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The Importance of Neighborhood Context in Arts-led Development: Community Anchor or Creative Class Magnet?

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Abstract

This paper contributes to the creative city-community development arts policy debate by examining the association of arts organizations to various neighborhood contexts in New York City. Results from multivariate regression analyses show that arts organizations regardless of type are positioned to serve the creative class rather than play a community development role. Notably, only a small subset of locally focused organizations and organizations with smaller expenditures locate in disadvantaged and immigrant neighborhoods where they might play a direct role in community development. Instead, most arts organizations tend to locate in the most highly urbanized, amenities-rich areas with young working singles and creative industries. These findings raise important questions for incorporating the arts into neighborhood planning efforts.

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Bios

James Murdoch, III is a Ph.D. student at the University of Texas, Arlington. His research focuses on the relationship of arts and cultural activity to economic and community development.

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Introduction

      As the arts become a common economic and community development tool for many cities, they are charged with realizing two sometimes conflicting agendas. On the one hand, with the rise in economic development policy that emphasizes human capital development and quality of life, cities have turned toward supporting a variety of arts activities from flagship cultural institutions to small arts organizations with the goal of revitalizing their downtowns and attracting tourists and a creative class workforce. Many of these "creative city" projects, however, face strong criticism for being geared toward the wealthy and fostering unequal development and gentrification that largely benefits real estate interests, tourists, and upwardly mobile professionals (Catungal, Leslie, and Hii 2009; Peck 2005; Ponzini and Rossi 2010; Scott 2006; Shaw and Sullivan 2011; Zimmerman 2008).

      On the other hand, some suggest that the arts can play a community development role by facilitating social interaction, collective action, and stronger, vibrant communities (Borrup 2006; Carr and Servon 2009; Grodach 2011; Markusen and Gadwa 2010). In this vein, recent arts policy initiatives are attempting to bridge economic goals with community empowerment and development to produce more equitable cultural policy. In particular, "creative placemaking" initiatives such as the National Endowment for the Art's (NEA) Our Town program, supports partnerships between nonprofit arts organizations, local governments, and residents to promote the arts as a means of building community identity, enhanced quality of life, and creative activity alongside economic revitalization (National Endowment for the Arts 2014). Similarly, the public-private partnership ArtPlace supports arts-led development that enhances communities' economic potential while ensuring the participation of traditional, folk, and Native American arts (ArtPlace 2014).

Given these conflicting roles and resulting policy agendas, there is a strong need for research to examine the contexts in which arts-led development will actually take place on a broad scale. As is widely recognized, the arts do not necessarily locate based on traditional industry location factors such as transport costs or access to markets. Rather, recent work examines the social milieu required for the arts to flourish (Currid 2007; Markusen and Johnson 2006; Rantisi 2004), the development potential of the arts in different "scenes" and neighborhood contexts (Grodach, Foster, and Murdoch 2014; Silver and Clark, forthcoming; Silver and Miller 2013), and the neighborhood-level location patterns of arts industries (Grodach et al. 2014; Poon and Lai 2008; Ryberg, Salling, and Soltis 2013; Smit 2011; Stern and Seifert 2010). However, little work has focused comprehensively on the location preferences of nonprofit arts organizations particularly as they relate to the creative city-community development conflict. Do the arts seek out places that attract the creative class or are they positioned for community development? Are different types of arts organizations more common in different types of neighborhoods?

This paper addresses these questions by examining the neighborhood contexts in which different types of nonprofit arts organizations locate in New York City. We extend previous work by comparing the location of "creative city" organizations with a broad audience and organizations that serve local audiences that may be better positioned for community development. Additionally, we distinguish between flagship arts organizations defined by large annual budgets and organizations with smaller budgets. Finally, we conduct a more focused examination of the characteristics of arts organizations located in disadvantaged and immigrant neighborhoods to get a better sense of the organizations directly situated to play a community development role.

Our findings indicate that regardless of audience base or budget size, arts organizations tend to locate in the densest, most urbanized portions of New York that are also home to young singles with a high level of amenities and creative economy activity. Organizations with large annual budgets in particular locate in business districts with concentrations of advanced services and creative economy industries. Nonetheless, a small subset of arts organizations go against this trend and locate in disadvantaged and immigrant neighborhoods where they might play a direct community development role. These organizations tend to be younger, serve local audiences, and are characterized by small annual budgets and a reliance on volunteer artists. However, these organizations are the exception rather than the rule. By and large, arts organizations in New York City are positioned to serve the creative class rather than play a direct community development role.

The following section provides an overview of the literature and captures the creative city-community development conflict in arts-led development. We then present a detailed description of the data and methods. Finally, we present our results and discuss how our findings raise important questions for incorporating the arts into neighborhood planning efforts particularly in light of recent creative placemaking strategies that seek to promote the arts for community development.

Arts-led Development: The Creative City--Community Development Conflict

Arts-led development policy is motivated by a variety of sometimes competing approaches (Evans 2009; Grodach 2013). Two of the most common are the creative city approach and the community development approach. The creative city approach focuses on the economic role of the arts, primarily as consumer amenities. In this regard, artistic and cultural activity indirectly contributes to economic development by attracting affluent individuals and

increasing global competiveness (Clark 2004; Florida 2002). In contrast, the community development perspective takes a more ground-up approach and positions the arts as an important factor in creating social benefits and equitable development (Borrup 2006; Carr and Servon 2009; Grodach 2011; Markusen and Gadwa 2010). Rather than a concern with regional growth and economic viability, policies in this vein tend to support community-based arts in disinvested neighborhoods to engage local residents in their communities and to build the capacity for collective action (Chapple and Jackson 2010). The following sections briefly describe the literature discussing these contrasting viewpoints and highlight how they are incorporated into arts-led development policy.

Since the early 2000's, there has been a burst of research arguing that artists, artistic businesses, and arts organizations play an instrumental role as amenities that attract tourists as well as professionals with large discretionary incomes working in science, engineering, computer programing, and other high-growth sectors (Clark 2004; Florida 2002). Florida (2002) labels these individuals the "creative class" and argues that they are essential to regional economic development through their innovation in the workplace and their healthy demand for public goods that benefit all. The arts play a key role in this process as amenities that alter the character and economy of neighborhoods to attract the creative class. For example, Lloyd (2010) discusses the influx of affluent individuals to Chicago's Wicker Park as it became a neighborhood full of local arts galleries, live music venues, cafes, and bookstores. Although it remains unclear whether the arts attract the creative class or whether such neighborhoods attract the arts, there is evidence that the arts seek locations high in finance, media and high tech industries as well as neighborhood amenities such as retail and restaurants (Currid and Connolly 2008; Grodach et al. 2014; Silver and Clark forthcoming).

In an attempt to capitalize on the economic potential of the arts, cities have adopted a "creative city" approach that loosely follows Florida's (2002) emphasis on amenities to attract affluent consumers and tourists (Atkinson and Easthope 2009; Grodach 2012, 2013). Virtually every large and mid-sized city has built a flagship arts institution and developed large cultural districts meant to generate tourism, boost the image of the city as a destination, and increase consumption activity with new restaurants, cafes, and art galleries. Involving high caliber architects, developers, politicians, and other stakeholders, these institutions are often seen as a recipe for global success; two examples are Chicago's Millennium Park and Bilbao's Guggenheim museum both of which have become major tourist attractions and are credited with revitalizing economic activity in the surrounding area (Clark and Silver 2013; Evans 2003; Grodach 2010b; Plaza 2006; Rodríguez, Martínez, and Guenaga 2001; Vicario and Monje 2003). Additionally, many have designated areas with smaller arts and cultural businesses and nonprofits as cultural districts that include subsidized artist housing, networks of pedestrian and cycling trails, and other lifestyle amenities to attract the creative class. Cities such as Austin, TX, Milwaukee, WI, and Portland, OR that promote walkable districts with combinations of live/work units, shopping, dining, and art are prime examples (Clark 2004; Florida 2002; Grodach 2012, 2013; Shaw and Sullivan 2011; Strom 2010; Zimmerman 2008).

