

Did White Collar Kill the Bohemia Star? Downtown Economic Restructuring and the Changing Composition of Arts Employment

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Key words: arts, economic development, shrinking cities, downtown, white collar, bohemian

Abstract: Research (Ganning, forthcoming) has shown that downtown redevelopment helped to grow arts-based employment in weak market cities. The research presented here deepens our understanding: with changes in the downtown's economy and demography come changes in the character of arts-based employment. While most blocks were characterized by small-scale, diverse arts employment in both 2000 and 2010, arts-based employment did shift to a downtown with more artists employed in white collar firms and fewer in firms with small-scale arts employment. This change in the character of the downtown arts is not adequately addressed in current planning, sounding an alarm to increase cultural planning for downtowns, perhaps especially in weak market cities that struggle to integrate Fordist manufacturing identities with creative class approaches to economic development.

Introduction

The United States is experiencing a back-to-the-cities movement. Across the country, population growth in central cities and downtowns is out-pacing growth in other geographic areas (Jaffe 2011). With citations of credible sources such as the Brookings Institute and the National Association of Realtors, this narrative has entered the national media (e.g. McQueen 2014). The shift is largely attributed to shifting housing preferences among young households, but the benefits of density for innovation, reduced energy consumption, and proximity of cultural

and educational institutions (i.e. Glaeser 2011) likely also play a role. Theory (primarily Florida 2002) and some empirical evidence (e.g. McGranahan and Wojan 2007; Molotch and Treskon 2009; Nelson et al. in press) also shows that creative places, variously defined, attract more development and/or growth than other places.

Though scholars debate the veracity of claims causally linking creativity or the arts specifically with economic growth (Peck 2005 and Markusen and Gadwa 2010, respectively), the topic has been extensively studied (Murray 2011; Rushton 2013; see also National Assembly of State Arts Agencies research clearinghouse website). However, an analysis of the inverse—the outcomes of economic development on the arts—remains relatively under-studied (Markusen and Gadwa 2010), especially in cities outside the realm of global art capitals. Recent work (Ganning, forthcoming) shows that in shrinking, weak market cities, the arts are better able to weather even drastic downtown redevelopment pressure than has been documented in places like New York. In fact, even strong redevelopment was correlated with gains in employment (by place of employment) for arts-based occupations at the Census block level. These gains were seen when measuring by place of residence as well; according to Census data on the case study city, the number of downtown residents employed in Arts, Recreation, and Accommodation grew by 130%. While this is encouraging news, it says nothing about changes in the composition of the arts before and after redevelopment, or by implication, about the qualitative impact of redevelopment on the arts community.

In downtown St. Louis, the case study city for this paper, the investment of over \$5 billion between 2000 and 2010 built a habitat for white collar businesses and residents. Over the decade, the downtown population grew by 143%, despite a loss of 8.3% for the city as a whole (U.S. Census 2000 and 2010, apportioned to the Downtown and Downtown West

neighborhoods, as defined by the City of St. Louis). The downtown economy underwent extensive restructuring during this period, as this paper will discuss. With those changes come several questions that this paper seeks to respond to. First, what theoretical basis exists for understanding the juxtaposition of white collar growth and a bohemian ethos in a place still attached to a Fordist manufacturing identity? Second, does downtown economic restructuring significantly change the composition of the downtown arts industry? Finally, and with an explicitly incomplete understanding of causality, what do the results of the first two questions mean for cultural planning in shrinking cities?

Public presentation of this paper in St. Louis revealed deeply held feelings about the cultural tensions experienced during the transition from a Fordist economy (which still heavily contributes to the city's self-image) to a creatively-based economy. This paper will draw on those tensions, as they are described in the literature and as they were conveyed by stakeholders to discuss the equity issues involved in cultural planning in shrinking cities.

Background

Broad economic restructuring combined with a lack of clear planning goals can prove stressful if not deleterious for any community. In rural settings, economic restructuring often results in out-migration and significant cultural shifts, as portrayed aptly by Sherman (2009) in northern California. Scholars argue the importance of clear goals when undertaking cultural planning (e.g. Currid 2009; Markusen and Gadwa 2010). Their concerns are based in equity and efficiency, and evidence from Molotch and Treskon (2009) on the influence of rising rents on the SoHo arts community certainly lends credibility to their argument. Yet the situation in shrinking cities is unique. This section situates that unique context amid the broader literature.

Most large cities have formal arts institutions, and St. Louis is no exception. St. Louis is home to the Fabulous Fox Theatre, The Muny, The Peabody Opera House, The St. Louis Symphony, several large art museums such as the St. Louis Art Museum, the Contemporary Art Museum of St. Louis, and a notable opera season, among other arts attractions. St. Louis, like other post-industrial cities, also maintains a vibrant, more organically grown network of artists and arts projects that identify more clearly with a bohemian ethos. In St. Louis, the downtown portion of this community is anchored by ArtLoft St. Louis, a live/work artists' community, and in Midtown, the Craft Alliance. Good examples also exist in Detroit's Heidelberg Project and Object Orange project (Herscher 2013), and Cleveland's Regional Art Terrorists (Barnett 2012). These organizations are populated by both self-employed and commercially employed artists.

