Arts Stability and Growth amid Redevelopment in U.S. Shrinking Cities' Downtowns: A Case Study

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Abstract: While the relationship of arts businesses and redevelopment has been studied extensively in world-class cities, it remains understudied in weaker market cities. With tight municipal budgets, shrinking cities cannot afford not to understand both the benefits of the arts for downtown redevelopment, and the impact of redevelopment on the arts. Using block-level data for a United States shrinking city's downtown (St. Louis), this paper finds that the arts have neither anchored redevelopment nor been driven out of the downtown by redevelopment. The latter finding signals an opportunity for shrinking cities to harness the benefits of the arts in downtown redevelopment.

Introduction

The idea that arts and artists play a critical role in transforming blighted neighborhoods into hip enclaves is well established in the literature (e.g., Currid, 2009; Lloyd, 2002). Reduced to its simplest, artists seek out low-rent areas, bringing with them a creative vibrancy and authenticity that attracts new businesses and residents. While this process is well understood for globally recognized art capitals like New York City, the role of the arts in the redevelopment of shrinking, weak market cities is less understood.

The fundamental differences in character between world-class cities like New York City and shrinking cities like St. Louis dictate a different intersection of arts and downtown redevelopment. As Molotch and Treskon (2009) showed in New York, after helping to make SoHo attractive to investors, artists and arts-based businesses found themselves priced out, and consequently relocated to Chelsea, a lower-rent neighborhood (this process is called the "SoHo effect"). However, it is unclear whether the arts attract redevelopment in a weak market, or whether redevelopment is driven by public policy and national trends. It is also unclear whether redevelopment pressures price the arts out of downtowns in a weak market context, and if so, at what magnitude of redevelopment? Urban planning and policy intervenes in an effort to protect and promote the arts, but with unknown effectiveness (Currid, 2009, p. 368). Shrinking cities often operate with highly constrained budgets; reducing the uncertainty in planning for the arts and downtown redevelopment can help to make better use of precious resources.

With a preference for cities (Markusen and Schrock, 2006), artists are in the heart of modern urban revitalization; the back-to-the-city movement is underway and focusing on central cities and downtowns (Jaffe, 2011). In St. Louis (the case study city for this paper), the city as a whole lost 8.3% of its population between 2000 and 2010, but the downtown population grew by 143% (US Census Bureau, Census 2000 and Census 2010, using the City's definition of the Downtown and Downtown West neighborhoods). Several factors that make downtowns like St. Louis' ripe for redevelopment, such as historic architecture (Birch, 2002; Filion, Hoernig, Bunting & Sands 2004) and affordability, are also attractive to artists (Markusen & Schrock, 2006).

The work of Molotch and Treskon (2009) suggests the two research questions taken up in this paper. First, do the arts serve as an anchor industry for redevelopment in shrinking cities' downtowns? Second, if shrinking cities' downtowns are enjoying an era of redevelopment and growth, will development pressure overwhelm the place stickiness (Markusen, 1996) of the downtown arts? In other words, does the SoHo effect occur in weak market cities? Specifically, does redevelopment exert undue pressure on the *commercial* element of the arts, by pushing arts-based businesses out of the downtown? The SoHo effect involves both the residential and commercial aspects of the arts community (see Molotch and Treskon for a discussion of the threat of encroaching retail and other impacts on gallery space). The residential movement of artists falls beyond the scope of this paper, largely due to data constraints. On its face, the rising rents of downtown (discussed further below) suggest that arts-based businesses requiring low overhead might struggle in an environment of rapid redevelopment. However, this hypothesis may be ill-suited to shrinking cities, which often suffer from excess, vacant downtown real estate to which artists and their businesses could move. In this case, downtowns like St. Louis' might provide an ideal scenario for arts-based employment growth; a balance can be struck between proximity to density and prosperity while also maintaining affordable rents.

This paper analyzes the relationship between the arts and redevelopment in shrinking cities by investigating the stability and growth of arts businesses and employment in downtown St. Louis between 2000 and 2010. St. Louis was chosen as the case study for several reasons. First, St. Louis offered unparalleled data access through proprietary data sets to which I had license to use for research, and through professional networks, which granted me access to other non-public data. Second, St. Louis lost a larger percentage of its population between 1950 and 2010 than nearly any other city in the U.S.[1], making it in some ways the poster child for shrinking cities, though it bears noting that findings are not necessarily generalizable and should be ground tested in other settings.

Background

[1] 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.

Shrinking Cities

As shrinking cities represent a young research area within planning, a time-tested definition of terms is still evolving. Generally, a shrinking city is a city that is losing population. Beyond that generality, the definition becomes less clear. One author suggests that in the U.S. population decline tends to occur in the central city, while in the European Union (E.U.) decline is seen more at the regional scale (Pallagst, 2009, p. 81-82). However, eight of the ten largest shrinking cities in the U.S. are situated in shrinking regions (all but St. Louis and Cincinnati). Similarly, the universe of shrinking cities is unclear. In his 2010 Brookings Institute report, Mallach studies 21 “major shrinking cities” from 1950 through 2007 and states that “The total universe of distressed older cities, including satellite industrial cities like Camden, New Jersey or East St. Louis, Illinois, and distressed inner-ring suburbs, like East Cleveland, numbers well over 100” (2010, 8). On the other hand, Beauregard (2009) counts 41 declining cities for the period 1950 through 1980, and 18 for the period 1980-2000. Some evidence also shows that, though the shrinking cities research agenda has gained momentum among U.S. scholars, the problem is more pervasive in Europe. Thompson (2012) reports that, when measuring according to percent change in gross domestic product (GDP) during 2011-2012, 19 of the 20 slowest-growing cities in the world were in the E.U. Beyond definitional problems, issues of measurement challenge research on shrinking cities as well. As Dewar and Thomas write,

> “No consistent data exist to describe the extent and location of vacant land and vacant structures that have resulted from loss of population, households, and businesses in these and other cities. No data allow for a consistent description of property abandonment across numerous cities” (2013, p. 2).

In short, the shrinking cities research agenda continues to evolve in terms of definitions and databases, and understandings of demographic and economic mechanisms at play and potential planning responses.