Many criticize this form of arts-led development as government-sponsored gentrification that is primarily aimed at increasing land values and economic activity over support for local culture, affordable housing, and neighborhood identity (Cameron and Coaffee 2005; Catungal, Leslie, and Hii 2009; Chapple, Jackson, and Martin 2010; Grodach 2012, 2013; Peck 2005; Ponzini and Rossi 2010; Scott 2006; Shaw and Sulivan 2011; Smith 1996; Zimmerman 2008; Zukin 2010). While the influx of a creative class workforce attracted by the arts may bring new

neighborhood benefits and amenities, their presence also pushes up rents and can lead to the displacement of existing residents. Years ago, Smith (1996) likened the gentrification process to the conquest of the American frontier implying that, before gentrification and arts-led development, these neighborhoods are seen as uncivilized or untamed places that artists as pioneers first settle, paving the way for more affluent residents. In this way, critics charge that neighborhoods in which arts and cultural development occur become commodities that are sold to the creative class and the affluent at the expense of poorer local residents (Brabazon 2011; Chapple and Jackson 2010). Moreover, many argue that the top-down and formulaic approach that typically characterizes these policy initiatives serves to homogenize local culture at the expense of authenticity and the democratic mixing that the arts can promote (Brown-Saracino 2004; Carr and Servon 2009; Isserman and Markusen 2013; Kagan and Hahn 2011; Zukin 2010).

While the arts appear to be linked with affluence and the creative class, other research has shown that smaller, more community-focused arts organizations and businesses often locate in low rent, disinvested, minority neighborhoods or what Chapple and Jackson (2010, 481) call the "real frontier" where "capital has not yet found its way back." Unlike the neighborhoods ripe for gentrification, these are places that capital has largely ignored and that will not develop through market forces. From this perspective, arts organizations engage with the local community rather than work with development coalitions who focus on attracting creative class populations. Community arts organizations are approached more as open public spaces facilitating interaction among diverse groups of artists, tourists, and local residents from outside and within the neighborhood, and can lead to social capital that enables collective action that benefits the local population (Grodach 2010a; Grodach 2011; Markusen et al. 2008; Matarasso 2007; Phillips 2004; Stern and Seifert 2010). Active participation of the local population and social inclusion

are key because they build neighborhood pride, investment, and action that translates into positive community development (Blessi et al. 2012; Jackson and Herranz 2002; Nakagawa 2010).

Additionally, arts and cultural activity lead to community empowerment by preserving local culture. The arts can anchor in place cultures that define local communities and boost the potential of small, locally owned businesses and other aspects of the local economy (Borrup 2006; Brown-Saracino 2004; Carr and Servon 2009; Markusen and Schrock 2009). Thus arts and cultural activity, in addition to being drivers of economic growth, are important factors in the equitable and sustainable development of disadvantaged neighborhoods, which often lack other forms of investment.

In contrast to the creative city approach, grassroots arts movements and community arts organizations promote the arts as a low-income community engagement and development initiative. Examples include community mural projects engaging youth and artists to promote community identity and activism; the display of work from the local community to promote local pride and social interaction; and the formation of jobs-oriented arts incubators and arts cooperatives (Grodach 2010a; Jackson and Herranz 2002; Phillips 2004). More recently, creative placemaking policies attempt to capture the community and economic benefits of the arts. However, in contrast to the creative city approach, creative placemaking promotes partnerships between local residents, developers, and public officials to ensure that community and economic goals are considered jointly (Markusen and Gadwa 2010).

In summary, recent literature argues that the arts play conflicting roles and, in the process, seek out different neighborhood contexts. As we note in the introduction, recent studies delve into the location patterns of the arts and, as described above, a body of case study work

explores their relationship to various aspects of neighborhood development. However, very little research analyzes arts location patterns on a broad scale to determine how different types of arts organizations are aligned with either the creative city or community development models. One important exception is the work of Markusen et al. (2008) that examines locations of cultural nonprofits with different artistic disciplines and budget sizes and the implications for community and economic development; however, this analysis focuses on the city and regional scale. We build on their research, examining location patterns at the neighborhood level. This work is especially important as recent creative placemaking initiatives promote the arts as a community development tool and a path toward equitable economic revitalization.

Data and Methods

New York City Arts Organizations

In this paper, we inform the arts development policy debate by determining the neighborhood contexts in which different types of nonprofit arts organizations in New York City (NYC) locate. We examine organizations with large annual budgets and a broad audience base that tend to be linked with the creative city strategy as well as organizations with small annual budgets and local audience bases, which are more likely to be community-based. NYC represents a good study site because of the large number and diversity of arts organizations located there.

Data on nonprofit arts organizations come from the New York State Cultural Data Project (CDP), which collects a wealth of data on a wide range of arts and cultural organizations throughout the United States. The organizations that participate in the CDP represent multiple cultural disciplines, including arts museums, performing arts, and media among others. The CDP includes information on organization finances, employment and volunteering, attendance,

and other organizational aspects as part of an annual data profile. For researchers, the CDP presents a unique opportunity to obtain data at the organization level that includes a level of detail previously unavailable in the United States.[1]

The CDP includes New York City arts and culture organizational data spanning 2002 to 2012. However, not all organizations have complete data for all reporting years. We rely on data from 2010 because this year contains the highest number of organizations represented within the database (1,186). Of these, we analyze 1,050 arts organizations, which we categorize in terms of their budget and audience.[2] Budget size groups include three categories: small organizations (budgets below $100,000), mid-sized organizations (budgets from $100,000 to $1,000,000) and large organizations (budgets over $1,000,000).[3] We group audiences into two categories: broad and local. Broad audience organizations specify their target audience as international, national, state and/or regional. Local audience organizations target a more specific geographic area— urban and/or suburban and some organizations include local rural populations.[4]

Based on this information, we categorize organizations into two ideal types. Organizations with large annual budgets and organizations with a broad audience approximate flagship and mainstream arts institutions often linked to creative city strategies. Organizations with small annual budgets and organizations with a local audience approximate arts spaces that tend to target specific communities. As Table 1 shows, 175 (17%) of the organizations in the sample represent creative city organizations and 143 (14%) represent community arts organizations. As such, the majority of organizations do not fit neatly into the creative city-community development categories. Rather, broad and local audience organizations can be of any budget size. Therefore, we opt to analyze the arts organizations across the budget and audience categories to capture the full range of organizations in NYC.

TABLE 1 ABOUT HERE

New York City Neighborhood Contexts

After categorization, we aggregate our arts organization data to the neighborhood level, creating measures that capture the number of arts organizations of each budget size and audience focus in each of the neighborhoods in NYC. We define neighborhoods using 189 Neighborhood Tabulation Areas (NTAs) defined by the NYC Planning Department and we geocode the arts organization data using ArcGIS software, which allows us to plot each organization on a map that we overlay with a map of the NYC neighborhoods.[5]

We also gather data from the 2007-2011 American Communities Survey (ACS) and the 2010 Zip Code Business Patterns (ZBP) and match it to NYC neighborhoods. Since NTAs follow census tract boundaries, we are able to easily aggregate the 2007-2011 ACS data to the NTA level. The 2010 ZBP data is more challenging as it is provided at the zip code level. We layer zip code and census tract geographies in ArcGIS to determine how much land area in each zip code is located within each census tract. These ratios are then used as weights to apportion industry establishment numbers.[6] Specifically, the ACS data includes measures of neighborhood demographics associated with the arts that can be grouped under five general headings (Table 2):

- 'urban' variables that reflect the common assumption that the arts tend to locate in neighborhoods characterized by an older housing stock, multi-family rental units, and a dense, walkable built environment.
- 'diversity' variables representing diversity based on census categories for race (black), ethnicity (Hispanic), immigrants (foreign-born), non-native English speakers, and non-family households.

- 'affluence' variables indicative of upward mobility including high levels of education, income, rent, and management occupations.

- 'disadvantage' variables including poverty, unemployment, single-parent households, and public assistance.

- 'young working single' variables related to work and lifestyle at the neighborhood level because some arts organizations employ and attract a large number of young, unmarried, 'free-lance' individuals working at home or within their local neighborhood.

TABLE 2 ABOUT HERE

The ZBP data includes variables reflecting industries which prior research, such as Grodach et al. (2014) and Currid and Connolly (2008), find are associated with the arts (Table 3):

- total establishments in knowledge-based industries such as finance, high technology, and media.

- total establishments in creative industries such as design, architecture and commercial photography. We also include colleges, universities and professional schools in this category.

- total establishments in neighborhood amenities such as grocery stores, clothing stores, restaurants, bars (alcoholic), snack/juice bars (non-alcoholic) and others.