A review of the literature reveals that the tensions or forces that might influence the characteristics of a local arts industry in a shrinking city are driven by both exogenous and endogenous forces that do not necessarily occur in tandem (Figure 1). On the exogenous side lies the transition of the American economy from Fordist industrialism to a post-industrial society often characterized by its reliance on innovation and creativity (i.e. Florida 2002, McGranahan and Wojan 2007). This transition can cause neighborhoods to experience the odd juxtaposition of a bohemian ethos and Fordist manufacturing ideals (i.e. Lloyd 2002, p. 518). This seems especially relevant for shrinking cities, many of which are in the Rust Belt and cling to an identity built around industrialism. As Lloyd writes, "Ironically, former sweatshops in older US cities are now being put to use in the manufacture of images for the aesthetic economy" (2002, p. 523). Perhaps one of the most poignant narratives on this tension is given by Anderson, an artist and mill worker in Cleveland:

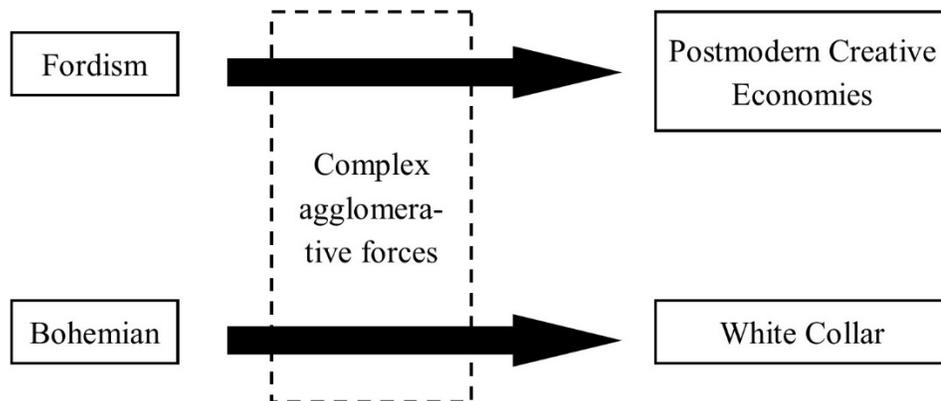
“When my artist friends talk about the dangerous toxicity of things like cadmium red and sprayable fixative, I nod politely but inside I’m cracking up. During my time as a surveyor in the mills, traveling back and forth between what was then U.S. Steel in Lorain and LTV in Cleveland, I used to see water so polluted that nothing would float in it. I would see dead rats with tumors exploding out of their sides. The old timers would tell me how much dirtier the mill used to be, before the hippies, before the EPA. The cars in the parking lot would be covered in red dust. Open your lunch box, red dust on the food. Spit, red dust. Cough, red dust. After a rain, the gutters were streaked with something that looked like dried blood....

It’s hard not to feel like the details of my working life became their art. All that beautiful decay they seemed to say. Look at how wonderful this place used to be. Look at how terrible it all was. This region really says something about the world. This says something about our nation. I feel like I’ve lived here all my life!

I feel guilt for overstating the problem. Then I feel like I am not overstating the problem at all. They came and looked at my secret fears and told me how interesting they are, and how relevant, and how all that misery makes such a fascinating mosaic, if only I could step back and see how all the details have been arranged.

Yet none of them asked where the rust comes from.” (2012, p. 33-34, 37).

Figure 1: A Theoretical Framework for the Arts and Economic Restructuring



A second documented tension for neighborhood arts is more clearly endogenous. “When you bring artists into a town, it changes the character, attracts economic development, makes it more attractive to live in and renews the economics of that town” (Pogrebin 2009, as quoted in Herscher 2013). Economic development changes demand for the arts in two ways. First, industrial demand grows as businesses such as marketing firms staff creative departments. Second, the increased white collar population of both workers and residents creates demand for both visual and performing arts (an interesting interpretation of this is provided in DiMaggio 1978)⁵. However, artists are often supported by elites while opposing their values (Lloyd 2002, p. 525; Markusen 2006, p. 1922). Artists often come from financially secure families and often have high levels of education, but choose to live with a low income (Markusen 2006), compensated instead, it stands to reason, by membership in an arts community and fulfillment through artistic endeavors.

⁵ “A highly developed aesthetic orientation provides a way in which men who are wealthy and powerful may legitimate their superiority and assert themselves as worthy, marking themselves off as a deserving elite from those who are merely wealthy and powerful...The bourgeoisie took up art in order to make a barrier of it” (Goglot 1973, as quoted in DiMaggio 1978, p. 153).

These tensions, of national economic shifts and local gentrification, are further complicated by complex agglomerative forces. Markusen (2006) identifies the influence on artists' location decisions of artist-hiring employers, the cost of living, natural amenities, cultural amenities, neighborhood density and centrality, demographics, and strength of artists' networks, among other factors. All of these forces imply that the economic context surrounding downtown arts communities will face constant change in a constantly changing post-industrial economy, amid the current back-to-the-cities movement. Several scholars have asked whether there have been adequately clear goals for cultural planning (Markusen and Gadwa 2010), whether there will be equitable outcomes for artists (Markusen and Gadwa 2010) and how neighborhood changes will alter the process of artistic production (Hartley 2004; Herscher 2013; Pratt 2004). This article seeks to better understand the extent of economic restructuring on the composition of local arts employment.

