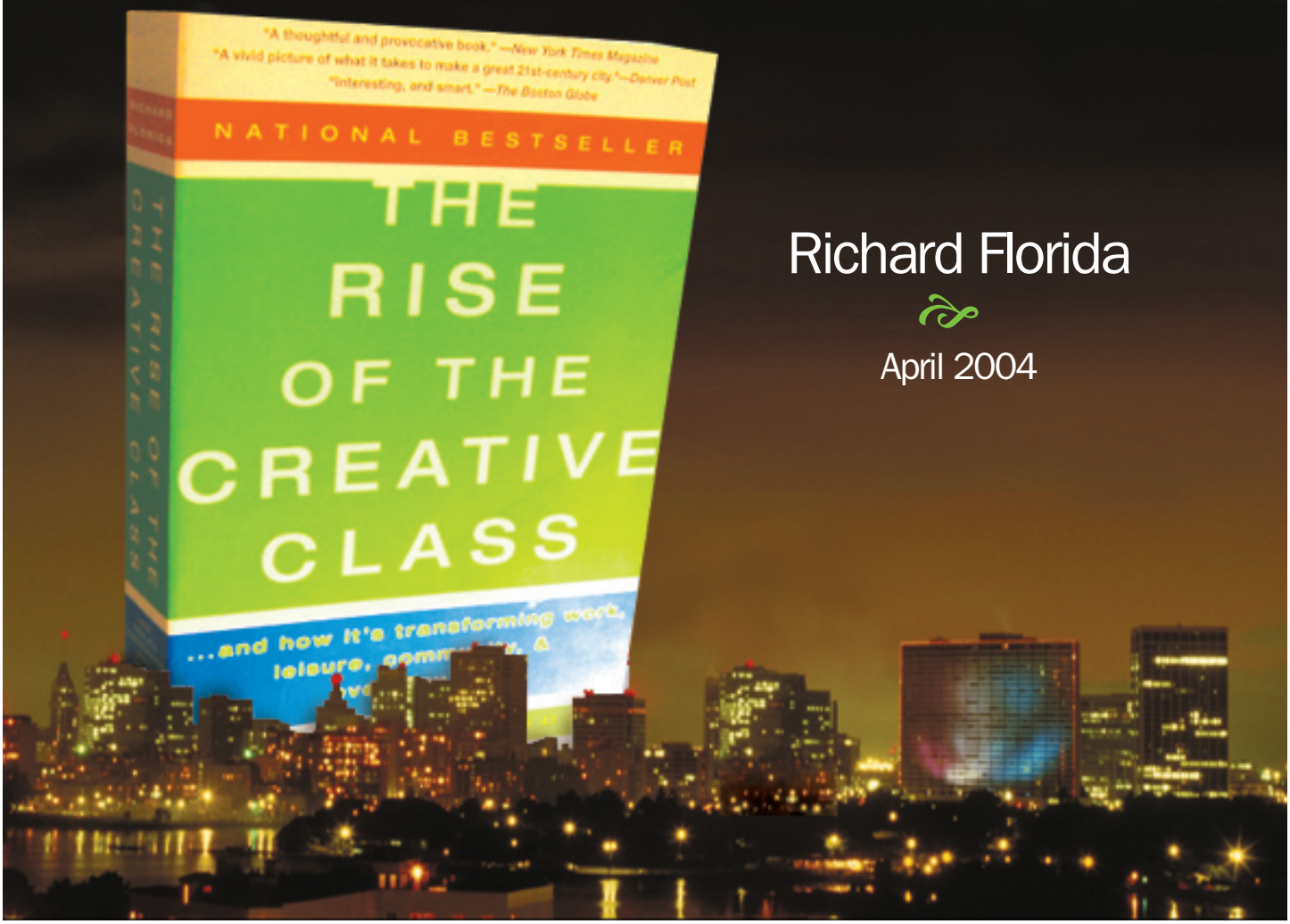
Revenge of the Squelchers:

THE GREAT CREATIVE CLASS DEBATE



Richard Florida

April 2004

It would be an understatement to say that my book The Rise of the Creative Class has generated heated debate. With the national culture wars escalating on all fronts, it's not surprising that most of the controversy revolves around the idea that cities with thriving arts and cultural climates and an openness to diversity of all sorts also enjoy higher rates of innovation and high-wage economic growth. From the right, consider what Steven Malanga of the neo-conservative Manhattan Institute has to say:

> "[T]o a generation of liberal urban policymakers and politicians who favor big government, Florida's ideas offer a way to talk economic-development talk while walking the familiar big-spending walk…Now comes Florida with the equivalent of an eat-all-you-want-and-still-lose-weight diet. Yes, you can create needed revenue-generating jobs without having to take the unpalatable measures—shrinking government and cutting taxes—that appeal to old-economy businessmen, the kind with starched shirts and lodge pins in their lapels. You can bypass all that and go straight to the new economy, where the future is happening now. You can draw in Florida's creative-class capitalists—ponytails, jeans, rock music, and all—by liberal, big-government means: diversity celebrations, "progressive" social legislation, and government spending on cultural amenities. Put another way, Florida's ideas are breathing new life into an old argument: that taxes, incentives, and business-friendly policies are less important in attracting jobs than social legislation and government-provided amenities."

And, from the left, we have Joel Kotkin and Fred Siegel penning the following for Blueprint, the house organ of the Democratic Leadership Council:

> "Those most outspoken about such a culture- and lifestyle-based urban revival have all the heady passion of a religious movement; indeed, they've organized themselves into something called the Creative Class. One hundred of them – they called themselves the "Creative 100" – met in Memphis last spring to lay out their principles in a document called the Memphis Manifesto. Their mission, it reads, is to ""remove barriers to creativity, such as mediocrity, intolerance, disconnectedness, sprawl, poverty, bad schools, exclusivity, and social and environmental degradation." The 1934 Soviet constitution couldn't have said it better."

But that's not all. In the two years since my book was published, I have been accused of eroding traditional family values (I don't), of promoting a gay agenda (I'm straight), and of undermining the very tenets of Judeo-Christian civilization (I'm at a loss).

Such heated rhetoric puzzles me; I harbor no hidden agendas. Over the course of a more than twenty-year academic career, my work has been concerned with one thing: identifying the key factors that drive economic growth. When I find myself in front of audiences primarily interested in arts, culture, or diversity issues, I always start with an apology: I am not a student of those subjects, I say, and I have only a cursory understanding of them. The reason I came to arts, culture, and diversity issues (rather late in my career) is simply because I found them to be fundamental to the process of economic growth. In the interest of full disclosure, I should say that I am a political independent, fiscally conservative and socially liberal, and a believer in vigorous international competition and free trade. I am 46 years old, white, Italian-American, single, and straight. I have voted for and served under Democrats and Republicans, working most recently with Tom Ridge, the current chief of Homeland Security, when he was the governor of Pennsylvania. For almost a decade, I have held the H. John Heinz III Professorship of Regional Economic Development at Carnegie Mellon University. (Heinz was a moderate Republican for whom I have the greatest admiration.) I favor John Kerry's positions on many, though not every, issue, and believe he will make a better President than George W. Bush.

Currently, I work closely with mayors, governors, and business, political, and civic leaders from both sides of the aisle on economic development issues. A good deal of the time, quite honestly, I can't even tell who's a Republican and who's a Democrat – a welcome contrast to the horribly polarized and broken-down state of national politics. The members of my core team of colleagues and collaborators include registered Democrats and Republicans (from far left socialists to right-wing libertarians and staunch GOP conservatives), married and single people, recent college graduates and middle-agers, and at least two gay men, one a left-wing Democrat and the other a moderate gay Republican. What binds us together is not a political agenda, but our common determination to identify the key factors that drive technological innovation, spur growth, and ultimately bring about improved living standards for people from all walks of life.

But some have chosen not to see my work in that light. In the forward to the Australian edition of The Rise of the Creative Class, entrepreneur Terry Cutler sums it up succinctly, recounting a meeting of distinguished intellectuals and civic leaders to whom he presented my key ideas concerning diversity and economic growth. "Summoning my courage," he writes, "I described Florida's findings about the correlation between bohemianism and diversity in the location of high-tech firms. The palpable recoil around the room at such a radical and distasteful recipe for success left me in no doubt that these civic leaders would clearly prefer to drift into a genteel poverty."

The great urbanist Jane Jacobs has a word for this kind of behavior. She calls it "squelching." Jacobs believes that all cities have creative energy, and that all people are creative. What distinguishes thriving cities from those that stagnate and decline is a group of people she calls the "squelchers." Squelchers, she explains, are those political, business, and civic leaders who divert and derail human creative energy by posing roadblocks, acting as gatekeepers, and saying "no" to new ideas, regardless of their merit. What worries me is that, even when they are wrong on the facts, my critics have continued to provide ample ammunition for such squelchers.

In the following pages, I'll do my best to engage my critics from across the ideological spectrum. In doing so, I'll outline what I believe is at stake in the ongoing debate over economic development. I'll conclude by highlighting some key issues for our common future, ones that require not only more academic research but also more public consideration if our society is to realize a more robust economic growth and a better quality of life for itself.

What Kind of Growth?

One line of criticism of The Rise of the Creative Class has focused on the question of what types of cities create the most jobs. "Jobs data going back 20 years, to 1983," writes Steven Malanga in the neo-conservative City Journal, "show that Florida's top ten cities as a group actually do worse, lagging behind the national economy by several percentage points, while his so-called least creative cities continue to look like economic powerhouses, expanding 60 percent faster than his most creative cities during that same period." If true, Malanga's assertions are intriguing. But for them to be at all useful, it is necessary to break down the numbers into more manageable – not to mention more relevant – sets of statistical analyses, to really get a handle on what kinds of jobs, what kinds of cities, and therefore what kinds of economic growth we are talking about.

With this aim in mind, my colleague Kevin Stolarick of Carnegie Mellon ran a slew of key economic performance indicators for two groups of regions: the 11 top-performers on my updated (2004) Creativity Index versus the 11 regions with the lowest Creativity Index scores. He chose 11 regions in each group (instead of the more common "top 10" designation), because there was a tie between two of the ten lowest ranked regions. To keep things comparable, Stolarick based his calculations on the 49 regions with more than 1 million people. The two groups thus represent roughly the top and bottom 20 percent of all one million-plus American cities. Take a close look at what he found.

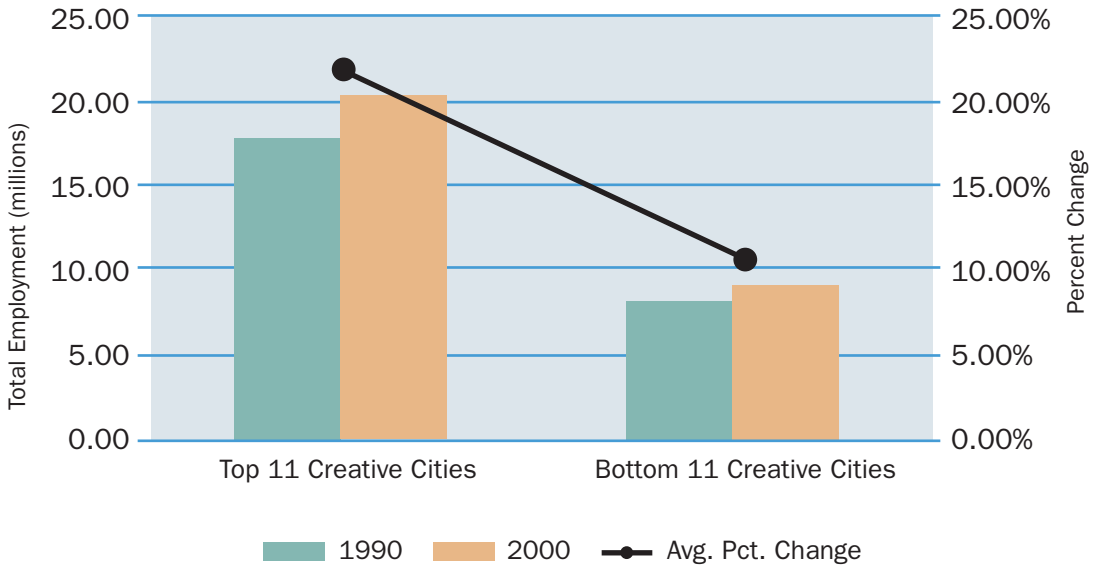
Employment and Population

- Between 1990 and 2000, the creativity leaders actually generated three times as many jobs as the lowest-ranked regions, 2.32 million versus 850,000 jobs.
- Controlling for the fact that the leading regions employ more people, the leaders still generated jobs at more than twice the rate of the others, 22 percent versus 11 percent.
- The leading creative regions continued to perform better in recent years, contradicting Malanga's claim that their earlier performance was an unsustainable by-product of the tech boom. The leading Creativity Index regions generated more than 35,000 jobs between 1999 and 2002, while the lowest- ranked regions lost nearly 400,000 jobs.
- The top-ranked regions added more than 225,000 high-paying creative sector jobs while the lowest-ranked regions lost more than 30,000 of these jobs. The leading regions on my Creativity Index added nearly 500,000 people between 1990 and 2000, compared to 125,000 for the lowest-ranked regions, a growth rate of 23 percent versus 9.27 percent.