Several of the above measures are composites of more than one NAICS code. These are created by summing the total number of establishments for each NAICS code listed in the composite.[7]

TABLE 3 ABOUT HERE

We perform principal component analysis (PCA) to produce statistical measures of neighborhood context based on the demographic and industry data. PCA is a data reduction method that takes a large number of variables and, based on their correlations, groups them

together to produce a smaller number of distinct, uncorrelated factors. Each variable included in the analysis contains an estimated loading, ranging from -1 to 1, for each factor that represents the degree to which the variable is associated with the factor. The loadings can then be used as weights to create standardized sums, commonly referred to as scores, for each factor.[8] Thus, variables with the strongest loadings (those closest to 1) have the strongest impact on the factor score.

We start with an extensive list of demographic and industry variables that are likely related and theorized to impact the location decisions of arts organizations. To produce robust statistical analyses, however, there must be a large number of cases (neighborhoods) relative to the number of variables. Thus, PCA is useful because the process reduces the number of variables to a few key constructs. We perform two separate analyses for the demographic variables and the industry variables discussed above.

The analysis of neighborhood demographics produces four factor scores we label Disadvantaged Neighborhoods, Highly Urbanized Neighborhoods, Immigrant Neighborhoods, and Young Working Singles Neighborhoods (Table 4). **Disadvantaged neighborhoods** have strong positive loadings for variables such as poverty, unemployment, single parent households and those households receiving public assistance as well as strong negative loadings for variables indicating affluence. **Highly urbanized neighborhoods** represent those places that possess a level of *population density over and above the New York City average* alongside larger percentages of rental occupants, multi-unit housing and the percent of workers who walk to work. Moreover, the negative loadings for average household size and the average number of rooms indicate that these neighborhoods contain smaller homes with fewer rooms, which is consistent with a high percentage of dense housing.[9] Third, **immigrant neighborhoods** have

14

positive loadings for the diversity variables such as percent foreign born and non-English speakers, indicating a strong presence of immigrant groups. Finally*, **young working singles neighborhoods** are defined by positive loadings for the percent unmarried and percent of the population that is 25-34 years old. Alongside this, there is a strong *negative* loading for the variable measuring the percent of the population not in the labor force indicating that most people are employed or actively seeking work. Additionally, there is a strong association with housing built before 1950 reflecting a preference for older, distinctive housing.

TABLE 4 ABOUT HERE

The analysis of industry measures produces three contexts we label Creative Economy, Advanced Services, and Neighborhood Amenities (Table 5). The **creative economy** factor has strong positive loadings for the creative services such as architecture, graphic design and commercial photography. The factor also includes "third places" such as bookstores and drinking establishments, several of the high tech and media measures and several neighborhood amenities such as restaurants and clothing stores. Creative services, information and knowledge industries, and cultural consumption are all representative of the creative economy (Florida 2002; Markusen et al. 2008). **Advanced services** has positive loadings for financial, high tech and media/information industries (Sassen 2001). Finally, the **neighborhood amenities** factor has positive loadings for grocery stores and markets, clothing stores, shoe stores, restaurants and snack bars as well as religious organizations. Additionally, the variable measuring universities and colleges has a moderate loading, indicating that these neighborhoods may often surround educational institutions.

Figure 1 shows the means of each of the neighborhood and industry factors for each of the five Boroughs in NYC. The Bronx clearly contains the highest level of disadvantaged

neighborhoods with a mean just over 1, indicating that the average neighborhood in the Bronx is approximately 1 standard deviation above the average level of disadvantage in NYC as a whole. The Bronx has relatively low means for the remaining neighborhood contexts and negative means for the three industry contexts. Brooklyn, on the other hand, has means close to 0 for most of the factors, indicating that the distribution of neighborhood types in Brooklyn is similar to the city as a whole. Manhattan, unsurprisingly, is a clear leader of highly urbanized, creative economy, advanced services, and neighborhood amenities. Neighborhoods in Queens have a strong mean for the immigrant and young singles factors. Finally, Staten Island is the most unlike the rest of the city, with negative means for each of the factors. Thus, Figure 1 makes clear that the Boroughs of NYC are quite different from each other.

<center>FIGURE 1 ABOUT HERE</center>

Figure 2 adds additional context, showing a map of the locations of the arts organizations we analyze in New York City. Arts organizations as a whole are highly concentrated in the most urbanized areas of Manhattan and Brooklyn—the Upper West Side, Lincoln Square, Midtown, SoHo, West Village, and Downtown Brooklyn. These areas also generally contain the most affluent and larger populations of employed young singles in the city and are home to the largest share of creative industries and contain a wealth of amenities. However, several neighborhoods in all the five Boroughs have at least one organization, indicating that while there are intense concentrations, arts organizations are also quite dispersed throughout the city. In particular, disadvantaged neighborhoods such as Mott Haven in the Bronx and Bushwick in Brooklyn contain moderately strong levels of arts organizations. In addition, several organizations are located in immigrant neighborhoods like Hunters Point and Jackson Heights in Queens.

<center>FIGURE 2 ABOUT HERE</center>

<center>16</center>

Thus, the two figures show that most arts organizations locate in Manhattan, especially in neighborhoods that are highly urbanized and with a strong presence of young singles, local amenities and creative economy industries. However, the map also displays exceptions to these perceived patterns. Some arts organizations do locate in disadvantaged and immigrant neighborhoods. Furthermore, arts organizations may have different location patterns dependent on their audience and budget size differences. As such, we conduct multiple regression analyses in order to develop a more nuanced understanding of these relationships.[10]

Multivariate Regression Model and Other Analyses

We include the four neighborhood demographic factors and the three industry factors as independent variables in a multiple regression model that takes the form:

$$Y_i = \beta_0 + \beta_1 Disadvantaged_i + \beta_2 Urbanized_i + \beta_3 Immigrant_i + \beta_4 YoungSingles_i +$$

$$\beta_5 CulturalEconomy_i + \beta_6 AdvancedServices_i + \beta_7 NeighborhoodAmenities + \varepsilon_i$$

We estimate the above model for five different dependent variables that include:

- Two variables capturing the total number of arts organizations that focus on either broad or local audiences in each neighborhood, allowing us to examine the contexts associated with broad focused creative city institutions compared to locally focused community arts organizations.

- Three variables capturing the total number of arts organizations with small annual budgets, mid-sized annual budgets, and large annual budgets in each neighborhood, allowing us to determine the neighborhood contexts likely to house organizations with larger budgets, often used in flagship creative city approaches, and whether these neighborhoods differ from those attracting other organizations with smaller budgets.

In our regression models there is an assessed likelihood of heteroskedasticity, meaning our error terms do not have constant variance, which is one of the assumptions of multiple regression analysis. Although heteroskedasticity does not affect coefficients measuring the relationship between the independent and dependent variables, it may bias standard errors and cause faulty significance levels. As such, we estimate robust standard errors to correct for faulty measures of statistical significance for all results presented in this paper.

Finally, we drill down to the organization level and examine how the small subset of organizations in disadvantaged and immigrant neighborhoods differ from organizations in other neighborhoods. We define neighborhoods with above average levels of the immigrant and disadvantaged factors as those neighborhoods that have a score of 1 or higher (at least 1 standard deviation above the mean) for the immigrant and disadvantaged factor scores. Similarly neighborhoods with average and below average levels of the disadvantaged and immigrant factors are those neighborhoods with scores between -1 and 1 and below -1, respectively. We tabulate the frequency of organizations in each budget size and audience base as well as the frequency of organizations in various age categories and employment and volunteer categories across each of the disadvantaged and immigrant neighborhood types. The age categories include organizations established within the past 10 years, the past 11 to 25 years, and the past 26 to 50 years, and those established over 50 years ago. The employment and volunteer categories include organizations that have full-time artist employees, organizations that have part-time artist employees, organizations that have full-time artist volunteers, and organizations that have part-time artist volunteers.[11] For each organization category, we report Pearson's chi-square statistic, which tests whether or not the differences across the neighborhood types are statistically significant.

The Neighborhood Contexts of New York City Arts Organizations

The results of our analysis produce three key findings[12]:

1. The majority of arts organizations, regardless of audience base and annual budget size, locate in areas that are the most highly urbanized and contain significant levels of young working singles, neighborhood amenities and creative economy industries indicative of creative class destinations.

2. Additionally, organizations with large budgets and broad audiences co-locate with advanced services such as finance, media, and high technology further supporting the development of creative class milieus.