Within this framework, the dramatic change of downtown St. Louis warrants discussion, as it is within this setting that the arts have also evolved. In 1996, Downtown St. Louis Inc., the downtown management organization at that time, hired consultants from the International Downtown Association and the Downtown Denver Partnership to evaluate downtown St. Louis. They concluded that downtown lacked vision, had a negative view of its own history, was hemorrhaging jobs (an estimated 3,000 just in 1995), was not a cultural center, had lost its sense as a world class city and was not poised to capture the new economy of the 21st century (Tucci 1996). Following the consultants' recommendations, Downtown St. Louis Inc. began a building-by-building survey. They estimated that out of 641 buildings, 92 buildings were empty and 52 were at least half-empty. They estimated that the vacancy rate in 1996 was above 30 percent (Prost, 1996, p. 1A). The 2000 Census showed that the number of downtown households grew

by 6% during the 1990s, to 2,606 families, while the city of St. Louis lost 11% of households. Downtown's overall number of housing units increased by nearly 7%, to 3,418 units (Parish, 2001, p. A1).

Approximately \$5 billion in private and public money was invested in Downtown development in St. Louis from 1999 to 2010 (based on an analysis of data provided by the Partnership for Downtown St. Louis). The national recession's effects are clearly visible in the annual data (Figure 1). The years of strong investment followed by a steep recession and housing crisis resulted in an over-provision of residential units, and this seems to have impacted St. Louis more than other cities; the vacancy rate in Downtown St. Louis in 2009 was more than 19%, which was higher than other comparable Midwestern cities such as Omaha and Des Moines (Wagman, 2009, p. A1). Also, nearly 18% of downtown's 26.2 million square feet of office space was available for rent in 2009 (Bryant, 2009, p. B1).

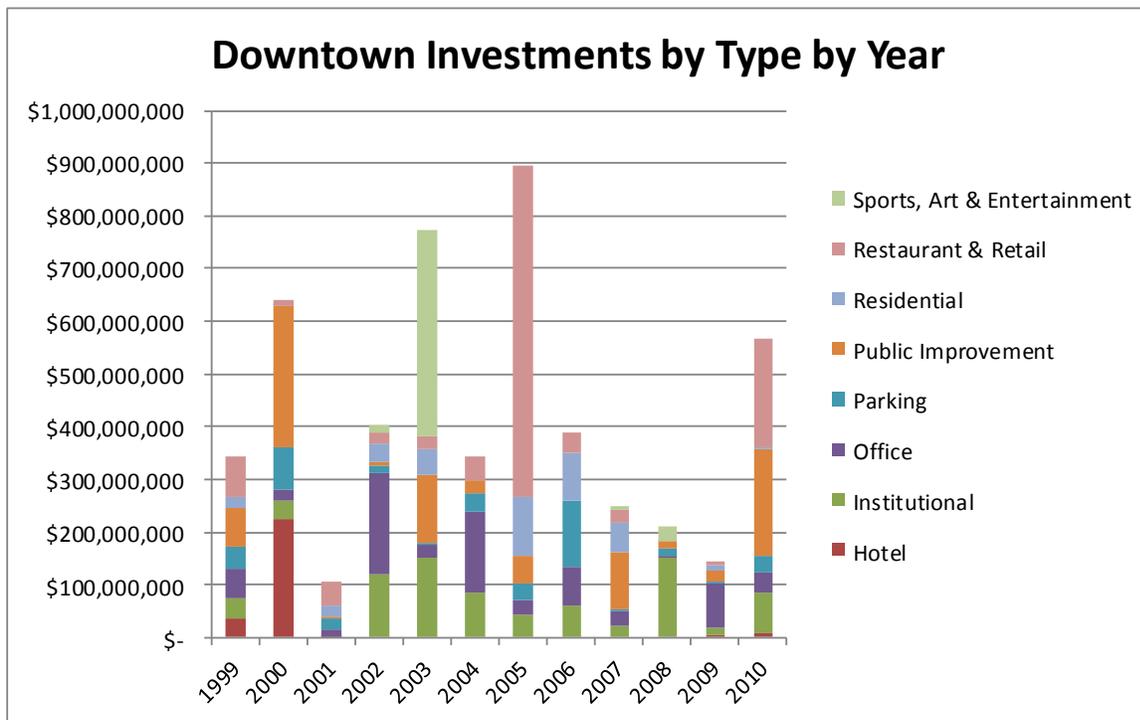


Figure 1: Investment by Type by Year

Data source: Partnership for Downtown St. Louis, using the Partnership's definition of Downtown

Two observations drawn from Figure 1 aptly illustrate the style of downtown development. First, the investments spanned types and years with no discernable pattern. Second, it was investments in a few large projects that resulted in high investment totals for the earlier years, transitioning to more diverse, neighborhood-level redevelopment in later years. Indeed, the scale of change impacted the whole of downtown in various ways. Both the population and the labor force living in downtown St. Louis more than doubled between 2000 and 2010, and the median household income increased by 40% in real dollars. The industry "Professional, Scientific and Management and Administrative and Waste Management Services" saw the largest numeric growth in employment for downtown residents (427 new resident-workers), and was also the most common industry for downtown residents in 2010 (19.1%). This was a change from 2000, when "Educational Services, Health Care and Social Assistance" was the most common industry for downtown residents (18.7%), though this industry also grew in absolute terms over the decade.

