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How does the composition of a cultural district influence its sustainability?

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How does the composition of a cultural district influence its sustainability?

Abstract

This research memo tests out different methods for identifying and classifying cultural clusters and estimating changes in Philadelphia clusters between 1997 and 2010. It concludes that block groups with a complex cultural ecology are more likely to retain their status, while those with a single strength are more likely to suffer a loss of resources (or at least a smaller gain) and a decline in overall position in the citywide cultural sector.

Disciplines

Arts and Humanities | Public Policy | Social Welfare | Urban Studies and Planning

Comments

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Research memo:
How does the composition of a cultural district influence its sustainability?

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November 2012

Our interest in the composition of cultural districts builds upon the emerging literature on the role that clusters play in industry production. Cluster economic theory expands on the literature on post-industrial trends in “flexible production.” This work has demonstrated that in the wake of “vertical disintegration” related producers in particular industries choose to locate near one another. Piore and Sabel, for example, in the first statement of the flexible production paradigm, noted that the industrial districts of Northern Italy were characterized by many small, specialized firms that work together through an intense set of social networks. In Japan, using a slightly different model, independent automobile component producers located near the major assembly facilities.¹

In the United States, California’s Silicon Valley stands as the exemplar of the concentration of independent firms and provides an excellent parallel for the creative sector. First, the concentration of producers is associated with the availability of trained labor. Stanford and other universities train the computer engineers and other personnel necessary to develop computers. Second, the very concentration of individuals and firms in one location spurs a cross-pollination of ideas and innovation. This leads to the development of “a milieu of innovation,” which allows the initial comparative benefit of a particular place to reproduce itself. “What defines the specificity of a milieu of innovation is its capacity to generate synergy, that is, the added value resulting not from the cumulative effect of the elements present in the milieu but from their interaction.”²

Clusters, a dynamic and vulnerable feature of urban form, are characterized by multiplicity and dispersion across a region. Southern California, for example, is composed of multiple discrete industrial districts, each of which contains numerous individual establishments seeking the economic benefits of agglomeration. In the high-technology industrial districts of Greater Los Angeles, Allen J. Scott has documented “a peculiar leap-frog dynamic”—essentially a scenario of growth and decomposition—that characterizes their historic pattern of urbanization. This dynamic is attributed to the interplay of land prices, wages, transaction costs, and agglomeration economies in the growing metropolis.

¹ Michael J. Piore and Charles F. Sabel, *The Second Industrial Divide: Possibilities for Prosperity* (New York: Basic Books, 1984).

² Manuel Castells, *The Rise of the Network Society* (Malden, MA: Blackwell Publishers, 1996).

Emerging sectors of small-scale industries “much given to network forms of interaction” are especially vulnerable and, according to Scott, deserving of policy attention.

[T] heir future success will most likely depend ... on their continued ability to form specialized industrial agglomerations and to reap the advantages of spatially dependent external economies. These external economies constitute an asset that is held jointly by all participants in the local economy. They accrue, of course, from individual efforts, talents, and skills; but they also exist as synergies that grow out of the forms of collective order that always characterize local industrial systems ... They are thus legitimately, if not inescapably, an object of public policy.³

The new economics of competition, therefore, suggest that a “supply-side” logic could be integrated into public policy to develop and leverage the creative sector. The focus of current economic development is on “demand-side” strategies—such as cultural facility, cultural district, and cultural tourism development—to stimulate downtown revitalization and regional economies. In fact, as Scott points out, the production of culture has become more and more concentrated in a set of localized clusters of firms and workers, while final products are channeled into “ever more spatially extended networks of consumption.” That is to say, in the cultural products industries, production is increasingly local, while consumption is increasingly global.⁴

Clusters are a form of spatial organization particularly well-suited to the creative sector, which has never been organized either as a single or a vertically-integrated industry. The arts, in fact, are inherently collective enterprises. Each individual artist is dependent on an array of services, personnel, audiences, and colleagues in order to produce his or her work.⁵ We still know very little, however, about the geographical consequences of these interdependencies.

