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Social Networks and Inequality in New York City's Cultural Sector

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This paper was made possible by an important dataset maintained by the NYC Department of Cultural Affairs (DCLA) and assembled for SIAP by DCLA staff. The Department's broadest funding program, the Cultural Development Fund (CDF), requires that its roughly 1,000 grantees submit the names and locations of their program sites during the previous year. SIAP used the 2015 listing of approximately 8,000 sites citywide for this analysis. The Culture and Social Wellbeing in New York City project was undertaken by SIAP in collaboration with Reinvestment Fund, a community development financial institution, with support by the Surdna Foundation, the NYC Cultural Agenda Fund in the New York Community Trust, and the University of Pennsylvania. The research was conducted between 2014 and 2017.

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Social Networks and Inequality in New York City's Cultural Sector

Abstract

This paper uses NYC Department of Cultural Affairs data on grantee program sites to address questions about structural inequality associated with the geography of cultural resources across New York City. The analysis supports and expands SIAP findings documented in its March 2017 report about the geography of culture in New York City. On the one hand, the distribution of program sites across the City is consistent with that of other cultural assets. Program sites tend to reinforce rather than mitigate the shortfall of cultural opportunities in the majority of lower-income neighborhoods. At the same time, it demonstrates that *civic clusters*—low-income neighborhoods with relatively large numbers of cultural assets—have stronger and more diverse institutional networks. This paper suggests that improving social wellbeing in lower-income neighborhoods requires strengthening both *local* and *regional* networks.

Disciplines

Arts and Humanities | Social Welfare | Sociology | Urban Studies and Planning

Comments

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**A SIAP Working Paper:
Social Networks and Inequality in New York City's Cultural Sector**

Mark J. Stern

**University of Pennsylvania
Social Impact of the Arts Project**

October 2017

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Social capital has been one of the most important concepts in the sociological literature over the past generation. For the most part, this literature has viewed social capital—the human resources available to individuals and a broader social network—as potentially mitigating the effects of social inequality. One’s social connections and the material and non-material resources they can access might compensate for the structural forces that disadvantage individuals and the communities in which they live. Other scholars have challenged this *inclusive* conceptualization of social capital. They have argued that the distribution of social capital is consistent with that of financial and human capital. Social capital simply lets the rich get richer. Employing a more *exclusive* conceptualization of social capital, these scholars have focused on how the usefulness of social capital is more readily accessible by already-privileged individuals and groups.

In our work over the past two decades, we have found instances that support both of these perspectives. Certainly, looking at New York City as a whole, we can see that the distribution of cultural assets is strongly correlated with the geography of income and wealth. But at the same time, when we focus on the lower-income neighborhoods of a city, we’ve found that the presence of cultural resources can mitigate the negative effects of structural inequality, leading to improved outcomes with respect to health, education, and personal security.

In SIAP’s March 2017 report,¹ we paid particular attention to a set of lower-income neighborhoods with relatively high numbers of cultural assets—what we call “civic clusters”. These neighborhoods are important because they demonstrate that the correlation of income and cultural assets is not inevitable. Moreover, civic clusters have a disproportionate role in demonstrating the unique association between cultural assets and better social wellbeing in lower-income neighborhoods.

Throughout our research, one data issue has dogged these arguments about culture’s relationship to social inequality. We typically identify a cultural organization’s neighborhood as the place where its offices are located. Yet, is this accurate? Would it not be more valid to use the location of an organization’s programs, rather than its administrative office, as our yardstick for its spatial presence?

¹ Mark J. Stern and Susan C. Seifert (March 2017). *The Social Wellbeing of New York City’s Neighborhoods: The Contribution of Culture and the Arts*. Philadelphia: University of Pennsylvania, Social Impact of the Arts Project. http://repository.upenn.edu/siap_culture_nyc/

This data question has implications for our understanding of culture and inequality. Could it be that, while many cultural organizations are based in privileged sections of the city, most of their programming is focused on more modest neighborhoods?

To address this question, this paper takes advantage of an important dataset maintained by the New York City Department of Cultural Affairs (DCLA). The Department's broadest funding program, the Cultural Development Fund (CDF), requires that its roughly one thousand grantees submit the names and locations of their program sites during the previous year. This paper uses the 2015 listing of approximately eight thousand sites citywide to assess how their geography changes our perspective on culture and inequality.

This paper seeks to answer two questions. First, across the entire city, does the distribution of program sites alter our conclusions about the unequal distribution of cultural resources that SIAP has previously documented? Second, if we focus on lower-income neighborhoods, do program sites reinforce the distinction between civic clusters and other lower-income neighborhoods visible in other cultural assets data?

The answers to these questions support and expand our previous findings about the geography of culture in New York City. On the one hand, the distribution of program sites across the entire city is more or less consistent with that of other cultural assets. Program sites tend to reinforce rather than alleviate the shortfall of cultural opportunities in the majority of lower-income neighborhoods. At the same time, the study broadens our understanding of the cultural life of civic clusters, where the pattern of institutional linkages is distinct from that of other lower-income neighborhoods. In lower-income neighborhoods, program sites are typically schools and libraries that host a few events a year. In civic clusters, by contrast, program sites tend to be cultural groups and have more relationships with peer institutions both within their neighborhood and across the city. In other words, an analysis of program sites allows us to better gauge the richness of the cultural ecology of civic clusters.

Data and methods

This analysis is based on the New York City Department of Cultural Affairs' Cultural Development Fund (CDF) database of program sites for the grants awarded during the 2015 grant cycle. This database consists of the names and addresses of CDF grantees and the various program sites they reported in their final report, submitted during 2016. SIAP linked this database to that of the CDF applications and final reports for the grantees. Next we developed codes for the type of organization represented by each program site.² Finally, we aggregated the program site data to

² The data on program sites was supplied by CDF grantees. We encountered two data problems that we've been able to only partially correct. First, different names were often used for the same program site. We've corrected these when we could but have undoubtedly missed many. As a result, our analysis probably over-counts the number of sites and undercounts the frequency with which those sites were used by different grantees. Second, the dataset had no classification of program sites by

Neighborhood Tabulation Area, which we then linked to other elements of the SIAP database for New York City, including data from the American Community Survey and data from our 10 dimensions of social wellbeing.

We used three different approaches to data analysis. First, we used statistical analysis of the dataset on individual connections between grantees and program sites to assess the types of relationships they represented and the influence of grantee characteristics on those relationships. Second, we created a spatial dataset identifying these relationships by Neighborhood Tabulation Area (NTAs)³ and census block group to examine how neighborhood characteristics were associated with the concentration of links between grantees and their program sites. Finally, we used a network analysis program (Pajek) to visualize the networks created by these relationships.

As in our earlier work, we paid particular attention to lower-income sections of the city, which we defined as areas in the bottom forty percent of the (per capita) income distribution. These neighborhoods are pivotal in two ways. First, they are the sections of the city most likely to have low concentrations of cultural resources. Second, it is the exception to this generalization—civic clusters with higher concentrations of resources—that is associated with the connection of cultural assets and social wellbeing we explored in our earlier report.

Characteristics of Cultural Development Fund grantees and program sites

Approximately one thousand cultural organizations received grants from the Department of Cultural Affairs as part of the CDF 2015 grant cycle. When the grantees submitted their final reports in early 2016, they reported approximately 8,250 program sites that they had used during the year.

The following map represents both CDF grantees' primary locations and their program sites.

type. We've addressed this by going through the list to develop a coding scheme for type of site. However, with limited data on the nature of program sites, our final codes have significant uncertainty. Our classification of program site types differentiated between cultural organizations on SIAP's inventory of nonprofit cultural organizations and "non-SIAP" cultural sites that are either informal or for-profit cultural providers.

³ Neighborhood Tabulation Area (NTA) boundaries, set by the NYC Department of City Planning, use whole census tracts from the 2010 Census as building blocks. These aggregations of census tracts (as 195 NTAs) are subsets of New York City's 55 Public Use Microdata Areas (PUMAs).

