with different levels of education. This study followed a nationally representative panel of 10,000 young people since 1979. The cumulative earnings of college graduates in the 15 years between their 25th and 40th birthdays were 80 percent higher for men and more than twice as much for women than the comparable earnings of those with just a high school diploma. The median college graduate had also accumulated about 20 times as much in financial assets as the median high school graduate (Wolpin, 2005).

## Talented young workers are an indicator species of economic vitality.

We focus policy makers' attention on the Young and Restless not because older workers have no value. But talented young workers are an indicator species of economic vitality. Like the proverbial canary in the coal mine, the sustained out-migration of talented young workers signals, at the very least, an economy facing potentially serious future challenges. A community that doesn't attract, welcome or retain these desirable workers likely has problems with innovative entrepreneurs of any age. And as we've pointed out, older workers are locked in place by the collective inertia of past history, family connections, mortgages and marriages, making them much less likely to move.

Talented young workers have a particularly important role in the health of metropolitan economies. They have a fresh base of skills, they have more flexibility than at any time of their lives to change occupations, they are relatively cheap to hire and they are willing to relocate. They are, in short, the dream demographic for the human resources director of a fast-growing knowledge-based company. And, as we shall see, the demand for these talented young workers is likely to increase sharply in the years ahead. ■

## A Seismic Shift in the Labor Market

To understand the key role that the Young and Restless will play in shaping the health of U.S. metropolitan economies over the next few years, it is helpful to take a brief look back over U.S. economic growth since 1960. Over the past 45 years, the U.S. economy has more than doubled in size, growing from 65 million workers in 1960 to more than 140 million in 2005. A big part of the explanation for faster economic growth in the U.S. compared to other countries has been faster population and labor force growth.

**All the factors that helped drive U.S. labor market growth over the past four decades are about to come to a grinding halt.**

We've come to take for granted the stimulus that an ever-expanding labor force provides to economic growth. But all of the factors that helped drive U.S. labor market growth over the past four decades are about to come to a grinding halt. The result is, that for most of the next couple of decades, the U.S. faces a period of much slower labor market growth. The three decisive trends that drove the growth of the U.S. labor force—the maturing of the baby boom generation, the greatly increased economic role of women and the increase in college attainment—all reverse or flatten out in the next two decades. The baby boom generation, now in its peak earning years, will soon begin retiring, depriving the economy of some of its most seasoned workers. Women's labor force participation, which has doubled since the 1950s and been a key part of growing the U.S. economy, cannot go much higher. And finally, the expansion of college education in the last two generations, which has raised college attainment rates from less than 10 percent of the population to more than 30 percent of young adults, has stopped growing. The combination of baby boom retirements, no net additions of women to the labor force and a constant college attainment rate mean that labor is likely to be in short supply over the next two decades.

The importance of the young adult population to metropolitan economic health has been thrown into sharp relief by the major demographic change sweeping the nation—the aging of the baby boom generation. Slightly more than a decade ago,

when the 1990 census was conducted, the tail end of the baby boom generation (persons born between 1956 and 1965) was between 25 and 34 years of age. By 2000, these boomers had moved into the 35 to 44 age group.

Those who followed—persons born between 1966 and 1975—were part of a much smaller birth cohort, the so-called baby bust. Even augmented by substantial international immigration, the number of persons ages 25 to 34 in 2000 was far less—nationally nearly 4 million less—than the number of 25 to 34 year-olds a decade earlier. This means that the nation's metropolitan areas were competing for a smaller pool of young adults in 2000 than they were in 1990.

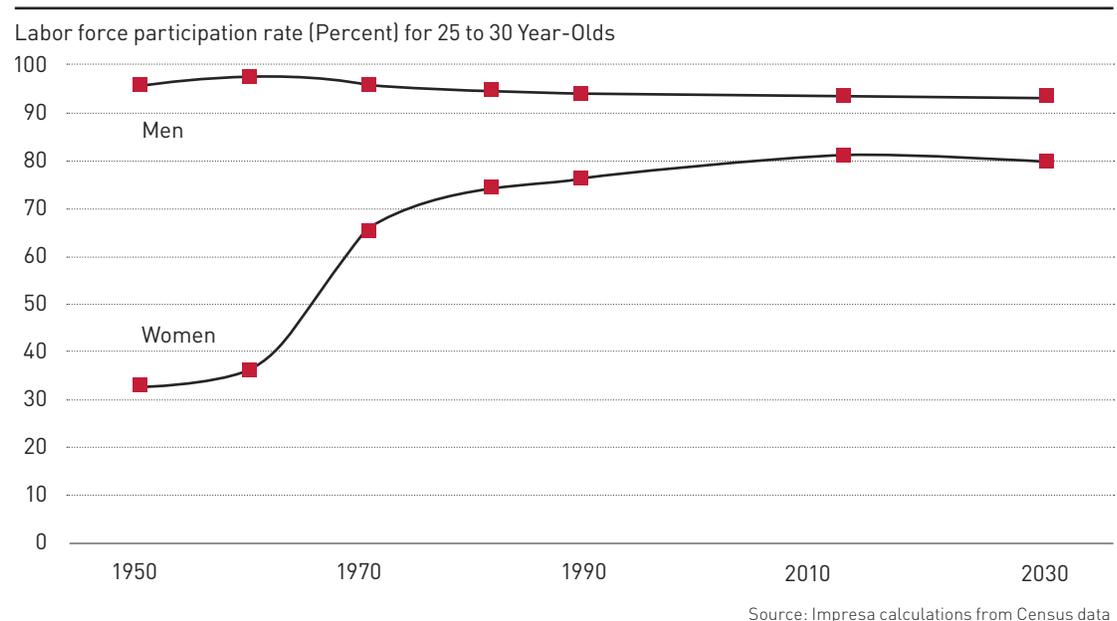
**Between 1960 and 2000, the labor force participation of young adult women increased from slightly more than one in three to nearly three in four.**

The working careers of the baby boomers also coincided with a major shift in the employment status of women. Since the 1960s, there has been a steady increase in women's labor force participation rates.

Figure F

**Women's Labor Force Participation**

Women's Labor Force Participation Close to Men's



In the 1950s and 1960s, women in the 25 to 34 year-old age cohort were less than half as likely as their male counterparts to participate in the labor force. With the rise of feminism, that changed rapidly. Over the next 20 years, women's labor force participation rates soared. Between 1960 and 2000, the labor force participation of

young adult women increased from slightly more than one in three to nearly three in four.

The outlook for the next two decades is for women's labor force participation to level off. The Bureau of Labor Statistics predicts that for women ages 25 to 34, labor force participation will peak at about 80 percent, a practical maximum given women's key role in child-bearing and child-rearing. As a consequence, there will be virtually no net addition to the numbers of workers from increased labor force participation of women.

## In the late 1950s, fewer than one in 10 adults had a college degree. Today, the number is approaching one in three.

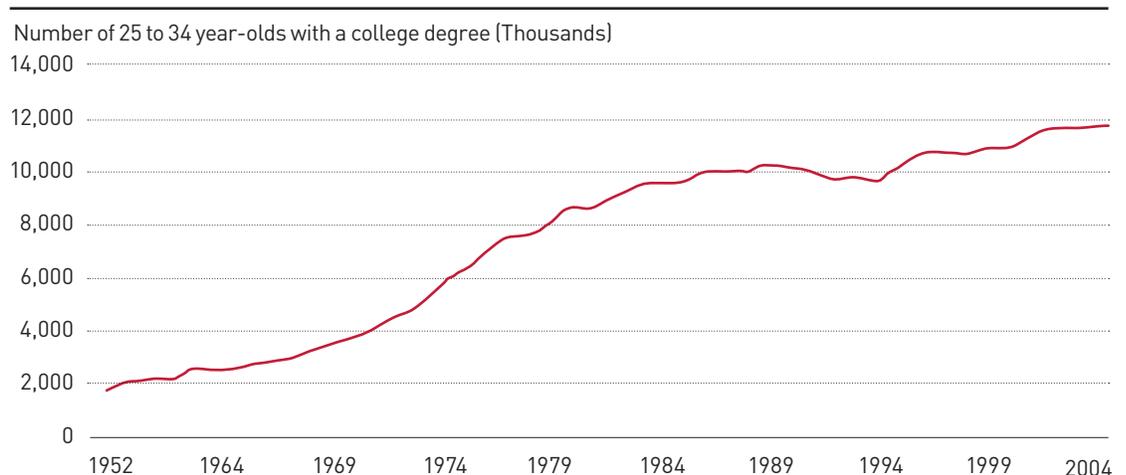
The economic value of the labor force has to do with much more than simply the quantity of workers. It has much to do with their quality as well. Over the past half century, the U.S. has made major strides in expanding access to college education, with the result that many more workers have four-year degrees. In the late 1950s, fewer than one in 10 adults had a college degree. Today, the number is approaching one in three.

The nation's huge investment in higher education and its direct labor market impact are clearly shown in the increased number of persons getting a college degree. In the middle 1960s, only about 3 million 25 to 34 year-olds had attained a four-year college degree. Just 20 years later, the nation had more than tripled this number to 10 million young adults with college degrees. But since then, the number of young adults with college degrees has increased much more slowly. After increasing by about 7 million (300 percent) in the 20 years from 1965 to 1985, the number of 25 to 34 year-olds with a four-year degree increased by less than 2 million (about 20 percent) from 1985 through 2004.

Figure G

### College Graduation Rate of Young Adults

25 to 34 Year-Old College Graduates Up 7 Million 1965 to 1985, Up Only 2 Million Since



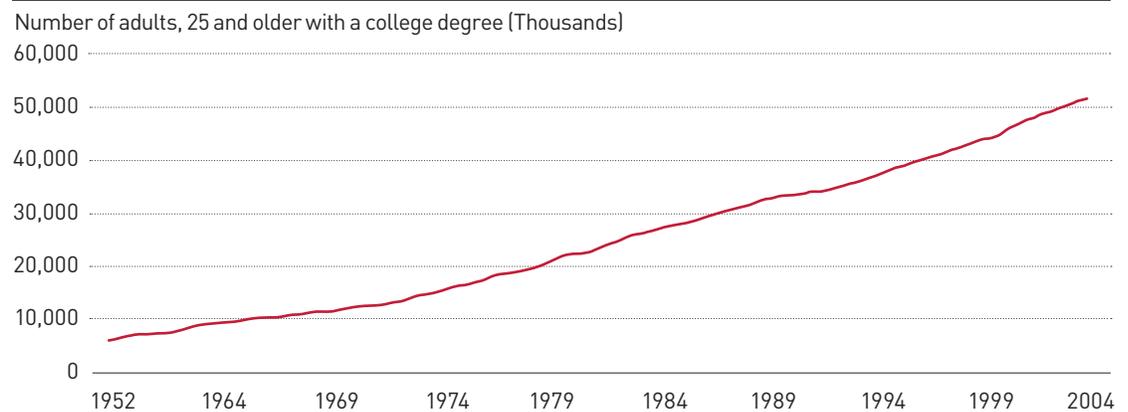
Source: Census Bureau, Impresa calculations

The cumulative effect of this increase in college-going has been dramatic. Over the past four decades, there has been a huge increase in the number of U.S. adults with a four-year degree. As recently as 1965, fewer than 10 million adult (25 and older) Americans had a four-year college degree. Today, more than 50 million do. While the American population has not quite doubled, the number of persons with a four-year degree has increased five-fold. This tremendous qualitative improvement in the U.S. workforce has been a major impetus to economic and income growth. The economic impact of this gain in well-educated population has been accentuated by the fact that nearly 90 percent of those with a college degree are still of working age; in 2000, fewer than 5 million of the nearly 44 million adults with a four-year degree were 65 years of age or older.

Figure H

**Rise in College Attainment**

Number of College Graduates Up 40 Million Since 1965



Source: Census Bureau, Impresa calculations

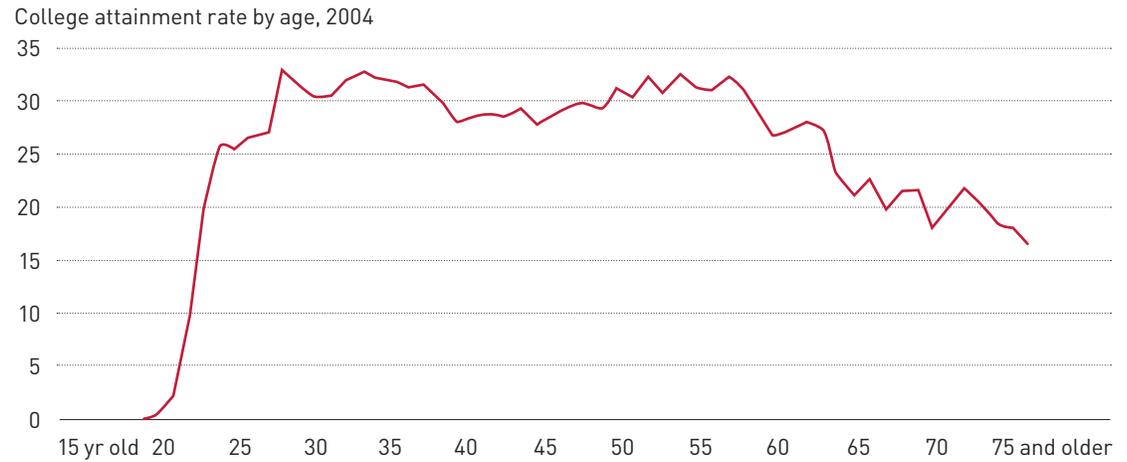
This dramatic increase has been driven primarily by what demographers call “the cohort-succession effect.” The educational attainment of those entering the adult labor force (25 and older) is much higher than those cohorts leaving the labor force (dying). Because those persons turning 25 were so much more numerous and so much more likely to have a college degree than those who passed on in each of the last three decades, the total number of college graduates has accumulated rapidly.

But today, the situation has changed markedly. The college attainment rate has reached a plateau. There is very little difference in the college attainment rate of the population between 25 and 55 years of age. At the same time, the number of persons in the youngest and oldest working age cohorts is nearly equal. Due to the flattening of the difference in educational attainment between the young and the old, this source of gain will all but disappear in the coming years (Aaronson & Sullivan, 2001).

