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The Creative Class and Economic Development

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Abstract

The Rise of the Creative Class, which was originally published in 2002, has generated widespread conversation and debate and has had a considerable impact on economic development policy and practice. This essay briefly recaps the key tenants of the creative class theory of economic development, discusses the key issues in the debate over it, and assesses its impacts on economic development policy.

Keywords

creative class, economic development, occupations, technology, talent, tolerance, cities

Introduction

I was delighted when the editors of this journal invited me to write a piece on my theory of the creative class and its impact on academic research, public policy, and professional practice in our great field of economic development. I continue to be a little surprised whenever anyone mentions the "influence" my book *The Rise of the Creative Classor Rise* (2002) has had,, as it draws of a large body of my earlier research which had much more limited popular visibility.

I will begin by recapping the book's principal themes and outlining where its main ideas come from in terms of the broad body of research in economic development, and my own intellectual and professional evolution. I then discuss what I see as the main issues in the debate over the book and the impact that it had and continues to have in the professional world of economic development, arts and culture, place making, city building, and public policy. What follows draws from *The Rise of the Creative Class, Revisited*, the fully revised and expanded 10th anniversary edition of the book, which was published in 2012, as well as from several other review essays I have coauthored on creative class theory (Florida, Mellander, & Adler, 2011, forthcoming; Mellander & Florida, 2014).

Where the Idea of the Creative Class Came From

Rise is a direct outgrowth of my lifelong work on one of the major themes in economic development research—the shift from older industrial or Fordist models of economic organization to newer postindustrial, post-Fordist, and "flexible" economic systems (Florida, 1991, 1995a, 2002c). Much of my earlier research—on venture capital and high-technology

industrial organization (Florida & Kenney, 1988a, 1988b, 1988c; Florida & Kenney, 1990), foreign direct investment and high-performance manufacturing (Florida, 1995a; Florida & Kenney, 1991, 1993b), the geography of innovation (Feldman & Florida, 1994), and more—sought to shed light on this grand topic. In a series of articles and books I published jointly with Martin Kenney in the mid- to late-1980s, we had pointed to the Japanese production system, which tapped into the mental labor of factory workers, as an advance beyond Fordism (Florida & Kenney, 1990, 1991, 1992a, 1992b, 1993a; Kenney & Florida, 1993). Later, I wrote a series of essays on what was called at the time "innovation-mediated production" (Florida, 1991) and the rise of "the learning region" (Florida, 1995b). All of this work was shaped by my reading of Marx (1887) and Schumpeter (1947), as well as the regulation school of political economy (Boyer, 1981/1990), the work of economic geographers like Allen Scott (1993, 1998, 2000) and Michael Storper (1997; Walker & Storper, 1989), and of social scientists like Michael Piore and Charles Sabel (Piore & Sabel, 1984).

Rise came into being as my attempt to marry theories of technological, industrial, and economic evolution associated with Marx and Schumpeter, to the theories about the centrality of place, clustering, and cities that were most closely associated with the writings of Jane Jacobs (1961, 1969,

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1984). I also hoped the book would help enlarge the focus of the field of economic development, from one that was almost exclusively fixated on firms and industries to one that also paid due attention to people and places.

Going back to Adam Smith, economists had identified economic development with three key factors of production: land, labor, and capital. But as early as the 1960s and 1970s, Peter Drucker (1969, 1993) and Daniel Bell (1973, 1976) began to chart the rise of the postindustrial knowledge economy. I was strongly influenced by their perspectives, but my own interest began to shift from knowledge, per se, to innovation and ultimately creativity. When I started my research on creativity, I quickly came across the psychologist Robert Sternberg's *Handbook of Creativity* (1999). The introductory chapter to the volume opens this way: "If one wanted to select the best novelist, artist, entrepreneur, chief executive officer, one would most likely want someone who is creative" (Sternberg, 1999). In other words, creativity is an underlying construct or skill that links what were thought of as separate and distinct fields of science and technology, business management and the professions, and art, design, and entertainment.

