Causal Agents or Canaries in the Coal Mine? Art Galleries and Neighborhood Change

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Art galleries serve several important functions within the art industry. Economically, galleries are loci of arts consumption, generally focusing on visual arts such as painting and sculpture. If artists visit galleries to learn about their peers' work, galleries may also contribute to enhanced art production. Galleries are almost always for-profit entities; the main distinction between galleries and museums is that museums typically display original art but do not offer it for sale, while galleries display art for the purpose of selling it. Like many forms of arts production discussed elsewhere in this volume by Kushner, and Markusen, the retail art market is diffuse and highly entrepreneurial: the industry is mostly made up of small, independently owned firms (single dealers or small partnerships). Although art galleries are an essential component of the overall arts industry, as economic entities they are quite different from a symphony orchestra, publicly funded museum or an independent novelist or painter. In many respects, the upper echelon of art galleries is similar to the high-end retail market: the best-known galleries are businesses whose primary function is to sell expensive luxury goods. Outside of the top tier, galleries resemble small businesses in other retail segments: they operate in a highly competitive industry with low barriers to entry and experience relatively high turnover.

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Art galleries also have the potential to enhance the cultural and economic life of surrounding neighborhoods. In cities across the U.S., from Los Angeles to Santa Fe to Provincetown, MA, to Naples, FL, clusters of galleries attract visitors who "gallery-hop" through the neighborhood. Some visitors may be serious art collectors intending to purchase new works; others attend exhibit openings as social occasions, or enjoy viewing art in a more informal setting than traditional museums. Local governments, Chambers of Commerce and Business Improvement Districts in many cities have established monthly "Art Walks" through designated areas, encouraging locals and tourists to browse, mingle, and buy – if not a $10,000 original painting, then at least drinks and dinner from nearby restaurants. Through such mechanisms, art galleries may draw in additional commercial activity and create social cache for the neighborhood, benefitting businesses and residents.

This chapter uses evidence from Manhattan to test the hypothesis underlying local efforts to develop gallery districts: can art galleries spur neighborhood economic and physical development? The analysis takes on two approaches. First, I investigate whether art galleries locate in blighted neighborhoods in need of revitalization. Second, I compare signs of physical redevelopment across otherwise similar neighborhoods with and without art galleries. Keeping in mind the economic purpose of art galleries – to sell art – is essential to understanding the location choices of gallery owners. I begin by discussing the best-known case study of art galleries as a stage of economic development: New York's Soho neighborhood. The emphasis is to place Soho within the context of other Manhattan neighborhoods and conduct a counterfactual thought experiment: what would have been Soho's fate had galleries not chosen to locate there. I then lay out hypotheses for gallery location choices more generally, drawn from theoretical models. The empirical analysis uses New York City as its context, describing the characteristics

of Manhattan's four dominant art gallery centers – Chelsea, Midtown, Soho and the Upper East Side – as a means of demonstrating that gallery location choices reflect long-standing physical amenities. I present evidence that neighborhoods with art galleries experience no more physical redevelopment than otherwise similar neighborhoods with galleries, once the underlying amenities are taken into consideration. The chapter concludes with some policy implications and directions for future research.

Why Soho?

Much of the attention given to galleries as potential agents of gentrification can be traced back to case studies on a single neighborhood in New York City, the downtown area known as Soho (South of Houston).[1] Several detailed historical studies have described Soho's trajectory from a blighted post-industrial area in the mid-20th century, then infiltrated in the 1960s by artists looking for cheap apartments and studios, followed by galleries in the 1970s and 1980s, and mainstream retail and high-end residential tenants in the 1990s and beyond.[2] Artists were drawn to the space both by relatively cheap rent and the availability of buildings with high ceilings, open floor plans, and large windows, suitable for working studios. Galleries likewise were attracted to these physical attributes, as well as to the social ties between artists and gallery owners. Researchers have argued that the presence of artists and galleries reduced visual blight

[1] Neighborhood boundaries in New York, as in other cities, may be defined in a variety of ways, and colloquial neighborhood names do not always reference the same spatial boundaries. For the purposes of the empirical analysis in this chapter, neighborhood boundaries are defined according to the NYC Department of City Planning Projection Areas, which overlay colloquial names on geographically contiguous clusters of census tracts.