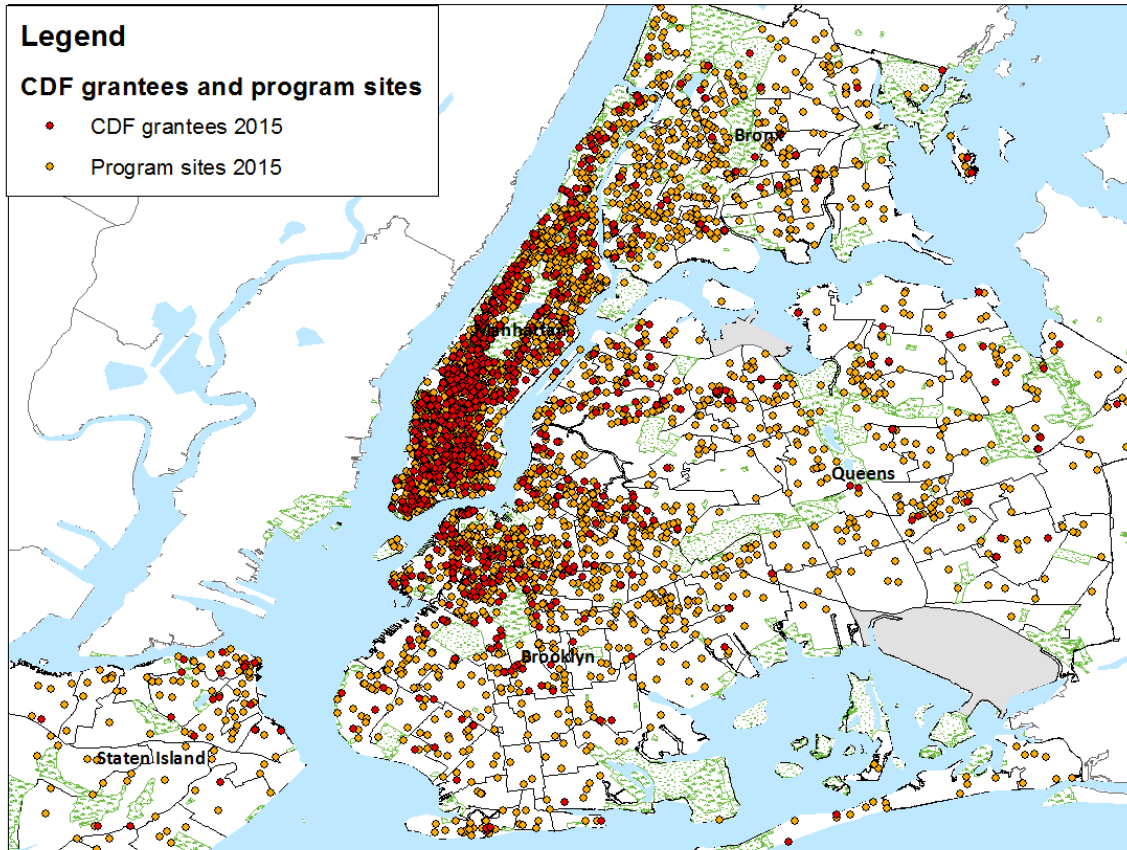


Figure 1. Cultural Development Fund grantees and program sites, 2015
Source: SIAP calculation using NYC Department of Cultural Affairs data, 2017

Of course, the dataset is not simply a set of grantee organizations and program sites but also includes the links between them. We've used Pajek, a social network visualization program, to represent the relationship between grantees and program sites superimposed on a map of the city. Representing all six thousand plus links, to no surprise, creates a map that's difficult to read. Still, the diagram below gives a sense of the density of the networks represented by one cycle of Cultural Development Fund grants.⁴

⁴ We created the network maps presented in this paper by creating network diagrams that incorporate the locations of grantees and program sites and then superimposing them on a base map of the city. This method is still under development and, as a result, often the location of grantees and sites is approximate.

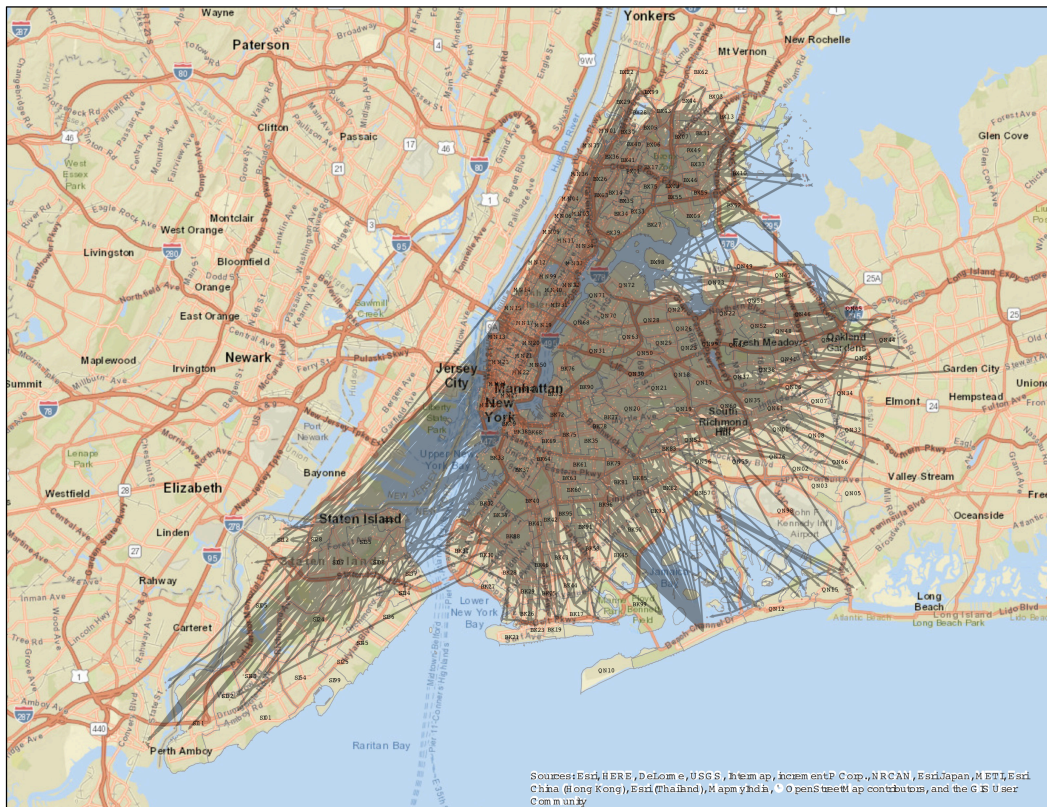


Figure 2. Cultural Development Fund grantees and program sites, network diagram, 2015
Source: SIAP 2017

Types of grantee organizations and program site links

As noted, the original database included over eight thousand entries distributed across one thousand grantees. However, if we eliminate duplicate entries (multiple links between the same grantee and program site), the database identifies nearly seven thousand (6,966) unique links between grantees and program sites distributed across 860 grantee organizations.

Grantees, in their applications, identified their organization by type. The most common types were performing groups (46 percent), art services organizations (18 percent), and non-classified (11 percent).

Type of grantee organization	Total number	Percent of grantees
Performing	395	45.9
Arts Services	152	17.7
Other	96	11.2
Presenter	60	7.0
Museum	55	6.4
Social and/or Multi-Service	48	5.6
Educational Institution	19	2.2
Gallery	18	2.1
Historical Society	11	1.3
Religious	3	.3
Botanical	1	.1
Total	860	100.0

Table 1. Cultural Development Fund grantees by organization type, 2015
Source: SIAP 2017

Among grantees, performing arts groups and arts services organizations had the largest number of links to program sites, accounting for over 60 percent of all unique relationships. In terms of number of links per grantee—if we leave aside the one botanical organization (Horticultural Society of New York)—educational institutions, historical societies, and unclassified grantees had the largest average number of links to grantees; while galleries, religious institutions, and museums had the fewest.

Type of grantee organization	Average links to program sites per grantee	Total links to program sites	Percent of all links	Number of grantees
Performing	6.68	2638	37.9%	395
Arts Services	11.26	1712	24.6%	152
Other (unclassified)	10.74	1031	14.8%	96
Presenter	6.22	373	5.4%	60
Social Service and/or Multi-Service	6.81	327	4.7%	48
Educational Institution	17	323	4.6%	19
Museum	5.49	302	4.3%	55
Historical Society	13.64	150	2.2%	11
Gallery	3.11	56	0.8%	18
Botanical	35	35	0.5%	1
Religious	1	3	0.0%	3
Total	8.1	6966	100.0%	860

Table 2. Number of links to program sites, by type of Cultural Development Fund grantee organization, 2015. Source: SIAP 2017

Types of program sites and links to grantees

The database identifies more than four thousand, six hundred (4,646) unique program sites. Schools and other cultural sites (either those on the SIAP nonprofit inventory or not) represented nearly two thirds of the total, with outdoor settings and libraries the next most common settings. These four types of settings represented a disproportionate share of all of the links in the database, with schools and cultural settings alone representing more the 70 percent of all links.

