



THE STATE OF

THE CREATIVE CLASS

RICHARD FLORIDA AND THE CREATIVE CLASSES OF HAMPTON ROADS

Few, if any, college professors in the United States recently have contributed more to debates over the relationship between economic growth and the quality of life than Richard Florida of George Mason University. **In his books, “The Rise of the Creative Class” (2002) and “The Flight of the Creative Class” (2005), Florida argues that our economy now is powered by human creativity. The kingpins of this new economy are individuals who have the ability to create meaningful new forms, that is, to innovate and see old issues through new lenses. Florida contends that creativity is the main source of competitive advantage. Hence, in the long-run, the winners are those people, those cities and those regions that have the power to create and innovate.**

Florida provocatively argues that creative people do not, as some have contended, gravitate toward places where there is an availability of jobs. Instead, they choose to go to areas that cater to and support their creative needs. He views the society's most creative people as becoming easily bored with the commonplace. In his eyes, they are attracted by variety, diversity and the unusual in living styles, entertainment, politics, art, music and people. True, they value safe streets, the consistent provision of public services and most democratic institutions. Still, the magnet that attracts them to a specific city or region, he says, is not a replication of Middletown, USA, but an eclectic social and economic milieu that allows and even encourages them to do their own thing, however they define it.

Florida defines the core of the creative class as people in a variety of areas such as science and engineering, architecture and design, education, arts, and music and entertainment, whose main objective is the contribution of new ideas and technology. The members of this class are knowledge workers who share a common spirit that embodies creativity, individuality, merit, diversity, openness, tolerance and, of course, creativity. On the basis of his research, Florida believes the following characteristics identify the creative class:

- The creative class is moving away from traditional corporate communities to what he terms “Creative Class Centers.”
- These Creative Class Centers not only have high concentrations of creative people, but also host many innovative, technologically advanced industries that exhibit high rates of growth.
- The centers prosper less because of incentives that local authorities have given them and more because of the creative people who want to live there. Businesses and organizations then follow these people to cater to their needs.
- Creative-class people favor communities abundant in high-quality amenities and experience, those that are open to diversity, and those that allow them to pursue their individual identities.

In a nutshell, Florida believes that the spark plug of a 21st century economy is creativity and that creativity depends upon attracting and retaining high numbers of creative people. Florida emphasizes the “3T’s: technology, talent and tolerance.” In his own words:

“Regional economic growth is powered by creative people, who prefer places that are diverse, tolerant and open to new ideas. Diversity increases the odds that a place will attract different types of creative people with different skill sets and ideas.

Places with diverse mixes of creative people are more likely to generate new combinations. Furthermore, diversity and concentrations work together to speed the flow of knowledge. Greater and more concentration of creative capital in turn lead to higher rates of innovation, high-technology business formation, job generation and economic growth." ("The Rise of the Creative Class," p. 249)

Florida's hypotheses are easily understood and are empirical in nature. That is, one can test his hypotheses empirically and determine how well they fit the real world compared to more conventional explanations. Most conventional theories of economic growth have emphasized human capital as a central factor in regional, national and international growth. Numerous studies have established a link between economic growth and human capital, which is frequently measured by the level of higher education attained by residents. One distinction of Florida's approach to economic development is his view of human capital, which differs from traditional views in two respects. First, he identifies a specific type of human capital — creative people — as being the key to economic growth. Second, he specifies the underlying factors that shape their choice of residence. **He asserts that when creative people are deciding where to live, they value a labor market that provides numerous employment opportunities; prolific and eclectic lifestyle options; many venues for public social interaction, such as coffee shops, restaurants, bookstores, galleries and theaters; diversity of thought and open-mindedness; and what he describes as "authenticity" — the distinctive special cultural attributes that define a location.** All of these combine to provide a sense of identity and quality of place. Florida's creative class is unimpressed by a mall filled with nationally franchised stores. Instead, its members are attracted by distinctive bookstores, restaurants, bars and entertainment venues, as well as idiosyncratic physical features in their environments. Unconventional and even offbeat boroughs within an area, he believes, act as magnets for his creative legions.

More to the point, were he in Norfolk, Florida might wax eloquent about the entertainment and culinary delights of Granby Street, Ghent and the Freemason area, and such nearby venues as the Norva, Wells, Granby and Attucks theaters, along with the Harrison Opera House, Chrysler Museum, Harbor Park, d'Art Center and other amenities. In Florida's eyes, the remainder of our region might contain many interesting places and nice homes, but relatively few of the eclectic, distinctive intersections of people, place and atmosphere that he believes attract the creative class.