A deeper conceptual reason also drew me to the construct of creativity as opposed to simply knowledge, technology, or innovation. Marx long ago argued that physical labor—the ability to transform nature—was what essentially differentiated human beings from other species. As this capacity for physical labor was not only embodied in individuals but shared between workers "intersubjectively," as he put it, it was a social as well as an individual attribute. But I had come to the conclusion that it was not the technologies we build or the knowledge that is poured into our heads that is our key human and economic resource, but our shared creativity—a creativity that extends across all kinds of people, that is embedded in every kind of occupation, and that cuts across all social categories. Unlike land, capital, and labor, creativity is not a stock of things that can be depleted but an unlimited resource that is constantly renewed and improved by education, on-the-job experience, and the stimulation that is provided by human interaction.

My interests were also shifting from firms and industries to place itself, which I had come to see as the locus of creativity and innovation. Here I was strongly influence by Jacobs (1969, 1984) who was perhaps the first to make the point that while firms can enhance efficiency, innovation—the creation of new things and new kinds of work—occurs in places. Building on that basic insight, Robert Lucas (1988) made his case for the idea that it was "human capital externalities," the clusters of talented and creative people that concentrate in cities, which ultimately power economic growth.

Until *Rise* was published, the vast majority of economic development theory and practice, as well as much of urban and economic geography and urban and regional economics, had been focused on the behavior of firms, whether in

selecting locations or in organizing themselves into clusters. Following Jacobs (1969, 1984) and Lucas (1988), my core hypothesis was that by organizing people as well as firms, place itself was supplanting firms as the primary social and economic organizing unit of the postindustrial, post-Fordist age (Florida, 2002a, 2002b, 2002c, 2004a, 2008, 2009). This in turn led me to focus empirically on occupations as opposed to industries as a better way to understand economic transformation and the role of place in it. Moreover, occupations provided an alternative and more precise measure of human capital or talent (Mathur, 1999) than the conventional one that was based on education.

My feeling was that the standard measure of educational attainment was a broad, monolithic and not very nuanced measure of human capital or skill. Identifying a person's level of talent with their level of education, for example, by whether they held a college degree or above, was on one hand "elitist," in that it excluded creative individuals who hadn't earned college degrees, and on the other woefully incomplete, in that it omitted a critical category of entrepreneurs like Steve Jobs and Bill Gates, and an even wider range of nonacademically credentialed artists and musicians. Additionally, the occupational measure of human capital provided a great deal more traction for fine-grained regional analysis. Just as economic development scholars like Michael Porter (1994) could identify specific industry clusters, capabilities, and competitive advantages, occupations could be similarly tracked and quantified to identify the underlying talent clusters that shape regional capabilities. The occupational categories that I identified as belonging to the creative class—jobs in knowledge-intensive industries that involve the production of new ideas and products, or that engage in creative problem solving—fell under a number of categories, including design, entertainment, and media; computer and mathematical sciences; management; law; architecture and engineering; medicine; finance; life, physical, and social sciences; education; and of course the super-creative occupations like university professors, thought leaders, actors, musicians, dancers, novelists, and poets. Forty-one million strong, the creative class makes up around one third of the U.S. workforce but accounts for about half of all U.S. wages and salaries, earning an average of \$70,000 per year.

The concept of clustering, of course, has a long lineage. Alfred Marshall noted the forces and factors that cause firms to agglomerate in close proximity to one another more than a century ago. Building on his work, economists have catalogued the factors that cause like industries to locate in the same places, including the accessibility of natural resources and transportation routes, shared inputs, knowledge spill-overs, and access to a labor pool with special skills. Porter identified four key reasons for geographic clusters, including factor conditions, demand conditions, the presence of related and supporting industries, and strategy, structure, and rivalry (Porter, 1994).

What ultimately makes a location attractive to industries are the clusters of talent that it has on hand. And what attracts smart talented people to a place are its natural, cultural, and built amenities, everything from its architecture to its prestigious knowledge institutions—and most of all, the presence of other talented people. Talented people are drawn to places that have an abundance of jobs, of course or what I termed a "thick labor market", but the process runs in both directions—places that attract talent attract companies (Florida, 2002b).

As my ideas crystalized, I began to focus on three specific factors that are critical to regional economic growth, technology, talent, and tolerance, which I called the "3Ts of economic development" (Florida, 2002c).