Looking also at employment by place of work (Table 1), downtown trended toward a more white collar setting. Large employment losses were seen in manufacturing, transportation and public utilities, and retail trade. Nearly replacing those jobs were surges in FIRE (finance, insurance, and real estate), Health Services, and Public Administration. In sum, the \$5 billion investment in downtown built an environment attractive for households with higher incomes than the areas traditional residents, and lured businesses employing a more high skill labor force. With this transition, the stage is set for changing demand for the arts, by both residents with

walls to decorate and cultural evenings out to enjoy, and by firms seeking to staff creative departments and related positions.

Table 1: Employment by Place of Work, Downtown St. Louis

	2000	2010	Change
Agriculture, Forestry and Fishing	0	0	0
Mining	3	354	351
Construction	870	656	-214
Manufacturing	8,218	3,455	-4,762
Transportation and Public Utilities	14,556	10,600	-3,956
Wholesale Trade	2,331	2,762	431
Retail Trade	9,592	6,156	-3,436
Finance, Insurance and Real Estate	7,868	9,456	1,588
Services	11,940	11,363	-577
Health Services	16,675	20,429	3,753
Public Administration	2,909	5,668	2,758
Unclassified	504	1,868	1,364
Total Employment	75,467	72,766	-2,700

Arts-based employment itself also declined slightly over the decade, although it is difficult to pinpoint an employment change number. As has been reported elsewhere (Ganning, forthcoming), downtown arts-based employment appears in the data to have declined by 43%, from 3,579 to 2,051 over the decade. However, most of this decline is attributable to the way data was reported at one large agency which relies heavily on contractors. With that firm

removed from the tabulations, arts-based employment appears to have dropped by only 14%, with almost all of the remainder concentrated in news reporting services.

Cultural planning for downtown St. Louis has never been completed, and this likely reflects a challenge for arts-based development in many shrinking cities. The City of St. Louis has not adopted a comprehensive plan since the Harland Bartholomew Plan of 1947. Largely, this is the result of public mistrust in planning that transpired following the quickly shelved and never adopted 1973 Team Four plan, which many viewed as an effort to funnel money into white neighborhoods at the expense of development in African American neighborhoods (French 2008). Public mistrust and racial tensions are not unique to St. Louis, and have challenged planning elsewhere (e.g. Silver 1984). In lieu of a comprehensive plan, the City instead has a series of smaller plans, such as downtown plans and a sustainability plan. The Partnership for Downtown St. Louis has released two downtown plans, one in 2000 titled *Downtown Now!* (EDAW Inc., 1999) and a follow-up in 2010 (*Partnership for Downtown St. Louis*, 2010). The earlier plan suggests that downtown become the region's arts and entertainment hub, but does not engage in cultural planning beyond that broad goal statement. The later plan focuses on attracting creative workers and small companies, with some focus on technology and creative firms like advertising and graphic design, but like its predecessor goes no further toward engaging in cultural planning than goal statements. As such, it is not clear that local planning agencies have a clear sense of the arts community's values and goals.

Data and Methods

This paper analyzes the relationship between downtown's economic restructuring and changes in the composition of the arts in a U.S. shrinking city (St. Louis, MO). To do that, data

on arts employment by SIC industry was used to define an arts employment typology, consistent in definition between years, for Census blocks in 2000 (pre-redevelopment) and 2010 (after the peak of re-development). Then, new dummy variables were added to reflect blocks that changed type between 2000 and 2010 because: a) arts-based employment appeared after 2000 where none had existed; b) arts-based employment vanished between 2000 and 2010, or; c) arts-based employment existed in both years, but changed type. A fourth variable reflected whether a block changed types or not, regardless of the source of that change (as given in a-c). Each of these four columns of dummy variables was fitted to a logistic regression as a function of block-level structural economic change (*Structural*), investments (*Invest*), population change (*PopCh*), employment change (*EmpCh*), and initial year population (*Pop00*).

The variable *Structural* was operationalized as the sum of the absolute change in the percent of a block's employment in each 2-digit SIC industry. In other words:

$$\sum_{i=1}^n \left| \left(\frac{emp_{i00}}{emp_{00}} \right) - \left(\frac{emp_{i10}}{emp_{10}} \right) \right|$$

Where i =2-digit SIC industry

00=employment in 2000

10= employment in 2010

This measure reflects changes in the composition of employment, not its scale, which is reflected in *EmpCh*. *Structural*, like *EmpCh*, relies on InfoGroup USA business point data. This is a proprietary data source containing business name, primary SIC industry, address, employment, and sales volume. While NAICS industry classifications would better align with other data sources, an appropriate SIC-NAICS crosswalk was not provided with the data and an effort to produce one introduced the need to artificially divide businesses into multiple sectors,

incorporating a new source of error. Therefore, the SIC-based industrial classifications were retained. InfoGroup USA reports a 7% margin of error in their data.