If the emphasis on the role of creative clusters in arts production were correct, we would expect that the composition of cultural clusters would have implications for their long-term success. Specifically, we could hypothesize two possible ways that composition would influence success:

- *Single-industry clusters.* In this case, similar producers and perhaps their suppliers would locate in a particular location, fostering growth by reducing transaction costs, disseminating innovation, and perhaps spurring competition.
- *Complex clusters.* In this case, the diversity of a cultural cluster could improve prospects for the long-term sustainability of a particular district. This might be a function of its location or perhaps the character of its built environment that attracts

³ Allen Scott, “High-technology Industrial Development in the San Fernando Valley and Ventura County: Observations on Economic Growth and the Evolution of Urban Form,” in Scott and E.W. Soja, *The City: Lost Angeles and Urban Theory at the End of the 20th Century* (Berkeley and Los Angeles: University of California Press, 1996).

⁴ Allen Scott, *The Cultural Economy of Cities: Essays on the Geography of Image-Producing Industries* (Thousand Oaks, CA: Sage Publications, 2000).

⁵ Howard Becker, *Art Worlds* (Berkeley and Los Angeles: University of California Press, 1982).

a variety of cultural resources. These districts might possess a level of resilience that single-purpose clusters lack. One could imagine a high level of turnover, but because the turnover hits different dimensions of the district at different times, the district survives even as its cast of characters changes.

There are several points to make about these hypotheses. Notably, they produce opposite conclusions. The first suggests that narrowly-defined or homogenous clusters would be more likely to demonstrate success, while the second suggests that diverse districts would be more successful.

Unfortunately, we are not in a position to test these hypotheses definitively. The level of data specificity for defining single-industry clusters, in particular, exceeds the current capacity of our data. However, in the case of Philadelphia, we can at least provide a first approximation of their relative fit with the empirical data. This is possible because in Philadelphia, we have measures of the cultural assets of census block groups that date back to 1997. Using these data, we can answer two questions:

(1) Does the success rate of particular cultural clusters vary with their composition? Here, we are interested simply in whether different categories of composition have statistically significant differences.

(2) Are homogeneous or complex cultural districts more successful over time?

Until now, we have used the term *success* as if it is an obvious concept. A full measure of success would entail a variety of qualitative and quantitative measures of growth, profitability, influence, and prestige of individual organizations and individuals and their aggregate impact.

As a starting point, however, we will examine two measures of the well-being of a cultural district. The first is the change in the density of its cultural resources. If a cluster were “successful,” we would imagine that over time it would attract additional resources.

The second measure examines changes in a block group’s cultural asset index rank. Here, rather than measuring success, we are more interested in failure. We ask whether the composition of a district influences the likelihood that a district will maintain a high asset score or whether it falls below the threshold of being a district.

To summarize, we want to examine whether the cultural composition of a block group has a statistically significant impact over time on its density of cultural assets and its cultural asset index rank. We also want to see *what kinds* of districts—complex or homogeneous—have higher rates of success. That is, how the composition of a cultural district influences its sustainability.