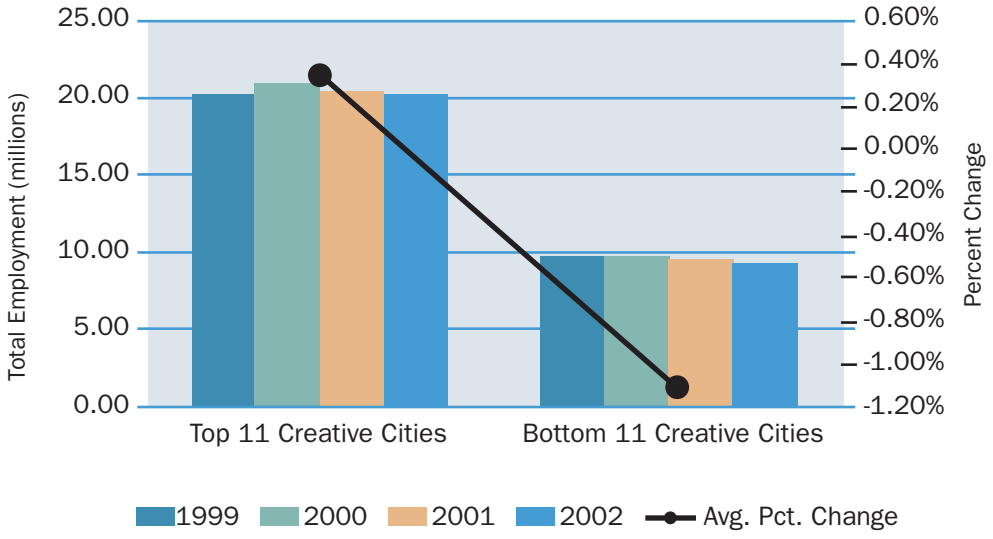
Wage and Salary Growth

- But looking at job creation alone can be misleading. A region may well create lots of jobs, but what really mBut looking at job creation alone can be misleading. A region may well create lots of jobs, but what really matters is the quality of those jobs —the wealth they generate and the salaries they pay.
- The leading regions on my Creativity Index added more than $100 billion in total wages between 1999 and 2002, according to Stolarick's analysis, more than five times the $20 billion added by the lowest ranked regions.
- Workers in the leading creative regions averaged more than $5000 more in wages and salaries than those in the lowest-ranked regions, $40,091 versus $34,383.
- Wages in the top-performing regions grew at almost double the rate (5.1 percent) of the laggards (2.8 percent). This translates into a far better "raise" for workers in creative cities, who took home 37 percent more than their counterparts in lower-scoring regions, $5125 versus $3129.

Job growth 1990-2000



Overall job growth 1999-2002



Innovation and High-Technology

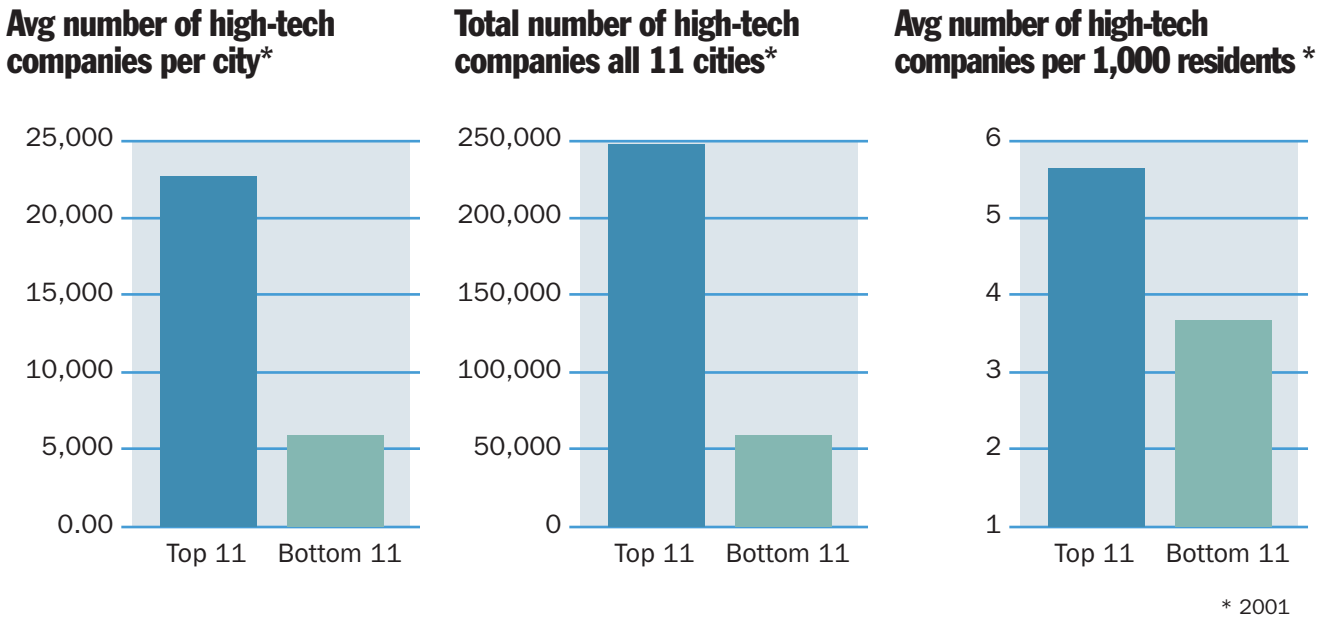
- The creativity leaders were also far more inventive and accounted for far more jobs in high-wage, high-tech fields than regions that score low on the Creativity Index. It's worth noting that high-tech industry and patents are included in the Creativity Index (along with several other indicators) and thus by definition my highly-ranked regions perform better on these measures. Still these are key economic outputs that many regions are trying to achieve so it is worth looking at how the two groups of regions stack up.
- In 2001, the 11 top ranked regions accounted for eight times the number of high-tech jobs than the 11 lowest-ranked regions (248,000 versus 61,000).
- The top-ranked also generated nearly 100,000 more patents than the lowest ranked regions between 1990 and 1999.
- Even taking into account the larger size of the highest-ranked regions, they increased their rate of invention (or patenting) at more than double the rate of the laggards 12 percent versus 5 percent.

Patents (1990-1999)	Top 11 Large Creative Cities	Bottom 11 Large Creative Cities
Per city average (1999)	2,113	531
Average growth	11.56%	4.94%
Average per 10,000 residents (1999)	5.25	3.34
Total 1990-1999 all 11 cities	140,173	46,738
Total 1999 all 11 cities	23,240	5,843
High-Tech Share (2000)		
Per city average	2.76%	0.25%
Average growth (1990-2000)	3.11%	-0.89%
Share national high-tech output per 1M residents	7.0%	1.6%
Total share national high-tech output all 11 cities	30.4%	3.0%

Given these trends, which city would you put your money on to be an economic powerhouse fifty years from now: Las Vegas, a region typically held up as a model of recent growth by my critics, but which could easily go the way of post-1920's Atlantic City; or San Francisco, which boasts Stanford, Berkeley, and a long legacy of technological and cultural innovation? It's true that between 1990 and 2000, Las Vegas ranked first in population growth and third in job growth. But in per capita income growth, it ranked a lowly 294th out of some 315 U.S. Metropolitan Statistical Areas.

Malanga also challenges my work on the grounds that it does not deal adequately with the issue of entrepreneurship and new firm formation. This happens to be an area in which I have been conducting a fair amount of research with colleagues Zoltan Acs, a leading expert in the field, and Sam Youl Lee, a doctoral student at Carnegie Mellon. Our work, supported by the Ewing and Marion Kauffman Foundation, shows that rates of new firm formation are considerably higher in creative regions, and that entrepreneurship is closely correlated with the Creativity Index.

But Malanga is not actually very interested in the numbers; he has a much bigger political axe to grind. "Liberal



policymakers and politicians," he writes, "have latched on to [Florida's] theories so enthusiastically" because "to them, an expanding government is always more interesting than an expanding economy." Now we have it: Malanga's real goal is to denigrate all forms of public policy while promoting the traditional right-wing notion that tax cuts, privatization, and unfettered free markets will not only generate economic growth, but will also solve virtually every urban ill. While his right-wing prescriptions fuel the flames of conservative ideology, they are contradicted by almost everything that serious urban and regional economists have to say on the subject. The broad consensus in the field is that tax rates have at best a minor effect and that real growth stems from the improved productivity and higher rates of innovation produced by concentrations of skilled human capital.

The Rise of the Creative Class is no paean for more government spending. It unequivocally states that large, top-down government development projects are a major part of the problem. I roundly criticize public boondoggles like stadium-building efforts and large-scale downtown revitalization plans. In virtually all of my public speaking, I have called for a moratorium on such government mega-projects. Like Jane Jacobs, I argue that real economic development is people-oriented, organic, and community-based. In the preface to the paperback edition of my book, I go so far as to write:

Business and political leaders frequently ask me to suggest solutions to local problems. As this book shows, there are no magic bullets to building the kind of communities and organizations that can prosper in the Creative Age. Growing a creative ecosystem is an organic process. While certain initiatives may help to encourage its emergence and others will certainly squelch it, the development of environments cannot be planned from above.

Chickens-or-Eggs

A second line of criticism states that the creativity theory falls victim to a classic "chicken-and-egg" problem by confusing the underlying cause of economic growth. What typically come first, these critics argue, are the jobs. Once a region has those, the people – as well as the amenities, lifestyle, and tolerance – will gravitate naturally. One conventional economic developer recently put it this way: "Create the jobs and diversity will follow."

But this kind of thinking does not square with reality. My research and other recent studies have shown that place does matter; many people choose location first and then look for jobs in those locations. A 2002 survey of

four thousand recent college graduates reported in the Wall Street Journal, for instance, found that three-quarters of the graduates identified location as more important than the availability of a job when selecting a place to live. My own interviews and focus groups have indicated the same trend: people select locations—particular sets of cities—in which to orient their search for work, as opposed to vice versa. When I put this chicken-and-egg question to Jane Jacobs, she observed "When a neighborhood is boring, even the rich people leave."

It's obvious that arts, culture, and demographic diversity help to spur job creation and economic revitalization on the front end (rather than simply following behind these phenomena). Take the gentrification of inner city neighborhoods like New York's SOHO or San Francisco's SOMA. What came first in these places? As any sentient observer of urban affairs can attest, these neighborhoods initially lost blue-collar jobs as factories and warehouses moved out of outmoded facilities. Artists and culturally creative people moved in, often reclaiming the properties from ruin by way of illegal conversions and sweat equity revitalization. Gays and singles came next. Only much later – once these initial, pioneering groups had increased real estate values – did families, professionals, yuppies, technology-based businesses, and retail shops follow.

In the end, the jobs-versus-people question is a false dichotomy (and the people who raise it are likely squelchers). The two come together at the nexus of place. Real places provide the thick labor markets that match people to jobs, the mating markets that enable people to find life-partners, the social markets that beget friendships, the amenities that allow people to pursue the lifestyles they wish, and the smorgasbord of daily choices that encourage people to construct and validate their identities holistically. Successful places are built upon complex, multifaceted ecosystems that, like those occurring in the natural world, defy simplistic linear thinking.

All In the Family?

A related line of criticism argues that I have my eye on the wrong kinds of places. Critics from this school suggest that growth does not occur in diverse, urban-oriented places that welcome gays, singles, and artists, but rather in sprawling, sunny suburbs with a penchant for "family values." Joel Kotkin believes that my theory mistakes cities that cater to "singles, young people, homosexuals, sophistos, and trendoids" as the driving force of economic growth, when in fact the real engine lies in the suburbs.

This line of criticism implies that a place must either be family-friendly or gay-and-bohemian-friendly, but can't be both. Politically, this is divisive thinking; worse, it's economically inaccurate. Kotkin cites McAllen, Texas, and the California cities of Fresno and Riverside as fast-growing, family-friendly cities. Among the 331 metro areas in the United States, McAllen ranks first in the percentage of households with children headed by gay parents, while Fresno and Riverside rank 8th and 21st, according to Gary Gates of the Urban Institute. Apparently, "family" means more in these places than just Ward, June, Wally, and the Beaver.

Likewise, various lists of America's most family- or child-friendly places turn out to be loaded with cities that also score high as homes for gays and artists. I cited one such list in The Rise of the Creative Class. The top five child-friendly major metros were Portland (Oregon), Seattle, Minneapolis, New York, and San Francisco. All but one of those top five ranked well above average on the Gay Index. All five were among the top seven on the Bohemian Index.

According to a recent Boston Globe report, Kotkin says he was "startled" when the leaders of older Midwestern communities began soliciting his advice on how to lure "25-year-old gay college graduates to the regions." "What to you mean?" Kotkin replied, "You don't have a snowball's chance in hell." Not only does this assumption smack of arrogance and elitism; it also blindly ignores the fact that many of these people already live in places like St. Louis. As for the criticism that The Rise of the Creative Class advocates a strategy aimed at attracting young people while ignoring families, consider what I actually had to say on the subject:

> Some commentators have objected to my findings, and thus my economic advice, saying that they are overly oriented toward younger Creative Class people…These people, my critics argue, represent only a small part of the nation's skilled workforce. Of course, a spiky-haired college senior would prefer a place like Austin,

which has lots of other talented young people and where many of the amenities and nightlife are geared to the young. But is making one's city into a play-land for single twenty-somethings really a formula for economic success? Does it produce a community that is socially viable in the long run?…And they often add questions like: Aren't these young, single college grads eventually going to grow up, get married, and develop more mature preferences; doesn't it make more sense for cities to focus on good school systems and safe streets, which appeal to the middle-aged people who hold positions of influence and really make our economy run? I reply that of course it's important to have a people climate that is valued by older people and married couples.