The low number of links associated with several types of settings is surprising. We had expected universities and eating establishments to represent a significant proportion of the settings, but for each their numbers hovered just below two percent of all links. Senior centers, social service settings, and community centers were even less common sites, each representing just over one percent of all links.

Type of program site	Average links per grantee	Total links to grantees	Percent of links	Number of program sites	Percent of program sites
School	1.33	2,339	33.6%	1,753	37.7%
SIAP cultural inventory	2.33	2,002	28.7%	860	18.5%
Other cultural settings	1.46	712	10.2%	488	10.5%
Outdoors, public space	1.14	284	4.1%	250	5.4%
Library	1.47	225	3.2%	153	3.3%
Religious institution	1.28	192	2.8%	150	3.2%
University	1.79	131	1.9%	73	1.6%
Eating establishment	1.17	121	1.7%	103	2.2%
Other commercial	1.11	117	1.7%	105	2.3%
Event space	1.28	96	1.4%	75	1.6%
Senior center	1.23	95	1.4%	77	1.7%
Social service	1.11	90	1.3%	81	1.7%
Community center	1.53	72	1.0%	47	1.0%
Youth program	1.28	60	0.9%	47	1.0%
Private residence	1.02	59	0.8%	58	1.2%
Senior housing	1.29	54	0.8%	42	0.9%
Health	1.09	47	0.7%	43	0.9%
Other, unknown	1.11	41	0.6%	37	0.8%
Professional service	1.05	40	0.6%	38	0.8%
Community services	1.09	35	0.5%	32	0.7%
Government	1.04	28	0.4%	27	0.6%
Affordable housing	1.13	26	0.4%	23	0.5%
Media	1.35	23	0.3%	17	0.4%
Advocacy	1.05	21	0.3%	20	0.4%
Youth services	1	20	0.3%	20	0.4%
Social club	1.67	15	0.2%	9	0.2%
Correctional facility	1.38	11	0.2%	8	0.2%
Labor	1	7	0.1%	7	0.2%
Foundation	1	3	0.0%	3	0.1%
Total	1.5	6,966	100.0%	4,646	100.0%

Table 3. Type of program site and links to Cultural Development Fund grantees, 2015
Source: SIAP 2017

Certain types of grantees were more likely to run programs at certain types of sites. For example, arts services grantees were more likely to seek out commercial establishments and non-SIAP inventory cultural settings (many of which were commercial cultural sites). Educational institution grantees, unsurprisingly, forged more relationships with schools. Museums were more likely to form relationships with SIAP inventory cultural groups and libraries, while performing organizations were often tied with religious institutions (probably because of the suitability of religious buildings for staging performances). Social and multi-service grantees, again as one would expect, more often had relationships with community service sites.

Overall, however, there was no strong relationship between type of grantee and type of program site. Rather, it appears that factors other than type of setting are stronger influences on the existence of a link with a grantee organization.

Geography of Cultural Development Fund grantees and program sites

Location of grantees and program sites

Figures 2 and 3 illustrate the spatial concentration of grantee administrative offices as well as other program sites across the five boroughs. We can gain a more precise sense of the geographic distribution of grantees and program sites if we aggregate the number of each within a quarter mile (walking distance) of the city's block groups.

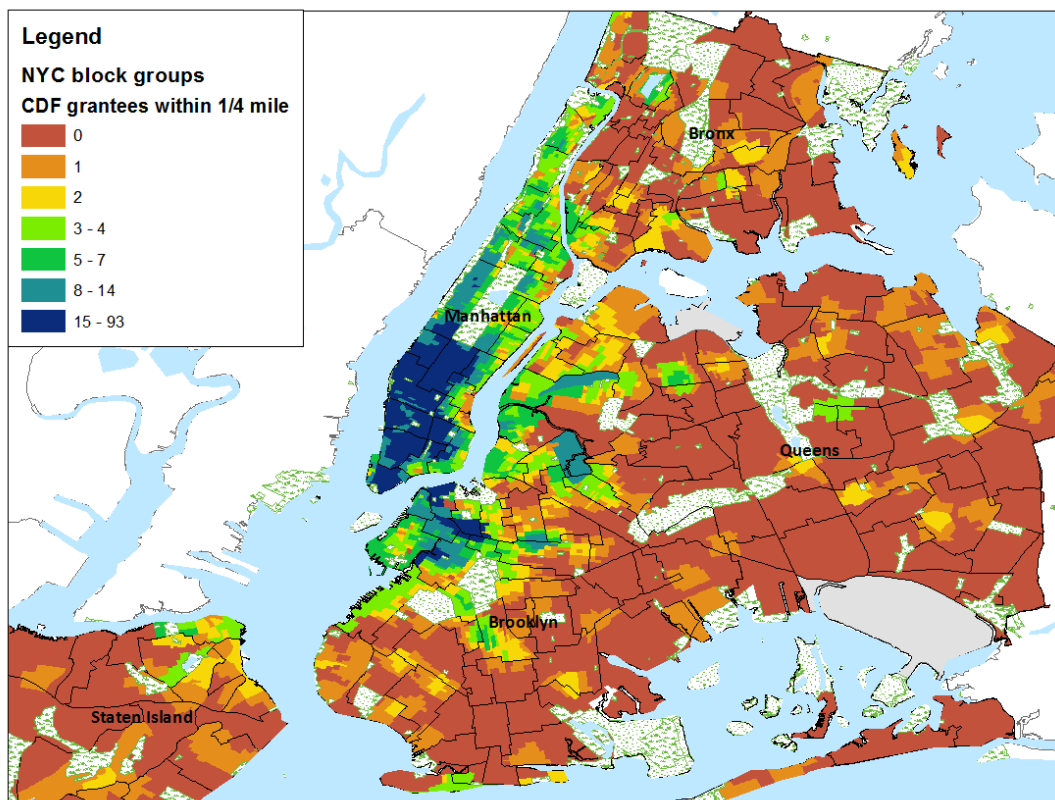


Figure 2. Number of Cultural Development Fund grantees within one-quarter mile, NYC block groups. Source: SIAP 2017 (see Figure 1)