3. A small subset of organizations locate in disadvantaged and immigrant neighborhoods. These organizations tend to serve local audiences, have small annual budgets, rely on artist volunteers, and are relatively new. As such, although poised to play a community development role, they potentially lack sufficient resources to affect change.

These results problematize creative placemaking and arts-based neighborhood planning assumptions regarding the arts' potential to balance economic development with social and community development.

Arts Organizations Seek Out Creative Class Neighborhoods

Tables 6 and 7 display regression results for arts organizations based on audience focus and budget size respectively. This allows us to examine the creative city-community arts dichotomy. In each table, we analyze two models. Model 1 includes only the neighborhood demographic features that represent different neighborhood contexts (Disadvantaged, Highly Urbanized, Immigrant, and Young Singles) and Model 2 includes both demographics and industry features. This allows comparison of the contribution that each grouping of factor scores

(neighborhood context and industry co-location) make in explaining the variation of the dependent variable (the presence of arts organizations).

Table 6 displays regressions comparing organizations with broad and local audiences. The coefficient of determination (R^2) indicates the neighborhood demographics in Model 1 explain approximately 49% of the variation in broad audience and 45% of the variation in local audience arts organization location. Moreover, with the introduction of the industry factors in Model 2, these coefficients increase to 81% and 67%, respectively. Thus, both sets of factors help to explain where arts organizations locate.

TABLE 6 ABOUT HERE

Model 1 suggests that arts organizations, regardless of audience, tend to share similar location preferences. Not surprising given the NYC context, the strongest location pull for both audience bases is the highly urbanized neighborhood factor. A standard deviation increase in the factor is associated with an increase of 4.86 broad audience organizations and 2.19 local audience organizations. The young singles factor is also associated with increased numbers of broad audience ($b = 2.27$) and local audience ($b = 1.18$) arts organizations. In contrast, both organization types have negative associations with disadvantaged neighborhoods ($b = $ -3.86 for broad and -1.52 for local audience organizations) and immigrant neighborhoods ($b = $ -2.16 and -1.02, respectively).

When we add the industry factors in Model 2, we uncover more nuanced location preferences. For both local and broad audience organizations, the negative association with the disadvantaged factor loses its statistical significance, while creative economy and neighborhood amenities factors are positive, strong, and significant. Thus, some of the disassociation arts organizations have with disadvantaged neighborhoods may be explained by the relative absence

of creative economy industries and neighborhood amenities in these neighborhoods. The negative association with immigrant neighborhoods, however, remains strong and significant for both broad ($b = $ -1.09) and local ($b = $ -0.63) organizations. Thus, the evidence suggests that arts organizations, regardless of audience focus, prefer locations with young singles, creative economy industries, and neighborhood amenities. Moreover, local audience organizations maintain a significant association with the highly urbanized neighborhood factor ($b = 0.73$) and broad audience organizations have an additional association with advanced services ($b = 3.31$).

Table 7 compares arts organizations by annual budget size. Similar to the audience base results, Model 1 indicates that arts organizations avoid disadvantaged and immigrant neighborhoods in favor of young singles and highly urbanized locations and Model 2 highlights that all organizations have positive associations with creative economy industries and neighborhood amenities. Interestingly, only organizations with small budgets maintain a significant negative association with the disadvantaged neighborhood factor in Model 2. Specifically, a standard deviation increase in the factor is associated with a decrease of 0.75 organizations with small budgets and has virtually no association with organizations with mid-sized or large annual budgets. Additionally, Model 2 shows that organizations with small budgets are most strongly linked with the young singles ($b = 0.56$) and highly urbanized ($b = $ 1.03) factors and negatively associated with the immigrant factor ($b = $ -0.80). Finally, similar to broad audience organizations, Model 2 highlights that organizations with large budgets have a strong, positive association with the advanced services factor ($b = 3.03$).

<center>TABLE 7 ABOUT HERE</center>

These results highlight that neighborhood context is an important consideration in arts-led development. The results for large budget and broad audience organizations support the

<center>21</center>

expectation that flagship arts institutions tend to locate in highly urbanized areas characteristic of central business districts with high levels of advanced and creative services industries, amenities and, to some extent, young singles. Smaller budget and locally focused organizations have similar location characteristics, but display a stronger relationship to areas defined by young singles and not a business district. Although neighborhood preferences are slightly different, both location types include core components defining creative class destinations. The fact that there is a negative or, at minimum, insignificant association with disadvantaged and immigrant neighborhoods does not necessarily mean that arts organizations in New York do not play a community development role. In fact, many larger organizations may have community development programs that target disadvantaged and immigrant neighborhoods. However, our results do show that most organizations do not have a physical presence in these locations, and thus their ability to serve as community anchors that directly provide spaces for resident participation and social interaction is limited.

The Characteristics of Arts Organizations in Disadvantaged and Immigrant Neighborhoods

The regression analysis shows the general trends of arts organization location in NYC, but as Figure 2 highlights, some organizations work within disadvantaged and immigrant neighborhoods. 69 (7%) organizations locate in neighborhoods that score above average for the disadvantaged neighborhood factor and 83 (8%) organizations that locate in neighborhoods that score above average for the immigrant neighborhood factor. Tables 8 and 9 show how the frequency (%) of organizations locating in below average, average, and above average levels of the disadvantaged and immigrant neighborhood factors vary depending on four dimensions: audience focus, budget size, organization age, and whether or not the organization has full-time

artist employees, part-time artist employees, full-time artist volunteers, or part-time artist volunteers.

Table 8 shows that organizations in disadvantaged neighborhoods are considerably more likely to target local audiences than others. They also tend to be younger, have smaller budgets, and rely on part-time volunteers. In fact, 59% of these organizations report a local audience base compared to 31% of organizations in neighborhoods with below average levels of disadvantage. Moreover, 41% of the organizations have annual budgets under $100,000 and 32% were established in the past 10 years. Finally, virtually no organizations in neighborhoods high on the disadvantaged factor have full-time artist employees or volunteers and they are most likely to run on part-time volunteers. As such, although organizations locating in disadvantaged neighborhoods are more likely to be engaged with their community, they clearly do not benefit from the same organizational capacity as those operating in more affluent neighborhoods.

TABLE 8 ABOUT HERE

Table 9 shows similar results for immigrant neighborhoods. However, the chi-square (χ^2) statistic, a measure indicating whether the observed differences are statistically significant, is only significant for annual budget size and organization age. In terms of the former, 45% of organizations in immigrant neighborhoods have annual budgets under $100,000 and 41% were established in the past 10 years. This is compared to 31% and 25%, respectively, of organizations in neighborhoods scoring below average on the immigrant factor. Moreover, the results show that these organizations are more locally focused than those in neighborhoods with below average scores on the immigrant factor, 46% compared to 36%, but again there is not sufficient evidence to say this finding is statistically significant.

TABLE 9 ABOUT HERE

Overall the results from this analysis confirm that the organizations that locate in disadvantaged and immigrant neighborhoods more likely serve local audiences and have small annual budgets. These organizations also tend to be relatively young and rely on artists that are part-time volunteers rather than paid employees. Thus, these organizations tend to be small, fledgling organizations. Moreover, it is important to underscore that these organizations represent only a minority of the small budget and local audience arts organizations in NYC. The regression analysis indicates that most art organizations, regardless of size or audience, favor a creative class milieu.

Conclusion

Although arts-led development continues to be on the rise through city sponsored projects as well as sizable grant programs like NEA's Our Town and ArtPlace, our results indicate that most arts organizations are positioned as creative class magnets rather than community anchors. As a result, policy that encourages general arts development without consideration of context or that focuses primarily on large arts institutions is likely to promote the arts in predominantly creative class locations, which can exacerbate existing inequalities.

Planners and policy-makers interested in creative placemaking and supporting the arts as a community development tool can use this study to identify and respond to some of the challenges inherent in this effort. Above all, the results highlight the need to take into account neighborhood context, organization characteristics, and their relationships. Our results show that those organizations outside of the creative class zones are most likely to target local populations, yet are smaller, relatively new, and more volunteer-driven. Arts and community development initiatives alike should recognize these characteristics and can work to assist these organizations to become established in their neighborhoods and build the capacity to engage directly with their

surrounding communities. In New York City, a promising program in this direction is the Community Arts Development Program under the city's Department of Cultural Affairs. This program provides funding and training to help small organizations with an operating budget under $500,000 that serve low-income communities to sustain themselves long term (New York City Department of Cultural Affairs 2015). In conjunction, arts-led community development initiatives can identify impediments that keep arts organizations out of certain areas. For example, arts organizations may avoid neighborhoods or may be forced to leave them due to outdated and restrictive zoning and code ordinances (Grodach 2011). Cities can revisit or provide variances or waivers in such instances.