Invest is block-level investment data. This data is aggregated from building-level investment data provided by the Partnership for Downtown St. Louis. The data spans investments made over the course of a decade and are presented in nominal dollars. *PopCh* is block-level population change, calculated using 100% population count data from the 2000 and 2010 Decennial Censuses with constant 2010 geography. *Pop00* is simply the initial year population statistic, taken from Census 2000.

EmpCh is block-level employment change by place of employment. This data was estimated using InfoGroup USA business point data. The original InfoGroup USA files included an employment size flag for each business, where each flag corresponded to an employment range. The 2011 InfoGroup USA data contained actual employment figures. Using that data, I calculated the average employment size for each flag, then used this as an assumed employment size for each business within that size flag for other years. This method obviously includes a margin of error for individual businesses, but once aggregated to the block or sub-industry level, the overall margin of error should average away.

Finally, the typology of arts-based employment was constructed in a two-step procedure. First, “arts-based employment” was defined and estimated. The definition was drawn from Markusen and Schrock (2006), who defined arts-based occupations as including visual artists, performing artists, musicians and composers, and writers and authors. The Bureau of Labor Statistics’ Employment and Wages from Occupational Employment Statistics (OES) Survey for 2011 was then used to identify industries which employ these occupations. The industry-specific proportion of employment in these artists’ occupations nationally was multiplied against the total

business employment by industry for the businesses in St. Louis, producing a firm-level estimate of the number of artists employed. These estimates were then aggregated to the block level by 2-digit SIC. The data would, for instance, indicate that in 2010, 14 artists worked in SIC industry 72 in a given block of downtown. In the second step, this industrial arts employment data was entered into a k-means clustering algorithm written in R. The distribution of memberships (how many blocks were classified as members of each type) was inspected for k-means types with 6 through 13 groups. The 12-group option provided the most even distribution. While this is not a standard method of determining an appropriate number of clusters, the more standard approach of plotting within group sum of squares would have resulted in four clusters with all but three observations in one group, which would have disallowed statistical analysis. Table 2 shows the distribution of clusters as well as each cluster’s distinguishing characteristics, and an abbreviation that will be used to characterize the results. Notably, observations (blocks in either 2000 or 2010) with no arts employment are not captured; no employment was reflected in the analysis as “no type”.

Table 2: Distribution of blocks across k-means clusters, with median arts employment in parentheses

Cluster	Size	Description	Abbreviation
1	41	Nominal employment across a broad range of industries, primarily in service industries	S-S
2	79	Nominal employment across a broad range of industries	S-D
3	10	Small Business Services firms (15)	S-WC
4	8	Small Printing & Publishing firms (18)	S-PP

5	3	Primarily Engineering and Management Services (30), with nominal employment in other service industries	SM-WC
6	10	Mid-sized Business Services firms (36)	SM-WC
7	1	Motion picture industry (69)	M-MP
8	6	Medium- to large-sized Communications firms (92)	M-WC
9	1	Sizeable employment in Printing & Publishing (215)	ML-PP
10	1	Sizeable employment in Printing & Publishing (225) and Business Services (575)	L-WC
11	1	Personal services (762)	L-PS
12	1	Strong employment (1788) in Personal Services	XL-PS

Abbreviation Key: Each abbreviation is made up of two parts. The first 1-2 characters (before the hyphen) signify average firm size, and use the standard small (S), medium (M), large (L) and extra-large (XL) characters. The letters after the hyphen abbreviate a type of industry: White Collar (WC), Personal Services (PS), Services (S), Motion Picture (MP), Printing & Publishing (PP), Diverse (D).

As presented in the Results section, the logistic regression models worked adequately in two of the four models: Type Changed (any reason) and Type Changed (with arts employment in both 2000 and 2010). As the models were not statistically acceptable for the other two independent variables (No Arts in 2000; No Arts in 2010), patterns revealed in ANOVA tests are presented. The ANOVA tests were produced to inspect differences between the blocks with No Arts in 2000 and all other blocks, and No Arts in 2010 and all other blocks. The variables tested include *Structural* (as given), *Redevelopment*, and *EmpCh* (as given). *Redevelopment* is an index representing the average of the z-scores of three variables: *Invest*, *PopCh*, and *EmpCh*, all

normalized by block area. Though the regression models lacked adequate predictive power, important distinguishing characteristics and patterns emerge through this second mode of testing.

Results

The results of the logistic regression are given in Table 3 for two of the four independent variables: Type Changed (any reason) and Type Changed (with arts employment in both 2000 and 2010). Both of these models pass multiple tests of model robustness: reasonable AIC values (compared to the models that were dropped from consideration), Chi-square test on the difference between null and residual variance, and the Hosmer-Lemeshow test. The pseudo R-squared values, while not outstanding, also warrant consideration of the models.

In Model 1, *EmpCh* and *Pop00* show statistical significance, and seem straightforward. For every job lost, the odds of a block changing arts type (for any reason) increases by 1, and for every resident, the odds of a block changing types increases by 1.01 times. For downtown as a whole, between 2000 and 2010, employment declined and population grew; Model 1 suggests that trends likely influenced the composition of arts-based employment at the block level.