…When a colleague of mine spoke to a group of senior citizens in Pittsburgh in the winter of 2000 about the importance of lifestyle amenities like bike paths, he got a fascinating response. The seniors liked the idea a lot, because the bike lanes would keep the cyclists off the sidewalk, where they frighten the seniors and sometimes knock them down.

A woman from Minneapolis that I interviewed put the age issue in perceptive. She originally came to Minneapolis as a young single because of the lifestyle it offered. She liked being able to engage in active outdoor recreation with other young singles in Minneapolis' fabulous park system and being able to walk from her house to the local nightspots. She never thought it would be a good place to have a family and raise kids. But when she got married and had children she was more than pleasantly surprised to find that many of the same lifestyle amenities she enjoyed while she was single the parks and walkable neighborhoods were even more attractive to her as a married person and new parent.

The most successful regions welcome all kinds of people. They offer a range of habitation choices, from nice suburbs with single-family housing to hip urban districts for the "unattached." Why do they offer all of the above? Simple: because they have to. Like it or not, only 23.5 percent of Americans now live in a standard nuclear family with two parents and children at home. Increasingly, young people are delaying marriage and childbirth. More and more adults are separating or divorcing. Many of us live in some sort of alternative personal arrangement. Appealing only to traditional families and bashing everyone else may make good propaganda for the culture wars, but as a development strategy, it's a pretty narrow approach – and any region or politician that does so stands to alienate a lot of talented people.

But Kotkin and company continue to drive a wedge. "The new mantra advocates an urban strategy that focuses on being 'hip' and 'cool' rather than straightforward and practical," they write, preferring to tackle a straw-man caricature of my ideal city rather than address the facts at hand. "Cities that will win the new competition," they continue, "will be those that pour their resources into the arts and other cultural institutions that attract young, 'with-it' people who constitute, for them, the contemporary version of the anointed. Call them latte cities."

This is not at all what the book says. In Chapter 15 of The Rise of the Creative Class, I discuss the need for cities to build diverse climates that appeal to various groups: gays, singles, young people, and families:

As I frequently tell city regional leaders around the country, the key to success today lies in developing a world-class people climate. While it certainly remains important to have a solid business climate, having an effective people climate is even more essential. By a people climate, I mean a general strategy aimed at attracting and retaining people — especially, but not limited to, creative people. This means remaining open to diversity and actively working to cultivate it, and investing in the lifestyle amenities as opposed to using financial incentives to attract companies, build professional sports stadiums or develop retail complexes. The benefits of this kind of strategy are obvious. While companies — or sports teams for that matter that get financial incentives can pull up and leave at virtually a moment's notice, investments in amenities like urban parks (for example) last for generations; others like bike lanes or off-road trails for running, cycling, roller-blading, or just walking your dog, benefit a wide swath of the population.

There is no one-size-fits-all model for a successful people climate…[T]he members of the Creative Class

> are diverse across the dimensions of age, ethnicity, race, marital status, and sexual preference. An effective people climate thus needs to emphasize openness and diversity, and to help reinforce low barriers to entry. It cannot be one-sided or monolithic. Truly Creative Communities appeal to many different groups.

It is also worth pointing out how significantly Kotkin has changed his tune in a very short time. Consider this passage from his book The New Geography (complete with the New Economy-hyping subtitle: How the Digital Revolution is Reshaping the American Landscape). Here, Kotkin lavishes praise on the new denizens of the Internet age, clustered in gentrifying urban centers as the economic motor force of what he then referred to as a digitally-driven knowledge-value revolution:

> [The] new urbanites are not, for the most part, drawn from the typical American middle class family...but by two distinct groups largely outside the mainstream. One group is recent immigrants...The second group...consists largely of childless people - aging boomers, childless couples, gays, 'empty nesters,' and singles...These often-unattached new urbanites constitute the critical fuel for the post-industrial urban economy. Companies, wherever they might be located, rely increasingly on skilled urban professionals in fields from fashion design, entertainment, and Internet commerce to international trade, investment, specialized retail, banking, and other business services.

Changing his theory with the oscillations of the business and political cycles, Kotkin now wants us to believe that in just four years time the whole of what propels economic advantage has shifted to an entirely new set of low-cost suburban centers.

And in doing so, Kotkin and Siegel find it useful to blatantly misrepresent my work. At one point, they criticize the "latte Index – the density of Starbucks" in a given area, which, implicitly, my team and I use "as a measure of urban success." Huh? Not once do my collaborators or I ever reference such a ludicrous measure. In fact, my book points to the major pitfall of trying to correlate amenities (whether coffee bars or symphony halls) to either talent or economic growth: these measures are necessarily based on crude, biased, and unreliable data. This is precisely why we developed our measures, like the Bohemian Index, which attempt to capture the actual concentration (what we refer to as "revealed locational preferences") of creative people.

Kotkin and Siegel also compare my measures (suggesting them to be inferior) to the "New Economy Index" developed by Robert Atkinson of the Progressive Policy Institute. Atkinson and I are long-term colleagues. I know his work well and respect it, and I think he'd say the same of mine. My team collaborated closely with Atkinson in the development of this index; we exchanged data, and I advised and commented extensively on it. There are great similarities between the two measures: both make use of basic data on technology, talent, and other factors; and they are rather closely correlated to one another. It is also worth noting that the measure of high-tech industry we use in the Creativity Index is the same one developed and used by the Milken Institute with which Kotkin is affiliated. (As my book notes, it was graciously provided to me by Kotkin's Milken Institute colleague, Ross de Vol). So much for the flimsy underpinnings of divisive rhetoric.

Gays and Growth: What's Really at Stake

Much of the criticism of my work has revolved around the Gay Index, which takes up just several pages of a 400-page book. As such, I'm tempted to believe that this is the key concern from which all other critiques flow: a visceral abhorrence of the idea that gay populations could possibly have a positive impact on their communities (and, indeed, their country).

Several critics have brought up the success story of Silicon Valley: isn't it a staid, boring place (a "nerdistan," to use Kotkin's vocabulary) that appeals mainly to conventional engineering types who want to avoid artists, bohemians, and gays? My book argues that, on the contrary, Silicon Valley can be understood only in relation to the adventurous

culture and great research universities of the entire Bay Area, a place where early hippie-entrepreneurs like Jobs and Wozniak were not merely tolerated, but actually financed by venture capitalists. (Imagine, if you will, the long-haired, bearded, sandal-wearing Jobs and Wozniak, a la 1972, showing up at Mellon Bank in Pittsburgh with their new invention, the personal computer, in tow; would they have made it past the security guards at the front door?)

Furthermore, in our analysis of the connection between tolerance and technology, Gary Gates and I went to great lengths to control for the special circumstance of the San Francisco Bay Area. As my book reports, we even removed it from our analysis to ensure it was not skewing the results. As I recount there, "the influence of the Gay Index on high-tech industry was strengthened when San Francisco was removed from the analysis."

In his book The City as Entertainment Machine, University of Chicago sociologist Terry Clark offers a more reasoned and nuanced critique of our findings on gays and high-tech location. Clark reexamines this relationship using detailed information from thousands of U.S. counties. His findings lead him to conclude that "gay relations with jobs appear strong in large metro areas, but fall in smaller metro areas." Gates and I have no quarrel with Clark's county-level results. In Chapter 14 of my book, I explicitly state that gays and bohemians are much more strongly associated with high-tech and job growth in larger metropolitan regions, while immigrants tend to drive growth in small- and medium-sized regions. But I go on to note that it is precisely the result for large metro regions that warrants attention. Using counties as the basic measurement unit masks the true relationship between gays and high-tech location, since people (both gays and straights) can, and do, commute relatively long distances to work. In actuality, gays and urban singles commute from San Francisco to work in Silicon Valley, while family-oriented professionals live in Silicon Valley suburbs and work in downtown San Francisco. What gives the Bay Area its advantage is that it has something for everyone.

Nonetheless, it's amazing how many times people misconstrue what Gates and I have to say on this score. Many in both academe and the general public seem to think we are positing a direct connection between being gay and being in high-tech industry. Not once do Gates and I imply that gays literally cause high-tech growth. Rather, we see a strong and vibrant gay community as a solid leading indicator of a place that is open to many different kinds of people. Ronald Inglehart, a political scientist who has studied the relationship between culture and economic growth for some four decades, has noted that the lack of societal acceptance of gays is the most significant remaining bastion of intolerance and discrimination around the world. Accordingly, places that accept gays are also likely to be accepting of all different types of people, and those places therefore open themselves up to innovation and entrepreneurship from a wide range of human sources.

While we've not planned it this way, our findings have an eerie resonance in contemporary American society's impassioned debate over gay marriage. Massachusetts, the first state to attempt to legalize gay marriage, ranks first both on my Creativity Index and on the Milken Institute's most recent ranking of high-tech states, while San Francisco and Seattle, perennial leaders on virtually every listing of high-tech hot-spots, boast the same distinction. States and cities that have already or are currently trying to restrict gay rights tend to rank at the very bottom of such lists.

Whatever pundits might say about our findings, business and civic leadership in city after city has taken them to heart. In Cincinnati, for example, Procter & Gamble has joined with civic and gay activists to try to overturn "Article 12," which forbids the city from passing anti-discrimination legislation that would apply to gays and lesbians, because they have found it is discouraging both talented people and companies from relocating there.

The Great Suburban Utopia?

Recently a new wave of thinking has swelled among urban analysts who argue that the combined effects of the dot-com bust and September 11, 2001, have shifted the engine of regional innovation and growth away from urban centers and back toward the exurbs flung out along highway exits. David Brooks, The New York Times columnist and conservative cultural critic, joins Kotkin and Seigel as a denizen of the new suburban/exurban booster crowd. Brooks, who much like Kotkin once posed his cappuccino-swilling urban-oriented "bobos" (the bohemian-bourgeoisie) as the

replacement for 1950's-style organization men, now sees the future as revolving around a new exurban archetype, "patio man." In a recent essay in the New York Times Magazine, titled "Our Sprawling, Supersized Utopia," Brooks writes:

> "The geography, the very landscape of life, is new and unparalleled. In the first place, there are no centers, no recognizable borders to shape a sense of geographic identity...Robert Lang, a demographer at Virginia Tech, compares these new sprawling exurbs to the dark matter in the universe: stuff that is very hard to define but somehow accounts for more mass than all the planets, stars and moons put together...Suburban America is a bourgeois place, but unlike some other bourgeois places, it is also a transcendent place infused with everyday utopianism. That's why you meet so many boring-looking people who see themselves on some technological frontier, dreaming of this innovation or that management technique that will elevate the world…"

A recent Boston Globe article reported that the respected Harvard University urban economist, Edward Glaeser believes that "people want to live in sunny, dry climates and—to the horror of smart-growth advocates everywhere—they actually like car-centered cities. In place of Florida's 'Technology, Talent and Tolerance,' 'Glaeser proposes a different recipe, 'Skills, Sun and Sprawl.'"

Let me start by saying that I agree that the suburbs are the source of much growth. No reasonable observer would suggest that Silicon Valley or the Route 128 area around Boston do not exist. But, as The Rise of the Creative Class says, these innovative peripheries must be understood within a broader regional context, and in relation to the thriving urban centers and the open and tolerant cultures in which they are embedded. I have been consistently clear on the point that the most successful regions offer many options, including flourishing suburbs with affordable housing, safe streets, and good schools.

My concern, then, is that the new suburban boosters go so badly overboard with their claims. Much innovation – technological, business, and cultural – continues to occur in cities, and, despite the claims of Brooks and company, the suburbs are no utopia. A report by Jay Greene and Greg Forster (Malanga's colleagues at the Manhattan Institute) – utilizing data from the National Longitudinal Study of Adolescent Health – found that suburban teens experienced rates of drug and alcohol abuse, drunk driving, cigarette smoking, sexual activity, and delinquent behavior (including stealing and fighting) comparable to, or exceeding, those of urban teens. On nearly every score (save for teen pregnancy), their study concluded, the suburbs share many of the social problems we have long assumed to be the province of racially diverse urban centers.

Beyond just the social and psychological, we must consider the economic effects of sprawl. Virtually the entire literature on urban economics, including Glaeser's own important writings, emphasizes that cities are based on urbanization economies. This compacting of people is what gives cities their ability to innovate, generate productivity, and grow. Without such urbanization economies, high-cost cities like New York, Chicago, London, Tokyo, or San Francisco simply wouldn't exist. Jane Jacobs noted long ago that cities are key incubators of innovation: "It may be romantic to search for the salves of society's ills in slow-moving rustic surroundings, or among innocent, unspoiled provincials," wrote Jacobs in her classic The Death and Life of Great American Cities, "but it is a waste of time. Does anyone suppose that, in real life, answers to any of the great questions that worry us today are going to come out of homogeneous settlements?" Even the great chronicler of 1950's suburban life and author of The Organization Man, William H. Whyte, grew to see the suburbs as bland, un-innovative places and spent the later part of life researching and writing on the creative potential of dense urban centers. Research by Carnegie Mellon University doctoral student Brian Knudsen demonstrates the powerful effects that density has on economic growth. In a detailed analysis of some 300 regions, Knudsen found that patenting and high-tech industry are strongly correlated with high population density – especially the concentration of creative people like scientists, engineers, artists, and musicians. The equally detailed research by economists Dora Costa and Matthew Hahn on the location of "power couples" finds that such high-skill, high-earning couples are disproportionately concentrated in larger, denser, higher-amenity urban areas (as opposed to suburbs). In other words, places where people are not sprawled out so thinly tend to have more creative economic

activity. Perhaps Jacobs once again put it best: "New ideas require old buildings."