Cities can also pursue engagement with the local population, as many community-based arts organizations rely on volunteers and other forms of local support to flourish. Artist Theaster Gates serves as a good example of participatory arts-led development efforts. Among other things, he promotes the reactivation of dilapidated housing units in Chicago and other Midwest cities. With the support of philanthropists, city government, students, and community members, Gates has successfully developed community-based cultural institutions in houses where community members can listen to thousands of records or peruse a commanding collection of books and build social connections at the same time (Colapinto 2014). Arts and cultural planning can learn from Gates and others promoting participatory arts development and support creative ways to re-envision disadvantaged communities through the arts.

While our results focus solely on arts organizations in New York City and thus our findings may not be generalizable to all places, we do show strong associations between neighborhood context and different types of arts organizations. Future research can build upon these results by investigating the relationship of arts activity to neighborhood context in different

regions as well as incorporating additional aspects such as specific development policy and incentives that we do not examine here. This research can illuminate how the success of arts-led planning efforts is contingent upon the context of implementation and the characteristics of the organizations promoted. In particular, rather than generalized policy that promotes arts and culture, nuanced and context-specific policy is needed to capture the demonstrated benefits the arts have on local communities and economies.

References

ArtPlace. 2014. "About". Accessed July 25, 2014. http://www.artplaceamerica.org/about/.

Atkinson, R. and H. Easthope. 2009. "The Consequences of the Creative Class: The Pursuit of Creativity Strategies in Australia's Cities." *International Journal of Urban and Regional Research* 33 (1): 64-79.

Blessi, G. T., D. Tremblay, M. Sandri, and T. Pilati. 2012. "New Trajectories in Urban Regeneration Processes: Cultural Capital as Source of Human and Social Capital Accumulation–Evidence from the Case of Tohu in Montreal." *Cities* 29 (6): 397-407.

Borrup, T. 2006. *The Creative Community Builder's Handbook: How to Transform Communities Using Local Assets, Art, and Culture*. Saint Paul, MN: Fieldstone Alliance.

Brabazon, T. 2011. "When Bohemia Becomes a Business: City Lights, Columbus Avenue and a Future for San Francisco." *Human Geographies* 5 (1): 43-59.

Brown-Saracino, J. 2004. "Social Preservationists and the Quest for Authentic Community." *City & Community* 3 (2): 135-156.

Cameron, S., and J. Coaffee. 2005. "Art, Gentrification and Regeneration–from Artist as Pioneer to Public Arts." *European Journal of Housing Policy* 5 (1): 39-58.

Carr, J. H., and L. J. Servon. 2009. "Vernacular Culture and Urban Economic Development: Thinking Outside the (Big) Box." *Journal of the American Planning Association* 75 (1): 28-40.

Catungal, J. P., D. Leslie, and Y. Hii. 2009. "Geographies of Displacement in the Creative City: the Case of Liberty Village, Toronto." *Urban Studies* 46 (5-6): 1095-1114.

Chapple, K., and S. Jackson. 2010. "Commentary: Arts, Neighborhoods, and Social Practices: Towards an Integrated Epistemology of Community Arts." *Journal of Planning Education and Research* 29 (4): 478–490.

Chapple, K., S. Jackson, and A. J. Martin. 2010. "Concentrating Creativity: The Planning of Formal and Informal Arts Districts." *City, Culture and Society* 1 (4): 225-234.

Colapinto, J. 2014. "The Real-Estate Artist." *New Yorker*, January 20. Accessed February 20, 2014. http://www.newyorker.com/magazine/2014/01/20/the-real-estate-artist.

Clark, T. N., ed. 2004. *The City as an Entertainment Machine.* Oxford: Elsevier Ltd.

Clark, T. N., and D. Silver. 2013. "Chicago from the Political Machine to the Entertainment Machine." In *The Politics of Urban Cultural Policy: Global Perspectives*, edited by C. Grodach and D. Silver, 28-41. New York: Routledge.

Currid, E. 2007. "How Art and Culture Happen in New York: Implications for Urban Economic Development." *Journal of the American Planning Association* 73 (4): 454-467.

Currid, E., and J. Connolly 2008. "Patterns of Knowledge: The Geography of Advanced Services and the Case of Art and Culture." *Annals of the Association of American Geographers* 98 (2): 414-434.

Evans, G. 2003. "Hard Branding the Cultural City-from Prado to Prada." *International Journal of Urban and Regional Research* 27 (2): 417-440.

———. 2009. "Creative Cities, Creative Spaces, and Urban Policy." *Urban Studies* 46 (5-6): 1003-1040.

Florida, R. 2002. *The Rise of the Creative Class.* New York: Basic Books.

Grodach, C. 2010a. "Art Spaces, Public Space, and the Link to Community Development." *Community Development Journal* 45 (4): 474-493.

———. 2010b. "Beyond Bilbao: Rethinking Flagship Cultural Development and Planning in Three California Cities." *Journal of Planning Education and Research* 29 (3): 353-366.

———. 2011. "Art Spaces in Community and Economic Development: Connections to Neighborhoods, Artists, and the Cultural Economy." *Journal of Planning Education and Research* 31 (1): 74-85.

———. 2012. "Before and After the Creative City: the Politics of Urban Cultural Policy in Austin, Texas." *Journal of Urban Affairs* 34 (1): 81-97.

———. 2013. "Cultural Economy Planning in Creative Cities: Discourse and Practice." *International Journal of Urban and Regional Research* 37 (5): 1747-1765.

Grodach, C, E. Currid-Halkett, N. Foster, and J. Murdoch III. 2014. "The Location Patterns of Artistic clusters: A Metro- and Neighborhood-level Analysis." *Urban Studies* 51 (13): 2822-2843.

Grodach, C., N. Foster, and J. Murdoch III. 2014. "Gentrification and the Artistic Dividend: The Role of the Arts in Neighborhood Change." *Journal of the American Planning Association* 80 (1): 21-35.

Isserman, N., and A. Markusen. 2013. "Shaping the Future through Narrative: the Third Sector, Arts and Culture." *International Regional Science Review* 36 (1): 115-136.

Jackson, M. R., and J. Herranz Jr. 2002. *Culture Counts in Communities: A Framework for Measurement.* Washington, DC: Urban Institute.

Kagan, S., and J. Hahn. 2011. "Creative Cities and (Un)Sustainability: From Creative Class to Sustainable Creative Cities." *Culture and Local Governance* 3 (1): 11-27.

Lloyd, R. D. 2010. *Neo-Bohemia: Art and Commerce in the Postindustrial City*. New York: Routledge.

Markusen, A., and A. Gadwa. 2010. *Creative Placemaking*. Washington, DC: National Endowment for the Arts.

Markusen, A., A. Gadwa, E. Barbour, and W. Beyers. 2011. *California's Arts and Cultural Ecology.* San Francisco, CA: The James Irvine Foundation.

Markusen, A., and A. Johnson. 2006. *Artists' Centers: Evolution and Impact on Careers, Neighborhoods, and Economies.* Minneapolis, MN: Project on Regional and Industrial Economics, University of Minnesota.

Markusen, A., and G. Schrock. 2009. "Consumption-driven Urban Development." *Urban Geography* 30 (4): 344-367.

Markusen, A., G. H. Wassall, D. DeNatale, and R. Cohen. 2008. "Defining the Creative Economy: Industry and Occupational Approaches." *Economic Development Quarterly* 22 (1): 24-45.

Matarasso, F. 2007. "Common Ground: Cultural Action as a Route to Community Development." *Community Development Journal* 42 (4): 449-458.

Nakagawa, S. 2010. "Socially Inclusive Cultural Policy and Arts-based Urban Community Regeneration." *Cities* 27 (Supplement 1): S16-S24.

National Endowment for the Arts [NEA]. 2014. *Our Town: Grant Program Description.* Accessed July 25, 2014. http://arts.gov/grants/apply-grant/grants-organizations/our-town/our-town-grant-program-description.

New York City Department of Cultural Affairs. 2015. *Community Arts Development Program.* Accessed February 20, 2015. http://www.nyc.gov/html/dcla/html/funding/cadp.shtml.