Figure I

**College Attainment Rate**

College Attainment Rate Has Leveled Off



Source: Census Bureau, 2005

Over the next 25 years, the college graduation rate is predicted to rise only 4 to 5 percentage points compared to the 13 point increase between 1960 and 1985. (Day & Bauman, 2000). Even these projections may turn out to be too optimistic. College graduation rates for 25 to 29 year-old men are no higher now than they were in the mid-1970s. All of the increase in college graduate rates in recent years has been due to the improvement in women's college attainment rates, which may not increase further.

## Expect a dramatic decline in the rate of growth of the quantity and quality of the U.S. labor force.

According to an analysis by the economists at the Federal Reserve Bank of Boston, the combination of demographic shifts plus the slowing growth in the college attainment rate means that average U.S. educational attainment could actually stagnate or even decline in this century (Little & Triest, 2002).

The net result will be a dramatic decline in the rate of growth of the quantity and quality of the U.S. labor force.

The growth of the labor force will decline by more than 50 percent from its long run average. After growing at a rate of more than 1.6 percent annually for the half century from 1950 to 2000, the Bureau of Labor Statistics forecasts that U.S. labor force will grow less than half as fast, just 0.6 percent per year from 2000 through 2050 (Toossi, 2002).

Workforce quality is somewhat harder to define, but it is generally measured by looking at the combination of workers' years of experience and extent of education. As the baby boom begins to retire and is replaced by a smaller age cohort with roughly similar levels of education but much less experience, the growth rate in average worker quality will decline sharply. Economists for the Federal Reserve have estimated that average worker quality which grew about .58 percent per year between 1987 and 1994 will fall to a rate of just .07 percent for the remainder of this decade (Aaronson & Sullivan, 2001).

In sum, these trends point to a dramatically different U.S. labor market than we have been accustomed to in the past half century. The changes are particularly apparent as we consider the average age of U.S. workers.

While we tend quickly to forget the past, it is important to recall that in 2000 and early 2001 the U.S. was experiencing widespread labor shortages. Nationally, unemployment rates had declined to a 30-year low of 4 percent, and unemployment rates were lower still in many fast-growing metropolitan areas. Tight labor markets prompted employers to offer a range of inducements to attract and retain workers, including child care, flexible schedules, workplace amenities and tuition payments. Some employers even began to relocate to places with more abundant labor (Uchitelle, 2000). The steady decline in unemployment rates and the increasing tightness in the labor markets are the principal explanation for a marked improvement in real (inflation-adjusted) wage rates in the latter half of the 1990s after almost two decades of stagnation in average wages.

## Labor shortages have begun to emerge in some regions and in particular occupations.

While the recent recession and prolonged period of "job-loss" recovery have clearly dimmed memories of our earlier experience with tight labor markets, even despite the relatively tepid job growth we've experienced in the past few years, labor shortages have begun to emerge in some regions and in particular occupations. Manufacturing firms, which depend heavily on the accumulated expertise of their more senior baby boom workers, are starting to feel the pinch. There are already signs of shortages in some industries. Despite job losses in manufacturing, nearly 36 percent of 3,000 companies surveyed by the National Association of Manufacturers have good jobs going unfilled due to a lack of qualified applicants (Jasinowski, 2005). Prospective retirements are likely to have an impact on industries with low turnover and an older workforce, particularly government and utilities. Nursing shortages are cropping up around the country because health care has largely avoided the last recession and because health care occupations have relatively lengthy training timelines.

Already the warning signs are starting to appear. Consider these headlines:

## The Looming Workforce Crisis

National Association of Manufacturers

## Coming Soon: The Vanishing Workforce

New York Times

## The Coming Job Boom

Business 2.0

## The United States May Face Tight Labor Markets

General Accounting Office

## Preparing for a Future Labor Shortage

Graziadio Business Report, Pepperdine University

It is, of course, difficult to predict the exact course of future economic growth. Slower labor market growth will also result in slower overall economic growth, meaning that predictions of millions of jobs going unfilled are likely to be exaggerated.

There are also important wild cards that could influence labor supply, notably age of retirement and immigration.

It seems that baby boomers are likely to redefine retirement just as they rewrote the standards for every other period of their lives. Many may retire later than their parents or extend their careers—at least on a part-time basis—after age 65. But early retirement programs have actually had the effect of accelerating the movement of some workers out of paid employment, and the average retirement age has fallen to 63 (Forster, 2003). The best educated—who also have the highest lifetime earnings and best retirement benefits—will feel the least financial pressure to remain in the labor market.

It is also difficult to predict the future path of immigration. Historically, the U.S. has been a magnet to aspiring students and talented workers throughout the world as well as a refuge for the economically disadvantaged. After 9/11, the U.S. is not as open to immigrants as it once was, and as Richard Florida points out, a number of cities around the globe have emerged as the new open, tolerant magnets for internationally mobile talent (Florida, 2005). One worrying sign: the number of students and high-skilled foreign nationals declined 20 percent from 772,000 in 2001 to 664,000 in 2003 (National Association of Manufacturers, 2005).

While the worker shortage may not be as dramatic as some claim, it is clear that labor will not be nearly as plentiful in the decades ahead as it has been for the past half century. ■

## The New Context for Metropolitan Economic Development

The unfolding demographic trends represent a sea change in the U.S. labor markets. This has important implications for the practice of economic development at the local and metropolitan level. An available workforce, which employers and economic developers have taken for granted for decades, will increasingly become the decisive factor in business location and expansion decisions. Those metropolitan areas that have the most abundant and talented workforces and which are most attractive places for worker relocation will be the best positioned to thrive in this economic environment. Because young adults, particularly college-educated 25 to 34 year-olds, are the most mobile portion of the talented workforce, they will play an especially important role in determining which places grow. Thus, metropolitan areas of the United States are now in competition for a limited supply of young workers.

### Metropolitan areas are now in competition for a limited supply of young workers.

For the nation's metropolitan areas, then, the shrinking numbers of young adults are making decisions daily that will have profound effects on economic growth for decades to come. The importance of this trend has been masked by three years of languishing economic growth (and in many places actual job declines). With job losses still fresh in mind, it is not obvious that availability of talent is a critical factor for economic success. But as the nation puts the lingering recession behind it, and as job growth accelerates (as now, finally, appears to be the case), having an abundant supply of knowledge workers will be key to economic success in the years ahead. ■

## How These Trends are Affecting Cities

How did the distribution of this young adult population change between 1990 and 2000? How did different metropolitan areas fare in attracting this mobile and economically important group? As we shall see, the geographic distribution of this age group was influenced by an array of factors, including the changing race and ethnicity of young adults, variations in underlying regional and metropolitan growth trends, and the differential attractiveness of metropolitan areas to young adults.

The focus of our analysis is the metropolitan population of the United States, and in particular the changes in population in the nation's 50 largest metropolitan areas, including all metro areas with populations of 1 million or more in 2000.

## Young adults are disproportionately concentrated in metropolitan areas, particularly larger metropolitan areas.

Young adults are disproportionately concentrated in metropolitan areas, particularly larger metropolitan areas. Collectively the nation's metropolitan areas accounted for 81 percent of the U.S. population, and the 50 largest metro areas accounted for 58 percent. In 2000 some 84 percent of those ages 25 to 34 or 33.1 million lived in metropolitan areas. Almost 62 percent of all 25 to 34 year-olds or 24.4 million lived in the 50 most populous metropolitan areas. These young adults were about 6 percent more likely than the average American to live in one of the 50 largest metro areas.

There is some variation among metropolitan areas in the fraction of their population that is between 25 and 34 years of age. Among the 50 largest metropolitan areas, in 2000 15 percent of the population was between 25 and 34. Most metropolitan areas have between 14 and 16 percent of their population in this age group. As Table 1 illustrates, five metropolitan areas in the South, including Austin, Atlanta, Raleigh-Durham, Dallas and Charlotte, lead the list with the largest share of the population ages 25 to 34. The bottom of the list is composed of very slow growing or cities with declining populations in the

Table A

**Young Adult Population**

Percent of Population Ages 25 to 34 in Metro Areas, 2000

| <b>Leading Metros</b>                     |   |       |
|---|---|-------|
| 1   | Austin—San Marcos, TX MSA                       | 18.2% |
| 2   | Atlanta, GA MSA                                 | 17.6% |
| 3   | Raleigh—Durham—Chapel Hill, NC MSA              | 17.5% |
| 4   | Dallas—Fort Worth, TX CMSA                      | 16.8% |
| 5   | Charlotte—Gastonia—Rock Hill, NC—SC MSA         | 16.6% |
| <b>CEOs for Cities Metropolitan Areas</b> |   |       |
| 7   | San Francisco—Oakland—San Jose, CA CMSA         | 16.3% |
| 8   | Columbus, OH MSA                                | 16.0% |
| 12  | Los Angeles—Riverside—Orange County, CA CMSA    | 15.7% |
| 15  | Seattle—Tacoma—Bremerton, WA CMSA               | 15.4% |
| 16  | Minneapolis—St. Paul, MN—WI MSA                 | 15.4% |
| 19  | Indianapolis, IN MSA                            | 15.2% |
| 20  | Washington—Baltimore, DC—MD—VA—WV CMSA          | 15.2% |
| 21  | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 15.2% |
| 23  | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 14.9% |
| 26  | Memphis, TN—AR—MS MSA                           | 14.7% |
| 28  | Miami—Fort Lauderdale, FL CMSA                  | 14.5% |
| 30  | San Antonio, TX MSA                             | 14.5% |
| 31  | Detroit—Ann Arbor—Flint, MI CMSA                | 14.5% |
| 33  | Richmond—Petersburg, VA MSA                     | 14.3% |
| 36  | Cincinnati—Hamilton, OH—KY—IN CMSA              | 14.0% |
| 37  | Louisville, KY—IN MSA                           | 14.0% |
| 39  | Milwaukee—Racine, WI CMSA                       | 13.6% |
| 41  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | 13.5% |
| 42  | Providence—Fall River—Warwick, RI—MA MSA        | 13.5% |
| 44  | Cleveland—Akron, OH CMSA                        | 13.1% |
| 47  | Tampa—St. Petersburg—Clearwater, FL MSA         | 12.7% |
| <b>Lowest Metros</b>                      |   |       |
| 46  | Rochester, NY MSA                               | 12.8% |
| 47  | Tampa—St. Petersburg—Clearwater, FL MSA         | 12.7% |
| 48  | Buffalo—Niagara Falls, NY MSA                   | 12.3% |
| 49  | Pittsburgh, PA MSA                              | 12.1% |
| 50  | West Palm Beach—Boca Raton, FL MSA              | 11.6% |

Northeast (Rochester, Buffalo, Pittsburgh) and two Florida metropolitan areas with large retirement populations (Tampa and West Palm Beach).

Overall the metropolitan population of the United States increased by nearly 14

percent from 1990 to 2000, growing from about 198 million to nearly 226 million in 2000. At the national level, the number of persons ages 25 to 34 in the U.S. actually declined during the decade of the 1990, primarily due to the movement of the baby boom generation into an older age group over the course of the decade. The number of 25 to 34 year-olds in the nation's metropolitan areas declined by almost 3 million between 1990 and 2000: from 35.9 million in 1990 to 32.9 million in 2000. As a result, most metropolitan areas lost population in this age group. There was, however, considerable variation among metropolitan areas. About a third of the 50 largest metropolitan areas saw increases in their 25 to 34 year-old population between 1990 and 2000. In contrast, several metropolitan areas saw declines in their 25 to 34 year-old population of more than 20 percent.

Fast-growing cities in the South and West consistently racked up the best performances. Las Vegas (which roughly doubled its population in the decade) recorded the biggest percentage increase in 25 to 34 year-olds. Other gainers included Phoenix, Atlanta, Charlotte, Austin and Raleigh-Durham. The cities with the largest declines in this age group were located primarily in the Northeast. Buffalo, Hartford, Pittsburgh and Rochester all recorded declines of more than 20 percent in their young adult population. Of the nation's ten largest metropolitan areas, only one—Dallas—recorded an increase in its 25 to 34 year-old population between 1990 and 2000. All of the largest MSAs in the Northeast and Midwest—Washington, Philadelphia, Boston and Detroit—had double-digit declines in their young adult population.

Table B

**Change in Young Adult Population**

Change in 25 to 34 Year-Old Population by Metro Area, 1990 to 2000

| <b>Leading Metros</b>                     |   |  |        |
|---|---|--|--------|
| 1   | Las Vegas, NV—AZ MSA                    | 56.0%  |        |
| 2   | Austin—San Marcos, TX MSA               | 28.0%  |        |
| 3   | Phoenix—Mesa, AZ MSA                    | 24.0%  |        |
| 4   | Atlanta, GA MSA                         | 21.0%  |        |
| 5   | Raleigh—Durham—Chapel Hill, NC MSA      | 20.0%  |        |
| <b>CEOs for Cities Metropolitan Areas</b> |   |  |        |
| 13  | Miami—Fort Lauderdale, FL CMSA          | 2.2%   |        |
| 16  | San Antonio, TX MSA                     | -2.0%  |        |
| 17  | Seattle—Tacoma—Bremerton, WA CMSA       | -4.0%  |        |
| 18  | Columbus, OH MSA                        | -4.0%  |        |
| 19  | Indianapolis, IN MSA                    | -4.5%  |        |
| 21  | San Francisco—Oakland—San Jose, CA CMSA | -6.7%  |        |
| 23  | Memphis, TN—AR—MS MSA                   | -7.5%  |        |
| 24  | Chicago—Gary—Kenosha, IL—IN—WI CMSA     | -8.0%  |        |
| continued...                              | 28                                      | Los Angeles—Riverside—Orange County, CA CMSA | -10.7% |

|                         |    |   |        |
|-------------------------|----|---|--------|
| Table B<br>continued... | 31 | Minneapolis—St. Paul, MN—WI MSA                 | -11.0% |
|                         | 32 | Richmond—Petersburg, VA MSA                     | -12.0% |
|                         | 34 | Washington—Baltimore, DC—MD—VA—WV CMSA          | -13.0% |
|                         | 35 | Louisville, KY—IN MSA                           | -12.7% |
|                         | 36 | Cincinnati—Hamilton, OH—KY—IN CMSA              | -13.1% |
|                         | 37 | Detroit—Ann Arbor—Flint, MI CMSA                | -13.0% |
|                         | 39 | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | -16.0% |
|                         | 40 | Providence—Fall River—Warwick, RI—MA MSA        | -18.0% |
|                         | 41 | Cleveland—Akron, OH CMSA                        | -19.0% |
|                         | 42 | Milwaukee—Racine, WI CMSA                       | -19.0% |
|                         | 43 | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | -19.0% |
|                         |    | <b>Lowest Metros</b>                            |        |
|                         | 46 | Norfolk—Virginia Beach—Newport News, VA—NC MSA  | -21.0% |
|                         | 47 | Rochester, NY MSA                               | -24.0% |
|                         | 48 | Pittsburgh, PA MSA                              | -25.0% |
|                         | 49 | Hartford, CT MSA                                | -26.0% |
|                         | 50 | Buffalo—Niagara Falls, NY MSA                   | -26.0% |

But the changing distribution of young adults was not driven exclusively by regional factors. In the South, Norfolk, Virginia recorded the fifth largest percentage decline in young adults. The number of 25 to 34 year-olds also declined in Washington-Baltimore, Houston, Tampa and New Orleans. In the West, Los Angeles, San Francisco, Seattle and San Diego all recorded declines in their young adult population.