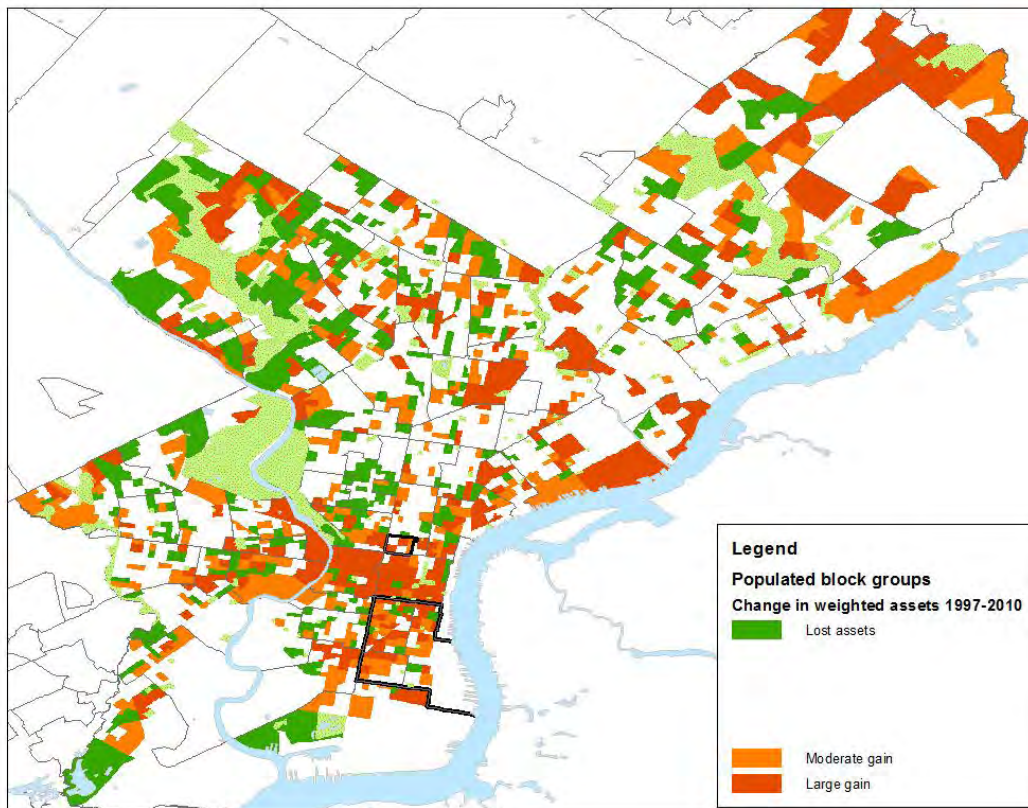
Change in density of cultural assets

The indicator used here is based on the total number of cultural assets—the sum of all resident artists, nonprofit organizations, and for-profit firms—in a block group.⁶ We present two sets of calculations: one is the simple sum of the three, the second is “weighted” to give the commercial and nonprofit firms three times the weight of individual artists. It seems fair that having an organization in a block group provides more of an asset than an individual resident artist. However, with no clear idea about *how* much more, we chose what we consider a conservative weight.

In Philadelphia between 1997 and 2010, complex block groups saw their asset count increase by 134 percent, from 9.4 to 22.2 per block group. If we weight the sum for organizations, the increase was 123 percent, from 24 to 38 assets per block group. Among the single-asset dominant clusters, the fastest growth was among commercial- and artist-dominant areas. The asset count for commercial-dominant areas increased from 1.6 to 3.5 or 114 percent over the period. Weighted, the increase was from 3.8 to 8.6 assets, an increase of 129 percent. For artist-dominant areas, the increase was from 1.6 to 4.0 assets, an increase of 150 percent. However, if we weight these numbers (which disadvantages artists), the increase was only 48 percent.

Nonprofit-dominant areas were the least dynamic set of cultural clusters. Their average number of assets increased only from .62 to 1.3 or 102 percent over the period. Weighted, their increase was only 80 percent.

⁶ For this analysis, we use only the counts of resources within a block group rather than the estimate of assets within one-quarter mile. This measure is more sensitive to changes over time in particular places, whereas the estimate of assets within a quarter-mile buffer is more stable across space and time.



Change in cultural asset score, 1997-2010, Philadelphia

Source: SIAP

The map of changes in net assets (weighted) suggests that over this period, areas with already high assets were more likely to gain, with Center City appearing to be the big winner. (In terms of SIAP case study districts, both South Philadelphia and Callowhill-Chinatown North increased their assets considerably during these years.)