Peck, J. 2005. "Struggling with the Creative Class." *International Journal of Urban and Regional Research* 29 (4): 740-770.

Phillips, R. 2004. "Artful Business: Using the Arts for Community Economic Development." *Community Development Journal* 39 (2): 112-122.

Plaza, B. 2006. "The Return on Investment of the Guggenheim Museum Bilbao." *International Journal of Urban and Regional Research* 30 (2): 452-467.

Ponzini, D., and U. Rossi. 2010. "Becoming a Creative City: The Entrepreneurial Mayor, Network Politics and the Promise of an Urban Renaissance." *Urban Studies* 47 (5): 1037-1057.

Poon, J. P. H., and C. A. Lai. 2008. "Why Are Non-profit Performing Arts Organizations Successful in Mid-sized US Cities?" *Urban Studies* 45 (11): 2273-2289.

Rantisi, N. M. 2004. "The Ascendance of New York Fashion." *International Journal of Urban and Regional Research* 28 (1): 86-106.

Rodríguez, A., E. Martínez, and G. Guenaga. 2001. "Uneven Redevelopment: New Urban Policies and Socio-spatial Fragmentation in Metropolitan Bilbao." *European Urban and Regional Studies* 8 (2): 161-178.

Ryberg, S. R., M. Salling, and G. Soltis. 2013. "Putting Artists on the Map: the Geography of Artists in Cuyahoga County, Ohio." *Journal of Urban Affairs* 35 (2), 219-245.

Sassen, S. 2001. *The Global City: New York, London, Tokyo*, 2nd ed. Princeton, NJ: Princeton University Press.

Scott, A. J. 2006. "Creative Cities: Conceptual Issues and Policy Questions." *Journal of Urban Affairs* 28 (1): 1-17.

Shaw, S., and D. M. Sullivan. 2011. "'White Night': Gentrification, Racial Exclusion, and Perceptions and Participation in the Arts." *City & Community* 10 (3): 241-264.

Silver, D., and T. N. Clark. Forthcoming. *Scenes: Culture and Place*. Chicago: University of Chicago Press.

Silver, D., and D. Miller. (2012). "Contextualizing the Artistic Dividend." *Journal of Urban Affairs* 35 (5): 591-606.

Smit, A. J. 2011. "The Influence of District Visual Quality on Location Decisions of Creative Entrepreneurs." *Journal of the American Planning Association* 77 (2): 167-184.

Smith, N. 1996. *The New Urban Frontier: Gentrification and the Revanchist City.* New York: Routledge.

Stern, M. J., and S. C. Seifert. 2010. "Cultural Clusters: the Implications of Cultural Assets Agglomeration for Neighborhood Revitalization." *Journal of Planning and Education Research* 29 (3): 262-279.

Strom, E. 2010. "Artist Garret as Growth Machine? Local Policy and Artist Housing in US Cities." *Journal of Planning Education and Research* 29 (3): 367-378.

Vicario, L., and P. M. M. Monje. 2003. "Another 'Guggenheim Effect'? The Generation of a Potentially Gentrifiable Neighbourhood in Bilbao." *Urban studies* 40 (12): 2383-2400.

Zimmerman, J. 2008. "From Brew Town to Cool Town: Neoliberalism and the Creative City Development Strategy in Milwaukee." *Cities* 25 (4): 230-242.

Zukin, S. 2010. *Naked City: The Life and Death of Authentic Urban Places.* New York: Oxford University Press.

Tables and Figures

Table 1. NYC Arts Organizations by Annual Budget Size and Audience

Budget Size	Audience		Total
	Local	Broad	
Small ($100,000 or Less)	143[a]	188	331
Medium ($100,001 to $1,000,000)	165	296	461
Large (Over $1,000,000)	83	175[b]	258
Total	391	659	1,050

[a] the best representation of community arts organizations
[b] the best representation of creative city arts organizations

Table 2: Neighborhood Demographic Measures

Urban	Diversity	Affluence	Disadvantage	Young Singles
Pop. Density	% Black	Avg. household income	% Unemployed	% Work at home
Avg. household size	% Hispanic	Avg. rent	% In poverty	% Work in place of residence
Avg. rooms	% Foreign-born	% BA degree or higher	% Single parent household	% Not in labor force
% Rental housing	% Non-English speakers	% Management Occupations		% Unmarried
% Multi-unit housing	% Non-family households			% 25 to 34 year old residents
% Housing pre-1950				
% Walk to work				

Table 3: Industry Measures

Category	NAICS
Creative Industries	
Architectural Services	541310
Landscape Architectural Services	541320
Interior Design Services	541410
Industrial Design Services	541420
Graphic Design Services	541430
Other Specialized Design Services	541490
Commercial Photography	541922
Colleges, Universities, Professional Schools	611310
Finance	
Nondepository Credit Intermediation	522291, 522292, 52293, and 522294
Securities and Commodities Contracts Intermediation and Brokerage	523110, 523120, 523130, and 523140
Financial Investment Activities	523910, 523920, 523930, and 525990
Management of Companies and Enterprises	551111 and 551112
Grantmaking Institutions	813211
High Tech	
Computer Systems Design and Related Services	541511, 541512, 541513, and 541519
Software Publishers	511210
Other Scientific and Technical Consulting	541690
Media	
News Dealers and News Stands	451212
Newspaper Publishers	511110
Periodical Publishers	511120
Radio Networks	515111
Radio Stations	515112
Television Broadcasting	515120
News Syndicates	519110
Advertising Agencies	541810
PR Agencies	541820
Neighborhood Amenities	
Grocery Stores, Specialty Food Stores, and Bakeries	311811, 445110, 445120, 445210, 445220, 445230, 445291, and 445292
Clothing Stores	448110, 448120, 448130, 448140, 448150, and 448190
Shoe Stores	448210
Book Stores	451211
Prerecorded Tape, Compact Disc, and Record Stores	451220
Full Service Restaurants	722110
Snack and Nonalcoholic Beverage Bars	722213
Drinking Places (Alcholic Beverages)	722410
Religious Organizations	813110

Source: 2010 Zip Code Business Patterns

Table 4: Factor Loadings of Neighborhood Demographics Variables

Variable	Disadvantaged	Urbanized	Immigrant	Young Singles
Population density		0.7236		
Avg. household size	0.5463	-0.5686		
Avg. rooms		-0.9156		
% Rental housing	0.544	0.772		
% Multi-unit housing		0.8789		
% Housing pre-1950				0.6842
% Walk to work		0.7418		
% Black	0.6043		-0.5622	
% Hispanic	0.6766			
% Foreign-born			0.739	
% Non-English speakers			0.8935	
% Non-family households		0.7961		
Avg. household income	-0.8129			
Avg. rent	-0.8104			
% BA degree or higher	-0.8306			
% Management occupations	-0.7405			
% Unemployed	0.7861			
% In poverty	0.821	0.436		
% Single parent household	0.9063			
% Public assistance	0.8691			
% Work at home		0.6642		
% Work in place of residence		0.5124		
% Not in labor force	0.4449			-0.7372
Age 25-34				0.6721
% Unmarried		0.5609		0.5153
% Variance	**31%**	**25%**	**10%**	**9%**

Only loadings stronger than |0.4| are shown
KMO: 0.82
Rotation: Normalized Varimax

Table 5: Factor Loadings of Neighborhood Industry Variables

Variable	Creative Economy	Advanced Services	Neighborhood Amenities
Architectural Services	0.9122		
Landscape Architectural Services	0.9258		
Interior Design Services	0.7162	0.4526	
Industrial Design Services	0.9375		
Graphic Design Services	0.9164		
Other Specialized Design Services	0.8033	0.4944	
Commercial Photography	0.9463		
Colleges, Universities and Professional Schools	0.5976		0.5367
Nondepository Credit Intermediation		0.9095	
Securities/Commodity Contracts Intermediation/Brokerage		0.8797	
Financial Investment Activities		0.9361	
Management of Companies and Enterprises		0.9169	
Grantmaking Institutions		0.8716	
Computer Systems Design and Related Services	0.6723	0.6313	
Software Publishers	0.653	0.7293	
Other Scientific and Technical Consulting Services	0.5436	0.733	
Newspaper Publishers	0.5375	0.7004	
Periodical Publishers	0.6404	0.7175	
Radio Networks		0.7124	
Radio Stations		0.793	
Television Broadcasting		0.8387	
News Syndicates		0.913	
Advertising Agencies	0.7971	0.5167	
PR Agencies	0.6385	0.7172	
Grocery Stores, Specialty Food Stores and Bakeries			0.8334
Clothing Stores	0.6988		0.5491
Shoe Stores	0.5314		0.6498
Book Stores	0.7753		0.4398
News Dealers and News Stands	0.5941	0.7273	
Prerecorded Tape, Compact Disc and Record Stores	0.8002		
Full Service Restaurants	0.6576	0.4225	0.5299
Snack and Nonalcoholic Beverage Bars	0.6044	0.533	0.5217
Drinking Places (Alcoholic Beverages)	0.714		0.4172
Religious Organizations			0.776
Variance	**39%**	**37%**	**13%**