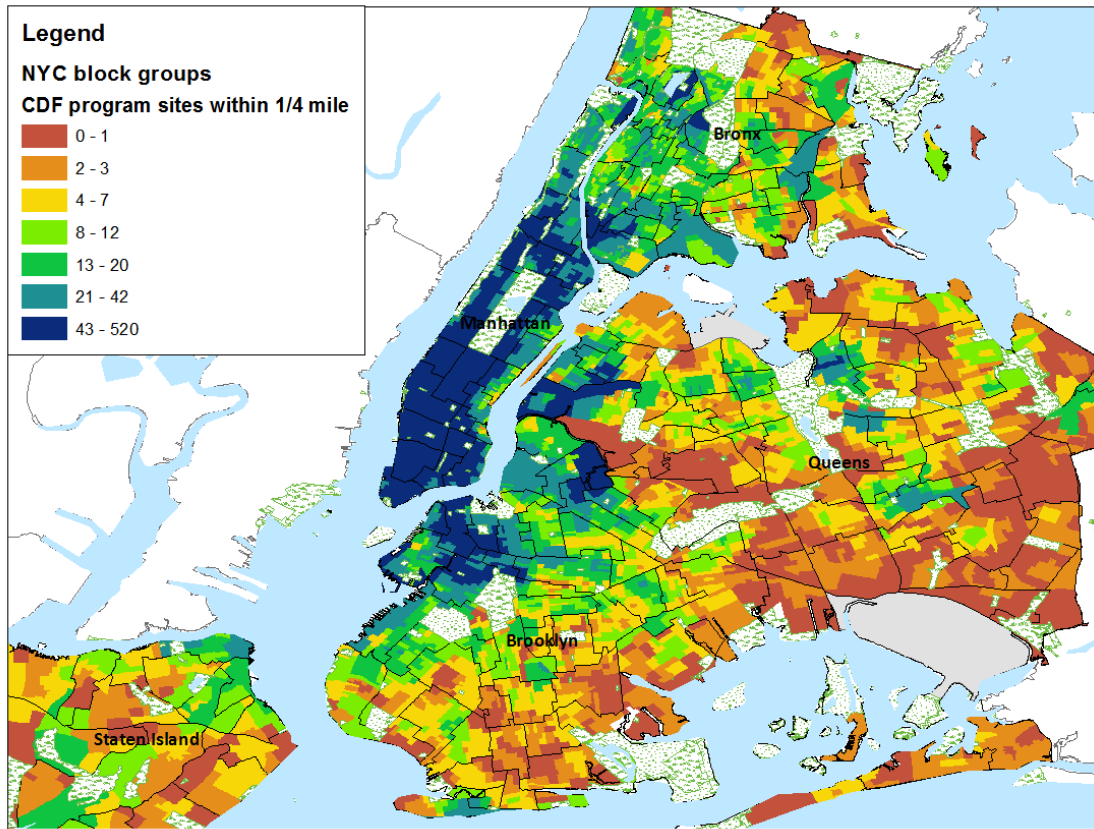


Figure 3. Number of Cultural Development Fund program sites within one-quarter mile, NYC block groups. Source: SIAP 2017 (see Figure 1)

The two maps above have generally the same outline. Manhattan has a very high concentration of both grantees and program sites; while sections of Brooklyn and Queens near the East River—including downtown Brooklyn, East Williamsburg, and Long Island City—also have high concentrations of each type of resource.

The maps differ the most at the opposite end of the scale—among sections of the city with no grantees or program sites. Large sections of the Bronx, Queens, Brooklyn, and Staten Island have at most one CDF grantee located within a quarter mile of block groups, while the sections of these boroughs with one or no program sites are much smaller. Of course, with more than five times as many program sites as grantees, the divergence of the two maps is not altogether surprising.

The geographic analysis is borne out when we compare the association of several measures of economic status with the SIAP nonprofit cultural organization inventory⁵, the concentration of CDF grantees, and the concentration of CDF program sites. The relationship of program sites to economic status is quite strong,

⁵ The SIAP nonprofit inventory consists of approximately 4,700 nonprofit cultural providers across the five boroughs. For a description of the inventory, see Stern and Seifert (March 2017).

although a bit less strong than the association for all nonprofits. Using per capita income, for example, the eta-square of our nonprofit inventory is .29, while the figures for CDF grantees and for program sites are both .20. Using SIAP’s economic wellbeing index⁶, the comparable figures are .38 for all nonprofits, .28 for CDF grantees and .35 for program sites. In other words, CDF program sites are actually more strongly correlated with economic status than CDF grantees.

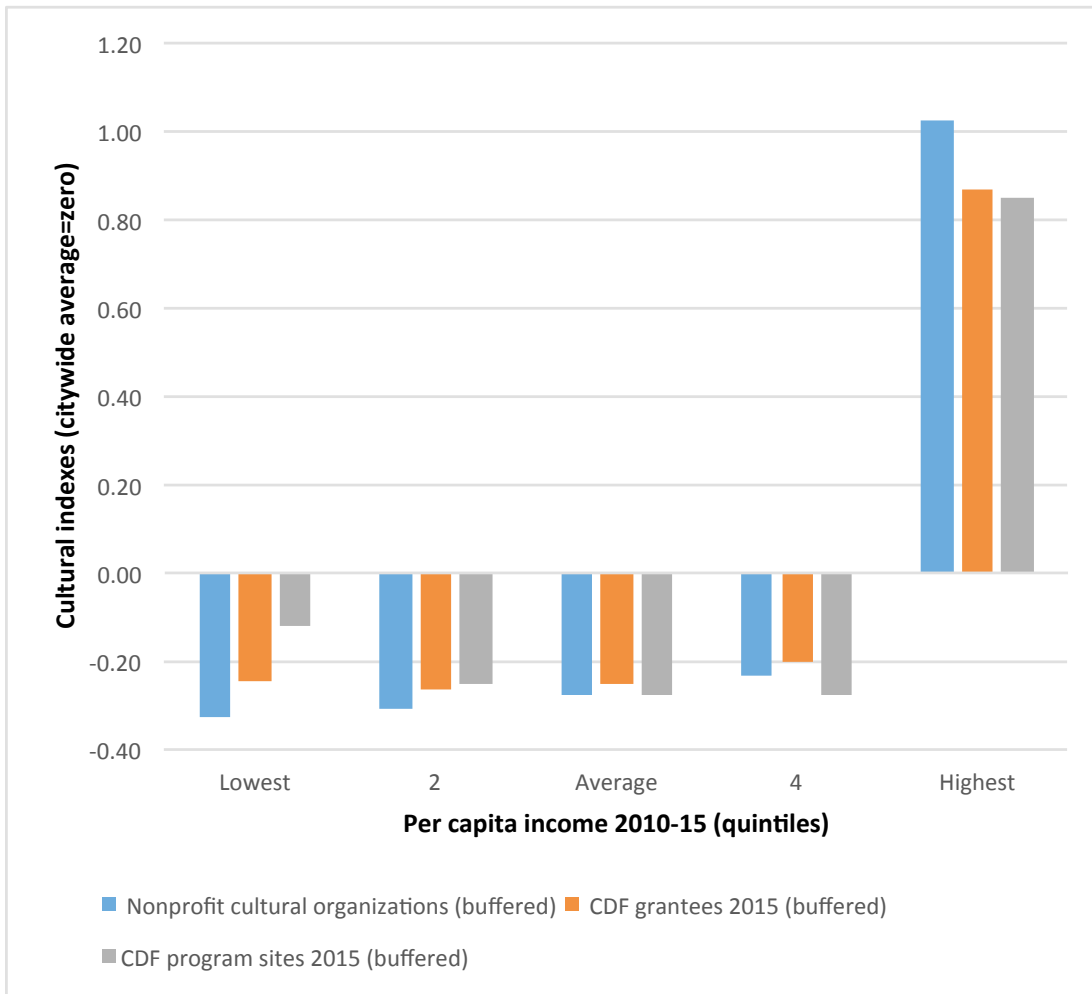


Figure 4. Number of nonprofit cultural organizations, CDF grantees, and CDF program sites within a quarter mile by per capita income 2011-15 (quintiles), NYC block groups
Source: SIAP 2017

⁶ SIAP’s economic wellbeing index includes data on average income, poverty, educational attainment, and labor force status. See Stern and Seifert (March 2017).

The neighborhood context of grantee networks

Here we examine the links between CDF grantees and program sites from the standpoint of the city’s neighborhoods, using the Neighborhood Tabulation Area (NTA) as our definition of neighborhoods.

As the preceding analysis would lead us to expect, Manhattan neighborhoods dominate the list of the concentration of links. Midtown and downtown Manhattan neighborhoods dominate the list of institutional connections, with only a few upper Manhattan and Brooklyn neighborhoods making the list.

Neighborhood Tabulation Area (NTA) of grantee	Borough	Linked to program site in same NTA	Linked to program site in same borough	Total links to program sites
Midtown-Midtown South	Manhattan	180	348	418
Hudson Yards-Chelsea-Flatiron-Union Square	Manhattan	75	281	330
West Village	Manhattan	43	265	321
SoHo-TriBeCa-Civic Center-Little Italy	Manhattan	52	168	216
Lincoln Square	Manhattan	31	155	196
Upper West Side	Manhattan	33	159	191
East Village	Manhattan	56	147	187
Clinton	Manhattan	44	144	175
Lower East Side	Manhattan	40	141	166
DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill	Brooklyn	27	76	140
Battery Park City-Lower Manhattan	Manhattan	53	112	139
Fort Greene	Brooklyn	21	60	137
Upper East Side-Carnegie Hill	Manhattan	27	110	133
Chinatown	Manhattan	19	108	132
Park Slope-Gowanus	Brooklyn	29	55	109

Table 4. Number of institutional links by location of Cultural Development Fund grantee, 2015. Source: SIAP 2017

The distribution of program sites across the NTAs had a similar pattern with Manhattan dominating the list. However, the borough's dominance was not as striking. Several NTAs in Brooklyn, and Queens were included on the list.