Florida further believes that high-technology industries are one of the keys to modern economic development. He argues that innovative industries that rely upon advanced technology are more developed in places with larger concentrations of creative-class members. He has developed several indices, including the *Talent Index*, the *Innovation Index*, the *Tech Pole Index*, the *Gay Index*, the *Bohemian Index* and the *Melting Pot Index*, to measure specific aspects of the extent to which communities might be regarded as havens for the creative. These indices are discussed below in the data section.

Professor Florida also has developed a *Creativity Index* that is a mix of four equally weighted factors: The creative-class share of the labor force, his Innovation Index, the Tech Pole Index and the Gay Index. Yet another index developed by Florida is the *Composite Diversity Index*, which is the sum of the Gay Index, the Melting Pot Index and the Bohemian Index. In "The Rise of the Creative Class," Florida finds high, simple correlations among many of these indices and economic development. He uses these correlations to support his view that a region's economic health is directly related to the number of young, talented, open-minded, tolerant and diverse people it can attract and retain. He believes that measures such as the Composite Diversity Index and the Bohemian Index may explain regional growth more reliably than measures such as education levels.

Statistically speaking, a major problem with Florida's work is his strong reliance upon simple correlations to fuel his conclusions. Just because two variables tend to move together does not mean movement in one is causing movement in the other. There are many spurious correlations (for example, between firetrucks appearing and fire damage resulting) that exist, but are meaningless. It's also true that on occasion the high correlation between two variables means nothing because what really is important is a third variable. Several decades ago, the television show "The Beverly Hillbillies" was popular. The Hillbillies were ensconced in a Beverly Hills mansion, which, among other things, had a beautifully sounding set of chimes at the front door. Every time the

chimes rang, guests appeared. The Hillbillies concluded that the chimes were so beautiful that they attracted the guests, who came to listen. Clearly, if they had taken time into account and controlled for the guests' time of arrival, they would not have come to this humorous conclusion. They would have seen that the guests already were there prior to the chimes ringing.

This illustrates one of the problems with Professor Florida's work. He prefers bivariate analyses between pairs of variables even when a multivariate analysis including many different explanatory variables would be more appropriate. For example, perhaps it isn't the presence of immigrants and gay people per se in a metropolitan statistical area (MSA) that is critical, but rather their educational backgrounds. An appropriate analysis, then, must include educational preparation along with the other demographic variables. To not do so is to risk unwarranted conclusions.

Florida Versus Conventional Notions of Economic Growth

Richard Florida's hypotheses are both interesting and provocative. Most city and regional economic development personnel focus intently on acquiring jobs, preferably those that pay high salaries. They emphasize tax levels, the quality of schools, living costs, climate and other factors when they attempt to induce firms to locate in their areas. Since they believe these factors are important, they persistently lobby legislators, city council members and others to improve their area's standing on these variables, for example, by reducing the property tax rate or by improving traffic flows.

It's not that Florida denies the influence of factors such as taxes and traffic upon economic growth. Instead, he asserts that these really aren't the critical factors that cause individuals from the creative class to choose where to locate. Otherwise, why would any member of the creative class live in New York City, where taxes and traffic are highly problematic?

Instead, Florida opines, the economic development professionals of cities and regions would be better advised to focus their efforts upon increasing the quality of life of their areas. To him, this means they must make their areas more inviting to members of the creative class who are the fountains of innovation. Areas should focus on providing and respecting eclectic, even somewhat "edgy," lifestyle options; emphasize the establishment of public venues that support coffee shops, art galleries, bookstores and theaters; value diversity of thought and open-mindedness; and cultivate distinctive neighborhoods that evince Florida's "authenticity" rather than reflecting cookie-cutter characteristics. Florida has not uttered the famous line, "If you build it, they will come," but he clearly believes that those cities and regions that by accident or design now exhibit the diverse atmosphere and amenities just mentioned will reap dividends by their ability to attract and maintain a significant population of the creative class.