Disaggregating that change, however, reveals more detail. Model 2 shows results for a logistic regression for blocks that had changed arts types *and* had arts-based employment in both 2000 and 2010, versus all other blocks. In this model, structural change, population change, and employment change are all statistically significant predictors of a change in the type of arts-based employment. Model 2 shows that for every change of 1.0 in *Structural*, the odds of a block changing arts types increases by 2.24. The influence of *PopCh* remains consistent between the models, while *EmpCh* changes signs, denoting a positive relationship between *EmpCh* and arts type change in Model 2. Since Model 2 represents blocks with arts employment in both years,

the changed sign on *EmpCh* suggests that employment growth changes the character of the arts where arts employment maintains a presence. Like *PopCh*, a one unit increase in employment corresponds to a one unit increase in the odds of changing arts types. While previous work has shown that redevelopment pressure, up to but excluding its most extreme cases in St. Louis (Ganning, forthcoming), serves to benefit arts-based employment levels, Model 2 reveals a more nuanced story: that while employment may increase, the arts do in fact change in character as the character and population (living or working) of the surrounding area also change.

Table 3: Model Results

	Type Changed		Type Changed with Arts Employment in Both 2000 and 2010	
	Estimate	Std. Error	Estimate	Std. Error
<i>Intercept</i>	-3.353***	0.6132	-3.427***	0.5793
<i>Structural</i>	0.5206	0.4188	0.8076**	0.3890
<i>Invest</i>	0.0000	0.0000	0.0000	0.0000
<i>PopCh</i>	0.0023	0.0025	0.0049**	0.0025
	-			
<i>EmpCh</i>	0.0009***	0.0003	0.0009**	0.0004
<i>Pop00</i>	0.0144**	0.0062	-0.0095	0.0160
AIC	160.23		179.61	
Chi-square significance for	***		***	

change in null and residual variance		
Cox & Snell Index	0.070	0.079
Nagelkerke Index	0.154	0.160
McFadden's R ²	0.120	0.121
Hosmer-Lemeshow p-value	0.486	0.728

As stated, the models using arts type change with either 2000 or 2010 void of arts-based employment had to be rejected on the grounds of inadequate robustness. Type change cannot be predicted in these blocks with statistical confidence, likely because the forces and contexts underlying their change are diverse, or because the arts-based employment in either 2000 or 2010 was very small (fewer than perhaps 5 total employees) and spread across multiple industries, making causal sources of change difficult to identify. Nonetheless, statistically significant differences do exist between these blocks and all other downtown blocks. Table 4 shows the relationships that a two-tailed ANOVA indicated have statistical significance at the $p \leq 0.05$ level.

Table 4: ANOVA Results for Blocks Changing Arts Type, with no Arts Employment in either 2000 or 2010

	Total		
	Employment		
	Restructuring	Redevelopment	Change
<hr/>			
Change in arts type--no arts			
employment in 2000	+	+	
Change in arts type--no arts			
employment in 2010	+		-

Though the specific causal mechanisms at play remain unknown, the broader narrative of these blocks emerges clearly. The combination of restructuring and redevelopment without employment change signals the up-scaling of blocks, and this seems to benefit the arts. Blocks that had no arts-based employment in 2000 but did assume an arts-based type in 2010 have statistically significantly more economic restructuring and redevelopment (the combination of investments, population change, and employment change) than do all other blocks in the downtown. Conversely, the blocks that assumed an arts type in 2000 but showed no arts-based employment in 2010 had significantly more economic restructuring and significantly more employment loss than other downtown blocks, with no difference in redevelopment. Economic restructuring with employment losses might be seen as either: 1) a shift away from large companies toward smaller companies in different industries, or 2) downgrading of the blocks, with falling employment and economic instability. In either case, these blocks saw a decline in arts-based employment.

A cross-tabulation of blocks by arts-based type in 2000 and 2010 provides information describing how the character of arts employment changed over the decade as blocks experienced demographic and economic change and massive financial investments. Table 5 presents a matrix of paired cluster assignments per block for 2000 and 2010, with 2000 cluster designations given horizontally (across the top) and 2010 assignments given as row names (down the side). Clusters are abbreviated according to the symbols designated in Table 2, with median arts employment size followed by a mega-industry abbreviation. Notably, blocks with no arts employment in either year are not included in this matrix.

Table 5: Number of blocks by cluster membership, 2000 and 2010

	No Arts	S-S	S-D	S-WC	S-PP	SM-WC	SM-WC	M-MP	M-WC	ML-PP	L-WC	L-PS	XL-PS	Total
No Arts		10	19	1	2		1	1						34
S-S	3	7	3	1	1									15
S-D	17	7	12	3	2		2							43
S-WC		2	1	1										4
S-PP	1				1									2
SM-WC	3													3
SM-WC	6		1											7
M-MP														0
M-WC									3					3
ML-PP											1			1
L-WC														0

L-PS													1	1
XL-PS														0
Total	30	26	36	6	6	0	3	1	3	0	1	0	1	113

The clustering of blocks in the upper left corner of Table 5 indicates a style of downtown development where most blocks have small arts employment, either because firms are small with high percentages of artist employment, or firms are larger with small percentages of workers in artist occupations. The few blocks characterized by clusters in the bottom right quadrant indicate that among the blocks with more arts-based employment, there is generally also stability in the economic character of the blocks. Taken as a whole, however, Table 5 reflects a low level of stability among downtown blocks; of the 113 blocks shown here, only 24 retained the same cluster type between years. Half of those are blocks with nominal employment scattered across a range of diverse industries, and another seven are blocks with small numbers of employed artists supporting a range of service industries.