The Arts and Shrinking Cities

The arts have been studied most often in places like New York or Chicago, rather than in shrinking cities, and the hypotheses about the intersection of the demographic and economic forces at play in shrinking cities and the needs and benefits of the arts remain under-researched. For instance, shrinking cities generally have weak markets, which may discourage the development or proliferation of artists' communities, yet the still-large (though declining) populations of large shrinking cities and the low rents could create an ideal growth scenario for artists' communities. There is also at least anecdotal evidence of strong arts communities in some shrinking cities (e.g. Barnett, 2012; Herscher, 2013). However, strength in artists' communities may be threatened by the politically-driven focus on investments in the downtowns of shrinking cities if that redevelopment induces the SoHo effect.

There is no consistent, spatially-disaggregated dataset covering public and private investments in downtowns, and thus there is no way to systematically study the relationship between downtown redevelopment and the arts across shrinking cities. The research presented here was possible by the acquisition of multiple local proprietary data sets, as described in the Data and Methodology section. There is also no national database on either artist employment or presence of arts-based businesses at any spatially disaggregated scale. Markusen and Schrock (2006) detail many of the measurement issues associated with studying the arts.

As Metzger's in-depth literature review (1996) shows, equity planning literature consistently criticizes the focus of investments in downtowns, suggesting that the simultaneous hollowing out of neighborhoods and explosive growth of downtowns is not uncommon. This paper seeks to provide evidence in the ongoing development of hypotheses regarding arts-based redevelopment in shrinking cities. By relating redevelopment with stability and growth in the arts, this paper aims to better understand the role of the arts as an anchor industry, and the effects of redevelopment pressure on the arts in a shrinking city context.

Contextualizing Downtown St. Louis

Between 2000 and 2010, over $5 billion was invested in downtown St. Louis. Approximately 40% of these investments went toward restaurant and retail projects and public improvements, with the remainder supporting a broad diversity of projects. During this time, its residential population grew by 143% (from 3,144 to 7,652) while the city as a whole lost 8.3% (declining from 348,189 to 319,294 residents). The median residential rent increased from $628 to $766 (22%) in constant 2010 dollars. The median household income increased 49%, to $43,396 in constant 2010 dollars. [2] Downtown transformed from a place characterized as having millions of square feet of vacant space largely inhabited by pigeons to being an enclave for young white collar workers. The causes for this are many, but three especially influential factors stand out. First, the availability of state and federal historic preservation tax credits significantly increased in the late 1990s, and immediately thereafter the City saw a spike in building permits and investment (Rosenbaum, 2013). Second, the return-to-the-cities movement (Jaffe, 2011) helped to encourage investment. Third, the construction bubble that grew in the first half of the

[2] An inflation rate of 26.63% for the period 2000-2010 was used, per The Bureau of Labor Statistic's CPI Inflation Calculator. All data from Census 2000 and Census 2010, apportioned to match the City of St. Louis boundaries for the Downtown and Downtown West neighborhoods.

2000-2010 decade encouraged speculative residential development in downtown St. Louis as elsewhere (for discussion of national trends see Haughwout, Peach, Sporn & Tracy, 2013). This process built a previously non-existent habitat for young professionals. It is also produced high vacancy rates, which likely acted to keep rents lower than would have occurred in a city with a stronger market.[3]

In 2000, the Partnership for Downtown St. Louis published a plan for downtown redevelopment, titled "Downtown Now!"(EDAW Inc., 1999). In the plan, the Partnership aspires for the downtown to join the "New Economy" and values the arts insofar as they are part of "a downtown that is an educational, cultural, arts, and entertainment center of the region" (EDAW Inc., p. IV.2). While the plan includes a brief discussion of pursuing additional cultural institutions and programs, it did little to elucidate details regarding arts development. Moreover, the "Downtown Next" plan, the ten year follow-up on the "Downtown Now!" plan, did little to add to its arts-related goals for downtown, focusing primarily on technology-based approaches rather than broader, creative outcomes. The plan sought to "Encourage establishment of technology, film/TV, media, advertising, digital imaging, graphic design, and related business sectors within the downtown" (Partnership for Downtown St. Louis, 2010, p. XIV.16), and sought to ensure adequate provision of studio space and relevant supply companies.

Though significant financial investments have been made in several sub-areas of the downtown, the Washington Avenue corridor (Figure 1) has served as a locus. This corridor is home to several new premier loft developments (as shown in Figure 1), as well as new restaurants, bars, stores, a bowling alley and movie theatre. The "Downtown Now!" plan aimed

[3] Estimates vary widely but regardless show staggering vacancy among residential units in downtown St. Louis. In 2009 Wagman estimated a 19% vacancy rate among downtown housing units (p. A1), while the 2010 Census estimated approximately 40% vacancy. Similarly, nearly 18% of downtown's 26.2 million square feet of office space was available for rent in 2009 (Bryant, 2009, p. B1).

to make Washington Avenue a “regional destination” (EDAW Inc., 1999, p. VIII.2). Washington Avenue was also the existing hub of the downtown artists’ community. Some worried that downtown St. Louis, and specifically the Washington Avenue Loft District, would experience the SoHo effect (Daniel, 1999), whereby increased development pressure prices artists out of what had been low-rent neighborhoods. The downtown artists’ community took at least one step that would protect against such pressures (emphasis and grammatical errors in original):

> “It was 1993, and there had not been a new successful residential project in downtown St. Louis in 25 years. The 1 million square foot Metropolitan Square office building, completed in 1990, needed office tenants, so they convinced many businesses to move from the old loft buildings of Washington Ave. Washington Ave was dead….Ironically, the vacancies of these storied historic buildings actually created opportunity, opportunity for a few early pioneers to reclaim the buildings for loft residences. It started slow in 1996 with ArtLoft....The plan was an overwhelming marketing and economic development success reaching 100% occupancy in 4 months….Eighteen years after the first resident moved in, ArtLoft has NEVER had an extended vacancy…” (http://artloftstlouis.com/1993-2013/, accessed 1/9/2014).