In order to judge the unique contribution of composition to the change in cultural assets, we conducted a regression analysis in which the dependent variable was net change in number of assets between 1997 and 2010 (weighted); and the independent variables were the composition category, the cultural asset index rank of the block group in 1997, per capita income, and distance from Center City. All factors but the 1997 cultural asset score were statistically significant. When other variables were controlled, the complex block groups gained more assets between 1997 and 2010. Generally, the conclusions from the uncontrolled data are confirmed. Among the single-asset block groups, high commercial districts in 1997 gained the most assets and the nonprofit-dominant block groups gained the fewest.

Composition 1997	Mean	Std. Error
High complex	27.949	2.552
High commercial	7.707	2.010
High nonprofit	3.889	1.987
High artist	5.463	1.790
Moderate complex	4.636	1.651
Other	5.366	1.579

Change in number of cultural assets in block group, 1997-2010, by composition of cultural assets, controlling for other variables, Philadelphia.

Source: SIAP

The composition of the cultural district clearly influenced its rate of change. Both the raw and weighted averages were statistically different from one another, and the composition of the cultural district in 1997 “explained” 14 percent of the variance in the change in number of assets (10 percent if we use the weighted figures). Most of the difference between categories separated the complex block groups from the single-dominant ones. The differences between the changes of commercial, artist, and nonprofit dominant groups were not statistically significant.

To answer our second question, these data seem to support the case for complexity. The complex block groups, although they began with a much larger number of assets, appeared to increase that gap between 1997 and 2010. Although, far from definitive, these results suggest that a complex cultural ecology with a variety of different assets improves the likelihood that a district will experience robust growth of its cultural sector over time.

Change in cultural asset index rank

Our second test of the impact of composition focuses on change in the relative rank of a block group on our cultural asset index between 1997 and 2010. Here, we ask if a block group’s rising or falling in rank is related to its cultural composition at the outset. We divide Philadelphia’s block groups into six equal groups (sextiles) by their 1997 CAI rank and measure their change in rank between 1997 and 2010. For example, if a block group was in the second highest rank and fell to the fourth highest, it would receive a score of -2. In the reverse situation, it would gain 2. Obviously, if a block group is classified in either rank 1 or rank 6, it can move only in one direction. Because of this, we control for a block group’s rank in 1997.

Composition 1997	Cultural asset index 1997						
	Lowest	2	3	4	5	Highest	Total
Complex	--	--	--	--	--	0.00	0.00
Commercial-dominant	--	--	-0.08	-0.60	-0.43	-0.50	-0.47
Nonprofit-dominant	--	--	-0.22	-1.42	-1.31	-0.20	-1.14
Artist-dominant	--	--	-0.09	-1.19	-0.52	-0.39	-0.53
Above average assets	--	--	--	-0.97	-0.77	-0.31	-0.66

Change in cultural asset index rank 1997-2010, by composition and asset index 1997, Philadelphia.