Testing the Florida Hypotheses

Florida's hypotheses are testable. We've done so for the 258 largest MSAs in 2000. As we note elsewhere in the State of the Region report, we have never emphasized sophisticated statistical presentations as the means to disclose and display information. Hence, while we are going to present results generated by a statistical technique known as multiple regression analysis, our readers should focus on the meaning and importance of the results rather than the statistical techniques. (Those who want to venture into the statistical forest behind our results should contact either James V. Koch at jkoch@odu.edu or Vinod Agarwal at vagarwal@odu.edu. We'll be happy to provide the details.)

Here's what we're going to do. Professor Florida says that the economies of the MSAs – the cities and regions – that have the diversity and eclectic environments we have discussed in the sections above will grow faster. So, we're going to test this proposition by means of an equation that makes the per capita income of the MSAs the dependent variable (the thing we want to explain) and a measure of regional education levels, Florida's index of the size of the Bohemian population, the sizes of the gay and immigrant populations, Florida's melting pot index and regional technological development as the independent variables (the things we are going to use to explain the dependent variable, variations in per capita income).

TABLE 1
TESTING THE RICHARD FLORIDA HYPOTHESES

The dependent variable (what we want to explain) is:

- * Per capita income in 2000 for an MSA (PCI)

The independent variables (what we will use to explain the dependent variable) are:

- * Percentage of an MSA's population that holds baccalaureate degree (EDUC)
- * Percentage of an MSA's population classified by Florida as Bohemian (BOHEM)
- * Percentage of an MSA's population that consists of same-sex couples (GAY)
- * Percentage of an MSA's population that is immigrant or foreign-born (MPI)
- * Percentage of an MSA's output that comes from high-technology industries (TECHPOLE).

For those accustomed to mathematics and statistics, we could state this as the following functional relationship:

$$PCI = f(EDUC, BOHEM, GAY, MPI, TECHPOLE).$$

WHAT DATA HAVE WE USED?

Nearly all of the data used in this study pertain to the year 2000 for the metropolitan areas in the United States. We were unable to obtain information regarding the number of patents granted per capita, which Florida calls his Innovation Index. But we were able to find metropolitan area data for a widely used high-technology index (TECHPOLE) developed by the Milken Institute. Our measure of economic development is the per capita income of each of our 258 MSAs:

- **Per Capita Income (PCI):** This is the variable we want to explain and it is the per capita income in each MSA. Both the income and the population data for MSAs were obtained from the Bureau of Economic Analysis, U.S. Department of Commerce.
- **Educational Attainment (EDUC):** This variable is the percentage of an MSA's population with a baccalaureate degree or higher. The data come from the U.S. Census Bureau, "Educational Attainment in the United States," March 2000. Conventional economic human capital theory predicts that EDUC should have a positive impact on per capita income.
- **Bohemian Index (BOHEM):** Here we measure the percentage of writers, designers, musicians, actors, directors, painters, sculptors, photographers and dancers in an MSA's population. The data source is the U.S. Department of Labor, Bureau of Labor Statistics. Florida predicts this variable will have a positive effect on per capita income.
- **Diversity Index (GAY):** This is the percentage of same-sex couples in the population of an MSA. The data are drawn from the 2000 decennial U.S. Census. Florida says this variable will have a positive effect on per capita income.
- **Melting Pot Index (MPI):** This variable measures the percentage of immigrant and foreign-born individuals in an MSA. The data are taken from the "American Fact Finder," 2000 decennial U.S. Census. This variable will have a positive effect on per capita income, according to Florida.
- **High-Tech Index (TECHPOLE):** The Milken Institute's TechPole is a composite index combining the percentage of national high-tech real output and the concentration of high-tech industries for each MSA. This measure is for 1999 (not 2000) and was taken from the Milken Institute study, "America's High Tech Economy." Both Florida and economists would expect this variable to have a positive effect on per capita income.

COMPARING THE CITIES AND REGIONS

The 258 MSAs we examine in our analysis represented 76 percent of the U.S. population in 2000. Table 2 provides a sense for the actual data we have used. For example, average per capita income for the 258 MSAs was \$26,500 (similar to Hampton Roads). The lowest per capita income of any MSA was \$13,578, while the highest per capita income in an MSA was \$48,347. The average population for our 258 MSAs was 828,184 (about half the size of Hampton Roads).