Only loadings stronger than |0.4| are shown
KMO: 0.93
Rotation: Normalized Varimax

Table 6: Regression Analysis for New York City Arts Organizations by Audience

Variable	Broad Audience		Local Audience	
	Model 1	Model 2	Model 1	Model 2
Disadvantaged	-3.8577***	-0.5964	-1.5245**	-0.1616
Urbanized	4.8606***	1.1554	2.1941****	0.7345*
Immigrant	-2.1644***	-1.0949**	-1.0230***	-0.6279**
Young Singles	2.2680***	0.7924**	1.1767***	0.6601**
Creative Economy		6.4044***		1.9934***
Advanced Services		3.3117*		2.0244
Neighborhood Amenities		2.9178***		1.0953**
Intercept	3.4868***	3.4868***	2.0582***	2.0582***
R^2	0.4851	0.8144	0.4479	0.6748
N	189	189	189	189

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Table 7: Regression Analysis for New York City Arts Organizations by Annual Budget Size

Variable	Budget <100K		Budget 100K-1M		Budget >1M	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Disadvantaged	-1.2002***	-0.7514**	-2.3692**	-0.0069	-1.8127**	0.0003
Urbanized	1.7718***	1.0279***	3.1518***	0.5566	2.1311***	0.3054
Immigrant	-0.8551***	-0.7996***	-1.4448***	-0.6029*	-0.8944***	-0.3203
Young Singles	0.8953***	0.5631***	1.7614***	0.7207**	0.7880**	0.1686
Creative Economy		1.2690**		4.7099***		2.4189**
Advanced Services		-0.1617		2.4680		3.0300*
Neighborhood Amenities		1.0791**		1.8027***		1.1313**
Intercept	1.7566***	1.7566***	2.4286***	2.4286***	1.3600***	1.3600***
R^2	0.4795	0.6311	0.4326	0.7959	0.3550	0.6996
N	189	189	189	189	189	189

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Table 8: Frequency of NYC Arts Organization Types across Disadvantaged Levels

	Disadvantaged Level				
	Below Average	Average	Above Average	Total	χ^2
Audience Focus					
Local Audience	200 (31%)	150 (45%)	41 (59%)	391 (37%)	
Broad Audience	445 (69%)	186 (55%)	28 (41%)	659 (63%)	33.12***
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	
Budget Size					
Small (100K or Less)	167 (26%)	136 (40%)	28 (41%)	331 (32%)	
Medium (100K to 1M)	280 (43%)	152 (45%)	29 (42%)	461 (44%)	42.82***
Large (Over 1M)	198 (31%)	48 (14%)	12 (17%)	258 (25%)	
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	
Organization Age					
10 Years or Less	127 (20%)	111 (33%)	22 (32%)	260 (25%)	
11 to 25 Years	195 (30%)	111 (33%)	22 (32%)	328 (31%)	
26 to 50 Years	245 (38%)	95 (28%)	21 (30%)	361 (34%)	35.00***
Over 50 Years	78 (12%)	19 (6%)	4 (6%)	101 (10%)	
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	
Has Full-Time Artist Employees					
No	536 (83%)	301 (90%)	63 (91%)	900 (86%)	
Yes	109 (17%)	35 (10%)	6 (9%)	150 (14%)	9.47***
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	
Has Part-Time Artist Employees					
No	474 (73%)	278 (83%)	56 (81%)	808 (77%)	
Yes	171 (27%)	58 (17%)	13 (19%)	242 (23%)	11.39**
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	
Has Full-Time Artist Volunteers					
No	611 (95%)	310 (92%)	66 (96%)	987 (94%)	
Yes	34 (5%)	26 (8%)	3 (4%)	63 (6%)	2.74
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	
Has Part-Time Artist Volunteers					
No	523 (81%)	254 (76%)	49 (71%)	826 (79%)	
Yes	122 (19%)	82 (24%)	20 (29%)	224 (21%)	6.54*
Total	645 (100%)	336 (100%)	69 (100%)	1050 (100%)	

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

Table 9: Frequency of NYC Arts Organization Types across Immigrant Levels

	Below Average	Average	Above Average	Total	χ^2
		Immigrant Level			
Audience Focus					
Local Audience	145 (36%)	208 (37%)	38 (46%)	391 (37%)	
Broad Audience	255 (64%)	359 (63%)	45 (54%)	659 (63%)	2.83
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	
Budget Size					
Small (100K or Less)	122 (31%)	172 (30%)	37 (45%)	331 (32%)	
Medium (100K to 1M)	186 (47%)	239 (42%)	36 (43%)	461 (44%)	13.59**
Large (Over 1M)	92 (23%)	156 (28%)	10 (12%)	258 (25%)	
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	
Organization Age					
10 Years or Less	98 (25%)	128 (23%)	34 (41%)	260 (25%)	
11 to 25 Years	124 (31%)	183 (32%)	21 (25%)	328 (31%)	
26 to 50 Years	131 (33%)	206 (36%)	24 (29%)	361 (34%)	16.96**
Over 50 Years	47 (12%)	50 (9%)	4 (5%)	101 (10%)	
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	
Has Full-Time Artist Employees					
No	341 (85%)	482 (85%)	77 (93%)	900 (86%)	
Yes	59 (15%)	85 (15%)	6 (7%)	150 (14%)	3.68
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	
Has Part-Time Artist Employees					
No	304 (76%)	437 (77%)	67 (81%)	808 (77%)	
Yes	96 (24%)	130 (23%)	16 (19%)	242 (23%)	0.87
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	
Has Full-Time Artist Volunteers					
No	380 (95%)	527 (93%)	80 (96%)	987 (94%)	
Yes	20 (5%)	40 (7%)	3 (4%)	63 (6%)	2.67
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	
Has Part-Time Artist Volunteers					
No	314 (79%)	448 (79%)	64 (77%)	826 (79%)	
Yes	86 (22%)	119 (21%)	19 (23%)	224 (21%)	0.17
Total	400 (100%)	567 (100%)	83 (100%)	1050 (100%)	