Two other patterns observable in Table 5 cater more closely to this paper’s focus on characteristics of downtown change. First, the first column of Table 5 focuses on blocks that had no arts employment in 2000. Of these 30 blocks, 21 placed artists in firms with small arts employment spanning a diverse range of industries, some in service industries, and many in other industries. The remaining nine blocks saw their new-found medium-sized arts-based employment occurring in white collar firms (the first focusing on engineering and management, the second on business services). Although the number of blocks focused on firms with small arts employment exceeds the number of blocks characterized by white collar companies with small-to-medium-sized arts employment, the latter group holds more arts-based employment.

Second, Table 5 shows that the blocks losing all arts employment over the decade (n=34) were also primarily characterized as having nominal arts employment spread over a diverse array of industries. This data could be interpreted as a signal of a bohemian economic ethos—of small firms and creativity-induced fluidity. It could also be interpreted as an unstable market for artists. The loss of the Medium-Motion Picture (M-MP) block between 2000 and 2010 stands out as a loss of a sizable creative firm. Arts-based employment losses were also seen in three blocks that were cluster type SM-WC in 2000.

Taken together, the quantitative results paint a detailed picture of the relationship between economic restructuring and arts-based employment for a weak market city's downtown. For blocks that had arts-based employment in 2000, there were three possible outcomes: arts-based employment vanished, arts-based employment stayed relatively stable, or arts-based employment changed types. In both the first and third cases (no arts-based employment in 2010, or a different type of arts-based employment in 2010), broader economic restructuring appears to have played a role. The blocks that lost all arts-based employment are also characterized by declining overall employment, while both positive population and employment change are significant predictors (though independently, as logistic regression provides partial coefficients) of change for blocks that simply changed types. Similarly, blocks that introduced arts-based employment only after 2000 also enjoyed comparative economic up-grading, experiencing both restructuring and redevelopment.

Finally, Table 5 reveals the characteristics of these changes in arts-based types. These results indicate that while some blocks lost white collar arts employment positions between 2000 and 2010, more blocks were characterized by similarly classified gains. Also, while a larger number of blocks saw diverse, small-scale arts employment appear over the decade, these new

positions were outnumbered by increases in arts-based employment at white collar firms. Overall, there was a decline in blocks classified as having small-scale, diverse arts-based employment; in 2010, 64 blocks were characterized as having small-scale arts-based employment, compared to 74 blocks in 2000.

Conclusion

The economic development mechanisms that underpin the changing face of a downtown arts industry are complex. Theoretically, cultural planning in weak market cities faces unique challenges rooted in the juxtaposition of bohemian and white collar classes, and compounded by the transition from a Fordist manufacturing economy to a post-industrial creative class economy. Despite the calls for both research and participatory cultural planning to protect both the values of the arts community and the mode of production, such a process has not been implemented in St. Louis. St. Louis, like other weak market cities, especially in the Rust Belt, face context-specific challenges to planning in general, and sharper ones for contested spaces and groups. Yet downtown St. Louis witnessed an infusion of approximately \$5 billion during the first decade of the 21st century, and that investment did change the downtown arts. Other research (Ganning, forthcoming) has shown that downtown redevelopment helped to grow arts-based employment. The research presented here deepens our understanding: with changes in the downtown's economy and demography come changes in the character of arts-based employment. While most blocks were characterized by small-scale, diverse arts employment in both 2000 and 2010, arts-based employment did shift to a downtown with more artists employed in white collar firms and fewer in firms with small-scale arts employment.

The investment in downtown St. Louis has brought tremendous change, by attracting more and higher-earning residents, by shifting employment away from retail and manufacturing and toward white collar industries, and, though it has not been discussed here, significantly upgrading the visual appearance and perceived safety of the downtown. As downtown changed, so did the arts. Arts-based employment slightly declined, but also changed considerably in character, with fewer than a quarter of blocks maintaining the same arts-based employment type over the decade. The evidence presented here clearly points toward a need for improved cultural planning within St. Louis, as likely within other weak market or shrinking cities. These planning initiatives need to: establish the vision and goals of the downtown arts community; understand ways in which the community has felt supported and threatened by the recent investments; work with the community to identify ways to integrate its goals into the broader downtown plan, and; develop monitoring methods that adequately reflect both quantifiable metrics and the changing ideas of the community. It may be that an increased pool of employment opportunities at white collar companies is seen as favorable within the arts community, though this would contradict the literature cited herein discussing social norms of artists. Without community engagement in the planning process, we simply do not know. This manuscript moves forward our understanding of the role of economic restructuring and development in changing a downtown arts industry; the next step is to develop better knowledge, and better planning, grounded in practice.