Technology is what enables capitalism to constantly revolutionize itself, ensuring its vitality, as Marx (1887) and Schumpeter (1947) both recognized. In the late 1950s, Robert Solow devised a mathematical formula to isolate technology's contribution to economic growth, for which he was awarded the Nobel Prize in Economics (Solow, 1956).

Talent is the second factor. Knowledge workers not only improve existing means of production, they create new products that engender completely new markets. Paul Romer's theory of endogenous growth, with its corollary that investment in research and development and education yield measurable returns over the long term, formalized this phenomenon (Romer, 1994).

The third and perhaps the most hotly debated factor is tolerance. Why is this important? Because talent is mobile, it flows, and the places that it flows to are the ones that are the most welcoming (Florida, 2002a). One fascinating illustration of this phenomenon can be seen in the Gay Index that the demographer Gary Gates developed to chart concentrations of gay population (Gates & Florida, 2001). We were surprised to discover that places that scored high on the Gay Index were also closely associated with regional clustering of high-tech industry—a correlation that increased over time (Gates & Florida, 2001). Gays, of course, don't cause hightech growth, but they are a leading indicator of a place's tolerance. If gays feel comfortable in a place, then immigrants, ethnic minorities, and creative people with eccentric personal styles will too (Florida and Mellander, 2010). As Bill Bishop once put it, "where gay households abound, geeks follow" (Bishop, 2000).

Debating the Creative Class

Ever since *Rise* was first published, its premises have been sharply debated. Believe it or not, I am grateful to my critics. I always say I learn the most from the people who force me to think the hardest about my ideas and assumptions and to clarify what I think and write.

An early set of critics, Harvard University's Edward Glaeser among them, noted that creative class metros were not adding population as fast as many of their Sun Belt peers. How could my theory be right, they asked, if the places that exemplified it weren't expanding? When interviewed for a story in the *Boston Globe* in 2004, Glaeser insisted that people prefer to live in sunny, dry climates and they actually like car-centered cities. A story in the *Boston Globe* contrasted his approach as follows: "In place of Florida's 'Technology, Talent, and Tolerance," the story noted, "Glaeser proposes a different recipe, 'Skills, Sun, and Sprawl." In 2009, Glaeser himself wrote, "There is no variable that predicts urban population growth in the 20th century better than January temperature" (Glaeser, 2009). In his review of the original edition of *Rise*, Glaeser wrote,

While Florida acts as if there is a difference between the human capital theory of city growth and the "creative capital" theory of growth, that is news to me. I have always argued that human capital predicts urban success because "high skilled people in high skilled industries may come up with new ideas." (Glaeser, 2005)

Glaeser requested data from my research team so that he could run a regression analysis of the relative economic effects of my creative class measures versus the conventional human capital measure (the share of adults with at least a college degree) and found that the conventional variable substantially outperformed mine. "Maybe there is more to creativity than just schooling," he wrote, "but the regression doesn't show it." The metric that Glaeser used for performance was population growth, but population growth does not equate to economic growth and can be a poor proxy for it. The urban economist Paul Gottlieb long ago coined a term for the disconnect between population and economic growth: He called it simply "growth without growth" (Gottlieb, 2002).

Sustained economic growth comes from improvements in productivity. When my research team compared average annual growth in population to average annual growth in gross domestic product (GDP) per capita across America's 350-plus metros between 2001 and 2010, we found virtually no correlation between the two (Florida, 2013b). Just one in three metro areas experienced gains in both productivity and population that exceeded the national average.

Then there is the question of using occupations as opposed to education as a measure of underlying skill. While there is considerable overlap between degree holders and the creative class, a number of studies show that they are far from the same things. Across the United States, nearly three-fourths of adults with college degrees are members of the creative class. But less than 60% of the people whose occupations qualify them as members of the creative class have college degrees, according to a detailed analysis (Currid-Halkett & Stolarick, 2013). Four in 10 members of the creative class—16.6 million workers—do not have college degrees. As the authors of the stidy write, "Human capital

and the creative class do not necessarily capture the same people nor is a measure of each's respective presence in a regional economy indicative of similar trends."