While many people think of the sun – and the Sunbelt – as synonymous with economic growth, most studies have found that neither sunnier weather nor warmer climates are systematically associated with regional growth. Detailed research by the University of Chicago sociologist Terry Clark finds that "natural amenities," including sun and temperature, are not associated with the location decisions of high-human capital individuals. Such individuals are far more likely to be drawn to cities that offer what he calls "constructed amenities," from arts and culture to high-quality restaurants. Cities from Minneapolis and Chicago to Boston, Seattle, and Toronto have enjoyed long-run economic success despite their frequent cold temperatures, gray skies, and rainy weather. Most systematic studies have concluded that climate has little, if any, effect on regional growth.

I agree wholeheartedly with Glaeser and other urban economists on the importance of skills. In fact, that is exactly what my concept of the creative class aims to identify and to measure. The only real difference, as far as I can see, lies in how we measure skills. Where urban economists tend to use education as a proxy for skill, my team and I use occupations – what people actually do – since these provide a more precise measure of the skill content of work. As The Rise of the Creative Class notes, Robert Cushing of the University of Texas at Austin independently found that our "creative capital" measure performs better than the less specific "human capital" measure at predicting innovation and growth. Our measure of creative occupations has the added advantage of being a better tool (than simply counting the number of people with bachelor's degrees) for allowing nations and regions to assess and capitalize on their particular human capital assets.

Beyond the Hype

My work has also been criticized from the far left. Writing in The Baffler, a journal devoted mainly to post-modern culture studies, literary critic Paul Maliszewski paints me as a vapid elitist and a starry-eyed huckster for creativity and flexibility who continues to plug the New Economy while failing to see how the real economy exploits the masses.

That strikes me as strange, to say the least. In fact, The Rise of the Creative Class takes aim at 1990's New Economy fantasies, and has little to do with making cities yuppie-friendly, though leftist critics have tried to frame it (and belittle its message) that way. In its preface, I decry "the naïve optimism of the so-called New Economy." The first chapter notes that "not all is rosy" for workers today: "With no big company to provide security, we bear much more risk...[We suffer] high levels of mental and emotional stress...We crave flexibility but have less time...The technologies that were supposed to liberate us have invaded our lives." Later, I write, "flexibility does not mean the end of long hours...In fact, the long trajectory of modern capitalism has involved the relentless extension of the working day across time and space." A chapter called "The Time Warp" describes the many "insidious factors" that lead to overwork and stress. Moreover, "the real losers, in terms of overwork, are those holding two full-time minimum-wage jobs to support a family...[They] are a modern-day equivalent of the nineteenth century's burned-out factory laborers."

It should be obvious even from these brief excerpts that The Rise of the Creative Class is no homage to the so-called New Economy and the Internet age. The book opens with the time-traveler example -- the whole point of which is to say that the truly big changes of our time are social, not technological. I wrote the book to point out the weaknesses — indeed the silliness – of the "technology will save us" mentality that dominated the 1990's. I tried to focus on the bigger, long-running, and still-evolving changes in our economy and society. In my travels around the country, I do not find people strapping on suits and ties and going back to "organization man"-style work in big corporations. People are still striving to be themselves, to find meaningful work, and to live in communities that let them validate their identities and live as complete human beings.

Nonetheless, some critics dismiss the advantage of places like San Francisco, Boston, Seattle, and Austin as mere flash-in-the-pan products of the 1990's dot-com bubble. But these places have been experiencing quality growth for decades, building solid new industries that have helped to strengthen our economy and change the world. Much has been made of the fact that several of these 1990's growth centers are losing population. While it's true that people are

moving out of these and other places, though, the simple fact of net out-migration misses a bigger point.

Using IRS data to compare who's moving out to who's moving in, the statistician Robert Cushing has established that such creative regions are losing low-income workers but gaining those with higher incomes. He found, for example, that families moving from high-tech boomtown Austin to slower-growth Kansas City in the 1990's earned an average of $25,912 a year. Those going in the other direction, from Kansas City to Austin, earned over $65,000. The same pattern occurred in other creative centers from San Francisco and Los Angeles to Boston and Seattle. It makes sense that these regions would gain higher-skill, higher-income people as their economies develop, their occupational structures shift toward high-value-added employment, and their housing prices rise. As this cycle occurs, higher-skill, higher-wage people move in and lower-skill, lower-wage people move out. While that phenomenon may not necessarily be fair or even good, still we must realize that these regions continue to gain competitive advantage as a result.

Certainly it's true that some higher-skill, creative people are leaving creative Meccas for less expensive places, where they can purchase nice homes and live less expensive lifestyles. But they are not always happy with what they find. Consider this recent e-mail, which I received from a former Austin-ite who left for Baton Rouge, LA.

> Diversity is a way of life in Austin. It's always been cool to go one's own way. Risk is more than tolerated, it's respected. Artists are valued...But it's true: the city has cooled - which is part of the reason why my husband and I left. The blur of traffic, bitter once-overpaid techies complaining over lattes - it got to be too much. Housing prices shot through the roof. The city lost its soul...
>
> Perspective, however, is everything. And living 3 years in a conservative town in the Deep South (Baton Rouge) that 'says' it wants to evolve but does everything to stop it - has provided me with a new frame of reference for my Austin. Now when I think of the 'real' Austin, my mind ventures deep into South Austin - where artists live side-by-side with recent immigrants. Or just north of campus at the winter holidays - when a whole neighborhood of artists, techies, and others create a kitschy drive through light display. Or the site of old cars covered in hula grass and green plastic dinosaurs - which seems perfectly reasonable in context. These things would never happen in great amounts in Fort Worth, Dallas, or Houston...
>
> If nothing else, Austin serves as model of what can go right and wrong with the whole 'city of ideas' notion. And if anyone was let down, it was the city herself - her assets were promoted and put on display by many locals in a gratuitous way with no thought to the ramifications or concern for her future. Former Mayor Kirk Watson tried to set the city back on track (bless him), but new conservative energy in federal, state and local government is out to "punish" Texas's liberal oasis for its wanton success. We'll see who wins. I'm betting on the real Austin. Or maybe that's just wishful thinking.

As far as Maliszewaski's implication that I don't fully grasp the value of the common workingman and woman, I can only respond that I am intimately aware of both the all-too-common plight and, more importantly, the immense creative potential of blue-collar workers. I learned about these things not only from books and academic life, but first-hand – from my father, who worked for more than four decades in an eyeglass factory in Newark until it was mismanaged into ruin. The Rise of the Creative Class contains many references to the incredible talents of both factory and service workers, and argues that harnessing the creative energy of people currently ignored and misused is crucial to our long-run economic prosperity.

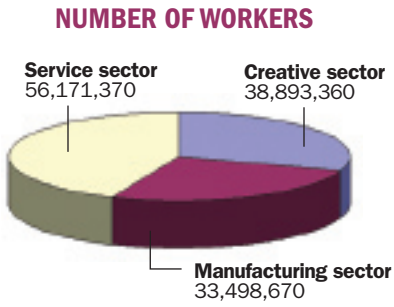
If social conservatives can't turn back the moral clock to a time when every family resembled the Cleavers, neither can the left magically restore a time when forty percent of the work force toiled in blue-collar factory jobs.

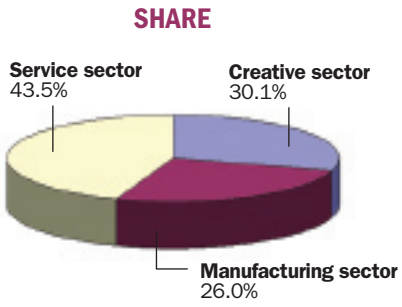
The creative economy is not going away, and my advice to my colleagues on the left is simple: deal with it. They might even discover that the devil they don't know is a lot more benign than the devil they do.

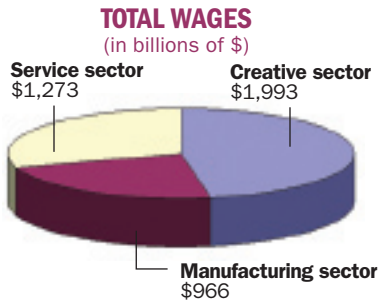
Maliszewski further suggests that because I don't write by journalistic conventions, with lots of quotes and anecdotes from named sources, my research methods are suspect. To be clear: I'm not a journalist, I'm a social scientist. My job is to discern larger trends from many kinds of evidence and large samples of data. The book is based on over five years of systematic research, reported in peer-reviewed journals which included field visits and observations to dozens of cities; interviews and structured focus groups with hundreds of people from across the country; and detailed statistical analysis of changes in the American economy over the past century. When I do make use of anecdotal evidence and broader, more theoretical social commentary (as in this essay, for instance), it is to further illuminate a particular aggregate trend towards which my research findings have led me. On that note, we turn now again to those findings, and finally to a whole host of questions that ought to provide us plenty more to think about and work towards as we develop more fully the creative economy and its corresponding societal backdrop.

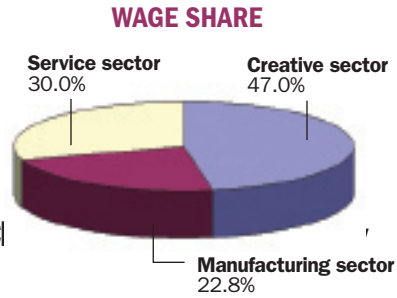
The 3 Ts Revisited

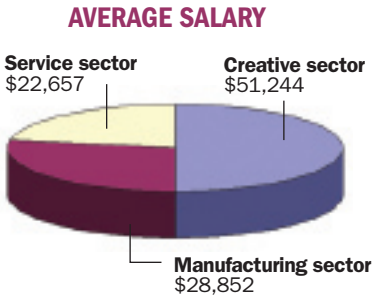
While a few of my critics seemingly change their economic opinions in accordance with the ups and downs in employment or in tune with the fluctuations of the business and political cycles, The Rise of the Creative Class is concerned with economic transformation over the long run. It charts the creative economy's evolution over the course of more than a century. It notes that the change we are going through today is similar in scale and scope to the shift from an agricultural to an industrial society, with sweeping implications for the way we work and live, the way we organize our time, the nature of family and community structures, and the role and function of cities and urban centers. A hundred years ago, fewer than 10 percent of the U.S. workforce was employed by the creative sector of the economy. Even after the great industrial transformation, the number was still less than 15 percent. Over the past two decades, creativity has become the driving force of our economy and the creative sector has exploded, adding 20 million-plus jobs.











Today, nearly 40 million workers – some 30 percent of the workforce – are employed in the creative sector. These are the people who comprise the creative class, engaged in science and engineering, research and development, and the technology-based industries; in the arts, music, culture, aesthetic, and design; or in the knowledge-based professions of health care, finance, and law. The trends are similar across much of the advanced industrial world (see Florida and Irene Tinagli, Europe in the Creative Age, January 2004). What's more, the creative sector accounts for nearly half of all wage and salary income in the United States – as much as the manufacturing and service sectors combined. (see Chart X)

The concept of the "creative class" should be understood as neither elitist nor exclusionary. In fact, I coined this term in large part as a result of a personal and intellectual frustration with the snobbery of such concepts as "knowledge workers," "information society," "high-tech economy," and the like. I chose "creative class" because I found it to be bothmore accurate in defining the real source of economic value-creation (that, is human creativity) and also more useful in highlighting whom of our fellow workers is or is not rewarded monetarily and professionally for making use of their own inherent creativity.

Indeed, perhaps the single most overlooked – and single most important – element of my theory is the idea that every human being is creative. By our very nature, each and every person is endowed with an incredible capacity for innovation and adaptation. Creativity is thus a virtually limitless resource, and we can no longer grow by tapping and rewarding the creative talents of a minority. If we are to truly prosper, everyone's creative capabilities must be fully engaged. In my opinion, the great challenge of our time will be to spark and stoke the creative furnace inside every human being.

As noted earlier, much of the controversy over The Rise of the Creative Class stems from my arguments concerning the broad relationship between culture and economic growth, since my theory breaks with several more traditional conceptions. Social and economic theorists from Max Weber to Edward Banfield and Daniel Bell have argued that culture effects economic growth by producing incentives that promote effort, thrift, and hard work (think of Weber's "Protestant Work Ethic"). Culture, according to this view, motivates economic growth by focusing human energy and effort on work and away from the pull of non-work activities such as leisure, play, sexuality, or other forms of enjoyment. Human beings are seen as undisciplined agents in need of rules and constraint. Left to their own devices, humans would defer work in favor of other more enjoyable activities. Bell went so far as to identify "culture" as the core contradiction of modern capitalism, seeing the rise of a more open, expressive, and "hedonistic" culture during the 1960's as undermining the effort, social incentives, and discipline that power innovation, entrepreneurship, and economic growth.

Obviously, my theory contends that culture works in a very different way, since I argue that every human being has creative potential and that the key to economic growth is to enable and unleash it. A critical element of this enabling lies in building an expansive, open culture – one that does not discriminate, does not force people into "boxes," and does allow them to be themselves and to validate their varied identities. In my theory, culture operates not by constraining the range of human creative possibilities but by facilitating and mobilizing them. Open culture is thus a spur to innovation, entrepreneurship, and economic development.