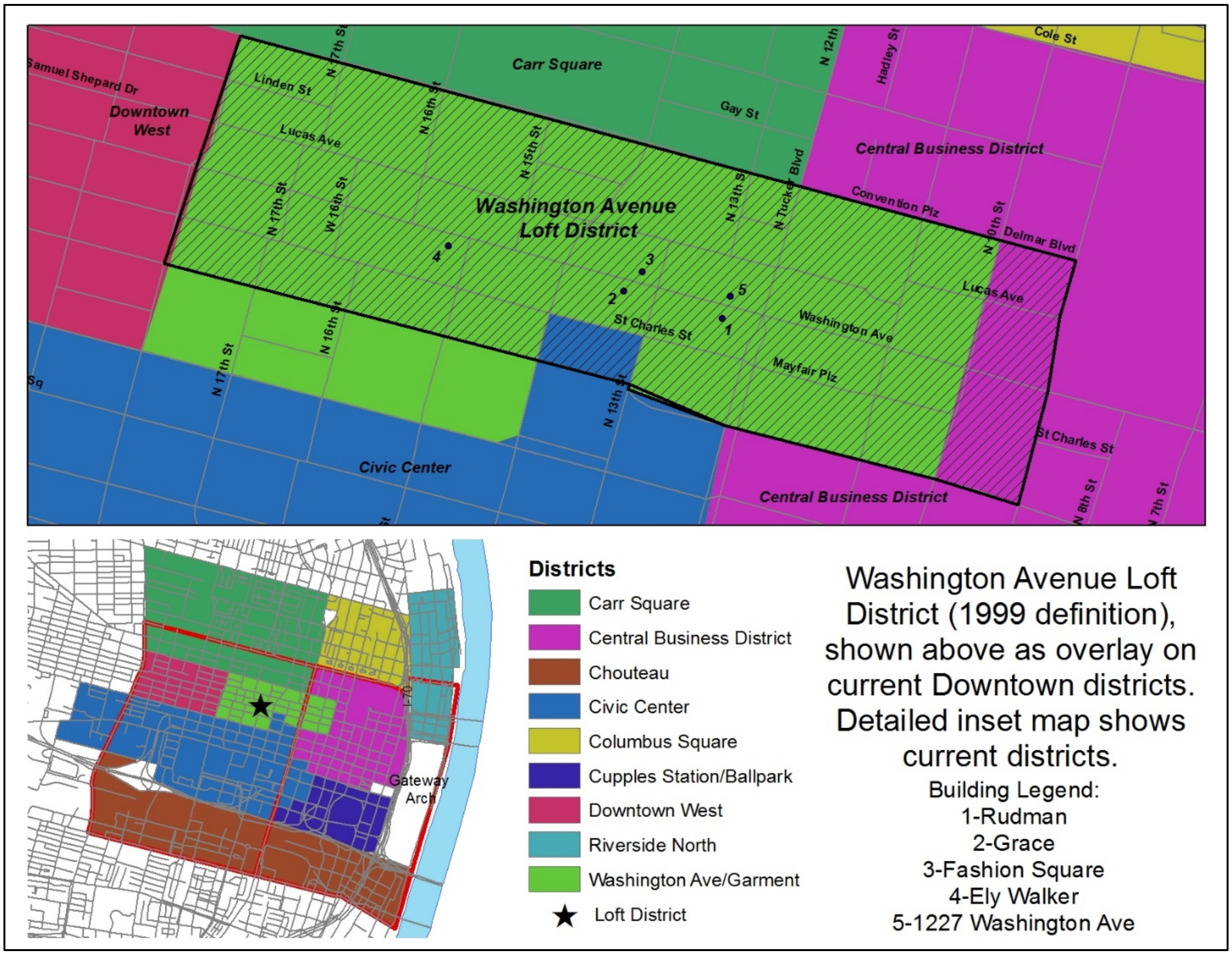

Figure 1: Washington Avenue Loft District, Downtown St. Louis

Since ArtLoft, a few other work/live spaces have been developed downtown, but primarily by developers rather than the arts community. Several arts and artist-specific development projects started and faltered, such as the Artery, which was to locate within the now-demolished Powell Square building (Tablac, 2008) and, at considerable public cost and just outside the downtown, the Metropolitan Building (Evans, 2005; Bryant, 2011; Logan, 2010). The Metropolitan Building did finally open in 2013, advertising as “a center of inspiration, creativity and collaboration,” an “intentional arts community” that offers “72 live/work lofts, and four on-property studios” (Metropolitan Artist Lofts, 2013). The Metropolitan Building sits adjacent to the Grand Center, the city’s center for the arts, just west of downtown. The Grand

Center includes The Fabulous Fox Theatre as well as a number of smaller theatres, The Craft Alliance (which offers classes and display space for local artists), restaurants, shops, and some housing. If downtown redevelopment were to push artists out, Midtown, in which the Grand Center resides, seems a likely destination. Within the downtown, the re-opening of the Peabody Opera House in 2011, after a 20 year closure, merits noting as well.

Among large cities, St. Louis ranks poorly in artistic concentration, ranking 29 out of the 29 largest U.S. metropolitan areas (in 2000) for total artist concentration, and only as well as 23rd out of 29 in any sub-category (Markusen and Schrock, 2006, p. 1667). According to this evidence, St. Louis provides a thin network for artists, while work has shown that a concentration of artists tends to attract other artists (Markusen and Schrock). Yet, St. Louis has some characteristics (i.e., affordability and space, beyond the redevelopment described) that would improve the viability of the arts in the face of development pressures. This paper will thus seek to answer two questions. First, is there evidence that the arts anchor redevelopment in a weak market city? Second, does redevelopment pressure then force out the arts or simply make use of excess real estate capacity, leaving the arts in place and building around them a wealthier market with higher demand?

Data and Methods

This paper relates stability and growth of the arts with redevelopment in downtown St. Louis. This analysis required several conceptual definitions and metrics to be established. This section outlines those choices. This section provides information on: defining the arts, estimating arts employment, estimating redevelopment, and developing indices for arts stability and growth. As mentioned in the Background section, this project was possible only through the acquisition of two non-public data sets and several public data sets. Data was gleaned from InfoGroup USA, the Partnership for Downtown St. Louis, the U.S. Bureau of the Census, and the Bureau of Labor Statistics.