Indeed, a significant body of research shows that the occupationally based creative class measure operates in addition to and through other channels than the standard human capital variable. A large-scale study I conducted with Kevin Stolarick and Charlotta Mellander found that the creative class has a larger effect on wages—a key element of regional productivity—whereas education tends to have a greater effect on income (Florida, Mellander, & Stolarick, 2008). Independent research by economist Todd Gabe and others supports this, showing that the creative class continues to have a substantial effect on regional economic growth when controlling for the effects of education and other factors (Gabe, 2011). Having a creative class job brings economic benefits that extend beyond those of going to college. A college graduate working in the same occupation as a noncollege graduate earns approximately 50% higher wages. Having a creative class job, however, adds another 16%, about the same as another 1.5 years of additional education, according to Gabe's research (Gabe, 2011).

Several careful independent empirical studies have compared my occupationally based theory to more conventional human capital theory. David McGranahan and Timothy Wojan, two economists with the U.S. Department of Agriculture, used sophisticated statistical techniques to gauge the effects of the creative class versus human capital on regional growth (McGranahan & Wojan, 2007). These techniques, they note, allowed them to undertake a "critical examination of the most cutting critique of Florida's analysis: that he is merely substituting employment in highly skilled occupations as a proxy for the endowment of human capital." To do so, they used systems of simultaneous equations rather than the conventional simple regression models to control for the endogeneity of population and employment growth as well as influences from a range of other local conditions and attributes. Their key findings overwhelmingly confirm the "strong independent influence on employment growth from both the initial share employed in the recast creative class occupations and its growth over the decade. By contrast, the statistical association with human capital variables is quite weak." And they add that "the econometric test of the creative class thesis provides strong support for the notion that creativity has an effect on growth independent of the endowment of human capital" (McGranahan & Wojan, 2007).

Another detailed study, this one investigating regional development in the Netherlands, also found that the creative class considerably outperformed the standard human capital measure in accounting for employment growth. This led its authors to conclude that the creative class measure sets a "new standard" for measuring skill and talent, especially when considering regional labor productivity (Marlet & van Woerkens, 2007).

With our Dutch data set we do find evidence that Florida's creative class is a better predictor of city growth than traditional education standards" [they wrote]. . . . Therefore we conclude that Florida's major contribution is his successful attempt to create a population category that is a better indicator for levels of human capital than average education levels or amounts of highly educated people. The point is, as Florida stated, not which or how much education people can boast of, but what they really do in working life. (Marlet & van Woerkens, 2007, p. 2620)

A 2012 study published in the journal *Economic Geography* used advanced statistical models to compare the effects of the creative class and human capital across the 257 European Union regions. "Our results," it concluded, "indicate that highly educated people working in creative occupations are the most relevant component in explaining production efficiency" (Marrocu & Paci, 2012, p. 369). Several years after his review of *Rise*, Glaeser himself admitted the advantages of using occupationally based measures of skill. In a 2009 article on inequality in cities, he noted that "occupations may provide us with a richer means of measuring individual-level human capital" (Glaeser, Resseger, & Tobio, 2009, p. 631).

A number of others criticized the concept of the creative class as a "hodgepodge," saying that artists, engineers, and business people are very different kinds of people, with different interests and personalities, and that the creative class therefore included too broad a spectrum of occupations and types of work to be really meaningful (Markusen, 2006). But recall what Sternberg (1999), perhaps the leading student of creativity, had to say about the shared creativity of successful artists, entrepreneurs, and CEOs. It is true that artists, designers, entertainers, and media workers earn about half (\$52,290 per year on average in 2010) of what those in management occupations earn, and considerably less than lawyers (\$96,940) and engineers and architects (\$75,550). Of the major creative class occupations, only education workers make less (\$50,440). The pay differences within the creative class pale, however, when you compare its average wages (\$70,714) to those of the other two major classes. The average working class salary was just \$36,991 in 2010, and the average salary for service class members was \$29,188.