My view of creativity revolves around a formula that I refer to as the 3T's of economic growth: technology, talent, and tolerance. Economists have long argued that technology is the key to economic growth. MIT's Robert Solow won a Nobel Prize for his work in isolating technology as the driving force in economic growth. Paul Romer argues that growth is an endogenous process, based on the continuous accumulation and exploitation of human knowledge. I agree wholeheartedly that technology plays a fundamental role in economic growth. In fact, I consider it so important that I made it my first T.

Talent is the second variable in my model. Leading economists, including Nobel Prize winner Robert Lucas,

have argued that growth is a consequence of human capital, a view shared by Glaeser. In this view, the role of cities is to bring together and augment human capital, and since places with more human capital grow more rapidly than those with less, urbanization is a key element of innovation and productivity growth. Lucas refers to the human-capital augmenting functions of cities as "Jane Jacobs's externalities," and has suggested that she deserves a Nobel Prize for that idea. As mentioned above, I capture the role of talent by substituting a measure of creative occupations for the typical education-based measure of human capital, thus emphasizing current work over past educational achievements.

This brings me to the third T: tolerance. While economists have long recognized technology and talent as key drivers of economic growth, they tend to think of them in the same way they think of more conventional factors of production, like raw materials. That is, they think of them as constituting a "stock." According to this view, places are endowed with certain stocks of technology or talent and these stocks account for their different rates of innovation and growth. But resources like technology, knowledge, and human capital differ in a fundamental way from more traditional factors of production like land or raw materials: they are not stocks, but flows. Technology and talent are highly mobile factors that flow into and out of places.

This begs the question of what accounts for the ability of some places to attract and capture a greater quantity or quality of these flows. The answer, I believe, lies in openness, diversity, and tolerance. Our work finds a strong correlation between, on the one hand, places open to immigrants, artists, gays, and socioeconomic integration, and, on the other, places that experience high quality economic growth. Such places gain an economic advantage in both harnessing the creative capabilities of a broader range of their own people and in capturing a disproportionate share of the flow.

My findings concerning diversity and economic growth have been confirmed in several follow-up studies. Meric Gertler and Tara Vinodrai, working in collaboration with Gary Gates and me, found that the relationship between bohemians and high-tech growth not only held but was in fact markedly stronger among Canadian regions. Independent research by the Australian think tank National Economics discovered the relationship between gays, bohemians, and tech growth to be quite substantial in their comparative analysis of Australian regions and urban centers. The detailed econometric research by Gianmarco Ottaviano of the University of Bologna and Giovanni Peri of the University of California at Davis provides further independent confirmation of the relationship between cultural diversity and economic growth for a large sample of U.S. regions.

Open Questions

People often ask me what I have learned since writing The Rise of the Creative Class. The short answer is: a lot. Since that book was published, I have become increasingly intrigued by two large-scale issues virtually ignored in recent debates on regional and national economic growth.

The first concerns the truly global nature of creativity. The same dynamics that fueled the movement of creative people between U.S. regions now operates on a global scale, and other nations are stepping up their ability to compete (see "Creative Class War," Washington Monthly January-February 2004). While many assume the United States to have an unbeatable edge in this age, its position is more tenuous than commonly thought. Real economic prosperity in the creative age will not simply accrue to those countries and regions that can generate the most creative, innovative, or entrepreneurial output. The creative age requires of cities and nations a complementary "absorptive capacity" – the civic infrastructure and societal openness needed to attract the growing portion of the creative economy that is willing to move across borders.

The second concerns what I have come to term the "externalities" of the creative economy. Perhaps the most salient of these revolves around rising social and economic inequality. Less a third of the workforce – the creative class – is employed in the creative sector of the economy. That means two thirds are not. Even more discouragingly,

inequality is considerably worse in leading creative regions. Stolarick's Inequality Index compares the wages of creative sector workers to those in the manufacturing sectors (see "The New American Dream," Washington Monthly March 2003). Our findings clearly indicate that inequality is highest in places like San Francisco, the North Carolina Research Triangle, Washington D.C., and Austin. The creative economy generates other related externalities as well:

• Housing affordability: As the creative economy takes root in places like Boston and New York, it generates tremendous pressure on housing prices, both forcing artists and other creative people out of their communities and further exacerbating social and economic inequality between the haves and the have-nots of the creative economy.

• Uneven regional development: The creative economy generates overlapping economic and demographic trends that have combined to worsen regionally uneven development as pronounced as anything we've seen since the Civil War.

• Sprawl and ecological decay: The success of the creative economy produces development pressure that threatens the environment and stable ecosystems. This in turn undermines many of the natural features and amenities that made these places attractive in the first place.

• Mounting stress and anxiety: With the elimination of larger institutional and social support structures, the creative economy downloads stress and anxiety directly onto individuals. My preliminary findings with the psychiatric researchers Kenneth Thompson and Roberto Figueroa show that stress and anxiety is markedly higher – across all income and class groups – in regions with high Creativity Index scores.

• Political polarization: The creative economy is giving rise to pronounced political and social polarization – a demographic sorting process that separates people by economic position, cultural outlook, and political orientation. This "big sort" is further aggravated by the perception among many that key elements of the creative class are arrogant, hedonistic, and self-indulgent. The fissure runs deep through the very structure of American society, and makes it exceedingly difficult to generate coherent and forward-looking responses to the problems and challenges posed by the creative economy.

I'll have more to say about these externalities in future work, but for now I'd simply like to point out two things. On the one hand, relegating vast numbers of people to do rote work amounts to systemic waste that is both morally negligent and economically inefficient. On the other hand, creativity is the great leveler. It cannot be handed down; nor can it be "owned" in the traditional sense. It defies gender, race, ethnicity, sexual orientation, and outward appearance. We cannot know in advance who the next Andy Warhol, Billie Holiday, Paul Allen, or Jimi Hendrix will be, or where they will come from. Yet our society continues to encourage the creative talents of a minority, even as it neglects the creative capacities of the majority. We must be imaginative and find ways to make service and even manufacturing jobs more creative and thus less deadening for the people who hold them.

These are the questions that my ongoing research and my next book will treat. Getting a handle on them will necessitate much more than one specific intellectual or political agenda; it will require honest assessment and imaginative problem-solving from those on all sides of the great creative class debate. It will require less squelching and more genuine engagement – from everyone – in the pursuit of the one common goal that serves us all best in the end: to generate long-run quality growth by better aligning economic development with the fuller development of human creative potential.

Kevin Stolarick conducted much of the technical analysis reported here. Jesse Elliott assisted with writing and editing. Bill Frucht and Brian Knudsen provided helpful comments.

MSA CMSA	Over 1,000,000	Within Size Creativity Rank	Creative Class Percentage of Workforce					Creative Class Percentage of Total Wages				
	Region Name		1999	2000	2001	2002	Average Growth	1999	2000	2001	2002	Average Growth
0640	Austin-San Marcos, TX MSA	1	36.39%	37.99%	37.52%	37.66%	1.17%	54.33%	56.41%	56.09%	56.73%	1.47%
7362	San Francisco-Oakland-San Jose, CA CMSA	2	34.79%	36.51%	36.08%	35.91%	1.10%	52.99%	55.54%	54.83%	55.27%	1.45%
7602	Seattle-Tacoma-Bremerton, WA CMSA	3	32.68%	34.56%	34.84%	34.39%	1.76%	48.48%	50.55%	50.93%	51.05%	1.75%
1122	Boston-Worcester-Lawrence, MA-NH-ME-CT CMSA	4	35.87%	36.79%	36.48%	36.55%	0.64%	54.24%	55.20%	54.14%	55.33%	0.68%
6640	Raleigh-Durham-Chapel Hill, NC MSA	5	38.22%	38.01%	39.35%	39.22%	0.89%	56.16%	57.26%	58.58%	59.05%	1.69%
6442	Portland-Salem, OR-WA CMSA	6	29.37%	30.29%	31.69%	31.53%	2.42%	44.41%	45.29%	46.97%	47.83%	2.51%
5120	Minneapolis-St. Paul, MN-WI MSA	7	33.92%	33.43%	33.64%	34.45%	0.54%	50.49%	50.08%	49.94%	52.10%	1.08%
8872	Washington-Baltimore, DC-MD-VA-WV CMSA	8	38.35%	38.91%	39.81%	39.55%	1.04%	56.51%	57.42%	58.23%	59.01%	1.45%
6922	Sacramento-Yolo, CA CMSA	9	31.06%	32.06%	32.95%	32.39%	1.43%	47.68%	48.90%	49.28%	49.21%	1.06%
2082	Denver-Boulder-Greeley, CO CMSA	10	33.02%	34.23%	34.31%	34.26%	1.25%	49.91%	51.92%	51.75%	52.79%	1.91%
0520	Atlanta, GA MSA	11	32.04%	32.54%	32.68%	32.41%	0.38%	48.15%	49.95%	49.74%	50.92%	1.90%
	Average of 11 Cities		**34.16%**	**35.03%**	**35.40%**	**35.30%**	**1.15%**	**51.21%**	**52.59%**	**52.77%**	**53.57%**	**1.54%**
2162	Detroit-Ann Arbor-Flint, MI CMSA	39	31.04%	31.48%	30.89%	32.08%	1.13%	46.76%	47.57%	46.79%	49.52%	1.98%
5720	Norfolk-Virginia Beach-Newport News, VA-NC MSA	39	28.39%	28.89%	29.51%	29.32%	1.09%	43.37%	44.42%	44.99%	46.76%	2.54%
1692	Cleveland-Akron, OH CMSA	41	29.45%	28.80%	29.21%	29.77%	0.37%	44.77%	44.40%	44.99%	46.64%	1.39%
5082	Milwaukee-Racine, WI CMSA	42	27.92%	28.30%	28.82%	29.12%	1.41%	42.52%	43.19%	44.18%	45.51%	2.29%
3000	Grand Rapids-Muskegon-Holland, MI MSA	43	24.32%	25.46%	25.14%	26.45%	2.89%	39.51%	40.22%	39.53%	42.12%	2.21%
4920	Memphis, TN-AR-MS MSA	44	24.82%	26.25%	27.43%	28.11%	4.25%	40.37%	41.35%	42.92%	44.50%	3.30%
3600	Jacksonville, FL MSA	45	30.33%	29.16%	28.83%	29.40%	-1.01%	46.38%	46.04%	46.87%	48.36%	1.42%
3120	Greensboro-Winston-Salem-High Point, NC MSA	46	27.29%	26.08%	26.43%	26.84%	-0.52%	43.66%	42.11%	42.21%	43.61%	0.00%
5560	New Orleans, LA MSA	47	27.49%	28.35%	29.06%	29.20%	2.04%	43.29%	45.13%	46.12%	47.11%	2.87%
1280	Buffalo-Niagara Falls, NY MSA	48	28.88%	28.02%	28.93%	29.07%	0.25%	43.54%	42.29%	43.26%	44.08%	0.44%
4520	Louisville, KY-IN MSA	49	26.47%	26.26%	26.43%	27.14%	0.85%	41.93%	41.05%	40.68%	42.90%	0.82%
	Average of 11 Cities		**27.86%**	**27.91%**	**28.24%**	**28.77%**	**1.16%**	**43.28%**	**43.43%**	**43.87%**	**45.56%**	**1.75%**

MSA CMSA	Over 1,000,000	Within Size	Service Class Employment					Working Class Employment				
	Region Name		1999	2000	2001	2002	Average Growth	1999	2000	2001	2002	Average Growth
0640	Austin-San Marcos, TX MSA	1	284,650	279,080	285,370	279,890	-0.54%	119,420	133,900	122,370	120,760	0.73%
7362	San Francisco-Oakland-San Jose, CA CMSA	2	1,485,250	1,475,470	1,408,130	1,413,670	-1.61%	776,500	833,070	739,150	710,120	-2.64%
7602	Seattle-Tacoma-Bremerton, WA CMSA	3	753,080	743,070	735,370	729,230	-1.07%	401,660	411,740	373,360	364,870	-3.03%
1122	Boston-Worcester-Lawrence, MA-NH-ME-CT CMSA	4	1,278,090	1,284,820	1,303,640	1,285,290	0.19%	585,970	621,100	590,630	562,910	-1.20%
6640	Raleigh-Durham-Chapel Hill, NC MSA	5	250,910	272,940	264,510	269,470	2.52%	139,340	141,570	132,070	128,590	-2.58%
6442	Portland-Salem, OR-WA CMSA	6	452,260	463,270	453,610	457,430	0.40%	299,860	298,610	264,670	258,090	-4.76%
5120	Minneapolis-St. Paul, MN-WI MSA	7	706,330	727,480	715,160	714,340	0.40%	419,380	411,450	395,600	366,650	-4.35%
8872	Washington-Baltimore, DC-MD-VA-WV CMSA	8	1,666,480	1,717,430	1,690,220	1,687,270	0.43%	676,080	692,640	663,430	675,800	0.03%
6922	Sacramento-Yolo, CA CMSA	9	343,610	359,250	366,700	366,420	2.18%	146,350	157,350	169,460	172,640	5.70%
2082	Denver-Boulder-Greeley, CO CMSA	10	596,300	605,250	603,240	589,930	-0.35%	317,670	328,400	302,550	295,090	-2.32%
0520	Atlanta, GA MSA	11	830,550	916,580	930,750	921,270	3.63%	529,120	524,230	503,260	491,540	-2.42%
	Average of 11 Cities		**786,137**	**804,058**	**796,064**	**792,201**	**0.56%**	**401,032**	**414,005**	**386,959**	**377,005**	**-1.53%**
2162	Detroit-Ann Arbor-Flint, MI CMSA	39	1,002,310	1,021,950	1,043,310	1,009,910	0.28%	722,740	702,500	666,570	620,470	-4.94%
5720	Norfolk-Virginia Beach-Newport News, VA-NC MSA	39	310,170	314,850	313,250	315,060	0.53%	174,460	170,420	172,950	170,670	-0.72%
1692	Cleveland-Akron, OH CMSA	41	617,410	618,620	613,560	608,040	-0.51%	412,070	413,870	381,490	362,610	-4.11%
5082	Milwaukee-Racine, WI CMSA	42	429,070	407,200	387,090	387,590	-3.30%	303,300	275,750	250,010	237,460	-7.81%
3000	Grand Rapids-Muskegon-Holland, MI MSA	43	222,780	226,940	215,220	217,060	-0.81%	204,040	205,380	194,980	179,040	-4.19%
4920	Memphis, TN-AR-MS MSA	44	240,410	251,060	239,170	248,700	1.23%	185,340	164,030	154,580	153,840	-5.91%
3600	Jacksonville, FL MSA	45	231,230	260,480	254,980	249,020	2.73%	111,900	124,270	133,290	125,670	4.20%
3120	Greensboro-Winston-Salem-High Point, NC MSA	46	236,580	270,530	258,410	258,780	3.34%	235,470	229,920	208,410	199,210	-5.38%
5560	New Orleans, LA MSA	47	290,030	285,410	283,870	277,110	-1.50%	152,960	144,070	137,860	132,480	-4.67%
1280	Buffalo-Niagara Falls, NY MSA	48	265,100	249,800	244,710	244,270	-2.66%	137,370	133,880	126,600	130,000	-1.76%
4520	Louisville, KY-IN MSA	49	244,280	241,820	235,870	235,350	-1.23%	154,080	172,400	158,940	153,010	0.12%
	Average of 11 Cities		**371,761**	**377,151**	**371,767**	**368,263**	**-0.17%**	**253,975**	**248,772**	**235,062**	**224,042**	**-3.20%**