Bibliography

- Anderson, Eric. (2012). "Pretty Things to Hang on the Wall." In *Rust Belt Chic: The Cleveland Anthology*, edited by Richey Piiparinen and Anne Trubek, 33-37.
- Barnett, David C. (2012). "Tales of the Regional Art Terrorists." In *Rust Belt Chic: The Cleveland Anthology*, edited by Richey Piiparinen and Anne Trubek, 65-75.
- Bryant, T. (2009, November 6). A 21st century St. Louis Centre. *St. Louis Post Dispatch*, p. B1.
- Currid, E. (2009). Bohemia as subculture; "Bohemia" as industry. *Journal of Planning Literature*, 23(4), 368-382. doi:10.1177/0885412209335727
- DiMaggio, Paul, and Michael Useem. (1978) "Social class and arts consumption." *Theory and Society* 5, 2: 141-161.
- EDAW, Inc. (1999). Downtown Now! St Louis Downtown Development Action Plan.
- Florida, R. (2002). *The rise of the creative class*. New York: Basic Books.
- French, Antonio. (2008). "Congressman Lacy Clay on the Team 4 Plan and urban neglect" available online (http://www.youtube.com/watch?v=jsx_Ph8vEj4).
- Ganning, Joanna P. Forthcoming. "Arts stability and growth amid redevelopment in U.S. shrinking cities' downtowns: A case study." *Economic Development Quarterly*.
- Glaeser, E. (2011). *Triumph of the city: How our greatest invention makes us richer, smarter, greener, healthier, and happier*. New York: Penguin Books.
- Hartley, John. (2004). "The 'value chain of meaning' and the new economy." *International Journal of Cultural Studies* 7, 1: 129-141.
- Herscher, Andrew. (2013). "Detroit Art City: Urban Decline, Aesthetic Production, Public Interest." In *The City After Abandonment*, edited by Margaret Dewar and June Manning Thomas, 64-83. Philadelphia: University of Pennsylvania Press.

- Jaffe, Eric. (2011). "So are People Moving Back to the City Or Not?" *The Atlantic Cities*, November 14, 2011.
- Lloyd, Richard. (2002). "Neo-Bohemia: Art and Neighborhood Redevelopment in Chicago." *Journal of Urban Affairs* 24 (5): 517-532.
- Markusen, Ann. (2006). "Urban development and the politics of a creative class: evidence from a study of artists." *Environment and planning A* 38, 10: 1921.
- Markusen, A. and A. Gadwa. (2010). Arts and Culture in Urban or Regional Planning: A Review and Research Agenda. *Journal of Planning Education and Research*, 29(3): 379-391.
- Markusen, Ann and Greg Schrock. (2006). "The Artistic Dividend: Urban Artistic Specialisation and Economic Development Implications." *Urban Studies* 43 (10): 1661-1686.
- McGranahan, D. A. and T. R. Wojan. (2007). Recasting the Knowledge class To Examine Growth Processes in Rural and Urban Counties, *Regional Studies* 41(2):197216.
- McQueen, M.P. (2014). Forget McMansions: In-town Homes Offer Best Value. Available online: <http://realestate.msn.com/blogs/post--forget-mcmansions-in-town-homes-offer-best-value>, accessed January 31, 2014.
- Molotch, Harvey and Mark Treskon. (2009). "Changing Art: SoHo, Chelsea and the Dynamic Geography of Galleries in New York City." *International Journal of Urban and Regional Research* 33 (2): 517-541.
- Murray, David J. (2011). "Economic Vitality: How the arts and culture sector catalyzes economic vitality." American Planning Association: Chicago. Available online: <https://www.planning.org/research/arts/briefingpapers/pdf/vitality.pdf>.
- Nelson, A.C., C. Dawkins, J. Ganning, K. Kittrell, and R. Ewing. (in press). The Association between Professional Performing Arts and Knowledge Class Growth: Implications for

- Metropolitan Economic Development. *Economic Development Quarterly*.
- Parish, N. (2001, July 6). Downtown gains households, bucks drop across St. Louis, smaller families in to be near work, nightlife. *St. Louis Post Dispatch*, p. A1.
- Partnership for Downtown St. Louis. (2010). Downtown Next: 2020 Vision for Downtown St. Louis.
- Peck, J. (2005). Struggling with the creative class. *International Journal of Urban and Regional Research*, 29(4), 740-770.
- Pratt, Andy C. (2004). "The Cultural Economy A Call for Spatialized 'Production of Culture' Perspectives." *International Journal of Cultural Studies* 7, 1: 117-128.
- Prost, C. (1996, December 10). Mayor refutes urban decay. *St. Louis Post Dispatch*. p. 1A.
- Rushton, Michael (ed.). (2013). Creative Communities: Art Works in Economic Development. Brookings Institution Press.
- Sherman, Jennifer. (2009). *Those Who Work, those Who Don't: Poverty, Morality, and Family in Rural America*. Minneapolis: University of Minnesota Press.
- Silver, Christopher. (1984). *Twentieth-Century Richmond: Planning, Politics, and Race*. Knoxville: The University of Tennessee Press.
- Tucci, L. (1996, October 20). Consultants: Crisis grips Downtown. *St. Louis Business Journal*. Retrieved from www.bizjournals.com.
- Wagman, J. (2009, April 1). Downtown tells story for Slay. *St. Louis Post Dispatch*, p. A1.

ⁱ Of the ten largest cities in the U.S. in 1950, St. Louis lost the largest share of its population by 2010. Among a larger pool of cities (as presented), only Youngstown, Ohio outranks St. Louis for percentage population loss between 1950 and 2007.