The gross change in the number of young adults in the nation's metropolitan areas was driven by many of the same forces that drive overall U.S. population growth. Over the past half century, population has been growing slowly in the Northeast and Midwest and more rapidly in the South and West. The growth of the young adult population in many parts of the country, therefore, is simply driven by the same trends that affect all age groups.

However, we are most interested in those metropolitan areas where growth has been disproportionately fueled by the young adult population.

To sort out the effect of general population shifts and to identify which areas were most attractive to young adults, we have estimated the portion of the change in the young adult population that is attributable to overall (all-age) population trends. We use a shift-share method to estimate population growth attributable to underlying regional shifts. For each metropolitan area, we estimated the change in 25 to 34 year-old population it would have experienced if that region's share of the 25 to 34 year-old population in the nation's 50 largest metropolitan areas had changed by the same proportion as its share of the nation's total (all-age) population in those same

Table C

**The Youth Effect**Change in 25 to 34 Year-Old Population in Excess (Less than) All Age  
Population Trend, 1990 to 2000

|   |   | Percentage | Number   |
|---|---|------------|----------|
| <b>Leading Metros</b>                     |   |            |          |
| 1   | Charlotte—Gastonia—Rock Hill, NC—SC MSA         | 10.7%      | 26,747   |
| 2   | Salt Lake City—Ogden, UT MSA                    | 10.7%      | 21,898   |
| 3   | Portland—Salem, OR—WA CMSA                      | 8.9%       | 30,862   |
| 4   | Atlanta, GA MSA                                 | 7.1%       | 51,338   |
| 5   | Austin—San Marcos, TX MSA                       | 6.5%       | 14,868   |
| <b>CEOs for Cities Metropolitan Areas</b> |   |            |          |
| 11  | Miami—Fort Lauderdale, FL CMSA                  | 3.9%       | 22,003   |
| 12  | Columbus, OH MSA                                | 3.3%       | 8,044    |
| 14  | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 2.8%       | 38,318   |
| 15  | San Francisco—Oakland—San Jose, CA CMSA         | 2.5%       | 28,179   |
| 17  | Detroit—Ann Arbor—Flint, MI CMSA                | 1.8%       | 14,391   |
| 18  | Memphis, TN—AR—MS MSA                           | 1.5%       | 2,441    |
| 19  | Indianapolis, IN MSA                            | 1.4%       | 3,373    |
| 20  | San Antonio, TX MSA                             | 0.4%       | 822      |
| 21  | Louisville, KY—IN MSA                           | -0.1%      | (169)    |
| 22  | Seattle—Tacoma—Bremerton, WA CMSA               | -0.3%      | (1,558)  |
| 24  | Cincinnati—Hamilton, OH—KY—IN CMSA              | -1.3%      | (3,535)  |
| 28  | Los Angeles—Riverside—Orange County, CA CMSA    | -2.0%      | (50,459) |
| 30  | Cleveland—Akron, OH CMSA                        | -2.4%      | (9,347)  |
| 31  | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | -3.2%      | (27,512) |
| 32  | Providence—Fall River—Warwick, RI—MA MSA        | -3.3%      | (5,221)  |
| 36  | Washington—Baltimore, DC—MD—VA—WV CMSA          | -4.6%      | (53,356) |
| 37  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | -4.8%      | (40,133) |
| 38  | Milwaukee—Racine, WI CMSA                       | -4.9%      | (11,200) |
| 39  | Richmond—Petersburg, VA MSA                     | -5.2%      | (7,435)  |
| 43  | Minneapolis—St. Paul, MN—WI MSA                 | -6.5%      | (29,712) |
| <b>Lowest Metropolitan Areas</b>          |   |            |          |
| 46  | Rochester, NY MSA                               | -9.7%      | (13,709) |
| 47  | Sacramento—Yolo, CA CMSA                        | -9.9%      | (24,284) |
| 48  | West Palm Beach—Boca Raton, FL MSA              | -11.1%     | (14,559) |
| 49  | Norfolk—Virginia Beach—Newport News, VA—NC MSA  | -12.0%     | (27,349) |
| 50  | Hartford, CT MSA                                | -12.1%     | (18,805) |

**How to read this table:** The percentage in the third column is the amount by which the growth in the young adult population exceeded (or fell short of) overall population change in the region, between 1990 and 2000. For example, in Charlotte, the growth in the number of young adults was 10.7 percentage points higher over the decade than overall population growth. At the other extreme, in Hartford, the change in the young adult population was 12 percentage points less than the change in the overall population.

metropolitan areas. Essentially, this approach projects how many 25 to 34 year-olds each region would have in 2000 if its share of the nation's 25 to 34 year-olds had increased (or decreased) in the same fashion as its share of persons of all ages. By comparing each region's actual increase in the number of 25 to 34 year-olds with this projection, we are able to determine how many more (or fewer) young adults each area had than can be explained by the overall shifting of the U.S. population.

The racial and ethnic composition of U.S. metropolitan areas has shifted over the past decade. Some sub-groups of the 25 to 34 year-old population (notably Hispanics and Asian-Americans) have increased significantly and are also considerably more dispersed among metropolitan areas. Other sub-groups (the white and African-American population) have decreased in number. The growing diversity of this young adult population is more advanced than in the overall U.S. population and foreshadows the kinds of race and ethnic patterns that will increasingly characterize the U.S. in the decades ahead.

However, our focus is on college-educated 25 to 34 year-olds, and they are considerably less diverse. With the exception of Asian-Americans, the college attainment rates of Hispanic and non-white groups are considerably lower than those of white non-Hispanics.

Detailed analysis of changes in the composition of this age group is contained in the Appendix. ■

## Young Talent: College-Educated 25 to 34 Year-Olds

From an economic perspective, the skills and talent of the workforce are an increasingly important factor in shaping metropolitan growth. For purposes of our analysis, we use educational attainment—measured by the fraction of the population with a four-year college degree or higher level of education—as our benchmark indicator of skill.

In 2000, nearly 32 percent of the 25 to 34 year-olds in the 50 most populous metropolitan areas in the United States had a four-year college degree. Well-educated young adults tend to be disproportionately located in the nation's metropolitan areas. College-educated 25 to 34 year-olds were about 25 percent more likely than the average American to live in one of the 50 largest metro areas. Although not addressed in this report, the paucity of well-educated young adults is particularly apparent in non-metro areas; the college attainment rate of young adults in non-metro areas is just 15 percent, only half of the average for metro areas.

## College-educated 25 to 34 year-olds were 25 percent more likely to live in one of the 50 largest metro areas.

There is a wide variation in the educational attainment of young adults in U.S. metropolitan areas. Attainment rates for 25 to 34 year-old adults vary by a factor of almost three. More than 45 percent of Raleigh-Durham's 25 to 34 year-olds have a four-year degree, compared to only about 16 percent of those in Las Vegas. This is far wider than the variation in the share of the young adult population among the 50 largest metropolitan areas, which is about 1.5 to 1.

With Raleigh-Durham leading the way, the other leaders in the college attainment rate among the 50 largest U.S. metropolitan areas include Austin, Boston, San Francisco and Minneapolis-St. Paul. In each of these areas roughly two in five young adults have a four-year degree. Half of all metropolitan areas have college attainment rates for 25 to 34 year-olds of between 26 and 35 percent. The lowest college attainment rates are among a wide swath of Sunbelt cities in the South (Tampa, Miami, Houston) and Southwest (Salt Lake City, Phoenix and Los Angeles).

Table D

**Share of Young Adults with a 4-Year Degree or Higher**

Share of 25 to 34 Year-Old Population with a 4-Year Degree or Higher, 2000

| Rank   Metro                                       | Attainment |       |
|--|------------|-------|
|  | 2000       | 1990  |
| <b>Leading Metros</b>                              |            |       |
| 1 Raleigh—Durham—Chapel Hill, NC MSA               | 45.2%      | 39.5% |
| 2 Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA      | 43.2%      | 35.8% |
| 3 San Francisco—Oakland—San Jose, CA CMSA          | 41.3%      | 31.7% |
| 4 Washington—Baltimore, DC—MD—VA—WV CMSA           | 40.9%      | 33.7% |
| 5 Minneapolis—St. Paul, MN—WI MSA                  | 39.9%      | 30.6% |
| <b>CEOs for Cities Metropolitan Areas</b>          |            |       |
| 2 Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA      | 43.2%      | 35.8% |
| 3 San Francisco—Oakland—San Jose, CA CMSA          | 41.3%      | 31.7% |
| 4 Washington—Baltimore, DC—MD—VA—WV CMSA           | 40.9%      | 33.7% |
| 5 Minneapolis—St. Paul, MN—WI MSA                  | 39.9%      | 30.6% |
| 11 Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 35.0%      | 28.4% |
| 13 Richmond—Petersburg, VA MSA                     | 34.4%      | 27.6% |
| 14 Seattle—Tacoma—Bremerton, WA CMSA               | 34.2%      | 26.9% |
| 18 Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | 32.9%      | 26.9% |
| 21 Milwaukee—Racine, WI CMSA                       | 31.9%      | 23.6% |
| 23 Indianapolis, IN MSA                            | 31.0%      | 24.6% |
| 24 Cincinnati—Hamilton, OH—KY—IN CMSA              | 30.6%      | 23.2% |
| 26 Cleveland—Akron, OH CMSA                        | 29.7%      | 22.0% |
| 29 Detroit—Ann Arbor—Flint, MI CMSA                | 28.8%      | 21.4% |
| 32 Providence—Fall River—Warwick, RI—MA MSA        | 27.3%      | 24.1% |
| 34 Louisville, KY—IN MSA                           | 26.9%      | 19.9% |
| 38 Memphis, TN—AR—MS MSA                           | 25.7%      | 20.7% |
| 41 Miami—Fort Lauderdale, FL CMSA                  | 25.5%      | 21.1% |
| 45 Tampa—St. Petersburg—Clearwater, FL MSA         | 24.5%      | 19.8% |
| 47 Los Angeles—Riverside—Orange County, CA CMSA    | 23.0%      | 21.5% |
| 49 San Antonio, TX MSA                             | 22.2%      | 19.2% |
| <b>Lowest Metros</b>                               |            |       |
| 46 Norfolk—Virginia Beach—Newport News, VA—NC MSA  | 23.8%      | 20.0% |
| 47 Los Angeles—Riverside—Orange County, CA CMSA    | 23.0%      | 21.5% |
| 48 Jacksonville, FL MSA                            | 22.5%      | 18.9% |
| 49 San Antonio, TX MSA                             | 22.2%      | 19.2% |
| 50 Las Vegas, NV—AZ MSA                            | 16.3%      | 12.4% |

Between 1990 and 2000, even though the total population of 25 to 34 year-olds in the top 50 metropolitan areas declined, the total number of persons with a four-year degree or higher level of education increased by 11 percent, from about

7 million to almost 7.8 million. Young adults, as a group, recorded a substantial increase in educational attainment over 1990. College attainment in the top 50 metropolitan areas rose from 26.6 percent in 1990 to 31.9 percent in 2000.

Consistent with the national trend, most metropolitan areas recorded an increase in the number of college-educated 25 to 34 year-olds between 1990 and 2000. The number of college-educated 25 to 34 year-olds doubled in Las Vegas and increased by about half in four other metropolitan areas: Charlotte, Austin, Portland and Atlanta. Several metropolitan areas—mostly in the Northeast—saw actual declines in their college-educated 25 to 34 year-old population.