MSA CMSA	Over 1,000,000	Within Size Creativity Rank	Service Class Percentage of Workforce					Service Class Percentage of Total Wages				
	Region Name		1999	2000	2001	2002	Average Growth	1999	2000	2001	2002	Average Growth
0640	Austin–San Marcos, TX MSA	1	44.81%	41.90%	43.64%	43.47%	-0.91%	30.66%	27.69%	28.96%	28.49%	-2.24%
7362	San Francisco–Oakland–San Jose, CA CMSA	2	42.65%	40.42%	41.73%	42.44%	-0.09%	28.16%	26.15%	27.16%	27.27%	-0.96%
7602	Seattle–Tacoma–Bremerton, WA CMSA	3	43.81%	42.04%	43.13%	43.63%	-0.09%	29.95%	28.35%	29.19%	29.26%	-0.70%
1122	Boston–Worcester–Lawrence, MA–NH–ME–CT CMSA	4	43.93%	42.57%	43.68%	44.08%	0.14%	29.06%	27.82%	29.25%	28.79%	-0.24%
6640	Raleigh–Durham–Chapel Hill, NC MSA	5	39.67%	40.74%	40.39%	41.07%	1.17%	26.39%	26.14%	25.91%	25.88%	-0.66%
6442	Portland–Salem, OR–WA CMSA	6	42.27%	42.15%	42.88%	43.49%	0.96%	29.51%	29.61%	30.14%	30.15%	0.72%
5120	Minneapolis–St. Paul, MN–WI MSA	7	41.41%	42.47%	42.67%	43.26%	1.47%	27.37%	28.15%	28.38%	28.04%	0.82%
8872	Washington–Baltimore, DC–MD–VA–WV CMSA	8	43.82%	43.47%	43.18%	43.12%	-0.54%	28.88%	28.47%	28.08%	27.44%	-1.70%
6922	Sacramento–Yolo, CA CMSA	9	47.94%	47.01%	45.64%	45.56%	-1.68%	34.01%	33.03%	32.25%	32.02%	-1.98%
2082	Denver–Boulder–Greeley, CO CMSA	10	43.65%	42.56%	43.66%	43.73%	0.08%	30.70%	28.73%	29.63%	28.98%	-1.82%
0520	Atlanta, GA MSA	11	41.47%	42.85%	43.65%	44.02%	2.01%	29.00%	29.04%	29.87%	29.30%	0.36%
	Average of 11 Cities		**43.22%**	**42.56%**	**43.11%**	**43.44%**	**0.23%**	**29.43%**	**28.47%**	**28.98%**	**28.69%**	**-0.76%**
2162	Detroit–Ann Arbor–Flint, MI CMSA	39	40.07%	40.58%	42.14%	42.06%	1.65%	25.51%	25.70%	27.04%	26.36%	1.15%
5720	Norfolk–Virginia Beach–Newport News, VA–NC MSA	39	45.81%	46.08%	45.37%	45.81%	0.01%	32.38%	31.98%	31.41%	30.75%	-1.71%
1692	Cleveland–Akron, OH CMSA	41	42.28%	42.64%	43.62%	43.97%	1.32%	28.75%	29.02%	29.77%	29.39%	0.76%
5082	Milwaukee–Racine, WI CMSA	42	42.14%	42.69%	43.18%	43.92%	1.38%	29.18%	29.55%	29.59%	29.78%	0.68%
3000	Grand Rapids–Muskegon–Holland, MI MSA	43	39.50%	39.06%	39.20%	40.25%	0.64%	27.20%	27.17%	27.34%	27.80%	0.72%
4920	Memphis, TN–AR–MS MSA	44	42.45%	44.61%	43.98%	44.32%	1.48%	30.14%	32.67%	31.72%	31.29%	1.38%
3600	Jacksonville, FL MSA	45	46.86%	47.87%	46.68%	46.92%	0.06%	33.06%	33.61%	32.62%	31.73%	-1.34%
3120	Greensboro–Winston-Salem–High Point, NC MSA	46	36.41%	39.93%	40.69%	41.30%	4.36%	25.75%	27.89%	28.77%	28.84%	3.89%
5560	New Orleans, LA MSA	47	47.39%	47.54%	47.67%	47.81%	0.30%	32.79%	32.11%	32.07%	31.48%	-1.35%
1280	Buffalo–Niagara Falls, NY MSA	48	46.81%	46.84%	46.80%	46.26%	-0.39%	32.30%	32.97%	32.97%	31.85%	-0.44%
4520	Louisville, KY–IN MSA	49	45.06%	42.98%	43.89%	44.10%	-0.67%	31.41%	29.18%	30.21%	30.39%	-0.99%
	Average of 11 Cities		**43.16%**	**43.71%**	**43.93%**	**44.25%**	**0.92%**	**29.86%**	**30.17%**	**30.32%**	**29.97%**	**0.25%**

MSA CMSA	Over 1,000,000	Within Size Creativity Rank	Working Class Percentage of Workforce					Working Class Percentage of Total Wages				
	Region Name		1999	2000	2001	2002	Average Growth	1999	2000	2001	2002	Average Growth
0640	Austin-San Marcos, TX MSA	1	18.80%	20.10%	18.72%	18.76%	0.08%	15.01%	15.90%	14.90%	14.72%	-0.53%
7362	San Francisco-Oakland-San Jose, CA CMSA	2	22.30%	22.82%	21.90%	21.32%	-1.44%	18.72%	18.18%	17.88%	17.31%	-2.57%
7602	Seattle-Tacoma-Bremerton, WA CMSA	3	23.36%	23.29%	21.90%	21.83%	-2.20%	21.46%	21.02%	19.78%	19.59%	-2.96%
1122	Boston-Worcester-Lawrence, MA-NH-ME-CT CMSA	4	20.14%	20.58%	19.79%	19.31%	-1.37%	16.66%	16.95%	16.57%	15.85%	-1.62%
6640	Raleigh-Durham-Chapel Hill, NC MSA	5	22.03%	21.13%	20.17%	19.60%	-3.83%	17.39%	16.51%	15.45%	14.99%	-4.81%
6442	Portland-Salem, OR-WA CMSA	6	28.03%	27.17%	25.02%	24.54%	-4.29%	25.84%	24.86%	22.64%	21.76%	-5.54%
5120	Minneapolis-St. Paul, MN-WI MSA	7	24.59%	24.02%	23.60%	22.20%	-3.32%	22.08%	21.71%	21.62%	19.81%	-3.48%
8872	Washington-Baltimore, DC-MD-VA-WV CMSA	8	17.78%	17.53%	16.95%	17.27%	-0.94%	14.58%	14.07%	13.65%	13.52%	-2.48%
6922	Sacramento-Yolo, CA CMSA	9	20.42%	20.59%	21.09%	21.47%	1.68%	17.99%	17.87%	18.27%	18.43%	0.81%
2082	Denver-Boulder-Greeley, CO CMSA	10	23.26%	23.09%	21.90%	21.88%	-1.99%	19.36%	19.28%	18.55%	18.16%	-2.10%
0520	Atlanta, GA MSA	11	26.42%	24.51%	23.60%	23.48%	-3.81%	22.82%	20.96%	20.34%	19.73%	-4.70%
	Average of 11 Cities		**22.47%**	**22.26%**	**21.33%**	**21.06%**	**-1.95%**	**19.26%**	**18.85%**	**18.15%**	**17.62%**	**-2.73%**
2162	Detroit-Ann Arbor-Flint, MI CMSA	39	28.89%	27.90%	26.92%	25.84%	-3.65%	27.73%	26.71%	26.13%	24.11%	-4.52%
5720	Norfolk-Virginia Beach-Newport News, VA-NC MSA	39	25.76%	24.94%	25.05%	24.81%	-1.23%	24.22%	23.55%	23.55%	22.45%	-2.47%
1692	Cleveland-Akron, OH CMSA	41	28.22%	28.53%	27.12%	26.22%	-2.38%	26.46%	26.56%	25.21%	23.94%	-3.25%
5082	Milwaukee-Racine, WI CMSA	42	29.79%	28.91%	27.89%	26.91%	-3.34%	28.19%	27.19%	26.16%	24.67%	-4.34%
3000	Grand Rapids-Muskegon-Holland, MI MSA	43	36.18%	35.35%	35.51%	33.20%	-2.78%	33.28%	32.54%	33.02%	30.02%	-3.28%
4920	Memphis, TN-AR-MS MSA	44	32.73%	29.14%	28.42%	27.41%	-5.66%	29.49%	25.98%	25.24%	24.11%	-6.42%
3600	Jacksonville, FL MSA	45	22.68%	22.84%	24.40%	23.68%	1.53%	20.48%	20.26%	20.44%	19.91%	-0.93%
3120	Greensboro-Winston-Salem-High Point, NC MSA	46	36.24%	33.93%	32.82%	31.79%	-4.25%	30.54%	29.96%	28.97%	27.51%	-3.41%
5560	New Orleans, LA MSA	47	24.99%	24.00%	23.15%	22.86%	-2.92%	23.81%	22.65%	21.70%	21.31%	-3.62%
1280	Buffalo-Niagara Falls, NY MSA	48	24.26%	25.10%	24.21%	24.62%	0.54%	24.14%	24.72%	23.73%	24.04%	-0.10%
4520	Louisville, KY-IN MSA	49	28.42%	30.64%	29.57%	28.67%	0.43%	26.62%	29.69%	29.03%	26.65%	0.37%
	Average of 11 Cities		**28.92%**	**28.30%**	**27.73%**	**26.91%**	**-2.16%**	**26.82%**	**26.34%**	**25.74%**	**24.43%**	**-2.91%**