The common link that makes all those separate occupations belong to a single class is the underlying skill they draw on. Like Marx's working class, which was composed of very different occupations that had physical skills in common, from skilled trades to assembly line workers, the separate occupations that make up the creative class draw on underlying creative skill, as Sternberg's research notes. While my original definition of the creative class was based on my research teams' subjective assessments of the creative skill content of different occupations, new data have since become available on the actual skills, knowledge bases, and creative content underlying these occupations. In a major 2007 study,

McGranahan and Wojan examined my definition of the creative class using detailed data from the Bureau of Labor Statistics' Occupational Information Network (O*NET) on the skill and creative content of hundreds of individual occupations. For the most part, they found that my original definitions held up and that there is a substantial overlap between my original and their updated definition based on underlying skills (also see Florida, Mellander, Ross, & Stolarick, 2012).

Still another set of criticisms questioned the connection between the creative class and economic development. "Jobs data going back 20 years, to 1983," wrote Steven Malanga in 2004,

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.

As I reported in a 2004 essay in *Next American City* (Florida, 2004b) and in my book *The Flight of the Creative Class* (Florida, 2005), when Stolarick looked at the numbers, he reached a radically different conclusion. First, he put together two lists of metro regions, the first composed of the top 11 performers on the 2004 version of the Creativity Index and the second including the 11 lowest ranked regions (he used 11 instead of the more common top 10 because two of the lowest ranked regions were tied). Between 1990 and 2000, the creativity leaders generated three times as many jobs as the laggards, 2.32 million versus 850,000. Even after controlling for population, the creative leaders still generated jobs at more than twice the rate, 22% versus 11%.

Job creation alone captures only a part of the picture. A place might create lots of jobs, but the quality of those jobs—the wealth they generate and the salaries they pay—also matters. Stolarick's analysis showed that the leading creative regions added about \$100 billion in total wages between 1999 and 2002, more than five times the \$20 billion added by the lowest ranked regions. Wages in the top-ranked creative regions grew at almost double the rate (5.1%) of the laggards (2.8%).

For the revised edition of *Rise* (Florida, 2012b), Stolarick updated the numbers for the period 2005 through 2010. The effects of the economic crisis were clear to see. The 10 lowest ranked regions had lost 5% of their jobs, and the leaders only showed slight gains. But even controlling for population, the leaders had added creative class jobs at more than double the rate of the laggards. Average salaries were \$12,631 higher, \$54,207 versus \$41,576 for the bottom 10 regions, and they had grown by 27% in the former compared to 20% in the latter. Average salaries for creative class members were a full 25% higher in the leading Creativity Index regions, \$82,242 versus \$65,987.

Still other critics have said that my approach falls victim to the proverbial chicken-and-egg problem. What typically comes first, they argue, are jobs (Malanga, 2004). Once a region has them, the people—as well as the amenities, lifestyle, and tolerance—will follow. One conventional economic developer put it this way, "Create the jobs and diversity will follow." But jobs versus people is a false dichotomy.

The rationale behind my approach is worth reiterating: Skills and skilled people are a mobile factor of production. They are not stocks but flows. The literature, including my own work, identifies three factors that shape the flow and determine the divergent levels of talent and skill across regions (Florida, 2002, 2012c).

The first is amenities. A study by the economist Jesse Shapiro found that although "roughly 60 percent of the employment growth effect of college graduates is due to enhanced productivity growth," the "rest" is "caused by growth in quality of life," adding that "this finding contrasts with the common argument that human capital generates employment growth in urban areas solely through changes in productivity" (Shapiro, 2006).

A 2011 study in *Labour Economics*, "The Phantom of the Opera: Cultural Amenities, Human Capital, and Regional Economic Growth," tracked economic growth in German cities that had built opera houses in the 17th and 18th centuries (Falck, Fritsch, & Heblich, 2011). "Proximity to a baroque opera house is a strong predictor of a region's equilibrium share of high-human-capital-employees," its authors found, even though the construction of the opera houses predated their job categories by centuries. "It is the local level of high-human-capital employees who value their proximity to a baroque opera house that shifts a location to a higher growth path," they added.

The second factor is universities, which act as talent magnets and aggregators, but some cities and metros have great universities (as well as substantial amenities) yet still experience a significant outflow of talented people. What accounts for that?

This led me to the third factor, which I dubbed "low barriers of entry for talent." If firms and markets benefit from low barriers to entry, then why not people and labor markets? The more tolerant a place is, the more welcoming it is to all kinds of people, and the more likely it is to attract the kinds of people who are oriented toward self-expression and openness to experience—which psychological studies show are key characteristics of entrepreneurial behavior.