Variable	Mean	Minimum	Maximum	Total
Per capita income in 2000	\$26,500	\$13,578	\$48,347	
Individuals with a bachelor's degree or higher	150,708	7,914	4,554,734	38,882,628
Population	828,184	80,183	18,356,575	213,671,503
Same-sex couples	1,923	59	52,666	496,004
TechPole Index	0.3456	0.0000	7.0630	
Scientists, engineers and health professionals	27,750	720	331,200	7,159,470
Immigrants or foreign-born individuals	111,856	915	5,182,255	28,858,797
Bohemian population	5,139	40	133,220	1,325,743

There is a big difference, however, between a large MSA such as New York City and a small MSA such as Peoria, Ill. Table 3 illustrates how the data vary among four different sizes of MSAs. Per capita incomes are higher in the largest MSAs, as are educational levels, technological development, and the percentages of gays, immigrants, foreign-born and Bohemians in the population.

Variable	Entire Sample	Population 1,000,000 or Greater	Population Between 500,000 and 1,000,000	Population Between 250,000 and 500,000	Population 250,000 or Less
PCI in 2000	\$26,500	\$31,961	\$26,402	\$26,442	\$24,328
EDUC	15.12%	18.68%	14.32%	14.97%	13.95%
BOHEM	0.46%	0.65%	0.53%	0.43%	0.38%
GAYS	0.19%	0.23%	0.19%	0.17%	0.19%
MPI	6.34%	10.87%	8.02%	5.64%	4.43%
TECHPOLE	0.3456	1.4793	0.2970	0.0935	0.0379

WHICH EXPLANATORY VARIABLES ARE MOST SIGNIFICANT?

Which explanatory variables turn out to be most significant in explaining the differences in the per capita incomes among our 258 MSAs for the year 2000? **Table 4 reveals that when the entire sample of MSAs is our focus, then the educational attainment of the MSA's population, the percentage of Bohemian residents in the population and the concentration of high-technology industries in the MSA are the most significant explanatory variables. Much less significant are the percentage of gay individuals in the MSA and the percentage of immigrants and foreign-born individuals in the MSA (the Melting Pot Index variable).** Indeed, the coefficients of these latter variables fail to achieve statistical significance even at the 10 percent level and thus must be regarded as not being influential in determining per capita income levels in our MSAs.

Does the answer change when the largest MSAs in population are separated from the smallest MSAs? We divided our sample into two parts, using a 300,000 population in an MSA as the dividing line. This divided the sample almost exactly in half. **For the 128 largest MSAs, precisely the same variables turn out to be significant predictors of MSA per capita income – educational attainment, the percentage of Bohemians and the concentration of technology-based industries in the MSA. For the 130 smallest MSAs, only educational attainment and the percentage of Bohemians are significant; the technology variable loses its significance for this selection of MSAs.**

Thus, our multivariate analysis provides only mixed support for the Florida hypotheses. Indeed, only two of the four variables that Florida suggests are critical determinants of economic growth turn out to be such – the percentage of Bohemians in the population and a region's technological development, the latter of which is one that conventional models of economic development also identify. Both of these variables, however, shrink before an MSA's educational attainment as a determinant of that MSA's per capita income. Meanwhile, the percentage of gays in an MSA's population and the percentage of immigrants and foreign-born individuals in an MSA's population do not turn out to be significant predictors of an MSA's per capita income.

While the preceding analysis does not provide strong support for Florida's hypotheses, neither does it destroy his

analysis, for in reality he is only using variables such as those above to capture what he labels "The Power of Place" as a determinant of economic growth. By this, he means the distinctive characteristics and milieu of cities or regions that, all things considered, give atmosphere and tone to those locations. The variables he has cited in his work and we have utilized above no doubt are imperfect measures of the living atmosphere of which he speaks.

Hence, it seems likely that many members of Florida's creative class are in fact attracted to eclectic, diverse, tolerant environments, where they can do their own thing and regularly sample what they perceive to be a stimulating environment. Still, one can easily produce counterexamples of MSAs that have grown very rapidly in the past decade, but do not appear to evince the high degrees of eclecticism and diversity that Professor Florida trumpets. Like most other citizens, members of Florida's creative class can vote with their feet and move to MSAs they find congenial. As a consequence, they self-select MSAs and distribute themselves in locations they find amenable to their tastes and values. Accordingly, some members of the creative elite will locate in and around Salt Lake City, while others will opt for San Francisco. Still others will decide upon small, but rapidly growing MSAs such as Fargo, N.D., even as others find Atlanta or Los Angeles attractive.