MSA CMSA	Over 1,000,000	Within Size Creativity Rank	Total Wages – Workforce (millions)					Average Wages - Workforce				
	Region Name		1999	2000	2001	2002	Average Growth	1999	2000	2001	2002	Average Growth
0640	Austin–San Marcos, TX MSA	1	20,373	23,136	23,177	23,865	5.57%	32,070	34,738	35,447	37,065	4.98%
7362	San Francisco–Oakland–San Jose, CA CMSA	2	137,320	155,879	149,906	155,164	4.40%	39,432	42,703	44,420	46,588	5.73%
7602	Seattle–Tacoma–Bremerton, WA CMSA	3	62,558	69,078	68,534	69,027	3.45%	36,390	39,079	40,197	41,301	4.33%
1122	Boston–Worcester–Lawrence, MA–NH–ME–CT CMSA	4	107,136	116,575	120,149	122,876	4.72%	36,824	38,628	40,258	42,141	4.60%
6640	Raleigh–Durham–Chapel Hill, NC MSA	5	20,727	23,463	23,983	25,059	6.63%	32,775	35,025	36,624	38,192	5.24%
6442	Portland–Salem, OR–WA CMSA	6	35,423	37,508	37,811	38,976	3.26%	33,107	34,127	35,740	37,060	3.83%
5120	Minneapolis–St. Paul, MN–WI MSA	7	60,866	63,204	63,949	66,392	2.95%	35,683	36,896	38,153	40,208	4.06%
8872	Washington–Baltimore, DC–MD–VA–WV CMSA	8	140,559	152,578	158,367	165,352	5.59%	36,957	38,623	40,453	42,254	4.57%
6922	Sacramento–Yolo, CA CMSA	9	23,991	27,151	29,943	31,039	9.04%	33,471	35,527	37,271	38,593	4.87%
2082	Denver–Boulder–Greeley, CO CMSA	10	46,961	52,204	52,752	54,111	4.93%	34,379	36,707	38,180	40,114	5.28%
0520	Atlanta, GA MSA	11	67,043	74,554	75,803	78,449	5.46%	33,477	34,857	35,546	37,480	3.85%
	Average of 11 Cities		**65,723**	**72,303**	**73,125**	**75,483**	**5.09%**	**34,960**	**36,992**	**38,390**	**40,091**	**4.67%**
2162	Detroit–Ann Arbor–Flint, MI CMSA	39	92,846	96,662	95,917	96,881	1.45%	37,113	38,387	38,738	40,353	2.84%
5720	Norfolk–Virginia Beach–Newport News, VA–NC MSA	39	19,143	20,123	21,078	22,262	5.16%	28,271	29,452	30,525	32,366	4.62%
1692	Cleveland–Akron, OH CMSA	41	46,682	48,156	47,948	49,272	1.83%	31,968	33,191	34,088	35,630	3.68%
5082	Milwaukee–Racine, WI CMSA	42	32,761	31,871	31,244	31,974	-0.78%	32,179	33,411	34,855	36,229	4.03%
3000	Grand Rapids–Muskegon–Holland, MI MSA	43	18,315	19,131	18,361	18,826	0.99%	32,474	32,928	33,438	34,912	2.45%
4920	Memphis, TN–AR–MS MSA	44	16,804	17,171	17,342	18,614	3.50%	29,674	30,508	31,887	33,168	3.78%
3600	Jacksonville, FL MSA	45	14,361	16,691	17,442	17,838	7.67%	29,104	30,674	31,929	33,612	4.92%
3120	Greensboro–Winston-Salem–High Point, NC MSA	46	19,354	20,584	20,091	20,578	2.13%	29,783	30,380	31,636	32,843	3.32%
5560	New Orleans, LA MSA	47	17,019	17,420	18,006	18,260	2.38%	27,808	29,017	30,234	31,507	4.25%
1280	Buffalo–Niagara Falls, NY MSA	48	16,971	16,554	16,895	17,970	1.99%	29,967	31,040	32,313	34,033	4.34%
4520	Louisville, KY–IN MSA	49	15,642	17,761	17,405	17,909	4.81%	28,850	31,564	32,384	33,560	5.21%
	Average of 11 Cities		**28,172**	**29,284**	**29,248**	**30,035**	**2.83%**	**30,654**	**31,868**	**32,911**	**34,383**	**3.95%**

MSA CMSA	Over 1,000,000 Region Name	Within Size Creativity Rank	Total Wages – Creative Class (millions) 1999	2000	2001	2002	Average Growth	Average Wages – Creative Class 1999	2000	2001	2002	Average Growth
0640	Austin–San Marcos, TX MSA	1	11,068	13,051	12,999	13,539	7.22%	47,876	51,581	52,982	55,836	5.28%
7362	San Francisco–Oakland–San Jose, CA CMSA	2	72,768	86,583	82,187	85,761	6.09%	60,063	64,975	67,490	71,703	6.10%
7602	Seattle–Tacoma–Bremerton, WA CMSA	3	30,327	34,919	34,907	35,238	5.35%	53,988	57,156	58,770	61,303	4.33%
1122	Boston–Worcester–Lawrence, MA–NH–ME–CT CMSA	4	58,116	64,350	65,050	67,983	5.44%	55,685	57,966	59,751	63,789	4.64%
6640	Raleigh–Durham–Chapel Hill, NC MSA	5	11,640	13,436	14,049	14,798	8.44%	48,161	52,765	54,516	57,501	6.12%
6442	Portland–Salem, OR–WA CMSA	6	15,731	16,987	17,760	18,641	5.83%	50,059	51,019	52,980	56,207	3.95%
5120	Minneapolis–St. Paul, MN–WI MSA	7	30,732	31,654	31,935	34,589	4.07%	53,121	55,280	56,633	60,797	4.62%
8872	Washington–Baltimore, DC–MD–VA–WV CMSA	8	79,425	87,604	92,223	97,573	7.12%	54,454	56,987	59,177	63,042	5.01%
6922	Sacramento–Yolo, CA CMSA	9	11,439	13,277	14,757	15,274	10.24%	51,379	54,182	55,748	58,630	4.51%
2082	Denver–Boulder–Greeley, CO CMSA	10	23,436	27,106	27,297	28,565	7.00%	51,956	55,675	57,575	61,809	5.97%
0520	Atlanta, GA MSA	11	32,280	37,236	37,705	39,948	7.52%	50,303	53,505	54,109	58,895	5.45%
	Average of 11 Cities		**34,269**	**38,746**	**39,170**	**41,083**	**6.76%**	**52,459**	**55,554**	**57,248**	**60,865**	**5.09%**
2162	Detroit–Ann Arbor–Flint, MI CMSA	39	43,414	45,982	44,879	47,975	3.47%	55,907	58,006	58,681	62,285	3.69%
5720	Norfolk–Virginia Beach–Newport News, VA–NC MSA	39	8,303	8,938	9,482	10,410	7.84%	43,189	45,273	46,531	51,617	6.18%
1692	Cleveland–Akron, OH CMSA	41	20,898	21,381	21,571	22,980	3.24%	48,585	51,169	52,502	55,818	4.75%
5082	Milwaukee–Racine, WI CMSA	42	13,932	13,765	13,803	14,553	1.50%	49,012	50,992	53,437	56,631	4.94%
3000	Grand Rapids–Muskegon–Holland, MI MSA	43	7,237	7,694	7,259	7,930	3.30%	52,760	52,017	52,591	55,591	1.80%
4920	Memphis, TN–AR–MS MSA	44	6,784	7,101	7,444	8,284	6.93%	48,272	48,058	49,891	52,501	2.87%
3600	Jacksonville, FL MSA	45	6,660	7,684	8,176	8,627	9.10%	44,498	48,429	51,909	55,292	7.51%
3120	Greensboro–Winston-Salem–High Point, NC MSA	46	8,450	8,667	8,480	8,974	2.08%	47,644	49,044	50,519	53,366	3.86%
5560	New Orleans, LA MSA	47	7,367	7,862	8,304	8,603	5.31%	43,785	46,200	47,986	50,829	5.10%
1280	Buffalo–Niagara Falls, NY MSA	48	7,389	7,000	7,308	7,921	2.51%	45,168	46,839	48,317	51,598	4.55%
4520	Louisville, KY–IN MSA	49	6,559	7,291	7,081	7,683	5.60%	45,705	49,343	49,850	53,051	5.14%
	Average of 11 Cities		**12,454**	**13,033**	**13,071**	**13,995**	**4.63%**	**47,684**	**49,579**	**51,110**	**54,416**	**4.58%**

MSA CMSA	Over 1,000,000 Region Name	Within Size Creativity Rank	Total Wages – Service Class (millions) 1999	2000	2001	2002	Average Growth	Average Wages – Service Class 1999	2000	2001	2002	Average Growth
0640	Austin–San Marcos, TX MSA	1	6,247	6,406	6,711	6,799	2.88%	21,945	22,953	23,516	24,293	3.45%
7362	San Francisco–Oakland–San Jose, CA CMSA	2	38,673	40,763	40,709	42,315	3.07%	26,038	27,627	28,910	29,933	4.76%
7602	Seattle–Tacoma–Bremerton, WA CMSA	3	18,733	19,584	20,004	20,199	2.55%	24,875	26,355	27,202	27,699	3.66%
1122	Boston–Worcester–Lawrence, MA–NH–ME–CT CMSA	4	31,132	32,426	35,149	35,371	4.40%	24,358	25,238	26,962	27,520	4.17%
6640	Raleigh–Durham–Chapel Hill, NC MSA	5	5,471	6,134	6,214	6,485	5.93%	21,804	22,474	23,491	24,065	3.35%
6442	Portland–Salem, OR–WA CMSA	6	10,454	11,105	11,395	11,752	3.99%	23,114	23,970	25,121	25,691	3.59%
5120	Minneapolis–St. Paul, MN–WI MSA	7	16,661	17,790	18,148	18,617	3.79%	23,588	24,454	25,376	26,062	3.38%
8872	Washington–Baltimore, DC–MD–VA–WV CMSA	8	40,595	43,435	44,469	45,366	3.80%	24,360	25,291	26,309	26,887	3.35%
6922	Sacramento–Yolo, CA CMSA	9	8,159	8,969	9,656	9,939	6.84%	23,745	24,966	26,333	27,125	4.54%
2082	Denver–Boulder–Greeley, CO CMSA	10	14,415	14,999	15,632	15,682	2.86%	24,174	24,781	25,913	26,583	3.22%
0520	Atlanta, GA MSA	11	19,441	21,653	22,646	22,982	5.82%	23,407	23,624	24,331	24,946	2.15%
	Average of 11 Cities		**19,089**	**20,297**	**20,976**	**21,410**	**4.18%**	**23,764**	**24,703**	**25,770**	**26,437**	**3.60%**
2162	Detroit–Ann Arbor–Flint, MI CMSA	39	23,683	24,844	25,940	25,537	2.59%	23,628	24,310	24,864	25,287	2.29%
5720	Norfolk–Virginia Beach–Newport News, VA–NC MSA	39	6,199	6,435	6,620	6,845	3.36%	19,984	20,438	21,134	21,725	2.82%
1692	Cleveland–Akron, OH CMSA	41	13,419	13,975	14,273	14,484	2.58%	21,734	22,591	23,262	23,820	3.10%
5082	Milwaukee–Racine, WI CMSA	42	9,560	9,417	9,245	9,521	-0.11%	22,280	23,127	23,885	24,564	3.31%
3000	Grand Rapids–Muskegon–Holland, MI MSA	43	4,982	5,197	5,021	5,233	1.72%	22,364	22,902	23,328	24,109	2.54%
4920	Memphis, TN–AR–MS MSA	44	5,064	5,609	5,501	5,824	4.90%	21,064	22,343	22,999	23,416	3.61%
3600	Jacksonville, FL MSA	45	4,747	5,610	5,690	5,660	6.35%	20,531	21,536	22,315	22,728	3.45%
3120	Greensboro–Winston-Salem–High Point, NC MSA	46	4,984	5,742	5,781	5,934	6.18%	21,069	21,224	22,371	22,931	2.88%
5560	New Orleans, LA MSA	47	5,580	5,593	5,775	5,747	1.00%	19,240	19,598	20,344	20,741	2.54%
1280	Buffalo–Niagara Falls, NY MSA	48	5,481	5,458	5,571	5,723	1.46%	20,675	21,849	22,766	23,429	4.26%
4520	Louisville, KY–IN MSA	49	4,913	5,183	5,258	5,443	3.49%	20,114	21,434	22,292	23,129	4.77%
	Average of 11 Cities		**8,056**	**8,460**	**8,607**	**8,723**	**3.05%**	**21,153**	**21,941**	**22,687**	**23,262**	**3.23%**

MSA CMSA	Over 1,000,000	Within Size Creativity Rank	Total Wages – Working Class (millions)					Average Wages – Working Class				
	Region Name		1999	2000	2001	2002	Average Growth	1999	2000	2001	2002	Average Growth
0640	Austin–San Marcos, TX MSA	1	3,058	3,679	3,454	3,513	5.30%	25,607	27,476	28,224	29,087	4.36%
7362	San Francisco–Oakland–San Jose, CA CMSA	2	25,700	28,345	26,801	26,855	1.68%	33,098	34,024	36,259	37,817	4.56%
7602	Seattle–Tacoma–Bremerton, WA CMSA	3	13,423	14,519	13,556	13,522	0.43%	33,418	35,262	36,307	37,061	3.52%
1122	Boston–Worcester–Lawrence, MA–NH–ME–CT CMSA	4	17,854	19,759	19,914	19,475	3.08%	30,468	31,813	33,716	34,598	4.34%
6640	Raleigh–Durham–Chapel Hill, NC MSA	5	3,604	3,873	3,705	3,756	1.50%	25,865	27,357	28,050	29,212	4.15%
6442	Portland–Salem, OR–WA CMSA	6	9,155	9,326	8,559	8,483	-2.42%	30,531	31,230	32,339	32,868	2.49%
5120	Minneapolis–St. Paul, MN–WI MSA	7	13,437	13,721	13,827	13,153	-0.66%	32,041	33,348	34,953	35,873	3.84%
8872	Washington–Baltimore, DC–MD–VA–WV CMSA	8	20,489	21,466	21,611	22,353	2.96%	30,306	30,992	32,575	33,076	2.97%
6922	Sacramento–Yolo, CA CMSA	9	4,317	4,851	5,472	5,721	9.91%	29,497	30,832	32,291	33,139	3.96%
2082	Denver–Boulder–Greeley, CO CMSA	10	9,090	10,066	9,785	9,825	2.78%	28,616	30,650	32,341	33,296	5.19%
0520	Atlanta, GA MSA	11	15,300	15,624	15,419	15,479	0.40%	28,915	29,804	30,638	31,492	2.89%
	Average of 11 Cities		**12,312**	**13,203**	**12,918**	**12,921**	**2.27%**	**29,851**	**31,162**	**32,517**	**33,411**	**3.84%**
2162	Detroit–Ann Arbor–Flint, MI CMSA	39	25,747	25,815	25,065	23,362	-3.14%	35,624	36,747	37,603	37,653	1.87%
5720	Norfolk–Virginia Beach–Newport News, VA–NC MSA	39	4,636	4,739	4,964	4,999	2.56%	26,574	27,807	28,703	29,289	3.30%
1692	Cleveland–Akron, OH CMSA	41	12,353	12,788	12,090	11,796	-1.45%	29,977	30,900	31,691	32,531	2.76%
5082	Milwaukee–Racine, WI CMSA	42	9,236	8,665	8,172	7,889	-5.11%	30,452	31,424	32,686	33,221	2.95%
3000	Grand Rapids–Muskegon–Holland, MI MSA	43	6,096	6,224	6,062	5,652	-2.42%	29,875	30,306	31,093	31,566	1.85%
4920	Memphis, TN–AR–MS MSA	44	4,956	4,461	4,377	4,487	-3.12%	26,740	27,198	28,318	29,169	2.94%
3600	Jacksonville, FL MSA	45	2,941	3,382	3,565	3,551	6.67%	26,286	27,217	26,750	28,260	2.49%
3120	Greensboro–Winston-Salem–High Point, NC MSA	46	5,910	6,167	5,821	5,662	-1.33%	25,099	26,823	27,931	28,420	4.25%
5560	New Orleans, LA MSA	47	4,052	3,945	3,907	3,891	-1.34%	26,491	27,382	28,338	29,371	3.50%
1280	Buffalo–Niagara Falls, NY MSA	48	4,097	4,092	4,009	4,320	1.87%	29,824	30,566	31,668	33,232	3.68%
4520	Louisville, KY–IN MSA	49	4,164	5,273	5,053	4,773	5.65%	27,022	30,584	31,794	31,195	5.09%
	Average of 11 Cities		**7,653**	**7,777**	**7,553**	**7,307**	**-0.11%**	**28,542**	**29,723**	**30,598**	**31,264**	**3.15%**