All three factors are objective; it is possible to test them empirically. To do so, Mellander, Stolarick, and I took a thorough look at the relationships between the creative class, human capital, and each of the 3Ts of economic development, particularly tolerance. Our study "Inside the Black Box of Regional Development," published in the *Journal of Economic Geography* in 2008 (Florida et al., 2008), used structural equation models and path analysis to examine the effects of educational versus occupational measures on regional income and wages and also to isolate the effects of

tolerance, consumer service amenities, and universities on their distribution. We found that human capital and the creative class both affect regional development, but through different channels. The creative class outperforms conventional educational attainment measures in accounting for regional labor productivity measured as wages, whereas educational human capital better accounts for regional income or wealth. Tolerance is significantly associated with both. Educational human capital may reflect richer places, but it seems that the creative class actually makes a place more productive.

Other critics suggested that creative class theory privileges young singles (or in Joel Kotkin's memorable words, "singles, young people, homosexuals, sophistos, and trendoids") over traditional nuclear families (Kotkin, 2003, 2013). That's simply not true. In *Rise*, I explicitly noted that cities and regions needed to develop strategies to attract people or talent across the entire range of demographic and lifestyle groups, but I noted that singles, families without children, and gay households were making up an increasing share of the overall talent base, and that they, along with traditional families with children, should also be the focus of talent and economic development strategies.

Others said cities should focus on the basics like good schools, safe streets, and a family-friendly environment, and not worry about anything else, especially frivolities like bike lanes or parks or openness to diversity. What actually attracts people and attaches them to communities can also be established empirically. So, in the mid-2000s, in a largescale survey, I collaborated with the Gallup organization, and I got the opportunity to test the key factors that people want in, that attract them to, and that keep them emotionally attached to their communities (Florida, 2008; Florida, Mellander, & Rentfrow, 2011; Florida, Mellander, & Stolarick, 2011a, 2011b). Covering a couple of dozen metro areas and tens of thousands of individuals (the survey was later expanded in conjunction with the Knight Foundation), we asked a range of questions about five basic factors thought to effect residents' satisfaction with their communities: physical and economic security, that is, the presence of a thriving job market, a low crime rate, and so forth; basic services, like schools, trash removal, and road repair; leadership, or the forward-looking qualities of community stakeholders and politicians; openness to immigrants, minorities, gay people, and the like; and quality of place, meaning natural scenery, parks, architecture, and so on (Knight Foundation, 2010, 2011).

The findings, quite frankly, surprised even me. The most highly valued attributes of communities weren't the basic services or economic opportunities that they offered. As Gallup concluded in 2011, "The study has found that three main qualities attach people to place: social offerings, such as entertainment venues and places to meet, openness (how

welcoming a place is) and the area's aesthetics (its physical beauty and green spaces)."

As for openness, the survey probed it in detail by asking respondents how theywould rate their community as a place to live for families with children, racial and ethnic minorities, gays and lesbians, immigrants, the poor, young singles, recent college grads, and so on. As the level of tolerance toward each group rose, the overall happiness of the community increased. The key conclusions of the survey are worth quoting at length (Knight Foundation, 2010, 2011).

After three years of research, the results have been very consistent, and possibly surprising. First, what attaches residents to their communities doesn't change much from place to place. While we might expect that the drivers of attachment would be different in Miami, Fl., from those in Macon, Ga., in fact, the main drivers of attachment show little difference across communities. In addition, the same drivers have risen to the top in every year of the study.

Second, these main drivers may be surprising. While the economy is obviously the subject of much attention, the study has found that perceptions of the local economy do not have a very strong relationship to resident attachment. Instead, attachment is most closely related to how accepting a community is of diversity, its wealth of social offerings, and its aesthetics. This is not to say that jobs and housing aren't important. Residents must be able to meet their basic needs in a community in order to stay. However, when it comes to forming an emotional connection with the community, there are other community factors which often are not considered when thinking about economic development. These community factors seem to matter more when it comes to attaching residents to their community.