Defining the arts

Relying on precedent, I used Markusen and Schrock's definition (2006, p. 1669) of the arts as including visual artists, performing artists, musicians and composers, and writers and authors. Both arts employment and the count of arts-based businesses were based on identifying businesses in which these occupations are present. A three-tier system (with a bifurcated third tier) was developed:

Tier 1: Business employs artists and makes a product with direct artistic value

Tier 2: Business likely employs artists, but end product is not directly artistic

Tier 3S: Business supplies artists' inputs

Tier 3V: Business provides a publication opportunity, venue, or forum for artists' work

This approach, as opposed to using all businesses within specific 2- or 4-digit Standard Industrial Classification (SIC) codes (the InfoGroup data uses SIC-based industrial definitions) allowed more flexibility in including or excluding businesses of a specific sub-industry. The InfoGroup USA business-level data from 2000 and 2010 were converted from tabular to spatial point data in ArcGIS, then overlaid on a 2010 Census block shapefile. This process resulted in a table showing the number of arts businesses by tier by Census block for 2000 and 2010, using consistent 2010 blocks. The use of blocks as the observed unit of geography was motivated by several factors. First, and most importantly, while block groups do conform reasonably well to the downtown boundaries, only six block groups comprise downtown St. Louis, rendering statistical analysis impossible. Second, even block groups veil a considerable amount of heterogeneity within their boundaries, and aggregating data to the block group level could consequently obscure relationships between pockets of associated arts-based employment and redevelopment.

The InfoGroup USA data itself was heavily processed before beginning this research. The 2000 data had some records with only XY coordinates and some with only addresses. The address-only points were geocoded using a composite address locator in ArcGIS, with manual matching of hundreds of records that did not match through the ArcGIS automated process. The database was then compared to a second copy of the same data, acquired and cleaned by a second lab, which was not originally affiliated with this research. A very small number of additional records had been successfully geocoded in the second copy of the data, and were integrated with the first copy, which included many businesses not found in the second copy of the database. The 2010 business point file required some geocoding, though significantly less than did the 2000 data; the same process was used. Thus, the business point files were prepared by using advanced and iterative geocoding processes and by checking for reliability against an independently assembled database relying on the same underlying data source. InfoGroup USA reports a 7% margin of error in their data, and extensive record checking protocols.

Estimating Arts Employment

The tables of arts businesses by block (2000 and 2010) were appended with arts-specific employment estimates for each business. Employment was estimated in a two-step process. First, 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 the overall margin of error should average away. The second step uses a business's overall employment to estimate its employment of artists. This was done by determining the employment of all arts occupations (using the Markusen and Schrock, 2006 definition) within each 4-digit SIC industry as a percent of each industry's total employment, as given in the Bureau of Labor Statistics' Employment and Wages from Occupational Employment Statistics (OES) Survey for 2011. The percentage of the industry's employment in arts occupations was then applied to the estimated total employment in each arts business in the sample, thus producing an estimate of the employment of artists in each business. Again, this method produces a potentially high margin of error for any individual business, but that error should average away across the sample, yielding valid, reliable estimates of arts employment. Furthermore, shy of collecting primary survey data, for which resources were not available, it is the best available data for estimating the employment of artists at a fine geographic scale and with a breakdown across the three tiers described.

Estimating Block-level Redevelopment

I developed the Redevelopment Index for each block of downtown St. Louis using three variables: investment, population change, and employment change. To account for the fact that block size varies, the variables were normalized by the area of each block. Factor analysis normally provides an excellent means of weighting each variable according to the degree of correlation between variables in an index (Ganning and Flint, 2010), but in this case the variables have exceptionally low correlation coefficients. This is likely because either population or employment changes substantially in a block, but rarely both, and in many cases employment decreased to accommodate more housing. Consequently, the three variables were combined into an index by converting each to a z-score to normalize them, and then averaging the three z-scores for each block. The investment data was acquired from the Partnership for Downtown St. Louis and aggregated to the 2010 Census block level in current, non-constant dollars. Population density change was derived from the Census 2000 and Census 2010 PL-94 100% data. Employment density was calculated using the InfoGroup USA data with the employment estimates aggregated to the 2010 Census block level.

Measures of Stability and Growth

The Index of Stability is simply the percent of businesses open in 2000 and still open in 2010. Businesses that changed address within the downtown but stayed open over the decade were counted as surviving. In some cases, blocks would have nearly identical numbers of arts businesses in 2000 and 2010, but two-thirds of the original businesses had closed and been replaced, in some cases by businesses in the same industries. Manual record matching was used to identify businesses in the 2000 data as having survived or died, and businesses in the 2010 listing as being new or having survived. Manual matching proved superior at reducing error caused by typos in the data, slight variations in name or address abbreviations, or other insignificant differences in records that would not have resulted in matching them across years by automated means. The Index of Stability, with its focus on the initial year (2000), is used to address the first research question: did the arts anchor downtown redevelopment? A second measure, the number of arts businesses in 2000, is also used to triangulate results.

The second question, of whether redevelopment pressure negatively affected the arts, is addressed by relating redevelopment with change in the arts over the decade, rather than with the initial year condition of the arts. The measure of firm growth is the change in the number of arts businesses at any place on the 3-tiered classification system by block. This measure of firm growth reflects changes in the landscape of employment, input, or venue opportunities for artists. Employment growth is similarly the numeric change in the estimated number of artists employed per block. The measure of employment growth is a direct reflection of changing arts employment opportunities downtown. Other articulations of these measures were tested, such as normalized values and percent changes, but did not significantly alter results.

Results

Figure 2 presents a spatial representation of the Index of Redevelopment for downtown St. Louis. The areas in yellow received minimal redevelopment, and may in some cases have lost population, employment, or both (the redevelopment index mean is zero). The areas in green show positive redevelopment. The green blocks clearly delineate the Washington Avenue Loft District (see Figure 1), and secondarily, a few blocks south and east, the area between Olive and Locust Avenues, east of Tucker Boulevard (the dark line dividing downtown into halves). This finding is expected. As described in the background on the redevelopment of downtown St. Louis, Washington Avenue has been a focal point. The Olive/Locust hub has grown following the opening of an upscale full-service grocery store in 2009, at a redevelopment cost estimated at $7.56 million, of which $4.1 came from public sources (Tritto, 2008).