Table E

**Change in Young Adults with a 4-Year Degree or Higher**

Change in 25 to 34 Year-Old Population with a 4-Year Degree or Higher, 1990 to 2000, 50 Largest Metro Areas

| Rank                                      | Metro   | Percent |
|---|---|---------|
| <b>Leading Metros</b>                     |   |         |
| 1   | Las Vegas, NV—AZ MSA                            | 104.6%  |
| 2   | Charlotte—Gastonia—Rock Hill, NC—SC MSA         | 56.6%   |
| 3   | Austin—San Marcos, TX MSA                       | 56.2%   |
| 4   | Portland—Salem, OR—WA CMSA                      | 50.0%   |
| 5   | Atlanta, GA MSA                                 | 46.2%   |
| <b>CEOs for Cities Metropolitan Areas</b> |   |         |
| 13  | Columbus, OH MSA                                | 25.2%   |
| 14  | Miami—Fort Lauderdale, FL CMSA                  | 23.3%   |
| 15  | Seattle—Tacoma—Bremerton, WA CMSA               | 22.9%   |
| 16  | San Francisco—Oakland—San Jose, CA CMSA         | 21.5%   |
| 17  | Indianapolis, IN MSA                            | 20.2%   |
| 18  | Louisville, KY—IN MSA                           | 19.1%   |
| 19  | Detroit—Ann Arbor—Flint, MI CMSA                | 16.4%   |
| 20  | Minneapolis—St. Paul, MN—WI MSA                 | 15.8%   |
| 21  | Memphis, TN—AR—MS MSA                           | 15.1%   |
| 23  | Cincinnati—Hamilton, OH—KY—IN CMSA              | 14.9%   |
| 25  | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 13.6%   |
| 26  | San Antonio, TX MSA                             | 12.9%   |
| 29  | Richmond—Petersburg, VA MSA                     | 10.2%   |
| 30  | Cleveland—Akron, OH CMSA                        | 9.6%    |
| 31  | Milwaukee—Racine, WI CMSA                       | 9.5%    |
| 34  | Washington—Baltimore, DC—MD—VA—WV CMSA          | 5.9%    |
| 40  | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 0.8%    |
| 43  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | -1.1%   |
| 44  | Los Angeles—Riverside—Orange County, CA CMSA    | -4.2%   |

continued...

|                         |    |  |        |
|-------------------------|----|--|--------|
| Table E<br>continued... | 49 | Providence—Fall River—Warwick, RI—MA MSA       | -7.0%  |
|                         |    | <b>Lowest Metros</b>                           |        |
|                         | 46 | Buffalo—Niagara Falls, NY MSA                  | -5.9%  |
|                         | 47 | Rochester, NY MSA                              | -6.3%  |
|                         | 48 | Norfolk—Virginia Beach—Newport News, VA—NC MSA | -6.9%  |
|                         | 49 | Providence—Fall River—Warwick, RI—MA MSA       | -7.0%  |
|                         | 50 | Hartford, CT MSA                               | -16.7% |

The gross change in the number of college-educated adults in the nation's metropolitan areas was driven by a combination of the overall shifting pattern of population settlement and the increase in college attainment in this group. For example, the increase in Las Vegas is explained, in part, by the huge increase in population in all age groups. Similarly, every metropolitan area saw an increase in average educational attainment from 1990 to 2000.

To sort out these effects and to identify which areas were most attractive to talented young adults, we have estimated the portion of the change in the college-educated young adult population that is due to overall (all-age) population trends and the general increase in educational attainment in this age group. For each metropolitan area, we estimated the change in 25 to 34 year-old population it would have experienced if that region's share of the 25 to 34 year-old population in the nation's

Table F

**The Talented Youth Effect**

Change in College-Educated 25 to 34 Year-Old Population in Excess (Less than) All Age Population Trend, 1990 to 2000

| Rank   Metropolitan Area                   | Percentage | Number | Effect of Youth | Education |
|--|------------|--------|-----------------|-----------|
| <b>Leading Metros</b>                      |            |        |                 |           |
| 1 Charlotte—Gastonia—Rock Hill, NC—SC MSA  | 31.4%      | 16,146 | 15.1%           | 14.6%     |
| 2 Portland—Salem, OR—WA CMSA               | 27.5%      | 18,365 | 12.0%           | 14.1%     |
| 3 Las Vegas, NV—AZ MSA                     | 26.8%      | 5,181  | 9.0%            | 17.0%     |
| 4 Nashville, TN MSA                        | 16.1%      | 7,451  | 3.5%            | 12.2%     |
| 5 Detroit—Ann Arbor—Flint, MI CMSA         | 14.4%      | 28,089 | 1.9%            | 12.3%     |
| <b>CEOs for Cities Metropolitan Areas</b>  |            |        |                 |           |
| 5 Detroit—Ann Arbor—Flint, MI CMSA         | 14.4%      | 28,089 | 1.9%            | 12.3%     |
| 7 Louisville, KY—IN MSA                    | 14.0%      | 4,606  | 0.0%            | 14.0%     |
| 8 Columbus, OH MSA                         | 14.2%      | 9,932  | 3.7%            | 10.1%     |
| 12 San Francisco—Oakland—San Jose, CA CMSA | 12.0%      | 48,192 | 3.0%            | 9.0%      |
| 14 Cleveland—Akron, OH CMSA                | 9.7%       | 10,163 | -2.4%           | 12.3%     |
| 15 Cincinnati—Hamilton, OH—KY—IN CMSA      | 9.0%       | 6,854  | -1.0%           | 11.0%     |
| 16 Milwaukee—Racine, WI CMSA               | 7.6%       | 5,075  | -4.7%           | 12.9%     |

continued...

Table F continued...

|                      |   |        |          |        |        |
|----------------------|---|--------|----------|--------|--------|
| 18                   | Indianapolis, IN MSA                            | 7.0%   | 4,568    | 2.0%   | 6.0%   |
| 19                   | Seattle—Tacoma—Bremerton, WA CMSA               | 6.8%   | 10,403   | -0.3%  | 7.2%   |
| 20                   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 5.8%   | 24,855   | 3.1%   | 2.7%   |
| 21                   | Memphis, TN—AR—MS MSA                           | 6.0%   | 2,145    | 2.0%   | 4.0%   |
| 22                   | Miami—Fort Lauderdale, FL CMSA                  | 6.0%   | 6,448    | 5.0%   | 1.0%   |
| 25                   | Minneapolis—St. Paul, MN—WI MSA                 | 2.4%   | 3,723    | -6.9%  | 9.9%   |
| 29                   | Richmond—Petersburg, VA MSA                     | -1.4%  | (633)    | -5.5%  | 4.3%   |
| 34                   | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 2.6%   | (9,731)  | -3.2%  | 0.6%   |
| 35                   | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | -3.0%  | (8,294)  | -4.7%  | 1.8%   |
| 36                   | San Antonio, TX MSA                             | -3.7%  | (1,663)  | 0.4%   | -4.1%  |
| 37                   | Washington—Baltimore, DC—MD—VA—WV CMSA          | -3.8%  | (16,784) | -4.8%  | 1.1%   |
| 43                   | Providence—Fall River—Warwick, RI—MA MSA        | -8.7%  | (4,068)  | -3.2%  | -5.6%  |
| 45                   | Los Angeles—Riverside—Orange County, CA CMSA    | -13.0% | (83,180) | -2.0%  | -12.0% |
| <b>Lowest Metros</b> |   |        |          |        |        |
| 46                   | Hartford, CT MSA                                | -15.9% | (10,184) | -10.7% | -5.8%  |
| 47                   | Dallas—Fort Worth, TX CMSA                      | -16.5% | (38,314) | -1.2%  | -15.5% |
| 48                   | Sacramento—Yolo, CA CMSA                        | -16.8% | (10,811) | -10.5% | -6.9%  |
| 49                   | Houston—Galveston—Brazoria, TX CMSA             | -17.0% | (30,224) | -2.8%  | -14.5% |
| 50                   | West Palm Beach—Boca Raton, FL MSA              | -19.0% | (6,224)  | -12.7% | -7.1%  |

**How to read this table:** The percentage in the third column is the amount by which the growth in the college-educated young adult population exceeded (or fell short of) overall population change in the region, between 1990 and 2000. For example, in Charlotte, the growth in the number of college-educated young adults was 31.4 percentage points higher over the decade than overall population growth. We estimate that 15.1 percentage points of this change were due to Charlotte's young adult population growing faster than the overall population, and 14.6 percentage points of this change were due to the college attainment rate increasing faster in Charlotte than elsewhere. The remaining effect, plus 1.7 percent (not shown in Table 9) is the "joint" effect of these two factors. Conversely, at the bottom of the table, the number of college-educated young adults in West Palm Beach grew much more slowly than did the overall population of that region, principally because of the relatively slower growth in the number of young adults.

50 largest metropolitan areas had changed by the same proportion as its share of the nation's total (all-age) population in those same metropolitan areas. We also estimated what each region's college attainment rate would have been if its college attainment rate had increased by the same proportion (19.9 percent) as the overall increase in the college attainment rate in the 50 largest metropolitan areas between 1990 and 2000. By multiplying our projection of the expected 25 to 34 year-old population by the expected college attainment rate, we can estimate how many college-educated 25 to 34 year-olds each metropolitan area would have. By comparing each region's actual increase in the number of college-educated 25 to 34 year-olds with this projection, we are able to determine how many more (or fewer) well-educated young adults each area had than can be explained by the

overall shifting of the U.S. population and improving education.

Once we control for aggregate changes in population growth and improving college attainment rates, a somewhat different pattern of metropolitan attractiveness to young talented adults emerges. Las Vegas, which was number one in the aggregate growth rates of college-educated 25 to 34 year-olds, drops to number three. Most of the increase in its talented young population is explained by the aggregate growth in its population.

In effect, this adjusted estimate serves as an indicator of a region's relative attractiveness to talented young adults compared to all other citizens. By this measure, Charlotte and Portland were the most attractive places to talented young people among the top 50 U.S. metropolitan areas. At the other end of the spectrum, several metropolitan areas gained far fewer college-educated young adults than we would have expected based on overall population trends and improving educational attainment. West Palm Beach gained almost 20 percent fewer college-educated 25 to 34 year-olds than overall trends would have suggested, reflecting that area's relatively greater attractiveness to older persons. Dallas and Houston also were relative under-performers as well, although in these cases, the bulk of the decline was due to a lower than expected college attainment rate. It is also worth noting that several large, relatively slow growing metropolitan areas were relatively more attractive to talented young workers. The Detroit metropolitan area (including Ann Arbor) gained 14 percent more college-educated young adults than expected, ranking fifth overall, and Columbus, Cleveland and Milwaukee exceeded expectations.

Our analysis also separates out the relative importance of each of the two aggregate factors driving growth. The youth effect is the differential attributable to higher (or lower) than expected numbers of persons in the 25 to 34 year-old age group. The education effect is the differential attributable to higher (or lower) than expected growth in educational attainment. Gains in Charlotte and Portland, for example, are due to the ability of both cities to attract more than their share of young adults and to attract relatively better educated young adults. In contrast, Detroit is only slightly more attractive to younger people generally (1.9 percent) but much more successful in attracting relatively well-educated young people (+12 percent). Dallas and Houston show the opposite pattern. They perform very close to expectations in terms of their gain in young population (-1.2 percent and -2.8 percent respectively) but markedly under-perform in the growth in educational attainment.

Within the 25 to 34 year-old age cohort, those born between 1965 and 1975, important changes are afoot. First, while the number of young women has declined by 2 million since 1990, the number of never-married 25 to 34 year-old women has increased by more than 500,000. A large fraction of young women are starting careers and delaying marriage into their late 20s and early 30s.

## Today young women are about 20 percent more likely than young adult men to have completed a four-year degree.

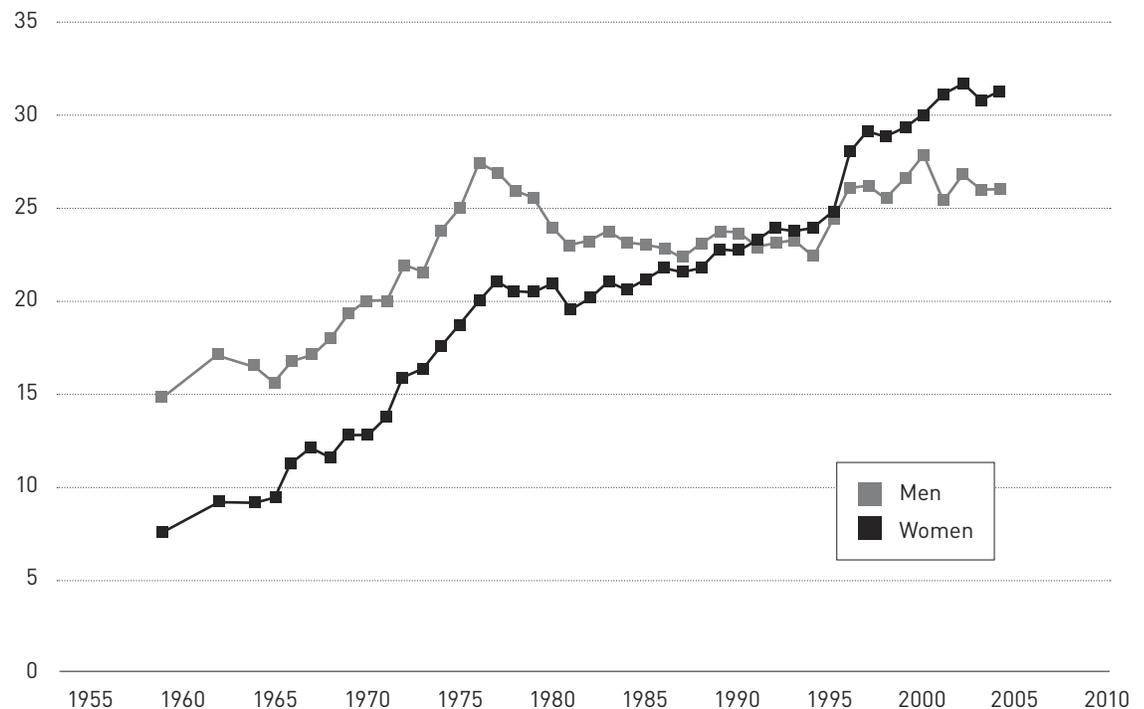
Historically, there has been a marked division of educational attainment by gender, with men better educated than women. In 1960 women were only about half as likely to have college degrees as were men. But while male college attainment rates basically peaked in the 1970s, women's college attainment rates continued to increase. By the mid-1990s, there was basically no difference in the college attainment rates of 25 to 34 year-old men and women. Since 1997, college attainment rates of women in this age group have clearly surpassed those of their male counterparts. Today, young adult women are about 20 percent more likely than young adult men to have completed a four-year degree. For those ages 25 to 29 in 2004, the college attainment rate of women was 31.4 percent compared to 26.1 percent for men. Those now ages 25 to 34 represent the first generation where women are measurably better educated than men. And this trend is predicted to continue. The National Center for Education Statistics projects that by 2013 nearly 60 percent of college graduates will be women (Gerald & Hussar, 2003).

Figure J

### Education of Young Women and Young Men

Young Women Now Better Educated than Young Men

College attainment rate (Percent) for the 25 to 29 year-old population in each year



Source: Bureau of The Census

The superior educational performance of women is actually a global phenomenon. College-going rates for women are equal to or higher than those of men in 40 of 43 developed countries studied by the Organization for Economic Cooperation and Development (Organization for Economic Cooperation and Development, 2003). As in the U.S., the 1990s were the crossover decade; men were still more likely than women to attend college in about half of these countries as recently as 1990. Indications are that this trend will persist. The most recent results show that by age 15, girls were better readers than boys in every one of the 43 countries studied.