* $p<0.05$; ** $p<0.01$; *** $p<0.001$

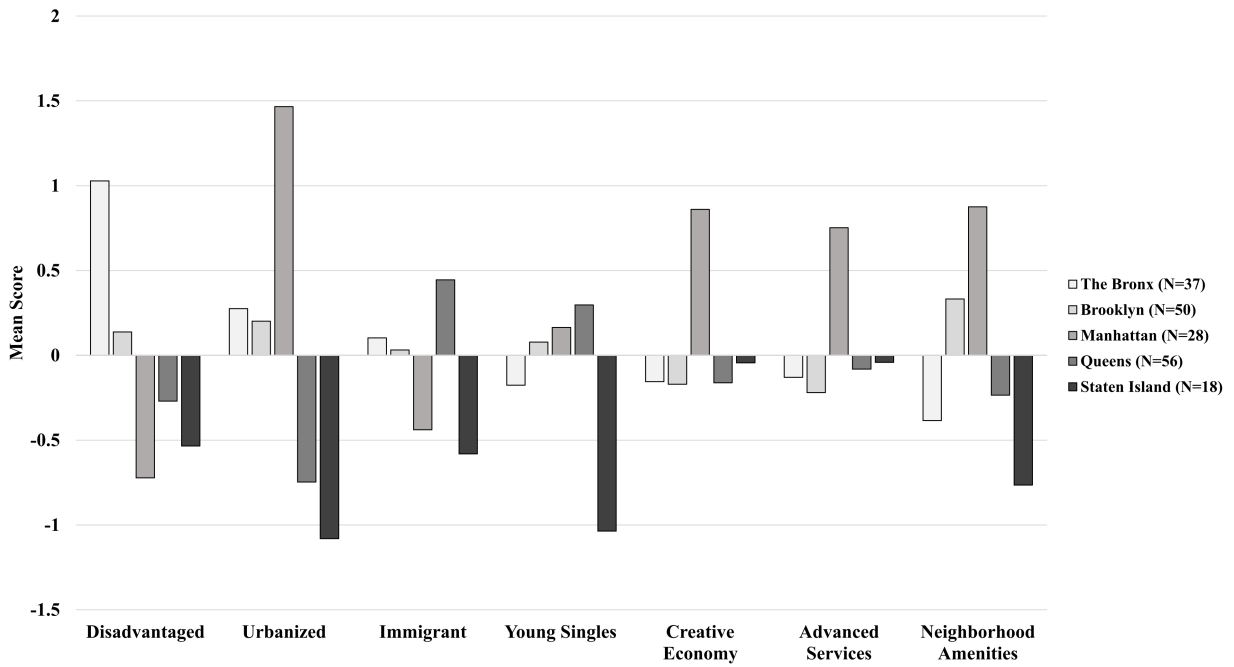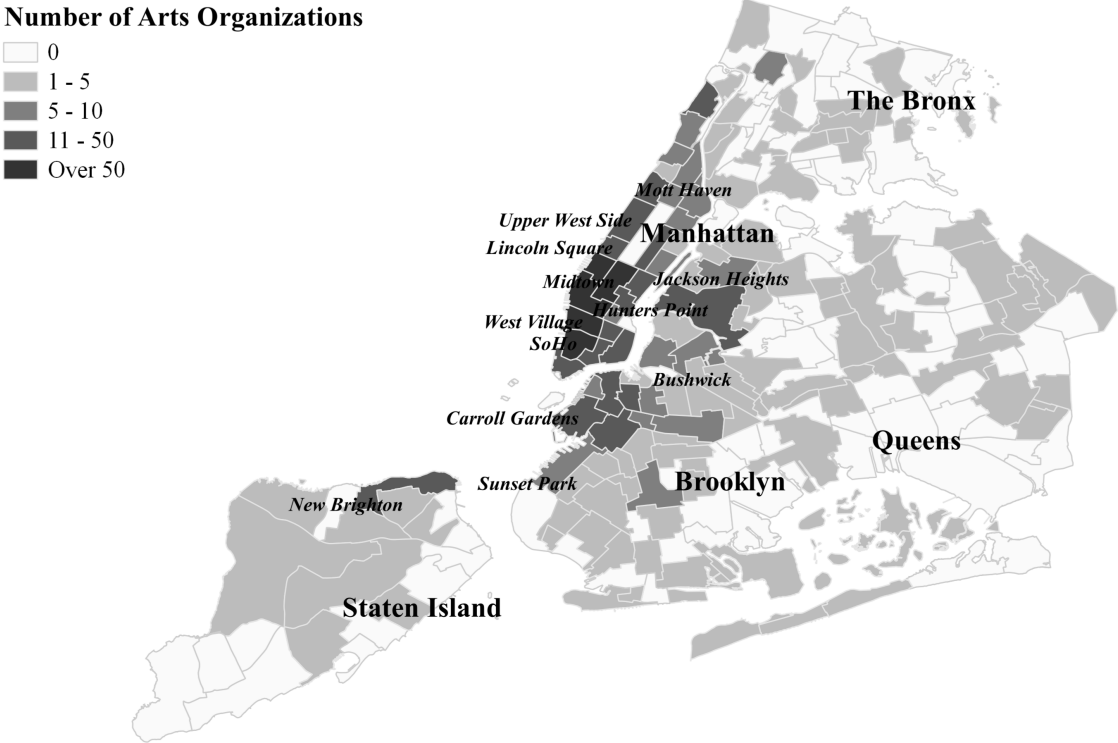**Figure 1: Mean Score of Neighborhood and Industry Factors in Each Borough**

Figure 2: The Location of Arts Organizations in New York City Neighborhoods

Number of Arts Organizations
- 0
- 1 - 5
- 5 - 10
- 11 - 50
- Over 50

[1] The National Center for Charitable Statistics (NCCS), another national database that includes data on arts nonprofits, does not collect information on organizations' constituencies, annual attendance numbers, or the specific financial information available from the CDP. Moreover, as is the case with the NCCS, the CDP provides location information for all organizations in the database, which can be linked to other databases with spatial information such as those maintained by the US Census Bureau. A weakness of the CDP, however, is that it only collects data on organizations that choose to participate. As a result, the CDP lacks the scope and representativeness of NCCS.

[2] We remove 126 organizations that do not have an arts-centered focus. Examples of organizations in this category include the Bronx Zoo, Brooklyn Children's Museum and New York Hall of Science. A full list of non-arts organizations is available upon request. We also remove 7 organizations that do not have usable location information. Two organizations reported data twice for 2010 and we retain the data associated with the earlier fiscal year end date as these entries contain complete data for 12 months. Finally, we remove one organization that does not have any budget information, resulting in the 1,050 organizations included in our analysis.

[3] We chose budget categories based on the distribution of organization budgets in the CDP database. A large number of organizations in NYC (32%) have annual budgets less than $100,000. Thus, we select this as the cutoff to ensure a sufficient number of organizations in each budget category. We test the sensitivity of our regression results to budget size by running additional models where small organizations are classified as those with budgets less than $250,000 as well as with budgets less than $500,000. Regardless of how budgets are defined, results show that small-budget organizations are more likely to avoid disadvantaged and immigrant neighborhoods and that all organizations favor more creative class neighborhoods.

[4] Organizations self-select their audience by choosing one or more of the following categories: international, national, state, regional, local, urban, suburban and rural. As these categories are not mutually exclusive, we assign a single audience category based on the highest scale identified by the organization.

[5] Geocoding is a process that takes a list of addresses and converts them into points on a map using an address locator that provides the coordinates of particular addresses. We construct our own address locator using the 2010 streets TIGER/Line shape file provided by the US Census Bureau. This file provides the location of ranges of street addresses, rather than single addresses. Thus, the location is not exactly accurate, but is sufficient for our purpose. For organizations that did not have usable address information in the CDP, we retrieved address data from the organization's website or other online sources such as http://www.guidestar.org/, http://www.idealist.org/ and Google Maps. We successfully geocode 1,050 (99%) out of the 1,057 organizations we start with.

[6] Like any estimation method, this process is not without its concerns. The weighting method assumes industry establishments are evenly distributed throughout the zip code as opposed to clustered in certain areas. With that said, the results indicate significant relationships between organizational and industry data consistent with the literature. The regression results suggest that the estimation process was able to capture significant levels of neighborhood-level industry establishments.

[7] We made an effort to avoid overlap between independent and dependent variables in future regression models. Specifically, we do not include industries with obvious overlap with the CDP data such as museums, theatre companies and several others. We also reviewed the correlation coefficients of the total number of CDP organizations and industry establishments and removed industries with coefficients over 0.80. Thus, the industries we include are sufficiently different from the CDP arts organizations to warrant their inclusion in the factor analysis and regression models.

[8] Since factor scores are standardized sums, they contain a mean of 0 and a standard deviation of 1. Thus, the units for each factor score in our regression models are standard deviations.

[9] Although virtually all neighborhoods in NYC contain strong levels of urbanization related to other parts of the country, the highly urbanized factor indicates an especially strong degree of urbanization relative to other NYC neighborhoods.

[10] There may be effects attributed to being within a specific borough in NYC that our regression model does not capture. To test this we include dummy variables for each borough (using Manhattan as the base) in each of our regression models. In all cases, the dummy variables do not cause drastic changes in the coefficients of the neighborhood measures, do not significantly improve the model in terms of the R^2, and are largely insignificant. Thus, we conclude we are sufficiently controlling for any borough effects with the variables already included in our model and do not include borough dummy variables.

[11] Similar to the budget size and audience base categories, the age categories are selected to best fit the distribution of the data. The employee and volunteer categories are 0/1 indicators. Thus, while an organization can only be in one of the age categories, it can be in multiple employment and volunteer categories.

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[12] We also aggregate a smaller sample of arts organizations (N=308) founded in the year 2000 or later. We compare our main regression results reported here with the results using variables created from this smaller sample to determine if organization age impacts our results. While the power of the regression results is slightly reduced, reflecting the smaller sample of arts organizations, the results are virtually unchanged. Thus, our results are not reflecting the possibility that arts organizations may locate in disadvantaged or immigrant neighborhoods that change over time into creative class locations.