Neighborhood Tabulation Area (NTA) of program site	Borough	Linked to grantee in same NTA	Linked to grantee in same borough	Total links to grantee
Midtown-Midtown South	Manhattan	180	690	1119
Hudson Yards-Chelsea-Flatiron-Union Square	Manhattan	75	237	404
Clinton	Manhattan	44	225	339
SoHo-TriBeCa-Civic Center-Little Italy	Manhattan	52	197	304
Battery Park City-Lower Manhattan	Manhattan	53	179	293
East Village	Manhattan	56	196	281
Lincoln Square	Manhattan	31	158	277
Upper West Side	Manhattan	33	142	275
West Village	Manhattan	43	142	223
Park Slope-Gowanus	Brooklyn	29	123	214
DUMBO-Vinegar Hill-Downtown Brooklyn-Boerum Hill	Brooklyn	27	105	209
Fort Greene	Brooklyn	21	99	208
Upper East Side-Carnegie Hill	Manhattan	27	142	188
Central Harlem North-Polo Grounds	Manhattan	19	101	140
Lower East Side	Manhattan	40	99	140
Turtle Bay-East Midtown	Manhattan	7	61	133
Morningside Heights	Manhattan	13	92	111
Hunters Point-Sunnyside-West Maspeth	Queens	11	18	90

Table 5. Number of institutional links by location of program site, 2015
Source: SIAP 2017

As shown by the earlier block group-level data, program sites and grantees were most likely to be present in higher-income neighborhoods. As the following scatterplots illustrate, the relationship to per capita income was actually stronger for program sites (r-square of .31) than it was to grantees (r-square of .21).

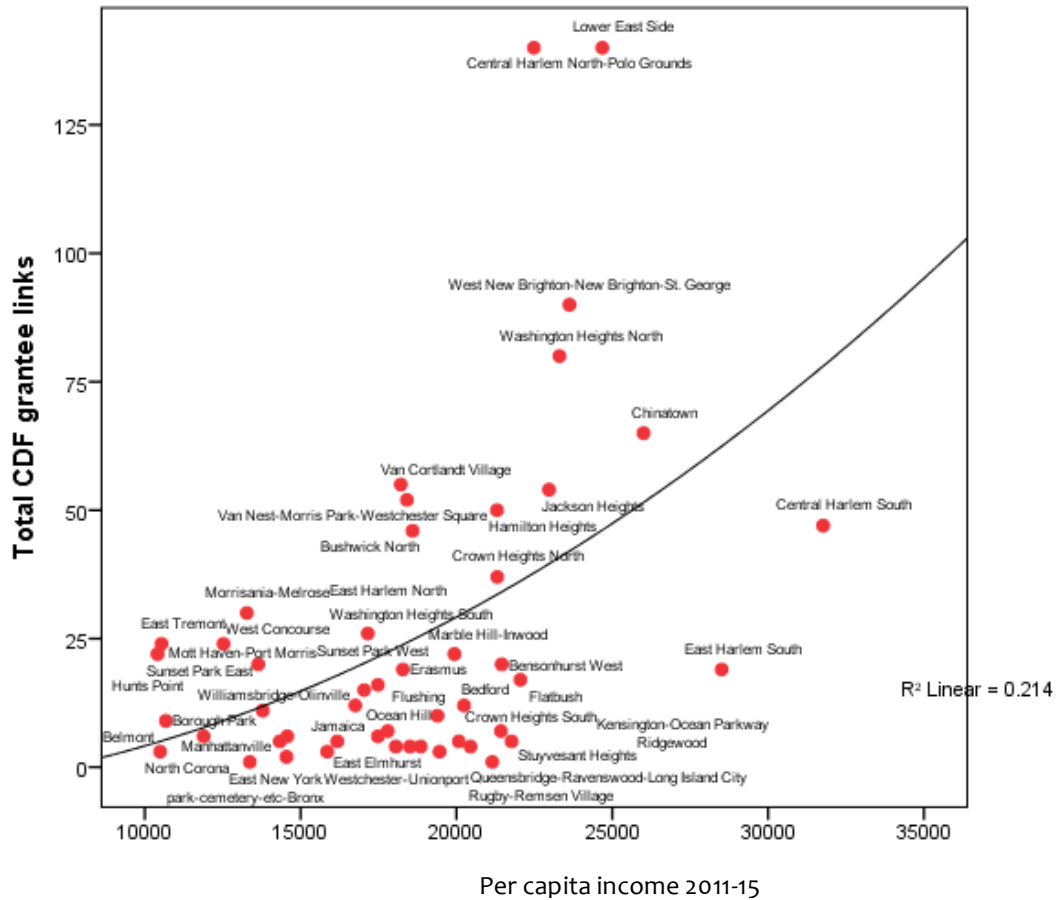


Figure 5. Scatterplot of total number of CDF grantee institutional links (2015) and per capita income of grantees’ neighborhood, NYC Neighborhood Tabulation Areas

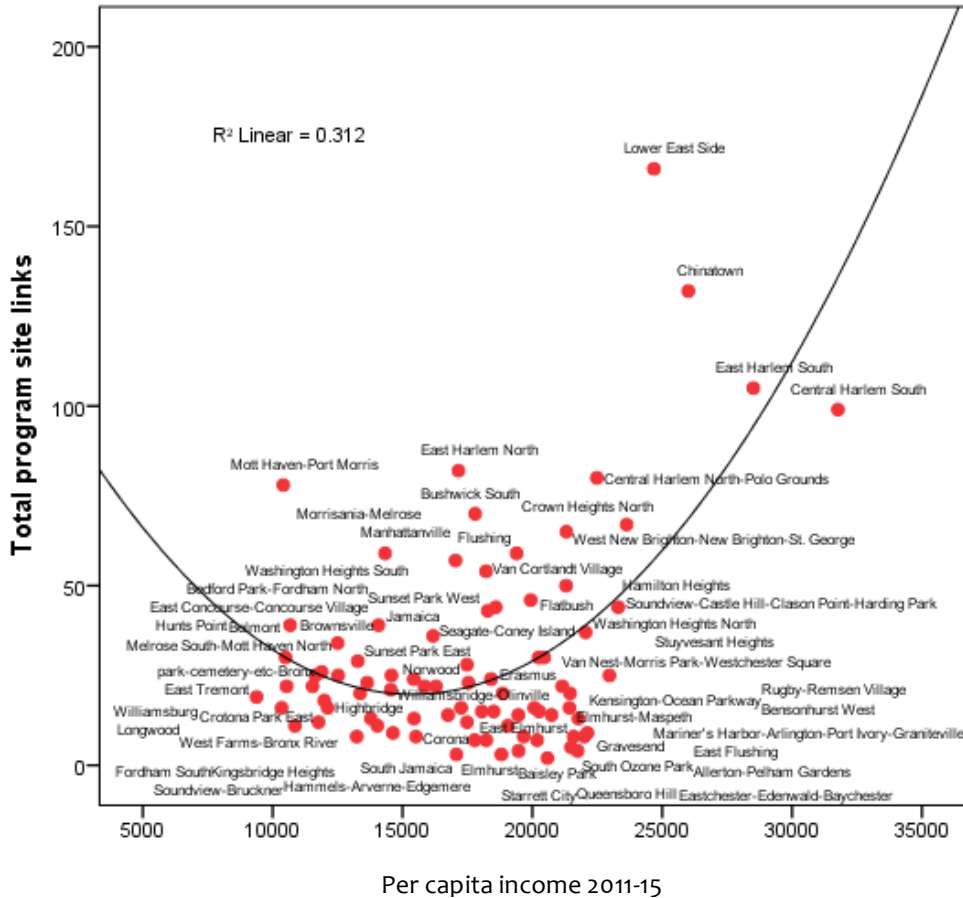


Figure 6. Scatterplot of number of CDF program site institutional links 2015 and per capita income of program sites’ neighborhood, NYC Neighborhood Tabulation Areas

If we widen our net to examine other potential correlates of the concentration of institutional links, we find that socio-economic status is the most consistent influence. A linear regression analysis of number of grantee links in an NTA—that included per capital income (PCI), percent renter-occupied units, and the percentages of young adults, nonfamily households, poverty, and foreign-born—found that only the first two variables had a significant influence on the number of links. The final model explains 39 percent of the variance in the number of links. The fact that both PCI and renter percent were positively related to number of links (although they are negatively correlated with each other) conforms with a pattern we’ve found in other cities where high-income renter neighborhoods have particularly high concentrations of cultural assets.