The increase in women's educational attainment and the changing economic role of women, along with changing social values, is having a significant impact on marriage. Women are now first marrying later in life. In the early 1960s, 80 percent of women had been married by the time they turned 24. Today, most women have not yet been married at age 24, and it is not until age 32 that 80 percent have been married (Hout & Fischer, 2002). In addition, women with more education are more likely to be first married later in life. Nearly 60 percent of women with a four-year degree remain unmarried at age 26, compared with fewer than 40 percent of women with less than a college degree.

## Women with more education are more likely to be married later in life.

Later marriage and higher educational attainment mean that single adults, particularly single women, represent an increasingly important component of the young adult labor force. Single, well-educated young adults are particularly likely to move. A recent Census Bureau study tabulated data for a slightly different age group than we use in this report, 25 to 39 year-olds. This study found that between 1995 and 2000, 22.6 percent of single, college-educated 25 to 39 year-olds moved across state lines, compared with about 18.6 percent of married, college-educated 25 to 39 year-olds, and less than 10 percent of married and unmarried persons in this age group without a college degree (Franklin, 2003).

Table G

### Single, College-Educated Women

Single, College-Educated Women by Metro, 2000

| Rank                  | Metropolitan Area                               | Percentage of all 25 to 34 year-old women with a four-year degree |       |
|-----------------------|---|---|-------|
| <b>Leading Metros</b> |   |   |       |
| 1                     | San Francisco—Oakland—San Jose, CA CMSA         | 34.9%   |       |
| 2                     | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 27.7%   |       |
| 3                     | Washington—Baltimore, DC—MD—VA—WV CMSA          | 22.7%   |       |
| 4                     | New York—Northern New Jersey—Long Island, NY—NJ | 22.6%   |       |
| continued...          | 5   | Seattle—Tacoma—Bremerton, WA CMSA                                 | 19.9% |

Table G  
continued...

| <b>CEOs for Cities Metropolitan Areas</b> |   |       |
|---|---|-------|
| 1   | San Francisco—Oakland—San Jose, CA CMSA         | 34.9% |
| 2   | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 27.7% |
| 3   | Washington—Baltimore, DC—MD—VA—WV CMSA          | 22.7% |
| 5   | Seattle—Tacoma—Bremerton, WA CMSA               | 19.9% |
| 9   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 17.1% |
| 10  | Minneapolis—St. Paul, MN—WI MSA                 | 16.9% |
| 12  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | 15.9% |
| 14  | Columbus, OH MSA                                | 15.4% |
| 16  | Richmond—Petersburg, VA MSA                     | 14.8% |
| 19  | Los Angeles—Riverside—Orange County, CA CMSA    | 14.3% |
| 21  | Milwaukee—Racine, WI CMSA                       | 14.0% |
| 25  | Cleveland—Akron, OH CMSA                        | 13.0% |
| 27  | Cincinnati—Hamilton, OH—KY—IN CMSA              | 12.9% |
| 31  | Providence—Fall River—Warwick, RI—MA MSA        | 12.5% |
| 33  | Miami—Fort Lauderdale, FL CMSA                  | 12.4% |
| 35  | Memphis, TN—AR—MS MSA                           | 11.5% |
| 36  | Louisville, KY—IN MSA                           | 11.4% |
| 37  | Detroit—Ann Arbor—Flint, MI CMSA                | 11.4% |
| 38  | Indianapolis, IN MSA                            | 11.4% |
| 40  | Tampa—St. Petersburg—Clearwater, FL MSA         | 11.2% |
| 46  | San Antonio, TX MSA                             | 9.1%  |
| <b>Lowest Metros</b>                      |   |       |
| 46  | San Antonio, TX MSA                             | 9.1%  |
| 47  | Jacksonville, FL MSA                            | 8.9%  |
| 48  | Grand Rapids—Muskegon—Holland, MI MSA           | 8.4%  |
| 49  | Salt Lake City—Ogden, UT MSA                    | 8.2%  |
| 50  | Las Vegas, NV—AZ MSA                            | 7.8%  |

Increasingly, the college-educated population is composed of women. We estimate that between 1990 and 2000, the total number of college-educated 25 to 34 year-olds increased by 750,000. Of this increase, nearly 600,000 or about 80 percent were women. Among the 25 to 34 year-old population nationally in 2004, the Census Bureau estimates that there were about 850,000 more women than men who had completed four-year degrees, with women representing more than 53 percent of the college-educated young adult population. Places that are attractive for these single, well-educated and footloose young women are likely to have an economic edge in building a talent base to be economically successful in the years ahead. ■

## Where in Cities Are Young People Locating?

In some cities young people, particularly talented young people, are choosing to locate primarily in the center of the region.

To compare the different patterns of settlement among young adults across metropolitan areas, we focused on the population living within 3 miles of the center of each metropolitan area and compared it with the characteristics of the population living outside this three-mile circle. Our approach is similar to work undertaken by Glaeser to study the relative centralization and decentralization of employment across metropolitan areas (Glaeser, Kahn, & Chu, 2001). Some studies examine patterns of population change between the central political jurisdiction (the largest city) and the remainder of the metropolitan area. Because there is a huge amount of variation in the share of a region's population that lives in the central municipality—some account for less than a fifth of metro area population, others account for 80 percent or more—this doesn't enable accurate comparisons across metropolitan areas.

The three-mile circle generally corresponds to the commercial heart and close-in neighborhoods in each metropolitan area. The total population inside this three-mile circle varies substantially across metropolitan areas for a variety of reasons—amount of buildable land (The three-mile circle often encompasses rivers and bays.), residential density and the size of commercial and industrial areas. Among the top 50 metropolitan areas, the median metropolitan area had about 150,000 persons living within 3 miles of the region's center. In New York, the number is more than 1.1 million; in West Palm Beach, only about 60,000.

As we have noted, most metropolitan areas had fewer 25 to 34 year-olds in 2000 than in 1990 because of the national decline in the number of persons in this age group. Table H shows the change in the number of 25 to 34 year-olds within 3 miles and outside of 3 miles from the center of each metropolitan region between 1990 and 2000. In general, the metropolitan trend was reflected in the regional pattern of growth: metro areas that attracted young adults saw

increases in the center and the periphery, while those with declines in young adults had declines in both the center and the periphery of the region. Despite this overall pattern, there were important variations among metropolitan areas.

Table H

**Share of Young Adults in Urban Centers**

Growth Rate of 25 to 34 Year-Old Population by Distance from Central Business District

| Rank                                      | Metropolitan Area                               | Inside<br>3 Miles | Outside<br>3 Miles |
|---|---|-------------------|--------------------|
| <b>Fastest Growth in Center</b>           |   |                   |                    |
| 1   | Seattle—Tacoma—Bremerton, WA CMSA               | 26.8%             | -5.4%              |
| 2   | Denver—Boulder—Greeley, CO CMSA                 | 25.4%             | 8.1%               |
| 3   | Portland—Salem, OR—WA CMSA                      | 21.0%             | 11.3%              |
| 4   | San Francisco—Oakland—San Jose, CA CMSA         | 18.1%             | -9.0%              |
| 5   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 15.5%             | -8.6%              |
| <b>CEOs for Cities Metropolitan Areas</b> |   |                   |                    |
| 1   | Seattle—Tacoma—Bremerton, WA CMSA               | 26.8%             | -5.4%              |
| 4   | San Francisco—Oakland—San Jose, CA CMSA         | 18.1%             | -9.0%              |
| 5   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 15.5%             | -8.6%              |
| 13  | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 4.3%              | -18.2%             |
| 16  | Miami—Fort Lauderdale, FL CMSA                  | -2.5%             | 2.4%               |
| 17  | Washington—Baltimore, DC—MD—VA—WV CMSA          | -3.2%             | -13.1%             |
| 19  | Minneapolis—St. Paul, MN—WI MSA                 | -4.5%             | -11.9%             |
| 24  | Providence—Fall River—Warwick, RI—MA MSA        | -9.3%             | -19.9%             |
| 27  | Los Angeles—Riverside—Orange County, CA CMSA    | -9.7%             | -10.7%             |
| 28  | San Antonio, TX MSA                             | -10.5%            | -1.5%              |
| 31  | Cleveland—Akron, OH CMSA                        | -12.7%            | -18.9%             |
| 32  | Detroit—Ann Arbor—Flint, MI CMSA                | -14.7%            | -13.3%             |
| 35  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | -15.7%            | -19.3%             |
| 36  | Columbus, OH MSA                                | -15.9%            | -2.9%              |
| 38  | Indianapolis, IN MSA                            | -17.8%            | -3.2%              |
| 39  | Milwaukee—Racine, WI CMSA                       | -17.8%            | -19.1%             |
| 40  | Richmond—Petersburg, VA MSA                     | -18.8%            | -10.3%             |
| 41  | Louisville, KY—IN MSA                           | -19.0%            | -11.8%             |
| 42  | Cincinnati—Hamilton, OH—KY—IN CMSA              | -21.2%            | -12.2%             |
| 46  | Memphis, TN—AR—MS MSA                           | -26.8%            | -5.5%              |
| <b>Slowest Growth in Center</b>           |   |                   |                    |
| 46  | Memphis, TN—AR—MS MSA                           | -26.8%            | -5.5%              |
| 47  | Norfolk—Virginia Beach—Newport News, VA—NC MSA  | -28.4%            | -20.9%             |
| 48  | Buffalo—Niagara Falls, NY MSA                   | -29.4%            | -26.1%             |
| 49  | Hartford, CT MSA                                | -29.9%            | -25.6%             |
| 50  | St. Louis, MO—IL MSA                            | -31.8%            | -20.6%             |

Among metropolitan areas that gained significant numbers of 25 to 34 year-olds, some saw the fastest growth in the center, some saw the fastest growth in the periphery, and a few recorded actual declines in the center of the region. Table I summarizes the different patterns of intra-metropolitan growth in metropolitan areas that saw increases and declines in young adult population between 1990 and 2000. (Metropolitan areas that gained young adult population are shown on the left; areas that lost young adults are shown on the right; each row addresses the pattern of central or peripheral change in young adult population.) Portland and Denver were examples of “center-led” growth with the number of young adults increasing twice as fast in the center as in the rest of the region. Austin, Las Vegas and Phoenix were examples of “peripheral growth,” with far faster growth in the periphery than the core of the region. Interestingly, three metropolitan areas had “declining centers” in the face of a region-wide increase in 25 to 34 year-olds: Charlotte, Orlando and Raleigh.

Metro level decline failed to cause a decline in the young adult population in four cities. Despite metropolitan-wide declines in young adults, Seattle, San Francisco, Chicago, New York and Boston all registered increases in the number of 25 to 34 year-olds living within 3 miles of the center. Several metro areas had overall declines in the number of young adults, but proportionately greater

Table I

**Variations in Central and Peripheral Growth in Young Adults**  
Change in 25 to 34 Year-Old Metro Population, 1990 to 2000

| <b>Central vs. Peripheral</b><br>Character of Change in<br>25 to 34 Year-Old<br>Population Growth | <b>Gaining Metros</b><br>Metro Area Gained 25-34<br>Year-Old Population from<br>1990 to 2000 | <b>Shrinking Metros</b><br>Metro Area Lost 25-34<br>Year-Old Population from<br>1990 to 2000 |
|---|--|--|
| Population Grew<br>Significantly Faster<br>within 3 Miles of Center                               | <b>Center-Led Growth (2)</b><br>Denver, Portland   | <b>Growing Center (5)</b><br>Boston, Chicago, New<br>York, San Francisco,<br>Seattle         |
| Population Changed<br>Significantly Faster<br>beyond 3 Miles from<br>Center                       | <b>Peripheral-led<br/>Growth (3)</b><br>Austin, Las Vegas,<br>Phoenix                        | <b>Faster Decline in<br/>Periphery (7)</b><br>Minneapolis, Providence,<br>Washington         |
| Population Declined<br>within 3 Miles of Center   | <b>Declining Centers (5)</b><br>Charlotte, Greensboro,<br>Nashville, Orlando,<br>Raleigh     | <b>Faster Decline in<br/>Center (9)</b><br>Indianapolis,<br>Jacksonville, Memphis            |
| Population Growth<br>(Decline) Similar within and<br>beyond 3 Miles of Center                     | <b>Balanced (4)</b><br>Atlanta, Dallas,<br>Salt Lake City                                    | <b>Balanced (18)</b><br>Buffalo, Detroit,<br>Milwaukee                                       |

declines in the periphery (examples include Minneapolis and Washington). Several metropolitan areas had faster declines in the number of young adults in the center of the region, including Indianapolis and Jacksonville.

Another way to look at the role of the close-in neighborhoods in influencing economic growth is to look at the relative concentrations of young adults compared to all other citizens within 3 miles of the center of each metropolitan area. Table J illustrates 25 to 34 year-olds relative preference for central locations in metropolitan areas in 1990 and 2000. The relative preference is calculated by dividing the share of 25 to 34 year-olds living within 3 miles of the center by the share of the entire population living within 3 miles of the center. For example, in Chicago in 2000, 5 percent of 25 to 34 year-olds and 2.8 percent of the entire population lived within 3 miles of the center of the region. This means that 25 to 34 year-olds have a relative preference of 1.79, meaning that they are about 79 percent more likely than the average resident of the region to live within 3 miles of the center of the metropolitan area.