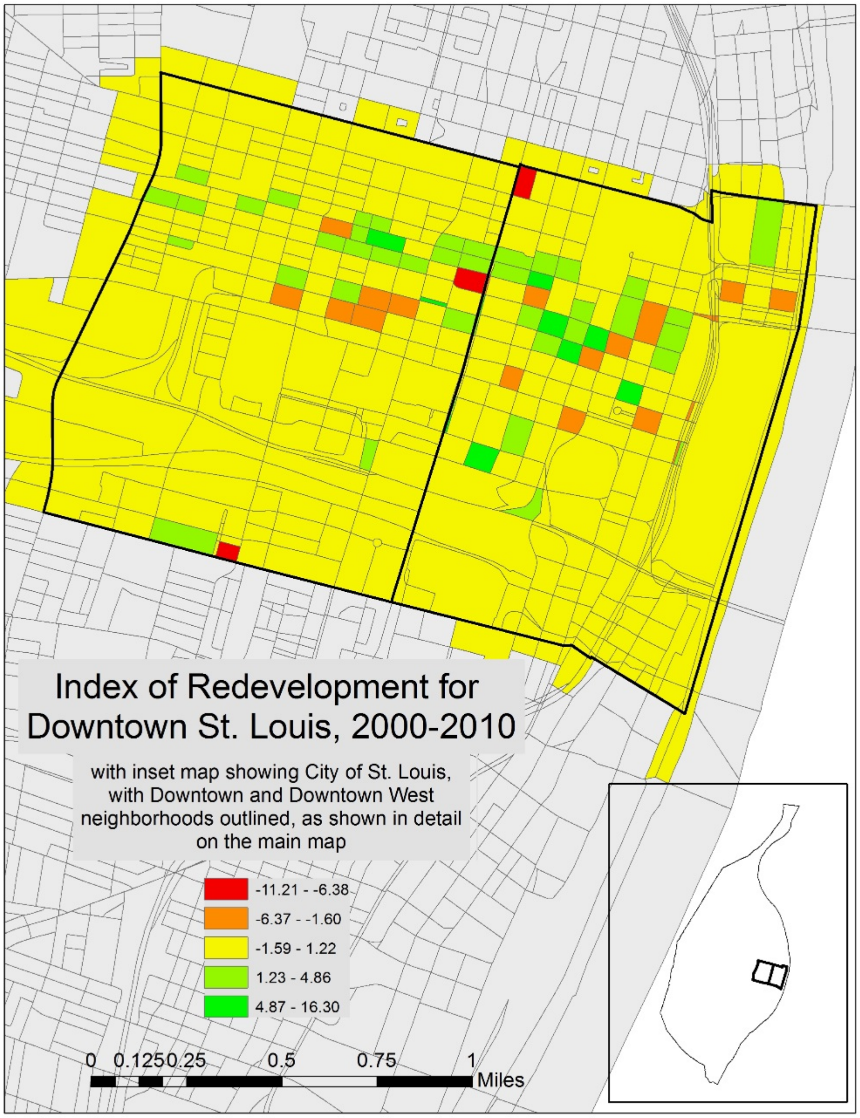

Figure 2: Index of Redevelopment for Downtown St. Louis, 2000-2010

The first research question was whether the presence of the arts anchored redevelopment. Figure 3 shows the stability of arts businesses in downtown between 2000 and 2010. For the downtown as a whole, there is no statistical relationship between redevelopment and arts stability. Both t-tests and Chi-square tests were performed on the tabular data, with divisions between low and high redevelopment and stability. The correlation coefficient is statistically insignificant. Similarly, a bivariate Moran's I was computed and permutated to estimate a pseudo-p value for the null hypothesis that the spatial pattern of redevelopment and stability would be observed randomly; the null hypothesis could not be rejected. A second measure, number of arts businesses per block in 2000, was checked to ensure robustness, but did not change the results. There is no evidence to indicate that redevelopment focused on blocks with stable arts businesses or a large number of arts businesses.