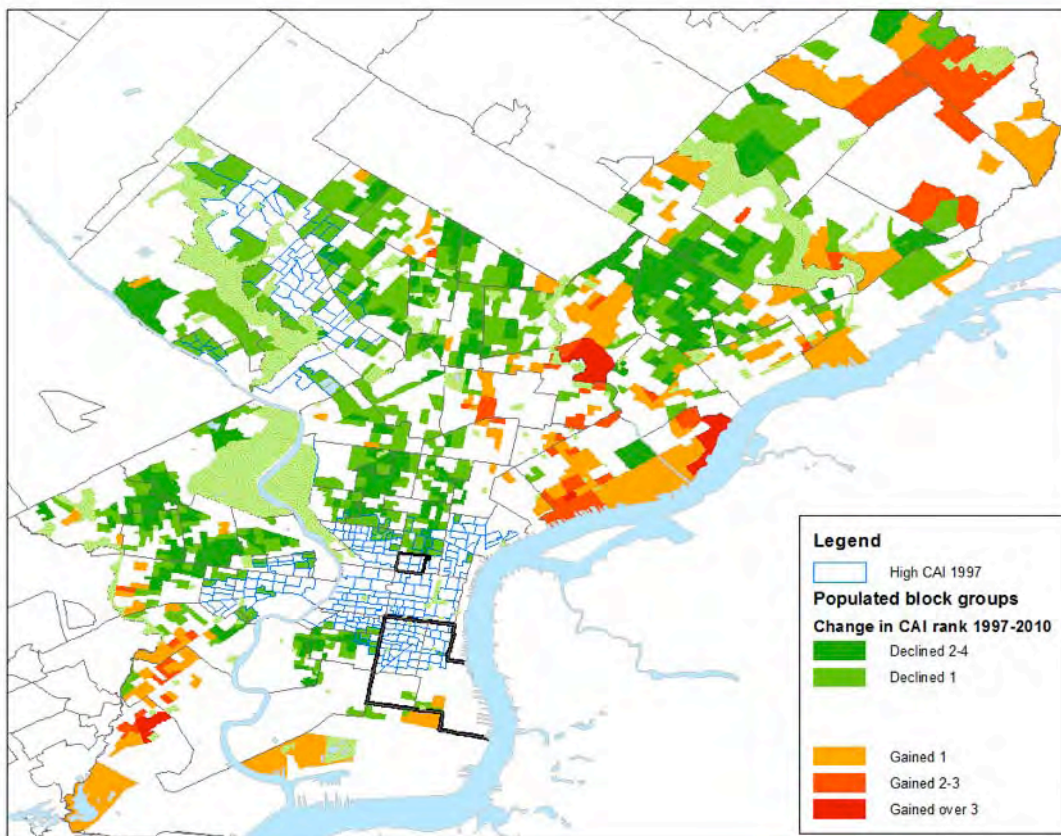
Source: SIAP

Because complex block groups were all in the top rank, this is our major point of comparison. As the data show, none of the complex block groups in the top 1997 rank declined; all were still in the top rank in 2010. Among the single-asset dominant block groups in the top rank, the declines were substantial. On average, the commercial- and artist-dominant block groups fell one-half rank, while the nonprofit-dominant block groups fell over one rank.

If we look at the data more generally, we see that the largest declines across the city were in block groups in the fourth sextile, that is, those just above the median. Over the 13-year period, these areas on average fell by more than one rank, by far the largest decline. The most substantial declines were among the nonprofit-dominant block groups in this rank.

Indeed, the data underline the two worlds of nonprofit arts during this period. The nonprofit-dominant block groups with the highest asset scores, typically in Center City, gained resources during this period. Those with moderate CAI scores, often in African American neighborhoods, lost resources.

This perception is reinforced by the map of increases and declines in CAI rank. The block groups in the highest 1997 CAI rank are marked in blue. These block groups, literally, could only move in one direction—down. Yet, very few of them did so. For the most part, these sections of the city were much more likely to have a complex cultural ecology and were able to maintain their dominance citywide.



Change in cultural asset index rank, 1997-2010, Philadelphia.

Source: SIAP

The areas that suffered the most substantial declines were in North Philadelphia, Germantown, East Mount Airy, West Philadelphia, and Point Breeze. For anyone familiar with the social geography of the city, it is clear that these are predominantly African American neighborhoods. The near Northeast—which experienced the most rapid ethnic transition during these years—also lost a substantial number of resources.

This analysis is consistent with that of net change in assets. Both support the conclusion that block groups with a complex cultural ecology are more likely to retain their status, while those with a single strength are more likely to suffer a loss of resources (or at least a smaller gain) and a decline in overall position in the citywide cultural sector.

This analysis is hardly a perfect test of our hypotheses. It represents a first approximation of the relationship of the composition of a cultural district to its sustainability. In the future, we will test alternative operationalizations of both the dependent and the independent variables. But this analysis has staked out the set of questions that need to be answered as we move forward.