Table J

**Relative Preference for Close in Neighborhoods**

Share of 25 to 34 Year-Old Population within 3 Miles of Urban Center Divided by  
Share of Total Population within 3 Miles of Urban Center

| Rank / Metropolitan Area                                 | 1990 | 2000 |
|--|------|------|
| <b>Most Centralized</b>                                  |      |      |
| 1 Chicago—Gary—Kenosha, IL—IN—WI CMSA                    | 1.39 | 1.79 |
| 2 Seattle—Tacoma—Bremerton, WA CMSA                      | 1.27 | 1.73 |
| 3 San Francisco—Oakland—San Jose, CA CMSA                | 1.26 | 1.69 |
| 4 New York—Northern New Jersey—Long Island, NY—NJ        | 1.30 | 1.62 |
| 5 Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA            | 1.28 | 1.61 |
| <b>CEOs for Cities Metropolitan Areas</b>                |      |      |
| 1 Chicago—Gary—Kenosha, IL—IN—WI CMSA                    | 1.39 | 1.79 |
| 2 Seattle—Tacoma—Bremerton, WA CMSA                      | 1.27 | 1.73 |
| 3 San Francisco—Oakland—San Jose, CA CMSA                | 1.26 | 1.69 |
| 5 Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA            | 1.28 | 1.61 |
| 7 Washington—Baltimore, DC—MD—VA—WV CMSA                 | 1.23 | 1.55 |
| 10 Minneapolis—St. Paul, MN—WI MSA                       | 1.20 | 1.40 |
| 17 Milwaukee—Racine, WI CMSA                             | 1.10 | 1.28 |
| 19 Philadelphia—Wilmington—Atlantic City, PA—NJ—DE       | 1.09 | 1.26 |
| 20 Cleveland—Akron, OH CMSA                              | 1.07 | 1.25 |
| 22 Los Angeles—Riverside—Orange County, CA CMSA          | 1.09 | 1.24 |
| 34 Indianapolis, IN MSA                                  | 1.07 | 1.15 |
| continued... 35 Providence—Fall River—Warwick, RI—MA MSA | 1.05 | 1.15 |

|              |    |  |      |      |
|--------------|----|--|------|------|
| Table J      | 36 | Richmond—Petersburg, VA MSA                    | 1.04 | 1.15 |
| continued... | 37 | Detroit—Ann Arbor—Flint, MI CMSA               | 0.99 | 1.14 |
|              | 38 | Columbus, OH MSA                               | 1.01 | 1.13 |
|              | 41 | Louisville, KY—IN MSA                          | 1.08 | 1.11 |
|              | 43 | Miami—Fort Lauderdale, FL CMSA                 | 0.97 | 1.10 |
|              | 44 | Memphis, TN—AR—MS MSA                          | 1.01 | 1.09 |
|              | 46 | San Antonio, TX MSA                            | 0.90 | 1.01 |
|              |    | <b>Most Decentralized</b>                      |      |      |
|              | 46 | San Antonio, TX MSA                            | 0.90 | 1.01 |
|              | 47 | Greensboro—Winston-Salem—High Point, NC MSA    | 0.96 | 1.00 |
|              | 48 | Nashville, TN MSA                              | 0.96 | 0.99 |
|              | 49 | Norfolk—Virginia Beach—Newport News, VA—NC MSA | 0.89 | 0.96 |
|              | 50 | Jacksonville, FL MSA                           | 0.89 | 0.94 |

In general, 25 to 34 year-olds are more likely than other metropolitan residents to live in close-in neighborhoods. In the aggregate, about 5.5 percent of all residents live within 3 miles of the center of the top 50 metropolitan areas, while about 7.4 percent of all 25 to 34 year-olds live within 3 miles of the center. In 2000, this pattern of preference for the center holds for 47 of the 50 largest metropolitan areas—the exceptions are Jacksonville, Nashville and Norfolk.

Strikingly, the relative attractiveness of central neighborhoods to young adults increased significantly and in every one of the top 50 metropolitan areas in the 1990s. In 1990, in the aggregate, 25 to 34 year-olds were about 12 percent more likely than other Americans to live in a close-in neighborhood; by 2000, they were 33 percent more likely to live in these close-in neighborhoods. Between 1990 and 2000, the likelihood that a 25 to 34 year-old will live close in (within the three-mile circle) increased in every single one of the top 50 metro areas. (Even though some metropolitan areas saw decreases in the number of 25 to 34 year-olds living within three-mile circle, in every case, these decreases were proportionately less than they were for the entire population.)

**Strikingly, the relative attractiveness of central neighborhoods to young adults increased significantly and in every one of the top 50 metropolitan areas in the 1990s.**

It is plain that young adults tend to be disproportionately located in the center of metropolitan areas and that this pattern has intensified over the past decade. But what about the most highly skilled young workers? Do they prefer more central locations? The pattern here is more varied.

Table K shows the college attainment rate for 25 to 34 year-olds within 3 miles of the center of the region and outside the three-mile ring in 2000. (Data on college attainment for 25 to 34 year-olds were not reported at the census tract level in 1990). In some metropolitan areas the college attainment rate for young adults is higher in the center of the region; in others it is lower in the center of the region. Table K ranks metropolitan areas according to the ratio of central area young adult college attainment to young adult college attainment in the rest of the metropolitan area. For example, in New York, Chicago and Portland, college attainment rates for 25 to 34 year-olds within 3 miles of the center are more than double the college attainment rate for young adults living beyond 3 miles. In contrast, in some metropolitan areas—Phoenix, San Antonio and Las Vegas, for example—the young adult college attainment rate in the center is less than half what it is in the remainder of the region.

Table K

**Young Adult College Attainment in Close-In Neighborhoods, 2000**

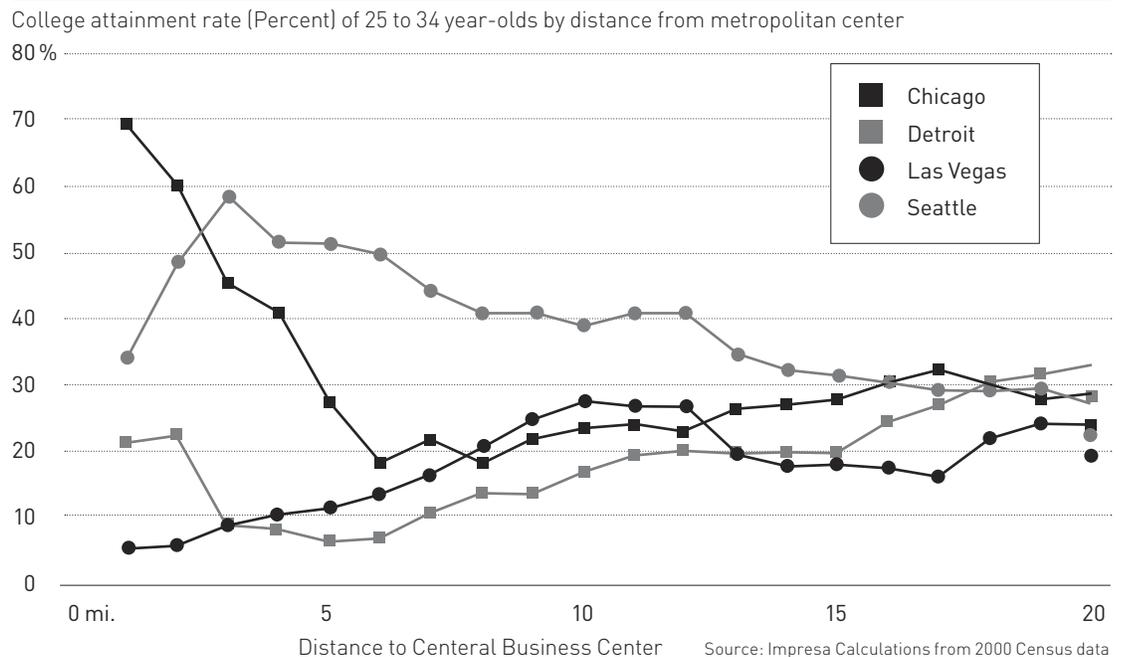
| Rank                                      | Metropolitan Area                               | Inside<br>3 Miles    | Outside<br>3 Miles | Ratio |     |
|---|---|----------------------|--------------------|-------|-----|
| <b>Most Centralized</b>                   |   |                      |                    |       |     |
| 1   | New York—Northern New Jersey—Long Island, NY—NJ | 71.6%                | 33.0%              | 2.2   |     |
| 2   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 69.5%                | 33.1%              | 2.1   |     |
| 3   | Portland—Salem, OR—WA CMSA                      | 54.7%                | 26.2%              | 2.1   |     |
| 4   | San Francisco—Oakland—San Jose, CA CMSA         | 67.1%                | 38.1%              | 1.8   |     |
| 5   | Seattle—Tacoma—Bremerton, WA CMSA               | 56.3%                | 32.4%              | 1.7   |     |
| <b>CEOs for Cities Metropolitan Areas</b> |   |                      |                    |       |     |
| 2   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 69.5%                | 33.1%              | 2.1   |     |
| 4   | San Francisco—Oakland—San Jose, CA CMSA         | 67.1%                | 38.1%              | 1.8   |     |
| 5   | Seattle—Tacoma—Bremerton, WA CMSA               | 56.3%                | 32.4%              | 1.7   |     |
| 6   | Washington—Baltimore, DC—MD—VA—WV CMSA          | 65.0%                | 39.4%              | 1.7   |     |
| 8   | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 59.8%                | 41.3%              | 1.4   |     |
| 17  | Memphis, TN—AR—MS MSA                           | 30.6%                | 25.3%              | 1.2   |     |
| 19  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | 38.4%                | 32.3%              | 1.2   |     |
| 22  | Richmond—Petersburg, VA MSA                     | 36.2%                | 34.1%              | 1.1   |     |
| 23  | Columbus, OH MSA                                | 36.7%                | 35.5%              | 1.0   |     |
| 24  | Providence—Fall River—Warwick, RI—MA MSA        | 27.7%                | 27.2%              | 1.0   |     |
| 27  | Minneapolis—St. Paul, MN—WI MSA                 | 39.9%                | 39.9%              | 1.0   |     |
| 30  | Cincinnati—Hamilton, OH—KY—IN CMSA              | 29.4%                | 30.7%              | 1.0   |     |
| 32  | Louisville, KY—IN MSA                           | 25.1%                | 27.2%              | 0.9   |     |
| 34  | Miami—Fort Lauderdale, FL CMSA                  | 22.3%                | 25.7%              | 0.9   |     |
| 35  | Milwaukee—Racine, WI CMSA                       | 27.8%                | 32.6%              | 0.9   |     |
| 39  | Detroit—Ann Arbor—Flint, MI CMSA                | 21.2%                | 28.9%              | 0.7   |     |
| 42  | Cleveland—Akron, OH CMSA                        | 19.2%                | 30.1%              | 0.6   |     |
| continued...                              | 46  | Indianapolis, IN MSA | 17.1%              | 32.1% | 0.5 |

|                           |    |  |       |       |     |
|---------------------------|----|--|-------|-------|-----|
| Table K                   | 47 | Los Angeles—Riverside—Orange County, CA CMSA | 12.3% | 23.4% | 0.5 |
| continued...              | 49 | San Antonio, TX MSA                          | 9.5%  | 23.6% | 0.4 |
| <b>Most Decentralized</b> |    |  |       |       |     |
|                           | 46 | Indianapolis, IN MSA                         | 17.1% | 32.1% | 0.5 |
|                           | 47 | Los Angeles—Riverside—Orange County, CA CMSA | 12.3% | 23.4% | 0.5 |
|                           | 48 | Phoenix—Mesa, AZ MSA                         | 11.2% | 25.2% | 0.4 |
|                           | 49 | San Antonio, TX MSA                          | 9.5%  | 23.6% | 0.4 |
|                           | 50 | Las Vegas, NV—AZ MSA                         | 5.1%  | 18.0% | 0.3 |

Taken together with the data on the growth of the young adult population within metropolitan areas, these data suggest that different metropolitan areas are growing in very different patterns. Portland, Phoenix and Las Vegas, for example, are among the five cities experiencing the fastest increases in the number of young adults with a four-year degree between 1990 and 2000 (see Table E). In Portland, the young adult population is increasing much faster in the center, and well-educated young adults settle disproportionately in close-in neighborhoods. In Phoenix and Las Vegas, the young adult population is increasing much faster outside the center, and the well-educated young adults settle disproportionately in more peripheral neighborhoods.

## Different metropolitan areas are growing in very different patterns.

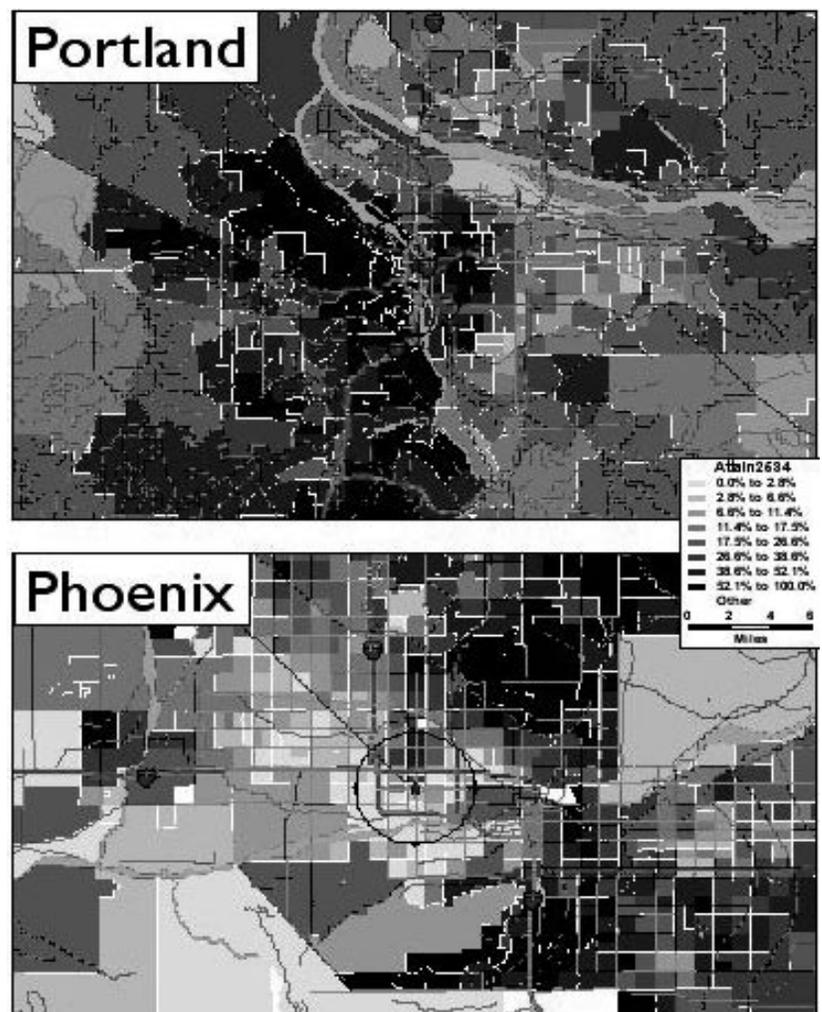
Figure K **Metro Neighborhood Attainment Rates**  
Attainment Rates Vary Among Metro Neighborhoods



Different metropolitan areas have very different patterns of settlement for their well-educated young adult population. Figure K shows the average attainment rate of the young adult population by distance from the center of the region. In some metropolitan areas, like Chicago, the college attainment rate is highest at the center of the region. In others, like Las Vegas, it is lowest in the center and highest on the periphery.