Variable	Entire Sample 258 MSAs	128 Large MSAs Population > 300,00	130 Small MSAs Population < 300,000
EDUC	Highly Sig.	Highly Sig.	Highly Sig.
BOHEM	Highly Sig.	Highly Sig.	Significant
GAYS	Not Sig.	Not Sig.	Not Sig.
MPI	Not Sig.	Not Sig.	Not Sig.
TECHPOLE	Highly Sig.	Significant	Not Sig.

“Different strokes for different folks” reigns supreme where the creative class is concerned. They are not a homogeneous group of people and hence do not uniformly prefer specific types of MSAs. Our analysis does suggest that Florida’s attempt to represent the distinctive characteristics of MSAs by means of variables such as the proportion of Bohemians, gays and the like has only limited validity. There are too many other important MSA characteristics that are not included in his analysis. How can one talk about the attractiveness of an MSA without taking into account wages rates, cost of living, average temperature, nearness to water or mountains, transportation options, etc.? It isn’t that Florida doesn’t admit the importance of these things. Rather, the problem is that either he can’t find a way to include these factors in his analysis, or he simply argues that they are less important than the demographic and technological variables he prefers. Thus, in his newest book, “The Flight of the Creative Class,” he minimizes the economic challenge of countries such as India and China because the percentage of creative-class individuals in those countries still is relatively small. But this exposes the limited focus and power of his analysis, because it is obvious these countries have dynamic, rapidly growing economies. The world, then, is more complicated than Florida’s modeling, which is based primarily on bivariate correlations between variables.

There are two additional statistical caveats that we must put forward. First, the variable that explains the most variability in per capita income among the MSAs is an “old” variable – the percentage of individuals in an MSA who have earned a baccalaureate degree. By itself, the EDUC variable explains more than 39 percent of the differences in the 2000 per capita income of the 258 MSAs. EDUC is an old-style human capital variable that bears some relationship to Bohemian, gay and immigration status (Florida’s creative-class variables), but is far from identical. Witness Salt Lake City and Fargo, N.D. **The bottom line is that old-style explanations of economic growth do at least as well as Florida’s interesting alternative if we want to know why some MSAs have higher per capita incomes than others.**

The second caveat is that even when our statistical analysis includes measures of education, Bohemian and gay populations, immigrant and foreign-born populations, and technological development, we can only explain about 50 percent of the differences in the per capita incomes of the MSAs. **Stated differently, we can’t explain fully one-half of the ups and downs in the per capita incomes of America’s cities and regions even when we utilize the preceding five variables. This underlines the reality that the determinants of local and regional economic growth are rather complex and varied.** What works in one situation does not necessarily work in another. How else can we explain the success of Fargo and Salt Lake City alongside the success of Boston and San Francisco?

Final Thoughts

Richard Florida has sold many thousands of books, and his thoughts are always interesting and usually challenge conventional approaches to issues. It seems clear that many members of his creative class do value eclectic, diverse living situations in communities that they find tolerant and accepting of their eccentricities, if any. Yet, others have different preferences and locate themselves accordingly. **No model of economic development is capable of explaining all the situations we actually observe in the world. As we have seen, Florida’s hypotheses fall far short of constituting a universal explanation and actually do not have as much explanatory power as some conventional theories.**

That said, Florida is on to something and his explorations will be ignored by policy makers at their own peril. It appears Hampton Roads would enhance its attractiveness to some members of Florida’s creative class were we able to cultivate and develop additional areas for work and play that evince the eclectic, diverse and tolerant atmosphere of which he speaks. For a region of 1.6 million people, we boast relatively few such idiosyncratic areas and the national reputation of the entire region is not one of creativity, innovation and eclecticism. Instead, we are viewed by some as conventional, conservative and military-minded in outlook. This reputation can (and has been) beneficial to us in various ways in the past. However, to the extent that Florida’s surmises are correct, such a reputation also might constitute a liability where economic growth is concerned.

One final point should be made. No region needs to reflect only one atmosphere and personality. One of Florida’s concepts is that the most productive regions exhibit diversity and their residents tolerate that diversity in a “live and let live” approach. We need not, then, turn the region over exclusively to Bohemians, gays, the Rev. Pat Robertson’s followers or the military in order to prosper. There is room for all to live and thrive and create if we are tolerant and respecting of our democratic traditions.