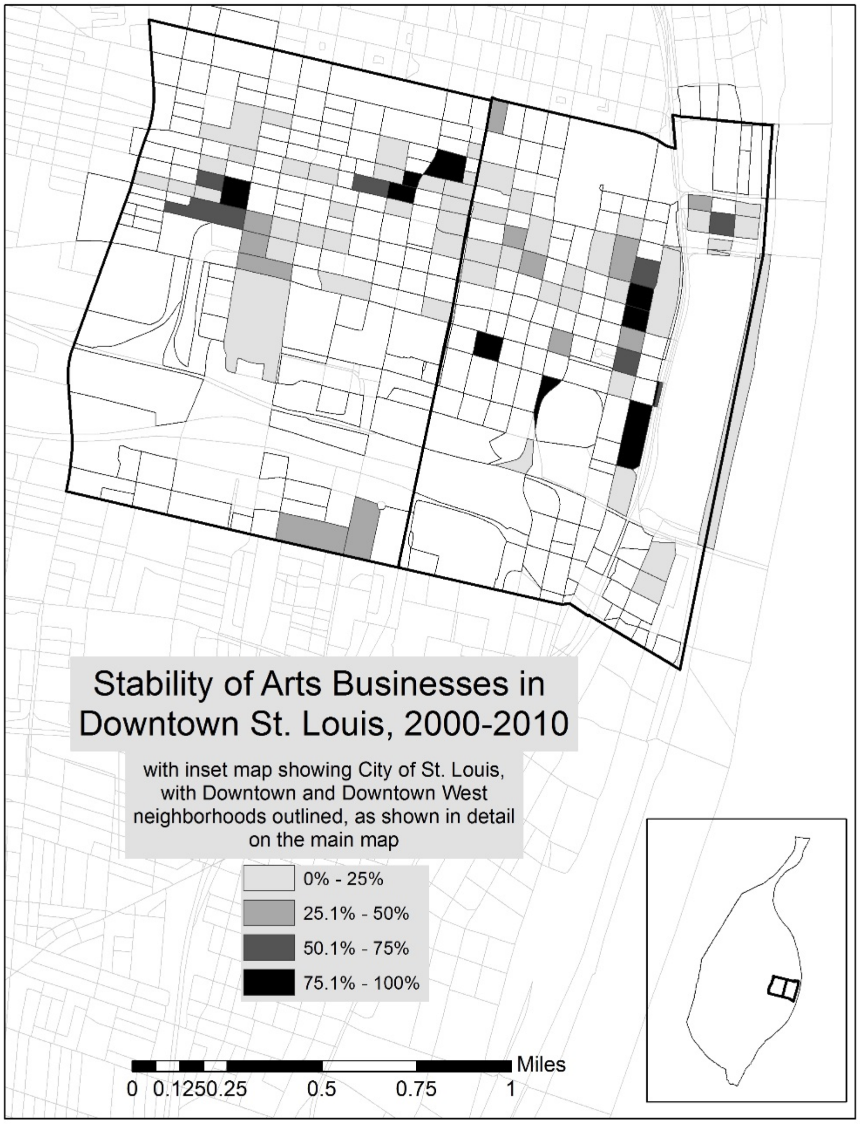

Figure 3: Stability of Arts Businesses, 2000-2010. Stability is the number of businesses existing in 2000 that survived to 2010 divided by the number of arts businesses total in 2000.

The second research question asked whether redevelopment pressure proved detrimental to the arts. Figure 4 shows the numeric change in arts businesses block by block from 2000 through 2010. The correlation coefficient between arts business change and redevelopment is 0.147, which is not statistically significant in this sample. As it relates to store fronts, downtown redevelopment seems not to exert significant pressure on the arts.

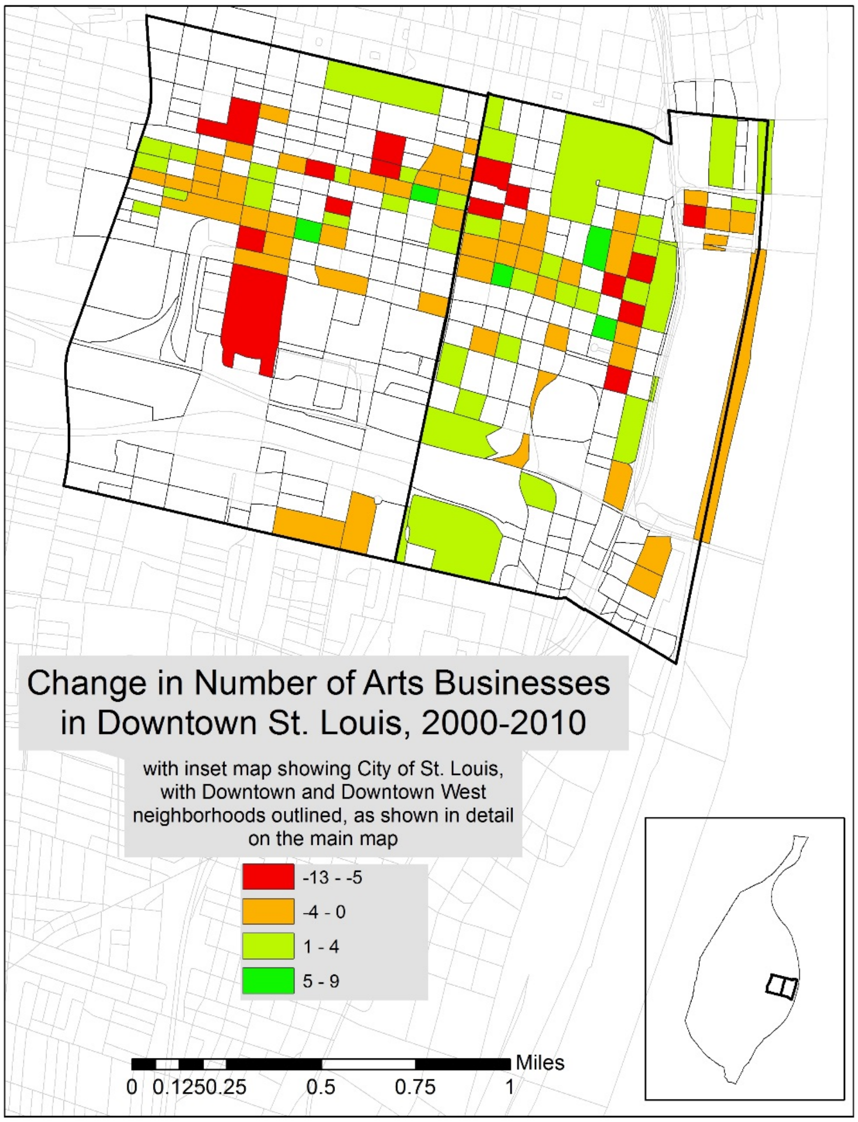

Figure 4: Change in Number of Arts Businesses, 2000-2010

In contrast, the relationship between redevelopment and arts employment change (Figure 5) is statistically significant. The correlation coefficient between these variables is 0.31, with a p-value of 0.001. The relationship is better represented by a second degree polynomial line (Figure 6; extreme outliers not shown). Figure 6 shows that disinvestment is related to losses in arts employment. Figure 6 also shows that positive redevelopment benefits arts employment to a point (approximately 4 on this index), after which gains in redevelopment have declining returns for arts employment, eventually reaching arts employment losses in the midst of extremely high redevelopment. Since this measure deals with employment rather than businesses, it stands to reason that either employment grew in existing arts businesses, or that firms that closed were replaced by larger businesses or were replaced by other arts businesses with a higher percentage of artist employment. To summarize, the SoHo effect is theoretically possible for places like St. Louis, but occurs only in extreme cases. Instead, redevelopment seems to encourage employment growth in and development of businesses with an artistic component. Downtown St. Louis seems able to strike a balance between proximity to downtown redevelopment and maintenance of an environment suitable to artistic employment. Despite the significance in the block-level tabular data, no spatial patterning was found between redevelopment and arts employment change.[4]

[4] This relationship was testing via bivariate Moran's I tests in GeoDa using both a k-nearest neighbors weights matrix with 4 neighbors, and with a first-order queen-based weights matrix. In both cases, only the blocks with data were used. This created a shapefile with islands, necessitating the need for the k-nearest neighbors weights matrix, at least as an exploratory approach.