It is also possible to map the patterns of settlement by computing the college attainment rate for each census tract in a region. Figure L shows the college attainment rates for 25 to 34 year-olds in 2000 in Portland and Phoenix, cities that represent two distinctly different patterns. In Phoenix, the highest educational attainment rates are decentralized, particularly in the northwest portion of the region. In Portland, the highest attainment rates are much more centralized.

Figure L

**College Attainment by Census Tract**

In general, those areas with close-in neighborhoods that attracted disproportionate numbers of college-educated young adults had higher overall levels of educational attainment. Four of the five metropolitan areas with the highest central area preference had metropolitan college attainment rates over 30 percent (New York, Chicago, San Francisco and Seattle). Four of the five metropolitan areas with the lowest central area preference had metropolitan college attainment rates of 25 percent or less. ■

## Recommendations: Competing for Talent

### 1. Make people the focus of economic development

Urban leaders must adapt to a sea change in how economic development works. The U.S. is in the midst of a transition from a period of abundant labor markets and sustained labor force growth to a period of much slower growth. The nation will still experience economic cycles, but year-in and year-out, access to talented workers will increasingly be at a premium. Footloose workers, particularly college-educated 25 to 34 year-olds, rather than footloose firms will become the critical drivers of regional economic growth.

Rather than a world in which places compete for business (and people follow), we will increasingly live in a world where places compete for people (and businesses follow). The scale of the migration is substantial. Over the five-year period from 1995 to 2000, more than 3 million talented young people moved among metropolitan areas, and these areas also attracted nearly 2 million more persons from abroad. Most metropolitan areas lost population in the 25 to 34 age group during the 1990s, largely because of the national demographic trends. But some metropolitan areas were big gainers because they attracted more than their share of this mobile group.

Most economic development policies have essentially ignored this issue, focusing on business climate, tax incentives and regulatory reform. These issues will not disappear, but they will consistently decline in importance relative to the number one issue most businesses face: Can I hire talented people here? Places with a substantial pool of talented young workers and that are attractive destinations for relocation will do well. Other places will not.

It is increasingly clear that it is not simply a matter of people following jobs. Educated workers are not only more mobile but have wider choices in where they live than ever before. Studies of the movement of young adults show that those with a college degree are less likely than those with just a high school education to be drawn to faster growing states. High school graduates that made interstate

moves went to states with higher employment growth more than 70 percent of the time. College graduates went to higher growth states less than 60 percent of the time (Kodrzycki, 2001).

## 2. Become a city where women and ethnically diverse young people can achieve their goals

Young adults ages 25 to 34 are more likely to be Hispanic or of Asian descent than are baby boomers. Urban leaders must insure that these more diverse young people can be comfortable in their cities. “Is this a place where I can achieve my goals?” is the question they will be asking. “Is opportunity available for people like me?”

The same is true of young, single women. The role they play in the economic success of places is growing significantly, so places that they find appealing and where they can realize their potential are likely to have an economic edge in building a talent base.

## 3. Openness and engagement are key to rooting talent in place

The challenge to communities is to figure out how to attract people and root them into place. Many young adults will not stray far from home and family. Others, including many of the most ambitious and talented, will consider many different possibilities. They are mobile and up for grabs. Though we are far from having all the answers, focus groups conducted for an earlier research assignment with college-educated recent movers in the 25 to 34 year-old age group identified a coherent set of themes regarding the kinds of things talented young workers are looking for. Our groups discounted claims that young adults are disaffected and uninvolved. They want to live in places that they can be proud of, part of, and that are clean and green. Part of the equation seems to be social and cultural—Is this a place that I can be a part of, that I can contribute to? Places with a sense of possibility and opportunity, where the circle is open, where new ideas are welcomed are more likely to attract and retain young adults.

## 4. Investing in higher education is important, but it won't solve the problem

It will not be sufficient to assume that a state or region can count on educating its way out of this bind. Twenty-something college graduates are the most mobile segment of our society. Many places that produce graduates in abundance rank well below average in the number of 25 to 34 year-olds with a college degree. Nearly all of the places with an over-abundance of college-educated 25 to 34

year-olds have larger numbers than are graduated from local institutions of higher learning. Having a good higher education system is clearly an asset for any community, but places that invest in higher education without protecting or improving those assets that attract and retain talented graduates may see the benefits of their investment simply leave town.

## 5. Vibrant urban neighborhoods are an economic asset

One of the most striking findings of our research is that today's young adults are much more likely to choose to live in close-in urban neighborhoods than were young adults 10 or 20 years ago. Today's 25 to 34 year-olds are about one-third more likely to live in neighborhoods within 3 miles of a region's downtown than are other Americans. Close-in neighborhoods with higher density, mixed uses, walkable destinations, lively commercial districts and interesting streets can make a region more competitive for talented workers. Good public services, including transit, schools and parks, make close-in neighborhoods even more appealing. Even though many young adults are still choosing suburban locations, having vibrant urban neighborhoods means a region can offer more choices and become more competitive for highly mobile young adults. Those regions that lack vibrant close-in urban neighborhoods will be at a disadvantage in attracting and retaining talent.

## 6. The economic importance of being different

A careful analysis of the migration patterns of young adults over a 25-year period concluded that location preferences vary from individual to individual and that migration is driven more by a process of matching individuals to locations that suit their preferences than by sweeping national or regional trends (Kodrzycki, 2001).

Although we identified some common elements that were attractive to many well-educated young adults, we would not say that there is one single ideal community. An important element of authenticity is distinctiveness. We live in a nation (and a world, thanks to globalization) where culture has become increasingly homogenized, where one suburban community, strip mall, freeway exit looks exactly like every other. But a reaction is brewing, emerging from the ground up. Many people want choices and a sense of place that moves past the bland of the national brand.

The essence of this notion is that every community will have to find its own unique identity. Just as quality of life means different things to different people, so too does sense of place. We know tastes differ regarding climate. Many people will find the quality of life eroded by "bad" weather. Some will think Minnesota too cold, Portland too wet or Phoenix too hot. Just as there are many dimensions of climate, there are many dimensions of community. No city can

offer the best quality of life to everyone. The challenge is to find one's niche. The Twin Cities, for example, can't be cheaper than Mississippi, or sunnier than Phoenix or more aggressively entrepreneurial than Silicon Valley, but they can offer their own distinctive combination of attributes that a significant set of knowledge workers will find attractive. As Michael Porter reminds us, strategy is about being different: What do you choose to be or to offer that is different than others (Porter, 1996)? This notion stands in stark contrast to our traditional view of economic development, which has asked simply whether one place was cheaper than another. The challenge for every community is to decide what kind of place it wants to be. ■

### **About the Author**

Joseph Cortright is an economist and principal with Impresa, Inc., a Portland, Oregon consulting firm specializing in the study of metropolitan economies and knowledge-based industries. He is the author of "Signs of Life: The Growth of Biotechnology Centers in the U.S." (Brookings Institution, 2002), as well as numerous studies of the high technology industry in the U.S. and Europe. Mr. Cortright is also co-founder of EconData.Net, the web's leading guide to state and local socioeconomic information and serves as the economic advisor to the Oregon Business Plan, a long-term, business-led strategic plan for statewide economic development.

### **About CEOs for Cities**

Dynamic cities drive U.S. global competitiveness. That's why CEOs for Cities was founded. It is a network of mayors, university presidents, foundation officials and business and civic leaders from the nation's leading cities. CEOs for Cities' purpose is to equip urban leaders with research and leading-edge ideas to strengthen today's urban dynamics and prepare for tomorrow's global competitiveness. Generous support comes from the John S. and James L. Knight Foundation, the John D. and Catherine T. MacArthur Foundation, the Rockefeller Foundation and our business, civic, government and philanthropic partners.

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## Data Sources and Methodology

### Data Sources

Data for this report are drawn from the 1990 and 2000 Censuses. In preparing the tables and figures presented in this report we have used data tabulated by the Census Bureau, as well as other tabulations of Census data prepared by third parties. The analysis and presentation of all data in this report were undertaken by Impresa, Inc.

The principal underlying source of data about 25 to 34 year-olds in U.S. metropolitan areas is the Census 2000 Summary File 3. These data were published by the Census Bureau in 2002 (Bureau of the Census, 2002).

In order to estimate the change in the 25 to 34 year-old population of U.S. metropolitan areas between 1990 and 2000, we relied on tabulations prepared by GeoLytics, Inc. (GeoLytics Incorporated, 2002, GeoLytics Incorporated, 2003). GeoLytics has tabulated 1990 census data according to the geographic definitions used in the Census 2000. We supplemented these tabulations of data with reference to Census Bureau publications, particularly for the tabulation of educational attainment data by metropolitan area and county for 1990. We accessed these reports from the Census Bureau website (Bureau of the Census, 1993).

To refine our analysis of the demographic characteristics of the 25 to 34 year-old population we examined microdata drawn from the 2000 Census. These data were prepared and provided by the University of Minnesota (Ruggles & Sobek, 2003).

We mapped data for selected metropolitan areas using the Maptitude geographic information system software package (Caliper Corporation, 2001).

### Concepts

Metropolitan area definitions and names. Our geographic unit of analysis for this study is metropolitan areas. We look at the 50 most populous metropolitan areas in the United States in 2000, as defined by the Office of Management and Budget, and based on the tabulations of Census 2000. Our list includes all metropolitan

areas with a population of 1 million or more in 2000.

Our list includes a combination of metropolitan statistical areas and consolidated metropolitan statistical areas. Consolidated metropolitan statistical areas consist of 2 or more adjacent metropolitan statistical areas with substantial economic interconnections.

The task of computing the change in population of metropolitan areas was complicated by significant changes in the definition of metropolitan areas between the 1990 and 2000 Censuses. Newly urbanizing counties were added to several metropolitan areas, some metropolitan areas were merged, and others redefined, making it impossible to directly compare published results from the two Censuses. We have used 1990 data recast according to the 2000 metropolitan area definitions for our analysis. Subsequent to the publication of Census 2000 results, the Office of Management and Budget has published a new list of metropolitan areas (based on new definitions), which will be used in future data gathering. We do not use that new classification system in this report.

In our tabulations of data we include the official name of each metropolitan area, a title which usually identifies the principal cities in the metropolitan area, for example, the Philadelphia-Wilmington-Atlantic City, Consolidated Metropolitan Statistical Area. For brevity, in our narrative and in figures we generally shorten these names to a more manageable length—Philadelphia—but in all cases our reference is to the entire metropolitan area.

Birth cohort and age group. Our primary interest is in the location patterns of persons ages 25 to 34. We're particularly interested in seeing how these location patterns have changed over time, and we rely on Census data from 1990 and 2000 to make these comparisons. Of course, the people who were 25 to 34 in 1990 are not the same people who were 25 to 34 in 2000. For clarity, it is helpful to label these two groups.

Persons ages 25 to 34 in 1990 were born between 1956 and 1965 (the tail end of the baby boom generation) so we refer to them as the 1956-65 birth cohort. Persons ages 25 to 34 in 2000 were born between 1966 and 1975, and they are the 1966-75 birth cohort.

If we looked at the same birth cohort in 1990 and 2000, we would be looking at the same people, but at different stages in their life. The 1956-65 birth cohort would be 25 to 34 year-olds in 1990 and 35 to 44 year-olds in 2000. Because these same people are at a different stage in their lives (marriages, relationships, careers, children, mortgages), we don't expect their behavior to be shaped by the same set of considerations that it was when they were in their late

20s and early 30s. Similarly, looking at the change in the location of the 1966-75 birth cohort between 1990 and 2000 would essentially capture the effect of their movement from the late adolescent-early college years (15 to 24) to the young adult years (25 to 34). Again, any observation of changing location preferences here would be largely a factor of the process of individual aging and maturation, rather than indicative of new patterns of settlement.

Consequently our analysis compares and contrasts the location preferences of the 1956-65 birth cohort in 1990 (when they were 25 to 34) with the location preferences of the 1966-75 birth cohort in 1990 (when they too were 25 to 34) to see how the preferences of people in this age group have changed over the past decade. ■

## Appendix: Demographic Changes among Young Adults

The most significant change in the composition of the 25 to 34 year-old age group has been the rapid growth of the nation's Hispanic population. Between 1990 and 2000 the number of young adult Hispanics in metropolitan areas increased from 4 million to nearly 6.4 million. Hispanics accounted for about 11 percent of the metropolitan 25 to 34 year-old population in 1990 but nearly 20 percent of the metropolitan 25 to 34 year-old population in 2000.

Despite the rapid increase in the Hispanic population, there is considerable variation in the share of the population that is Hispanic among U.S. metropolitan areas. A majority of the 25 to 34 year-old population is Hispanic in San Antonio, and Hispanics are approaching a majority of this age group in two other metropolitan areas, Los Angeles and Miami. In most of the 50 largest U.S. metropolitan areas less than 10 percent of the 25 to 34 year-old population is Hispanic, with the smallest concentrations of Hispanic population found in Pittsburgh, St. Louis, Louisville, Columbus and Cincinnati.