	B	Beta	t	Sig.	Correlations		
					Zero-order	Partial	Part
(Constant)	-148.072	38.938	-3.803	.000			
Per capita income 2011-15	.003	.000	8.539	.000	.597	.631	.628
Percent renter occupied units	1.413	.476	2.968	.004	.096	.272	.218

Table 6. Regression analysis of total number of links to CDF grantees by per capita income and percent renter occupied units, NYC Neighborhood Tabulation Areas

A similar analysis using the concentration of links for program sites explained 60 percent of the variance. The final model included per capita income, poverty rate, percent of nonfamily households, and percent of young adults in the neighborhood. As with the grantee neighborhoods, per capita income remained the strongest influence.

	B	Beta	t	Sig.	Correlations		
					Zero-order	Partial	Part
(Constant)	-112.407		-8.840	.000			
Percent nonfamily households	.793	.181	2.202	.029	.666	.159	.104
Per capita income 2011-15	.002	.631	7.814	.000	.633	.497	.368
Poverty rate	1.487	.286	4.535	.000	-.041	.316	.214
Percent of population 18-34 years of age	1.488	.161	2.480	.014	.490	.179	.117

Table 7. Regression analysis of total number of links to program sites by per capita income, poverty rate, percent of nonfamily households, and percent of young adults, NYC Neighborhood Tabulation Areas

Relationship of institutional networks to neighborhood wellbeing

How might the geography of the institutional networks discussed in this paper influence neighborhood wellbeing? In previous research, we have noted that many community cultural organizations maintain connections both within their immediate neighborhood and across the entire city. This pattern conforms to the *bonding* and *bridging* social capital distinction made by Robert Putnam and others.

A pattern of local and regional ties can provide benefits for both the organizations and their neighborhoods. Cultural organizations in lower-income neighborhoods rarely can count on earned income from local residents to support their operations. In addition to philanthropic support, they often rely on a regional participation base—what we have called the *regional audience for community arts*—as a source of support.⁷

A widened participation network benefits the neighborhood as well. First, cultural participation promotes broader civic engagement, which can generate bonding social capital. Second, regional cultural participants help break down the social isolation that characterizes so many lower-income neighborhoods, promoting interactions that can have a spillover on social wellbeing. These two sets of interactions—bonding and bridging social capital—may explain the association of cultural assets with better social outcomes around health, schooling, and personal security that we've documented in New York City and Philadelphia.

Civic clusters v. other lower-income neighborhoods

The presence of dense social connections is particularly relevant to the analysis in our earlier report of *civic clusters*. These lower-income neighborhoods with relatively high concentrations of cultural assets are largely responsible for our findings that show the strongest relationship of culture to social wellbeing. Generally, we would expect the civic cluster neighborhoods to have higher numbers of CDF grantees and program sites as well as more links between venues and grantees.

The data support both these expectations. Compared to lower-income neighborhoods with few cultural resources, we find that civic clusters have nearly four times as many CDF grantees, twice as many program sites, and more than twice as many total links to grantees.

⁷ Mark J. Stern and Susan C. Seifert (2009). *The Arts and Civic Engagement: A Field Guide for Practice, Research, and Policy*. Philadelphia: University of Pennsylvania, Social Impact of the Arts Project. http://repository.upenn.edu/siap_civic_engagement/

	Type of neighborhood	Grantees in NTA	Program sites in NTA	Total links to program sites in NTA
Mean	Not civic cluster	.81	15.00	18.98
	Civic cluster	3.25	30.25	42.75
	All lower-income NTAs	1.33	18.25	24.05
Std. Error of Mean	Not civic cluster	.204	1.320	1.766
	Civic cluster	.512	3.694	5.379
	All lower-income NTAs	.225	1.480	2.111
N	Not civic cluster	59	59	59
	Civic cluster	16	16	16
	All lower-income NTAs	75	75	75

Table 8. Number of CDF grantees, CDF program sites, and links by civic cluster status, lower-income neighborhoods, NYC Neighborhood Tabulation Areas

In addition to the number of sites and links, civic clusters are more likely to display a balanced pattern of connection both within and outside the neighborhood. Specifically, in civic clusters, 12 percent of program site links are to grantees in the same neighborhood, while the figure for non-civic clusters is only 8 percent.

	Civic cluster status		Total lower-income NTAs	Sig.	Eta	Eta-square
	Not civic cluster	Civic cluster				
Total program links to grantees	33.1	58.4	36.3	0.000	0.612	0.375
Percent of program site links to grantee in same neighborhood	7.6%	12.0%	8.1%	0.002	0.331	0.110

Table 9. Number and percent of links by civic cluster status, lower-income neighborhoods, NYC Neighborhood Tabulation Areas

Finally, civic clusters display a distinctive pattern in terms of the kinds of program sites. As we noted, nearly three-fourths of all CDF grantee links to program sites are with either schools or cultural providers, which is the case among lower-income neighborhoods as well. Yet, among lower-income neighborhoods, civic clusters have substantially more total links to both schools and cultural providers. However, their proportion of links to schools is much lower, while their links to cultural providers is much higher. Civic clusters also have more links to program sites in public space. In both civic clusters and other lower-income neighborhoods, libraries and senior-serving facilities were used for program sites. Bringing cultural programs to schools and senior centers—from the point of view of exposure, enjoyment, and life-long learning—is important to families and communities. However, these sites represent a kind of “captive market”, while cultural settings—including libraries—and public spaces afford voluntary participation and broader community engagement.

	Not lower-income	Lower-income not civic cluster	Civic cluster	All lower-income NTAs	Sig. (see Note)	Eta-square
Average links to schools	13.1	12.1	20.5	13.9	0.001	0.141
Average links to cultural provider	26.6	4.0	17.3	6.9	0.000	0.300
Average links to libraries	1.0	1.3	2.1	1.4	NS	
Average links to public space	1.8	0.9	2.3	1.2	0.041	0.056
Average links to seniors-serving	1.1	0.5	0.8	0.5	NS	
Percent links to schools	49.6%	61.4%	43.2%	57.5%	0.003	0.113
Percent links to cultural providers	24.8%	13.1%	30.0%	16.7%	0.000	0.168
Percent links to libraries	4.4%	6.1%	3.6%	5.5%	NS	
Percent links to public space	3.6%	3.1%	4.1%	3.3%	NS	
Percent links to senior-serving organization	2.1%	2.4%	1.8%	2.2%	NS	
Number of NTAs	113	59	16	75		

Table 10. Types of program sites, by lower-income and civic cluster status of Neighborhood Tabulation Area. Note: Significance and eta-square are for difference between civic clusters and not-civic clusters among lower-income NTAs. NS=not statistically significant.

Institutional network characteristics, selected neighborhoods

Examples of the civic cluster pattern—lower-income neighborhoods having a high number of program sites and a high percentage of those links within the neighborhood—are present in several boroughs. In Brooklyn, for example, Bushwick North program sites had 46 links to CDF grantees, well above the citywide average of 30. The percent of program site links to grantees within Bushwick North was 41 percent, again well above the citywide average of 7 percent. A majority of CDF program sites in Bushwick North were cultural providers (52 percent).

On Staten Island, the West New Brighton-New Brighton-St. George NTA had 8 CDF grantees and 38 program sites. Of the 67 program site links, 36 percent were to grantees within the same neighborhood, and 56 percent were to cultural organizations.

The total number of sites and links is instructive and largely consistent with other data on cultural assets in lower-income neighborhoods. However, if we look more closely at the balance of local and citywide links and the types of program sites in civic clusters and other lower-income neighborhoods, we find that the nature of the networks created by these connections is quite distinctive as well.

Non-civic cluster lower-income neighborhoods tend to be characterized by what might be called an imbalanced pattern of institutional connections. They have relatively few grantees, so their networks are characterized by a small number of links, typically between non-cultural program sites like schools and senior centers and cultural organizations in high-income neighborhoods in Manhattan or the more affluent sections of Brooklyn.



Figure 7. Cultural Development Fund institutional network 2015, East New York (Brooklyn)

East New York (Brooklyn) was identified as a low cultural resource neighborhood in our March 2017 report because of its low number of cultural institutions, for-profit cultural businesses, artists, and cultural participants. It is home to only one CDF grantee, ARTs East New York, but to 21 program sites. Most links are to grantees in Manhattan and western Brooklyn, with only two within the neighborhood. Sixteen of the 21 program sites are schools, and only two are cultural providers.