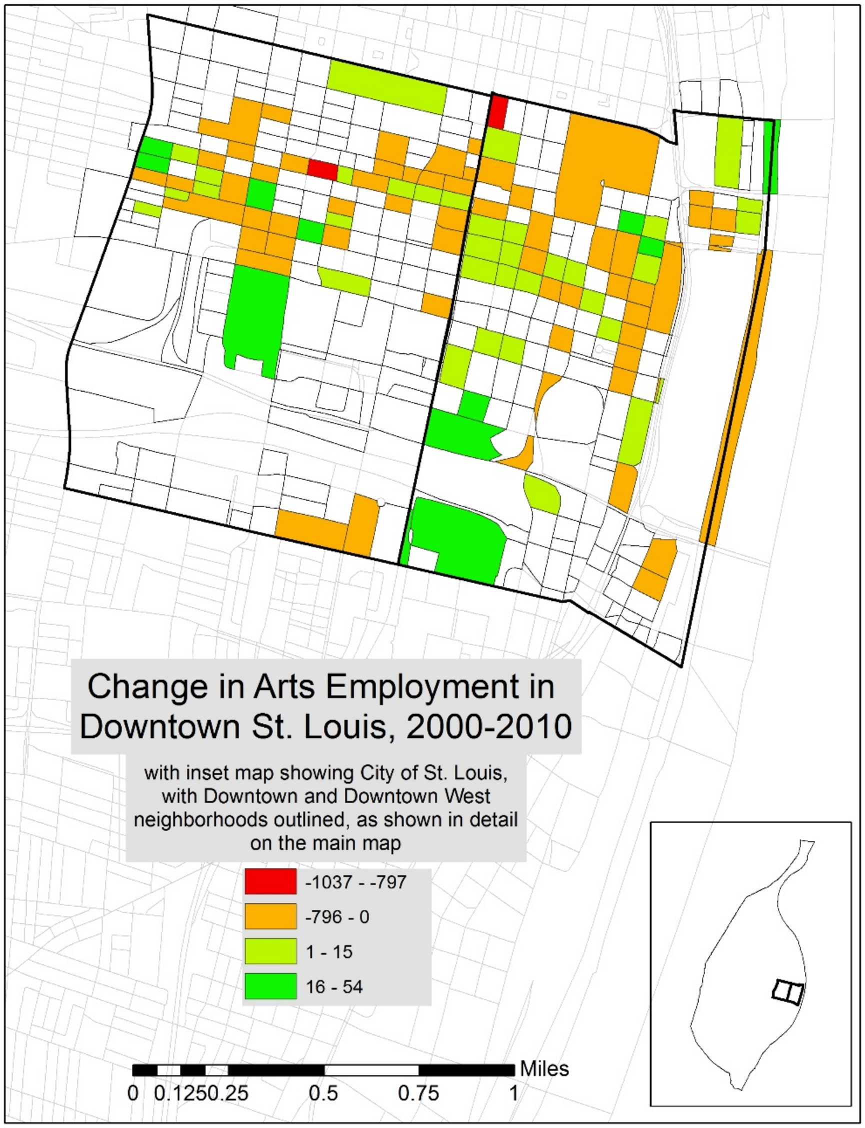

Figure 5: Change in Arts Employment, 2000-2010

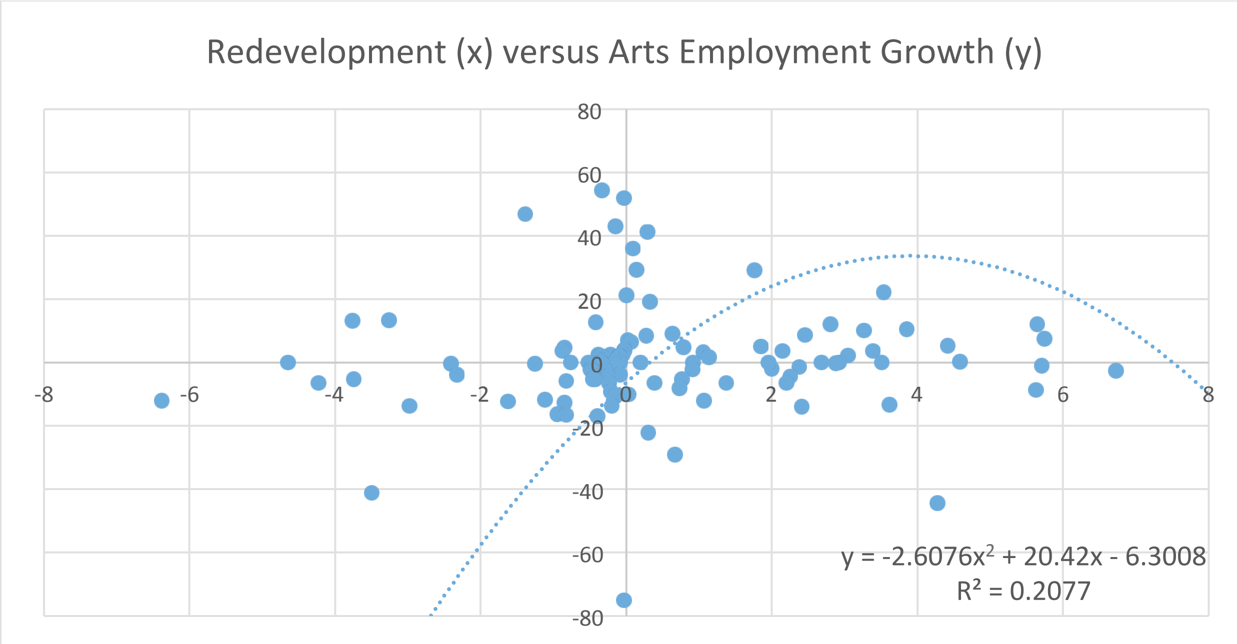

Figure 6: Redevelopment and Arts Employment

Table 1 shows changes in overall and arts-based employment over the decade, but must be interpreted with caution. While overall employment in the downtown decreased by 3.6% over the decade, arts-based employment appears to have declined by about 43%. However, virtually all of these losses are either phantom losses (the result of data reporting processes) or they occurred in one building as the result of forces unrelated to the arts, redevelopment, or St. Louis. The former case of phantom losses refers to portrait photographers (-1,028). This "loss" came almost exclusively from two inter-related businesses that continue to operate out of the same shared building. Personal communication with the businesses revealed that this employment is a combination of how employment is reported and a change in employment size for off-site employees. These two businesses contract photographers to work at various sites like stores and schools for photo days. In some cases, photographers transitioned to independent contractor status. No data is available to describe the split between the downsizing of photographers in the field and the transition to independent contractors. With the change in this single building removed, the change in arts employment falls to -14%.