And finally, while we do see differences in attachment among different demographic groups, demographics generally are not the strongest drivers of attachment. In almost every community, we found that a resident's perceptions of the community are more strongly linked to their level of community attachment than to that person's age, ethnicity, work status, etc. (Knight Foundation, 2011).

Creative Class Theory and Inequality

A curious line of criticism of creative class theory is that it is insensitive or sadly naïve about social problems such as economic inequality and gentrification that go along with resurgent cities and a rising creative class. Some scholars even accused creative class theory of being a part of a so-called neoliberal urban agenda to make cities locales for the rich (Peck, 2005).

Inequality has been a concern of mine from the get-go. Back in 2002, in the original edition of *Rise*, I warned about the "widening income gaps and growing stratification that define our social life" (Florida, 2002c, p. 320). With regard to the influx of the creative class into inner city neighborhoods, I noted that "all it usually does" for longtime residents

is raise their rents and perhaps create more low-end service jobs for waiters, housecleaners and the like. While the classes may be living in close physical proximity, they do not intermix in any meaningful way. They might as well be occupying separate universes. (Florida, 2002c)

I wrote a detailed essay on the relationship between creative clustering and inequality in *The Washington Monthly* in 2003 (Florida, 2003). There and in my 2005 book, Flight of the Creative Class, I introduced a new metric of wage inequality, which compared creative class wages to those of other classes across metros. Metros that ranked highest on my Creativity Index also tended to have the highest levels of inequality. San Jose, the heart of Silicon Valley, was the most unequal metro in the nation, followed by New York. Greater Washington, D.C., Raleigh-Durham, Austin, and San Francisco all scored high levels of inequality as well (Florida, 2005). In a 2006 essay in *The Atlantic*, I detailed what I dubbed the "means migration"—the mass relocation of highly skilled, highly educated, and highly paid Americans to a relatively small number of metropolitan regions, and a corresponding exodus of the traditional lower and middle classes from those same places (Florida, 2006). I have written widely about the need to upgrade the productivity and wages of service jobs (Florida, 2011). I called for the adoption of a wide-ranging new social compact that harnesses and rewards the creativity of every human being, and that provides massive new investments in education, training, transportation infrastructure, and housing, and a strengthened and improved social safety net (Florida, 2010a, 2012b, 2012a).

More recently, I examined the distributional effects of skill and creativity-based growth by looking at the wages and housing costs borne by high-skill and low-skill occupations (Florida, 2013c) across American metros. This led to two key findings. On one hand, larger, denser metros with higher shares of skills, creativity, and knowledge have higher wages across the board for all three classes: creative, service, and blue-collar workers alike. On the other hand, housing costs are also higher in these denser, more knowledge-based metros. Although the wages for creative class workers are high enough to make up for the added housing costs, the wages of the working- and service-class are not. The housing premium more than erases their gains—a finding that Kotkin absurdly wielded as proof that I had "conceded my creative class theory" (Kotkin, 2013; Florida, 2013a).

Two chapters of *Rise, Revisited* were devoted to inequality and class division—subjects that have become the core of my research agenda in recent years. In an article Mellander and I authored in 2013, we found that although wage inequality is associated with skills, educational human capital, technology, and metro size, all important factors in creative class theory, income inequality is instead more closely associated with race, poverty, lower levels of unionization, and lower taxes (Florida & Mellander, in press). This suggests that

income inequality is a product not only skill-biased technical change but also of the enduring legacy of race and poverty at the bottom of the socioeconomic order, as well as the unraveling of the postwar social compact between capital and labor. My ongoing research and next book deal centrally with these questions of inequality, class division, and how to create a more balanced and equitable urban growth model.

The Creative Class and Economic Development Policy

Creative class theory has had a significant impact in the real world as well. I have been humbled to see that at least some of my insights have been heeded by mayors, economic developers, arts and cultural policy makers, and city builders of all stripes. In 2012, New York City's then-Mayor Michael Bloomberg editorialized in the *Financial Times* that "talent attracts capital far more effectively and consistently than capital attracts talent," adding that "the most creative individuals want to live in places that protect personal freedoms, prize diversity and offer an abundance of cultural opportunities," and that "a city that wants to attract creators must offer a fertile breeding ground for new ideas and innovations" (Bloomberg, 2012).