Bronxdale (Bronx) was also identified in our March 2017 report as a lower-income neighborhood with very few cultural resources. In 2015, it had no CDF grantees and 15 program sites. The neighborhood program sites included 12 K-12 schools, a senior-serving facility, a library, and no cultural organizations.

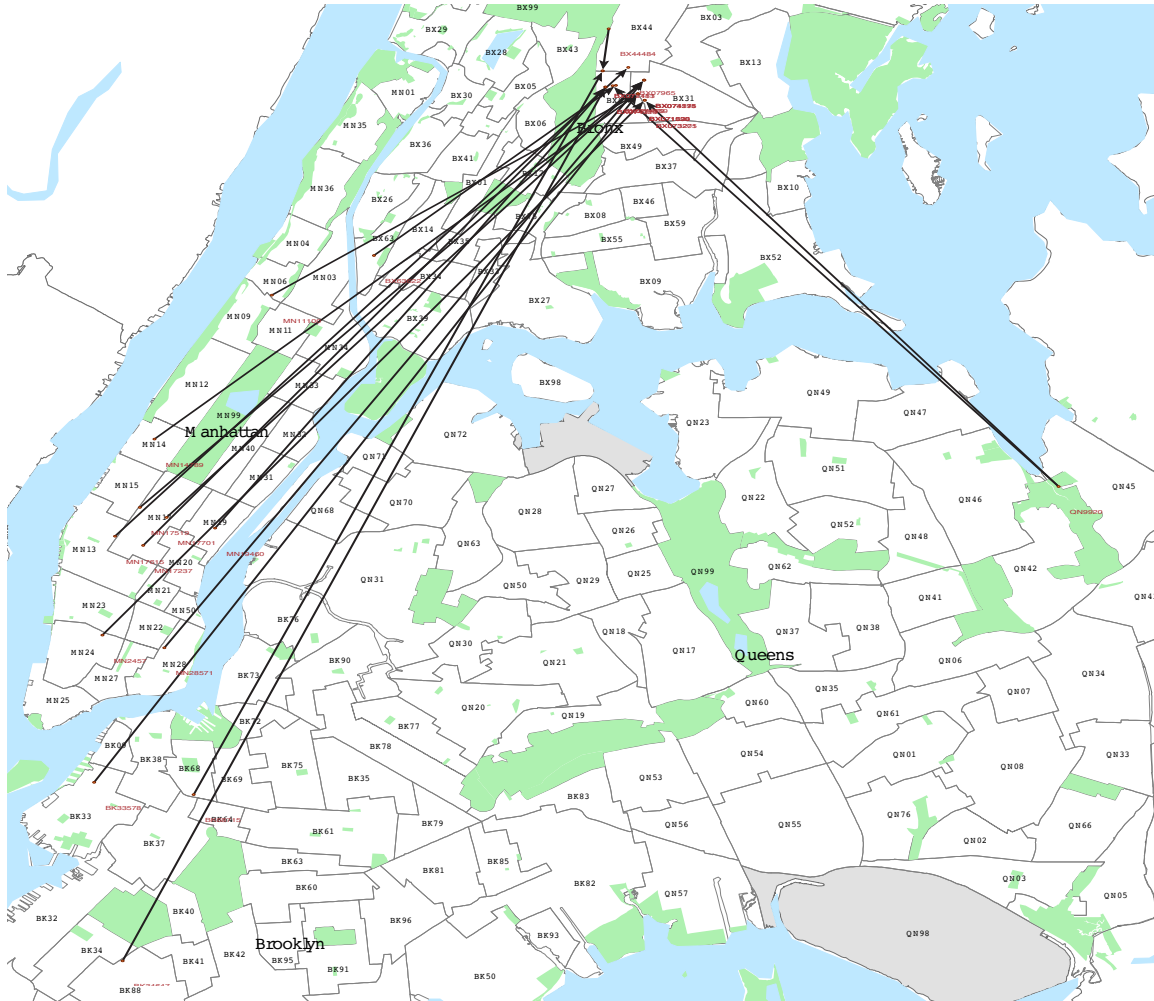


Figure 8. Cultural Development Fund institutional network 2015, Bronxdale (Bronx)

East New York and Bronxdale represent the typical pattern of relationships in lower-income non-civic cluster neighborhoods. Overall, they have a low number of organizations and linkages, and the links they have tend to be to performing groups and arts services grantee organizations based in affluent neighborhoods that arrange events in schools, libraries, and senior centers.

In contrast, civic clusters report a larger number of grantees, program sites, and linkages. What is more, the nature of those links is more varied. A higher proportion of those linkages are within the neighborhood and more likely to be with another

cultural organization. In other words, unlike the non-civic cluster neighborhoods, civic clusters display a balance of bridging and bonding connections.

Here, we use the example of Manhattan’s Lower East Side, identified in our earlier report as a civic cluster, that is, a neighborhood with both economic challenges and a higher concentration of cultural resources than its economic status would predict. In 2015 the neighborhood had 19 CDF grantees and 101 program sites. Of the 166 links to program sites in the neighborhood, nearly one quarter (24 percent) were to grantees in the neighborhood. Furthermore, nearly half of the links were to cultural organizations.

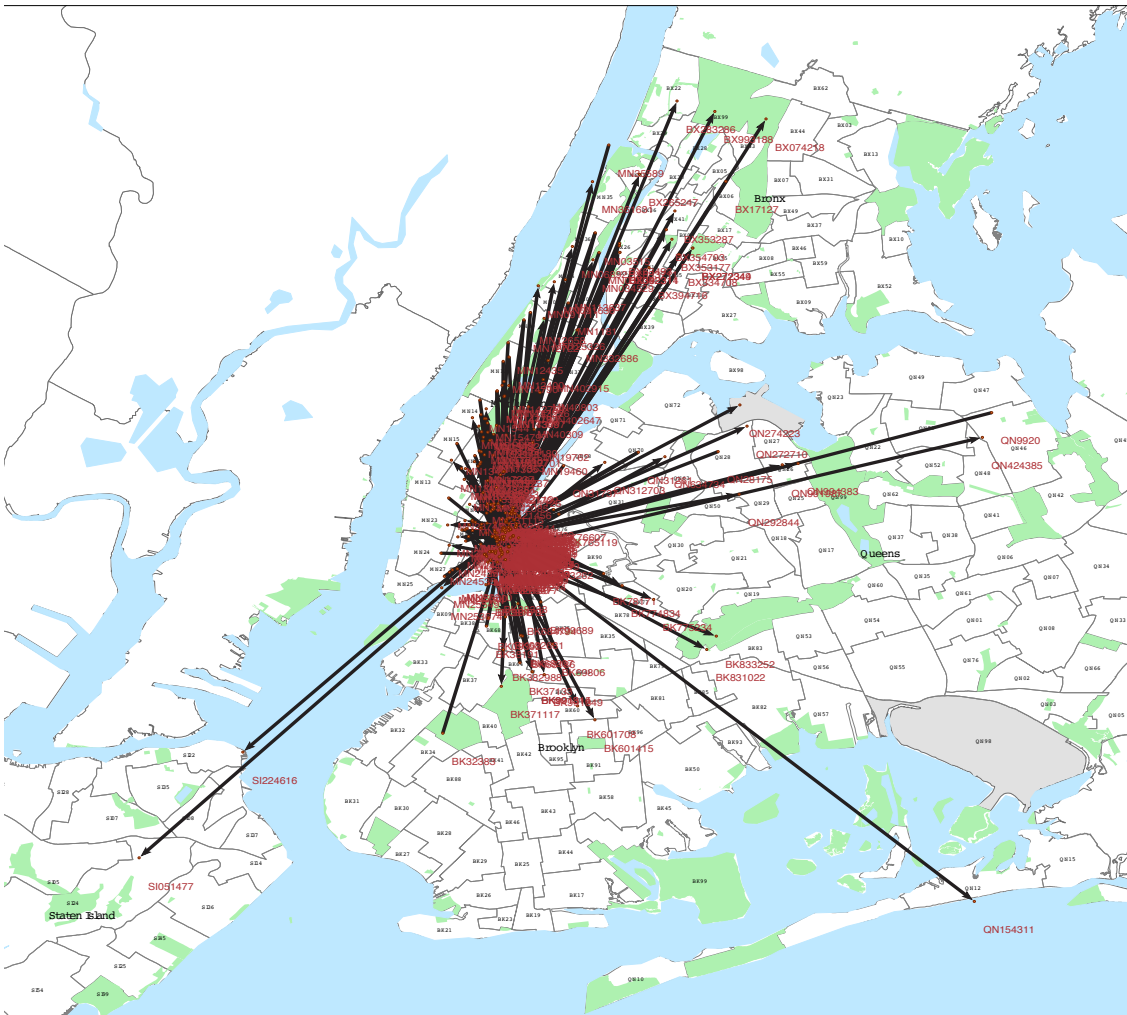


Figure 9. Cultural Development Fund institutional network 2015, Lower East Side (Manhattan)

Hunts Point in the Bronx is another example of a civic cluster with a complex and balanced network. The neighborhood includes 3 CDF grantees and 28 program sites. Of the 39 links to program sites in the neighborhood, 15 percent were to local grantees. Overall, 35 percent of the program site links are to schools in the neighborhood, while 46 percent are to other cultural organizations.

