Research You Can Use

Different Models of Metropolitan Economic Performance

Few books have had more influence on planning practice than Richard Florida's *The Rise of the Creative Class*. It is up there with Jane Jacobs's *Death and Life of Great American Cities* and Allan Jacobs's *Great Streets*. Florida's theory is that the presence of creative people—or, more specifically, scientists, artists, gays, "Bohemians," and others with a creative bent—now drives metropolitan growth and competitiveness. He and his intellectual followers assert that the best way to promote economic development is to create an urban environment that is attractive to creative people.

In a thoughtful challenge to this theory, Mary Donegan, Joshua Drucker, AICP, Harvey Goldstein, Nichola Lowe, and Emil Malizia, AICP, all with the Department of City and Regional Planning at the University of North Carolina at Chapel Hill, review the empirical evidence for and against it. It turns out that the evidence is sparse and conflicting.

They follow up with an empirical test of their own, which suggests the transcendent influence of "traditional" indicators of economic competitiveness over creative class variables. Their article, "Which Indicators Explain Metropolitan Economic Performance Best? Traditional or Creative Class," appears in the spring 2008 issue of the *Journal of the American Planning Association*.

The UNC team conducted its test by first modeling metropolitan economic performance in terms of the percentage of college graduates, the percentage of employment in manufacturing, and other traditional economic inputs. It then modeled economic performance in terms of the percentage of the workforce in creative professions, the percentage of output in high-tech industries relative to the national average, and other creative class variables.

Finally, the team compared the explanatory power of the two sets of variables. Its conclusion: The traditional economic variables have more explanatory power and thus are more important influences on economic performance. Policy influences are shown with dashed arrows in
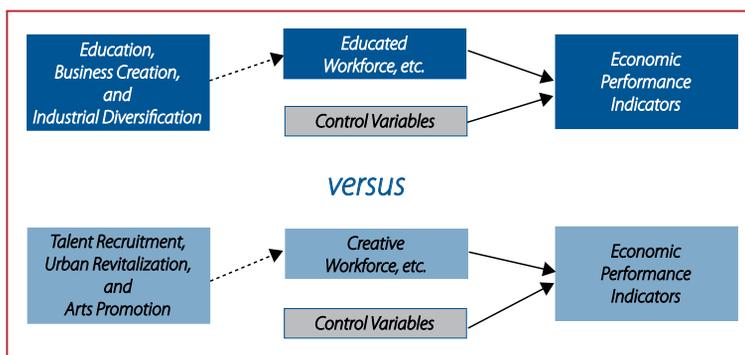

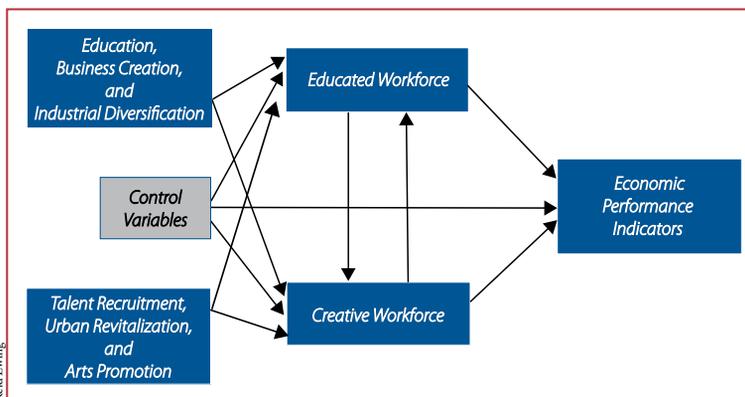*Figure 1. Multiple Regression Model*

Figure 2. Structural Equation Model of Economic Development

Figure 1 because they are not actually modeled, only intuited by the authors.

The article asks the right methodological questions:
- Direction of causality: Do jobs follow people; do people follow jobs; or is it some of both?
- Overlap of influences: Does creativity contribute to economic competitiveness independent of education and other "traditional" economic influences?
- Limits of cross-sectional data: Can influences on growth be discerned without studying changes over time?
- Limits of outcome research: Can policy impacts be assessed without studying policies explicitly?

In part because of data limitations, the authors cannot answer all these questions. The lack of data on creative inputs over time prevents them from saying whether, for example, college graduates or artists contribute more to economic growth. Likewise, the lack of data on economic development policies prevents the authors from saying which policies do more to lure both college graduates and artists to a metropolitan area.

Also limiting the study's conclusions is its analytical approach—multiple regression

analysis. Even before I was in planning school in the early 1970s—and until today—research methods courses have largely been about regression analysis. The technique itself is limiting. Regression looks at the statistical association of a dependent variable with each independent variable, while holding all the other independent variables constant. To the extent that causation is asserted, it is in one direction only. The main statistical question is whether an apparent relationship between variables is real or is caused by sampling error.

A better approach to many analyses, including this one, would be structural equation modeling, which overcomes most (but not all) of the limitations of multiple regression analysis. In SEM, variables are allowed both to influence other variables and to respond to influences from other variables. The investigator tests the degree to which the structure of one or more models is consistent with the data. SEM thus captures the complexity of real-world processes, in which causation is often bidirectional (as in Figure 2).

One avoidable limitation of the UNC study is its failure to test creative class variables in the same regression model as traditional economic variables, to see if they can explain an extra increment of economic growth. Such a test might tell us whether Richard Florida's theory is wrong or simply overstated.

In fact, the UNC study seems to support Richard Florida's theory to a degree—since two of his 3Ts (talent, tolerance, and technology) are embodied in the study's traditional economic inputs. The UNC team just doesn't want Florida and his followers to substitute lattes for worker education, business creation, and industrial diversification. That sounds right to me.

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