Table L

### Hispanic Share of Young Adults

Share of 25 to 34 Year-Old Population Hispanic, 1990 to 2000

| Rank                                      | Metropolitan Area                            | Percent |
|---|--|---------|
| <b>Leading Metros</b>                     |  |         |
| 1   | San Antonio, TX MSA                          | 55.3%   |
| 2   | Los Angeles—Riverside—Orange County, CA CMSA | 47.6%   |
| 3   | Miami—Fort Lauderdale, FL CMSA               | 45.6%   |
| 4   | Houston—Galveston—Brazoria, TX CMSA          | 35.4%   |
| 5   | San Diego, CA MSA                            | 31.3%   |
| <b>CEOs for Cities Metropolitan Areas</b> |  |         |
| 1   | San Antonio, TX MSA                          | 55.3%   |
| 2   | Los Angeles—Riverside—Orange County, CA CMSA | 47.6%   |
| 3   | Miami—Fort Lauderdale, FL CMSA               | 45.6%   |

continued...

|                         |    |   |       |
|-------------------------|----|---|-------|
| Table L<br>continued... | 13 | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 21.2% |
|                         | 21 | Providence—Fall River—Warwick, RI—MA MSA        | 10.4% |
|                         | 25 | Washington—Baltimore, DC—MD—VA—WV CMSA          | 9.3%  |
|                         | 27 | Milwaukee—Racine, WI CMSA                       | 8.8%  |
|                         | 30 | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 7.8%  |
|                         | 31 | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | 7.5%  |
|                         | 33 | Seattle—Tacoma—Bremerton, WA CMSA               | 7.2%  |
|                         | 37 | Minneapolis—St. Paul, MN—WI MSA                 | 4.8%  |
|                         | 39 | Indianapolis, IN MSA                            | 4.0%  |
|                         | 41 | Memphis, TN—AR—MS MSA                           | 3.9%  |
|                         | 43 | Detroit—Ann Arbor—Flint, MI CMSA                | 3.6%  |
|                         | 44 | Cleveland—Akron, OH CMSA                        | 3.5%  |
|                         | 45 | Richmond—Petersburg, VA MSA                     | 3.5%  |
|                         | 46 | Columbus, OH MSA                                | 2.6%  |
|                         | 47 | Louisville, KY—IN MSA                           | 2.4%  |
|                         | 49 | Cincinnati—Hamilton, OH—KY—IN CMSA              | 1.6%  |
|                         |    | <b>Lowest Metros</b>                            |       |
|                         | 46 | Columbus, OH MSA                                | 2.6%  |
|                         | 47 | Louisville, KY—IN MSA                           | 2.4%  |
|                         | 48 | St. Louis, MO—IL MSA                            | 2.1%  |
|                         | 49 | Cincinnati—Hamilton, OH—KY—IN CMSA              | 1.6%  |
|                         | 50 | Pittsburgh, PA MSA                              | 1.0%  |

The Hispanic population ages 25 to 34 increased in 49 of the 50 largest metropolitan areas between 1990 and 2000. The sole exception was New Orleans, which registered a slight decline. Many metropolitan areas with previously small numbers of Hispanic residents registered the largest percentage increase. Five Southern metros ranked among the top five in the percentage increase in Hispanic population ages 25 to 34 with increases of several hundred percent, albeit from a very small base.

It is also apparent that racial diversity is increasing among the nation's young adults. The task of quantifying the extent of these trends is complicated by fundamental changes made by the Census Bureau in the manner in which it asked citizens to identify their race between the 1990 and 2000 Censuses. In 1990, the Census required respondents to choose a single racial category. In 2000, the Census gave respondents the opportunity to identify themselves as belonging to two or more racial groups. Consequently, data for 1990 and 2000 are not directly comparable.

Our analysis focuses on the three largest broad racial groupings in the Census: whites, African-Americans and Asians. Our analysis excludes Native Americans

and, for 2000, mixed race individuals. (Above, we separately report data for persons of Hispanic origin who can be of any race.) For simplicity, we use a much abbreviated description of each racial and ethnic category: African-American includes persons describing themselves as Black and African-American. Asian includes Asians and Pacific Islanders. Hispanic includes Mexican, Puerto Rican, Cuban or other Spanish. There were significant differences across racial and ethnic lines in the change in the 25 to 34 year-old population between 1990 and 2000.

The white young adult population declined 17 percent between 1990 and 2000, from about 27.7 million to fewer than 23 million. Among the 50 most populous metropolitan areas the fraction of the 25 to 34 year-old population that was white, single-race in 2000 varied from about 50 percent in Los Angeles to 88 percent in Pittsburgh. Only seven of the largest 50 metropolitan areas had a white single-race 25 to 34 year-old population in 2000 that was more numerous than the white 25 to 34 year-old population in 1990.

The number of young African-American adults declined slightly during the 1990s. In 2000, there were about 4.4 million African-American, single-race 25 to 34 year-olds in the metropolitan areas of the United States. This represented a number about 6 percent smaller than the number of African-American 25 to 34 year-olds in 1990 in metropolitan areas (although the racial definitions were

Table M

**Largest and Smallest Gains in Young Adult African-Americans**

Largest and Smallest Gains in 25 to 34 Year-Old African-American Population 1990 to 2000\*

| Rank                                      | Metropolitan Area                 | Percent                                  |         |       |
|---|-----------------------------------|--|---------|-------|
| <b>Leading Metros</b>                     |                                   |  |         |       |
| 1   | Minneapolis—St. Paul, MN—WI MSA   | 48.0%                                    | 9,195   |       |
| 2   | Las Vegas, NV—AZ MSA              | 43.0%                                    | 6,056   |       |
| 3   | Atlanta, GA MSA                   | 36.0%                                    | 57,009  |       |
| 4   | Phoenix—Mesa, AZ MSA              | 31.0%                                    | 4,684   |       |
| 5   | Orlando, FL MSA                   | 30.0%                                    | 7,856   |       |
| <b>CEOs for Cities Metropolitan Areas</b> |                                   |  |         |       |
| 1   | Minneapolis—St. Paul, MN—WI MSA   | 48.0%                                    | 9,195   |       |
| 16  | Seattle—Tacoma—Bremerton, WA CMSA | 4.0%                                     | 958     |       |
| 17  | Miami—Fort Lauderdale, FL CMSA    | 3.4%                                     | 3,796   |       |
| 18  | Columbus, OH MSA                  | 3.0%                                     | 948     |       |
| 19  | Indianapolis, IN MSA              | 2.2%                                     | 740     |       |
| 21  | Memphis, TN—AR—MS MSA             | -0.4%                                    | (285)   |       |
| 23  | Detroit—Ann Arbor—Flint, MI CMSA  | -2.0%                                    | (2,803) |       |
| 24  | Milwaukee—Racine, WI CMSA         | -3.0%                                    | (1,042) |       |
| continued...                              | 25                                | Providence—Fall River—Warwick, RI—MA MSA | -3.0%   | (200) |

Table M  
continued...

|                      |   |        |          |
|----------------------|---|--------|----------|
| 30                   | Cincinnati—Hamilton, OH—KY—IN CMSA              | -6.8%  | (2,410)  |
| 32                   | San Antonio, TX MSA                             | -9.0%  | (1,521)  |
| 34                   | Richmond—Petersburg, VA MSA                     | -10.0% | (4,916)  |
| 35                   | Cleveland—Akron, OH CMSA                        | -11.0% | (7,771)  |
| 36                   | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | -11.0% | (5,975)  |
| 39                   | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | -12.0% | (21,969) |
| 40                   | Washington—Baltimore, DC—MD—VA—WV CMSA          | -12.0% | (40,014) |
| 41                   | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | -12.0% | (32,146) |
| 49                   | Los Angeles—Riverside—Orange County, CA CMSA    | -27.4% | (66,713) |
| 50                   | San Francisco—Oakland—San Jose, CA CMSA         | -30.3% | (31,834) |
| <b>Lowest Metros</b> |   |        |          |
| 46                   | Buffalo—Niagara Falls, NY MSA                   | -17.0% | (3,627)  |
| 47                   | Pittsburgh, PA MSA                              | -17.0% | (5,044)  |
| 48                   | San Diego, CA MSA                               | -27.0% | (9,609)  |
| 49                   | Los Angeles—Riverside—Orange County, CA CMSA    | -27.0% | (66,713) |
| 50                   | San Francisco—Oakland—San Jose, CA CMSA         | -30.0% | (31,834) |

\* Changes in racial categories between 1990 and 2000 affect comparisons

different in that year). African-Americans represented about 13.1 percent of the 25 to 34 year-old metropolitan population in 1990; African-American, single-race 25 to 34 year-olds represented about 13.5 percent of the U.S. metropolitan population in 2000.

The proportion of the population classifying themselves as black or African-American varies substantially among U.S. metropolitan areas. The proportion of the 25 to 34 year-old population identified as black or African-American ranges from 30 percent or more in a number of Southern metropolitan areas, to less than 4 percent in several Western metropolitan areas.

Overall, during the 1990s, the African-American population became more dispersed among U.S. metropolitan areas. The biggest indicative increases in the African-American population were recorded in a diverse set of metropolitan areas: Minneapolis, Las Vegas, Atlanta, Phoenix and Orlando. Most metropolitan areas experienced indicative declines—with the largest decreases in San Diego, Los Angeles and San Francisco. (The apparent declines in California may, however, reflect a greater fraction of persons who identified themselves as African-American in 1990 and as having two or more races in 2000.)

The number of young adult Asian-Americans increased during the 1990s. There were about 1.9 million Asian, single-race 25 to 34 year-olds in the nation's metropolitan areas in 2000. The number of 25 to 34 year-olds identifying

themselves as Asian in the metropolitan U.S. increased by more than half a million during the decade of the 1990s. Asians now account for almost 6 percent of the metropolitan 25 to 34 population, up from about 4 percent in 1990.

The Asian population in the United States has historically been most concentrated on the West Coast. Four of the five metropolitan areas with the largest proportions of Asian-Americans ages 25 to 34 are located in California, and the fifth is Seattle. The distribution of Asian-Americans is still heavily skewed to a relatively few metropolitan areas. In five metropolitan areas, Asian-Americans make up more than 10 percent of the 25 to 34 year-old population; in 40 metropolitan areas Asian-Americans make up between 2 and 6 percent of the population. Metropolitan areas in the South generally have the lowest fraction of Asian-American population.

Table N

**Largest and Smallest Gains in Young Adult Asian-Americans**

Largest and Smallest Gains in 25 to 34 Year-Old Asian-American Population  
1990-2000\*

|              | <b>Rank / Metropolitan Area</b>           | <b>Percent</b>                                  |               |
|--------------|---|---|---------------|
|              | <b>Leading Metros</b>                     |   |               |
|              | 1   | Louisville, KY—IN MSA                           | 214.0% 1,957  |
|              | 2   | Las Vegas, NV—AZ MSA                            | 187.0% 9,382  |
|              | 3   | Atlanta, GA MSA                                 | 177.0% 19,683 |
|              | 4   | Grand Rapids—Muskegon—Holland, MI MSA           | 170.0% 2,373  |
|              | 5   | Memphis, TN—AR—MS MSA                           | 149.0% 2,426  |
|              | <b>CEOs for Cities Metropolitan Areas</b> |   |               |
|              | 1   | Louisville, KY—IN MSA                           | 213.9% 1,957  |
|              | 5   | Memphis, TN—AR—MS MSA                           | 149.1% 2,426  |
|              | 10  | Detroit—Ann Arbor—Flint, MI CMSA                | 124.0% 17,103 |
|              | 13  | Minneapolis—St. Paul, MN—WI MSA                 | 107.0% 12,739 |
|              | 14  | Indianapolis, IN MSA                            | 102.4% 2,368  |
|              | 16  | Cincinnati—Hamilton, OH—KY—IN CMSA              | 101.2% 3,053  |
|              | 19  | Richmond—Petersburg, VA MSA                     | 99.0% 2,058   |
|              | 21  | Columbus, OH MSA                                | 96.0% 4,841   |
|              | 27  | Philadelphia—Wilmington—Atlantic City, PA—NJ—DE | 83.0% 17,926  |
|              | 28  | Milwaukee—Racine, WI CMSA                       | 78.0% 2,818   |
|              | 29  | Chicago—Gary—Kenosha, IL—IN—WI CMSA             | 75.0% 34,854  |
|              | 30  | Cleveland—Akron, OH CMSA                        | 72.0% 4,032   |
|              | 31  | Boston—Worcester—Lawrence, MA—NH—ME—CT CMSA     | 72.0% 22,375  |
|              | 33  | Seattle—Tacoma—Bremerton, WA CMSA               | 61.0% 21,203  |
|              | 34  | Washington—Baltimore, DC—MD—VA—WV CMSA          | 60.0% 30,218  |
| continued... | 39  | San Antonio, TX MSA                             | 50.0% 1,534   |

|                         |    |  |       |        |
|-------------------------|----|--|-------|--------|
| Table L<br>continued... | 43 | Miami—Fort Lauderdale, FL CMSA                 | 35.3% | 3,176  |
|                         | 44 | San Francisco—Oakland—San Jose, CA CMSA        | 34.0% | 63,390 |
|                         | 45 | Providence—Fall River—Warwick, RI—MA MSA       | 32.0% | 1,204  |
|                         | 50 | Los Angeles—Riverside—Orange County, CA CMSA   | 8.3%  | 21,599 |
|                         |    | <b>Lowest Metros</b>                           |       |        |
|                         | 46 | Sacramento—Yolo, CA CMSA                       | 26.0% | 5,317  |
|                         | 47 | New Orleans, LA MSA                            | 25.0% | 1,023  |
|                         | 48 | San Diego, CA MSA                              | 19.0% | 7,319  |
|                         | 49 | Norfolk—Virginia Beach—Newport News, VA—NC MSA | 9.0%  | 588    |
|                         | 50 | Los Angeles—Riverside—Orange County, CA CMSA   | 8.0%  | 21,599 |

\* Changes in racial categories between 1990 and 2000 affect comparisons

The Asian population in the metropolitan U.S. became more dispersed over the decade of the 1990s. Percentage increases in the Asian young adult population were greatest in those areas with traditionally small concentrations of Asians and lowest in the areas with traditionally large concentrations of Asians.

In sum, it is apparent that young adults in the United States are a much more ethnically and racially diverse group than was the case a decade ago. The white population in this group has declined significantly, and the African-American population slightly, while there have been substantial increases in the numbers of Hispanic and Asian young adults. The changes apparent in this age group signal the future pattern of increasing diversity in the U.S. workforce. ■