	2000		2010	
	Businesses	Employment	Businesses	Employment
All Businesses	2,316	75,467	3,076	72,766
Arts Businesses				
Tier 1	84	2,197	49	1,031
Tier 2	94	1,022	90	639
Tier 3S	24	1	9	3
Tier 3V	59	359	48	379
Total	*261*	*3,579*	*196*	*2,051*
% change in total employment				-3.6%
% change in arts employment				-42.7%

Table 1: Downtown arts employment, 2000-2010

The second case, which resulted from exogenous forces rather than data reporting methods, refers to the decline in the News Service sub-industry, which lost approximately 600 employees over the decade. This story—of the decline in news agencies—is not unique to St. Louis, but rather was a national trend over the decade (Zara, 2012). It bears noting that this estimated decline likely also reflects a large margin of error and may overstate losses, as it is almost exclusively the result of the closure of one large news service. In 2000, this company had an employment size class “I”, which was estimated to have over 1,600 employees, of whom 572 were in arts occupations. However, as these distributions were estimated as described in the methods section, the closure of one large firm means that data is not being aggregated across firms (or in this case even blocks) to average away error. In both this case and the case of the photographers, these large, isolated losses occurred in single buildings, on single blocks, and thus impact only two data points since the analysis is at the block level, therefore not undermining the larger interpretation of results.

Across the defined tiers, other, smaller industry changes also stand out. In Tier 1 (businesses that employ artists and offer a product with direct artistic value), losses occurred in video production/taping services (-53), graphic designers (-23), commercial artists (-20), and writers (-13). In contrast, Tier 2 businesses (businesses that employ artists but do not offer products with direct artistic value) saw large gains in artist employment over the decade, notably among advertising and marketing agencies. This finding suggests that as downtowns redevelop, demand for artists will be driven by the business needs of the neighborhood. Further work remains to be done comparing structural economic changes with changes in the character of downtown arts.

Conclusion

The evidence developed here suggests that the relationship between the arts and downtown redevelopment is fundamentally different in shrinking cities than in world-class cities. First, and perhaps as a result of the fact that planning goals focused little on arts-based development, there is no evidence that the arts act as an anchor for downtown redevelopment. Second, this paper indicates that redevelopment in weak market cities' downtowns fails to exert the kind of pressure on arts businesses that would force relocation to lower-rent neighborhoods. In fact, the analysis provides preliminary evidence to the competing hypothesis: up to a point, redevelopment is positively and statistically significantly correlated with arts-based employment change. In a shrinking city context, downtown redevelopment means an infusion of cash that can support artists, without an exhaustion of affordable real estate that is seen in places with less excess capacity prior to an era of redevelopment.

This news should buoy promoters of the arts, and should provide a new rationale for practicing planners to include a focus on the arts in downtown development plans. For arts promoters, this means that the arts can make a home in downtowns in shrinking cities. Moving means foregoing the fixed costs associated with customizing a space, foregoing business during a move, and breaking place-based attachments with neighborhoods. The evidence presented here suggests that those costs can be avoided in shrinking cities, even amid significant redevelopment. For arts promoters, this also means that growing downtown populations signal an increased market for arts consumption, rather than a rival consumer of real estate, and perhaps that a redeveloped downtown is attractive to or beneficial for businesses with an artistic component. However, further research should be done to better understand the differential impacts of different types of arts employment, such as fine and performing arts versus applied arts, for attracting businesses and residents, and the impacts of redevelopment on those sub-industries.

For planners, the results presented here suggest that more research is needed before context-specific policies can be developed. In places like New York City, market forces can easily overwhelm planning efforts to protect the arts. In places like St. Louis, planning for the arts may leverage endogenous relationships occurring between arts employment and redevelopment. Unfortunately, we do not yet know this. As it had virtually no planning for the arts prior to or during its redevelopment phase, the St. Louis case provides a control case, not a case from which policy effectiveness can be judged. Planning might borrow strategies from arts-based development in rural areas, which bear important likenesses to shrinking cities. According to ArtPlace America, rural arts assets may be falling into disrepair, downtowns may have lost population, and vacancies may be an issue. Relatively small investments in these places help to restore quality of life and create hip, attractive areas. In short, creative placemaking provides a good return on investment in these weak market areas (Abbott, 2013).

There is still work to be done on understanding arts-based development in shrinking cities, and some challenges lie ahead. The commercial and industrial demand for employees in arts-based occupations will vary according to the composition of downtown firms, and that composition varies significantly between world-class and shrinking cities. Understanding the relationships between downtown industrial composition and proliferation of the arts will assist planners in encouraging arts-based development in shrinking cities. Also, since the St. Louis case study offers limited examples of arts-focused planning goals, more research is needed to test planning's ability to protect and promote the arts amid redevelopment. Data availability will remain a significant challenge for spatially disaggregated research. The data presented here was the result of intensive data cleaning and the collation of multiple proprietary data sources, some of which were available only through local, professional networks. Some data is either not available at all or is unusable due to the wide margins of error reported in the American Community Survey, as is the case with occupation by place of residence for St. Louis.

In conclusion, there is no evidence that the arts can save shrinking cities, but there is evidence that arts employment changes and downtown redevelopment are related. This relationship signals an increased ability for the arts to endure development pressure in weak market cities, as compared to strong market cities, and could suggest endogenous relationships between arts employment and redevelopment. This is positive news for shrinking cities, and should encourage both arts communities and planners in those cities to reconsider the potential for arts-based development.

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