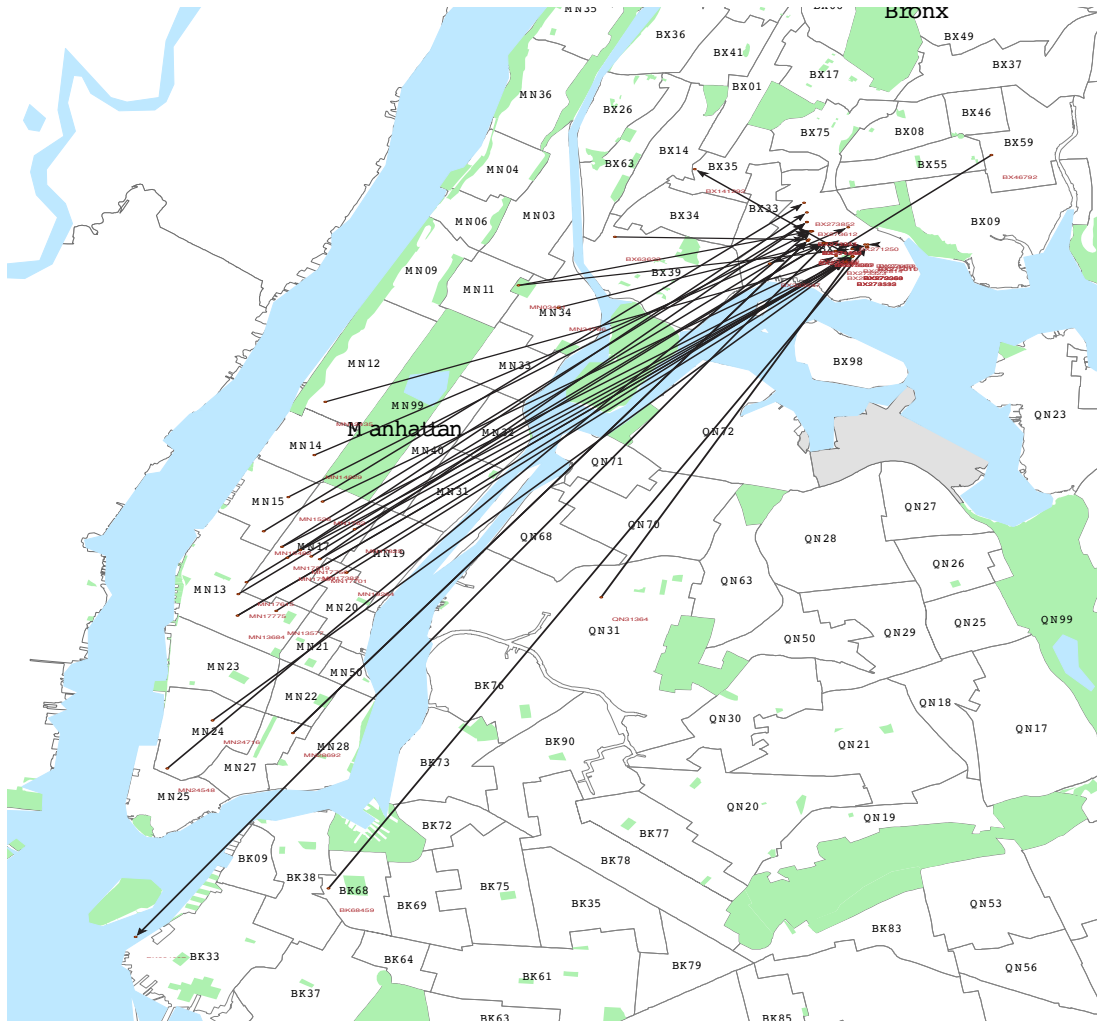


Figure 10. Cultural Development Fund institutional network 2015, Hunts Point (Bronx)

Comparing the network patterns of civic clusters with other lower-income neighborhoods points to a dimension of inequality in cultural opportunities not evident in other data. Certainly, the total number of assets is an important aspect of that inequality, but the nature of the networks points to an additional distinction. A majority of lower-income neighborhoods have imbalanced and sparse networks. Not only is there a low number of links, but also they tend to be with distant organizations. Furthermore, they are more likely to be programs in non-arts settings

like schools and senior centers and more likely to be a one-shot performance. Civic clusters, in contrast, have many more links and these links are more likely to be balanced between organizations outside of the neighborhood and within the neighborhood. Finally, a larger proportion of those connections are with other cultural organizations, which are more likely to forge lasting and stronger programming connections.

The visual representation of these networks provides a fuller appreciation of the importance of institutional connections to the cultural ecology of the City and its neighborhoods. Program sites are not simply dots on a map. They represent a set of relationships that can contribute both to an organization's citywide reputation and visibility and to its role as a neighborhood "anchor" institution.

Conclusion

This paper has used NYC Department of Cultural Affairs data on Cultural Development Fund program sites to address questions about structural inequality associated with the geography of cultural resources in New York City. The data source—a listing of the program sites reported by the CDF grantees—while not a comprehensive representation of the institutional networks within the city's cultural sector, provides important documentation of the connections among a large sample of nonprofit cultural organizations.

The analysis has reinforced many of the conclusions that SIAP drew in its March 2017 report. It provides support for the notion that incorporating program sites into the analysis reinforces our earlier conclusions about the unequal distribution of cultural resources across the city's neighborhoods.

On the most obvious level, we found that the location of program sites is not fundamentally different from that of other dimensions of the cultural ecosystem. In fact, using per capita income as a measure of economic inequality, we found that they are at least as unequally distributed as other cultural resources. Living in a lower-income neighborhood means that one is less likely to have off-site cultural programming just as it means that fewer cultural organizations, artists, or cultural participants make a home there.

At the same time, this dataset provides a new perspective on the critical role of civic clusters in the city. Compared to other lower-income neighborhoods, civic clusters support institutional networks that balance connections to resources within their neighborhood with links to resources in other parts of the city. This finding reinforces earlier SIAP research that this two-tier pattern of institutional connection—both bridging and bonding—is an important aspect of culture's contribution to social capital.

In our March 2017 report, SIAP documented the relationship between cultural resources and enhanced social wellbeing in lower-income neighborhoods. Civic clusters—lower-income neighborhoods with relatively large numbers of cultural

assets—were critical to this relationship. The present analysis contributes to our understanding of how a neighborhood can benefit from its local cultural ecosystem. Improving social wellbeing in lower-income neighborhoods requires both mobilizing local residents to address problems and bringing in additional resources from outside the neighborhood. In other words, it requires strengthening local *and* regional networks.

This paper demonstrates that the cultural ecology of many lower-income neighborhoods across the city is severely limited. Their institutional networks tend to be one-directional and episodic as represented, for example, by a once-a-year performance at a local school. In the city's civic clusters, by contrast, institutional networks are deeper, linking institutions both within and beyond the neighborhood. They are also likely to be more durable as represented by an ongoing collaboration between two cultural organizations.

It is these kind of durable and wide-ranging community-based networks that can provide a counterbalance to the many dimensions of inequality that characterize the contemporary city, including the unequal distribution of cultural resources across neighborhoods. For the cultural sector, as in previous analyses, this paper underlines both the challenges posed by social inequality and possible paths for mitigating its deleterious impact on social wellbeing.