MSA CMSA	Over 1,000,000	Within Size Creativity Rank	Total Population			% Population (Different State 5 Years Previous)			% Population (Immigrated 10 Years Previous)		
	Region Name		1990	2000	Growth	1990	2000	Change	1990	2000	Change
0640	Austin-San Marcos, TX MSA	1	846,227	1,249,763	47.69%	8.15%	9.32%	1.17%	3.59%	6.81%	3.22%
7362	San Francisco-Oakland-San Jose, CA CMSA	2	6,253,311	7,039,362	12.57%	6.75%	5.07%	-1.68%	9.56%	11.04%	1.48%
7602	Seattle-Tacoma-Bremerton, WA CMSA	3	2,970,328	3,554,760	19.68%	13.75%	11.03%	-2.73%	2.91%	5.30%	2.39%
1122	Boston-Worcester-Lawrence, MA-NH-ME-CT CMSA	4	6,529,425	5,819,100	-10.88%	8.62%	8.04%	-0.59%	3.45%	5.17%	1.72%
6640	Raleigh-Durham-Chapel Hill, NC MSA	5	855,545	1,187,941	38.85%	14.57%	14.96%	0.39%	1.89%	6.08%	4.19%
6442	Portland-Salem, OR-WA CMSA	6	1,793,476	2,265,223	26.30%	12.50%	12.11%	-0.39%	2.59%	5.82%	3.23%
5120	Minneapolis-St. Paul, MN-WI MSA	7	2,538,834	2,968,806	16.94%	8.46%	8.08%	-0.38%	1.70%	3.93%	2.23%
8872	Washington-Baltimore, DC-MD-VA-WV CMSA	8	6,727,050	7,608,070	13.10%	13.93%	11.70%	-2.23%	4.46%	6.01%	1.54%
6922	Sacramento-Yolo, CA CMSA	9	1,481,102	1,796,857	21.32%	7.49%	4.50%	-2.99%	4.38%	6.31%	1.94%
2082	Denver-Boulder-Greeley, CO CMSA	10	1,980,140	2,581,506	30.37%	12.79%	13.90%	1.11%	2.13%	6.05%	3.92%
0520	Atlanta, GA MSA	11	2,959,950	4,112,198	38.93%	15.61%	14.21%	-1.40%	2.17%	6.24%	4.07%
	Average of 11 Cities		**3,175,944**	**3,653,053**	**23.17%**	**11.15%**	**10.27%**	**-0.88%**	**3.53%**	**6.25%**	**2.72%**
2162	Detroit-Ann Arbor-Flint, MI CMSA	39	1,443,244	1,569,541	8.75%	18.71%	15.00%	-3.70%	1.29%	1.48%	0.19%
5720	Norfolk-Virginia Beach-Newport News, VA-NC MSA	39	5,187,171	5,456,428	5.19%	4.64%	4.41%	-0.24%	1.30%	3.10%	1.79%
1692	Cleveland-Akron, OH CMSA	41	2,859,644	2,945,831	3.01%	4.81%	4.34%	-0.47%	0.85%	1.65%	0.80%
5082	Milwaukee-Racine, WI CMSA	42	1,607,183	1,689,572	5.13%	5.86%	5.32%	-0.54%	1.02%	2.39%	1.37%
3000	Grand Rapids-Muskegon-Holland, MI MSA	43	937,891	1,088,514	16.06%	5.13%	5.20%	0.07%	0.86%	2.69%	1.83%
4920	Memphis, TN-AR-MS MSA	44	1,007,306	1,135,614	12.74%	12.64%	11.13%	-1.51%	0.61%	1.98%	1.36%
3600	Jacksonville, FL MSA	45	906,727	1,100,491	21.37%	15.93%	12.54%	-3.39%	1.11%	2.13%	1.02%
3120	Greensboro-Winston-Salem-High Point, NC MSA	46	1,050,304	1,251,509	19.16%	8.89%	8.75%	-0.14%	0.68%	3.83%	3.15%
5560	New Orleans, LA MSA	47	1,285,270	1,337,726	4.08%	5.54%	5.85%	0.31%	1.56%	1.53%	-0.02%
1280	Buffalo-Niagara Falls, NY MSA	48	1,189,288	1,170,111	-1.61%	3.59%	3.02%	-0.57%	0.89%	1.39%	0.50%
4520	Louisville, KY-IN MSA	49	948,829	1,025,598	8.09%	7.68%	8.21%	0.53%	0.44%	1.61%	1.17%
	Average of 11 Cities		**1,674,805**	**1,797,358**	**9.27%**	**8.49%**	**7.62%**	**-0.88%**	**0.97%**	**2.16%**	**1.20%**

MSA CMSA	Over 1,000,000 Region Name	Within Size Creativity Rank	Total Employed Civilians			Per Capita Income			Median Housing Value		
			1990	2000	Growth	1990	2000	Growth	1990	2000	Change
0640	Austin–San Marcos, TX MSA	1	432,006	660,769	52.95%	14,165	24,516	73.07%	74,785	128,100	71.29%
7362	San Francisco–Oakland–San Jose, CA CMSA	2	3,229,687	3,495,883	8.24%	19,629	30,769	56.75%	258,568	353,500	36.71%
7602	Seattle–Tacoma–Bremerton, WA CMSA	3	1,480,616	1,771,070	19.62%	16,508	25,744	55.95%	119,002	195,400	64.20%
1122	Boston–Worcester–Lawrence, MA–NH–ME–CT CMSA	4	3,315,187	2,952,632	-10.94%	17,225	26,856	55.91%	159,393	192,500	20.77%
6640	Raleigh–Durham–Chapel Hill, NC MSA	5	468,008	627,772	34.14%	15,629	24,698	58.02%	87,751	146,800	67.29%
6442	Portland–Salem, OR–WA CMSA	6	877,443	1,123,043	27.99%	14,593	22,592	54.81%	70,740	165,400	133.81%
5120	Minneapolis–St. Paul, MN–WI MSA	7	1,366,976	1,619,473	18.47%	16,721	26,219	56.80%	87,485	141,200	61.40%
8872	Washington–Baltimore, DC–MD–VA–WV CMSA	8	3,581,926	3,843,329	7.30%	19,255	28,175	46.32%	137,881	161,600	17.20%
6922	Sacramento–Yolo, CA CMSA	9	693,136	815,041	17.59%	15,407	22,302	44.75%	136,697	159,700	16.83%
2082	Denver–Boulder–Greeley, CO CMSA	10	1,038,930	1,366,635	31.54%	16,287	26,011	59.71%	86,795	179,500	106.81%
0520	Atlanta, GA MSA	11	1,563,539	2,092,994	33.86%	16,670	25,033	50.16%	88,413	135,300	53.03%
	Average of 11 Cities		**1,640,678**	**1,851,695**	**21.89%**	**16,554**	**25,720**	**55.66%**	**118,864**	**178,091**	**59.03%**
2162	Detroit–Ann Arbor–Flint, MI CMSA	39	615,581	682,284	10.84%	13,467	20,328	50.95%	85,857	110,100	28.24%
5720	Norfolk–Virginia Beach–Newport News, VA–NC MSA	39	2,344,516	2,538,924	8.29%	15,543	24,275	56.18%	66,423	132,600	99.63%
1692	Cleveland–Akron, OH CMSA	41	1,307,775	1,401,208	7.14%	14,462	22,319	54.33%	69,560	117,900	69.49%
5082	Milwaukee–Racine, WI CMSA	42	784,796	832,079	6.02%	14,702	23,003	56.46%	73,246	131,900	80.08%
3000	Grand Rapids–Muskegon–Holland, MI MSA	43	451,193	541,214	19.95%	13,676	20,901	52.83%	64,596	114,800	77.72%
4920	Memphis, TN–AR–MS MSA	44	456,421	518,618	13.63%	12,851	20,327	58.18%	63,808	92,800	45.44%
3600	Jacksonville, FL MSA	45	422,421	519,840	23.06%	14,141	21,763	53.90%	68,057	98,100	44.14%
3120	Greensboro–Winston-Salem–High Point, NC MSA	46	559,047	631,003	12.87%	14,454	21,392	48.00%	70,450	108,600	54.15%
5560	New Orleans, LA MSA	47	533,656	578,676	8.44%	12,005	18,834	56.89%	69,308	98,700	42.41%
1280	Buffalo–Niagara Falls, NY MSA	48	542,686	531,984	-1.97%	13,402	20,143	50.30%	71,484	89,100	24.64%
4520	Louisville, KY–IN MSA	49	450,019	501,258	11.39%	13,529	21,756	60.81%	55,968	102,300	82.78%
	Average of 11 Cities		**769,828**	**843,372**	**10.88%**	**13,839**	**21,367**	**54.44%**	**68,978**	**108,809**	**58.97%**

MSA/CMSA	500,000 – 1,000,000	Within Size Creativity Rank
	Region Name	
0200	Albuquerque, NM MSA	1
1720	Colorado Springs, CO MSA	2
8520	Tucson, AZ MSA	3
6760	Richmond–Petersburg, VA MSA	4
1760	Columbia, SC MSA	5
4400	Little Rock–North Little Rock, AR MSA	6
9040	Wichita, KS MSA	6
0160	Albany–Schenectady–Troy, NY MSA	8
1000	Birmingham, AL MSA	9
0240	Allentown–Bethlehem–Easton, PA MSA	10
2320	El Paso, TX MSA	10
3240	Harrisburg–Lebanon–Carlisle, PA MSA	22
2840	Fresno, CA MSA	23
3160	Greenville–Spartanburg–Anderson, SC MSA	24
7560	Scranton–Wilkes-Barre–Hazleton, PA MSA	24
5160	Mobile, AL MSA	26
8560	Tulsa, OK MSA	27
8400	Toledo, OH MSA	28
2760	Fort Wayne, IN MSA	29
0760	Baton Rouge, LA MSA	30
8120	Stockton–Lodi, CA MSA	31
9320	Youngstown–Warren, OH MSA	32

MSA/CMSA	250,000 – 500,000 Region Name	Within Size Creativity Rank
4720	Madison, WI MSA	1
1080	Boise City, ID MSA	2
2670	Fort Collins–Loveland, CO MSA	3
2120	Des Moines, IA MSA	4
7480	Santa Barbara–Santa Maria–Lompoc, CA MSA	5
4040	Lansing–East Lansing, MI MSA	6
8240	Tallahassee, FL MSA	7
6520	Provo–Orem, UT MSA	8
4360	Lincoln, NE MSA	9
4900	Melbourne–Titusville–Palm Bay, FL MSA	10
2360	Erie, PA MSA	54
1560	Chattanooga, TN–GA MSA	55
3290	Hickory–Morganton–Lenoir, NC MSA	55
3660	Johnson City–Kingsport–Bristol, TN–VA MSA	57
5790	Ocala, FL MSA	58
6960	Saginaw–Bay City–Midland, MI MSA	59
8780	Visalia–Tulare–Porterville, CA MSA	59
2440	Evansville–Henderson, IN–KY MSA	61
3980	Lakeland–Winter Haven, FL MSA	61
7680	Shreveport–Bossier City, LA MSA	63

MSA/CMSA	Under 250,000	Within Size Creativity Rank
	Region Name	
1305	Burlington, VT MSA	1
1890	Corvallis, OR PMSA	2
3500	Iowa City, IA MSA	3
1400	Champaign–Urbana, IL MSA	4
7460	San Luis Obispo–Atascadero–Paso Robles, CA MSA	5
6400	Portland, ME MSA	6
1540	Charlottesville, VA MSA	7
1360	Cedar Rapids, IA MSA	8
1260	Bryan–College Station, TX MSA	9
1040	Bloomington–Normal, IL MSA	10
8940	Wausau, WI MSA	123
4800	Mansfield, OH MSA	124
8750	Victoria, TX MSA	125
7620	Sheboygan, WI MSA	126
1950	Danville, VA MSA	127
3350	Houma, LA MSA	128
4320	Lima, OH MSA	129
8140	Sumter, SC MSA	130
3710	Joplin, MO MSA	131
2880	Gadsden, AL MSA	132