Zappos CEO and venture capitalist Tony Hsieh's Downtown Project is a fascinating, privately funded effort to turn a city around using ideas from the creative class theory toolkit; he is investing \$350 million to transform Las Vegas' seedy downtown into an open-air start-up incubator. "It's the Downtown Project's big bet," he told *Wired* magazine, "that a focus on collisions, community, and co-learning will lead to happiness, luckiness, innovation, and productivity. It's not even so big a bet," he adds. "Research has been done about this on the office level. It's just never really been applied in a consolidated way to a city revitalization project" (Corbett, 2014).

Of course, my ideas have been misappropriated and misunderstood; politicians have justified everything from "cool cities" to bigger stadiums and everything in between in the name of "magnetizing" the creative class. When this happens, I am reminded of the "theory of maximum feasible misunderstanding," Daniel Patrick Moynihan's donnish description of the distortions that some of his own ideas were subjected to when they were adapted in the War on Poverty in the 1960s (Moynihan, 1969).

The chief policy implications of my work follow from a few basic insights. The first is that small things, not big things have the greatest impact. Top-down megaprojects like giant stadiums, convention centers, and these days, casinos, are almost always boondoggles; they never bring the jobs and spillover effects that are promised. What makes an enduring difference in a city's quality of life are small, low-cost, community-initiated, and bottom-up improvements like parks, bike paths, neighborhood improvements, and so on.

The second is that cities need what I have dubbed a "people climate," not just the more conventional business climate of low taxes, minimal regulation, and generous subsidies. By a people climate, I mean a general strategy aimed at attracting and retaining people across the board. This people climate needs to have something for all people across all age groups, single and married, gay and straight, parents and childless. Half of us are unmarried; many parents are gays and lesbians. Communities need to offer something to all of them. As I mentioned earlier, places need to provide low barriers to entry for talent and that means being open and welcoming. They need to focus on quality of place more than quality of life. By quality of place, I refer to the unique set of characteristics that define a place and make it attractivewhat I have come to refer to "quality of place" or as what I sometimes refer to as the fourth T: "Territorial Assets." Quality of place cuts across three key dimensions: what's there or the combination of the built environment and the natural environment, the setting it provides for the pursuit of creative lives; who's there or the diverse kinds of people that can be found, signaling that anyone can make a life in a community; and what's going on, the vibrancy of street life, café culture, arts, music, and outdoor activities.

Conclusion: The Future of the Creative Class and Economic Development

Throughout my academic career, my research has been devoted to understanding the transition from an industrial Fordist economy to knowledge-based capitalism, and the role that cities and communities play in it. This transformation has been as thorough-going and, for many manufacturing workers, as traumatic as the industrial revolution was for farm workers, craftsmen, and piece workers. As the old industrial order devolves, we have endured a cataclysmic economic meltdown, terrorist attacks, urban riots, and even the freak weather and destructive storms that are, in part, the legacy of two centuries of wasteful and unsustainable energy consumption. The job market is divided between unskilled, low-wage service work for the majority and high-skill, high-pay work for a privileged third.

We are living through a Great Reset, as I termed it in my 2010 book of the same title—a broad and fundamental transformation of the economic and social order (Florida, 2010b). A true Great Reset transforms not simply the way we innovate and produce but also ushers in a whole new economic landscape, which takes shape around new infrastructure and systems of transportation, giving rise to new housing patterns and realigning where and how we live and work. Eventually it ushers in a whole new way of life, defined by new wants and needs and new models of production and consumption. It is a generational process, full of false starts, setbacks, and long lags, and it brings many challenges as well as

opportunities. All of them are visible in our very geography, in our revitalizing urban centers and entrenched slums, in the new face of suburban poverty, and in our increasingly stalemated politics.

My current research and next book deals with the contradictions of clustering (Florida, forthcoming). The same underlying force that drives innovation, economic growth, the creation of good jobs, and rising livings standards also divides us and drives us further apart, creating a geography where concentrated advantage is juxtaposed next to concentrated disadvantage. The great challenge of our time is to mitigate the negative effects of the clustering force and make it work to our collective advantage. That will require a new growth model based around density, transit, and real city building, as well as a new social compact to elevate service class jobs.

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