[2] Sharon Zukin, *Loft Living: Culture and Capital in Urban Change* (New Brunswick, N.J.: Rutgers University Press, 1989), p. 2-6. Harvey Molotch and Mark Treskon. 2009. "Changing Art: SoHo, Chelsea and the Dynamic Geography of Galleries in New York City," *International Journal of Urban and Regional Research* vol. 33 (Spring 2009), pp. 517-541. Aaron Shkuda, *From Urban Renewal to Gentrification: Artists, Cultural Capital and the Remaking of the Central City*. PhD Dissertation, University of Chicago (2010), Chapter 1.

and increased the social cache of the neighborhood, drawing in more affluent households and eventually mainstream retailers, restaurants and cafes.[3]

These historical analyses provide richly detailed accounts of events that occurred in Soho, establishing the chronological relationship between the in-migration of artists and galleries and subsequent neighborhood change. However, these studies do not constitute evidence that the relationship is causal. A major limitation of the case study method is that, lacking an appropriate comparison group, it does not illuminate the counterfactual. That is, what would have happened to Soho had artists and galleries not moved in? An advantage of larger-scale statistical analysis is that we can identify comparison neighborhoods – areas that were initially similar to Soho but which did not attract galleries – to serve as the counterfactual. An obvious concern with arguing that artists and galleries caused Soho to gentrify is the potential for selection bias: if artists and galleries were drawn to Soho because of place-specific amenities, and those amenities have an independent impact on the economic trajectory of the neighborhood, then Soho's gentrification may be due to initial amenities rather than the presence of artists.

A simple comparison of Soho to the rest of Manhattan illustrates the potential selection bias involved. In 1970, only five art galleries were located in Soho, providing us an insight into the neighborhood's condition and amenities before its rapid growth in galleries.[4] Confirming the findings of the case studies, at this time Soho was economically disadvantaged relative to other Manhattan census tracts, based on several standard indicators: average household income, share of the population in poverty, share of the population with college or graduate degrees, and average monthly residential rent (Table 2-1). But was Soho typical of other low-income

[3] Molotch and Treskon, Changing Art, pp 519; Zukin, Loft Living, pp. 111-125.
[4] All data on art galleries are drawn from the Manhattan Gallery Database, described in more detail in Jenny Schuetz and Richard K. Green, "Is the Art Market More Bourgeois than Bohemian?" Los Angeles: USC Lusk Center for Real Estate working paper, pp. 7-11.

Manhattan neighborhoods, or were there traits that made it particularly attractive to galleries? The third column in Table 2-1 compares Soho to all other Manhattan census tracts with below-median household income (approximately $42,000 in 2000 inflation-adjusted dollars). Soho was slightly better off than other low-income areas on three measures (higher household income, lower share in poverty and a higher share of the population that was college-educated) and had lower monthly rents (which might be viewed as advantageous by gallery owners).

The bottom panel of the table offers further evidence that Soho enjoyed some location-specific advantages over other low-income areas, and indeed over some more affluent areas. In particular, Soho is closer to Manhattan's Central Business District (CBD), had a larger share of pre-war housing stock and is closer to museums. Soho's building stock was not just old but architecturally and historically significant, as recognized by the 1973 designation of the Cast Iron Historic District, encompassing most of the central neighborhood.[5] Additionally, Soho benefited from the presence of New York University, which functions as an anchor institution for the neighborhood, a noted piece of open space in Washington Square Park, and from abutting the already gentrifying neighborhood of Greenwich Village. As discussed in more detail below, these physical attributes – which predate both galleries and artists – could have been instrumental in attracting galleries to the neighborhood and in drawing higher-income households and commercial uses. Therefore to isolate the impact of galleries on Soho's subsequent change, we need to compare its trajectory to other Manhattan neighborhoods that had similar physical amenities and population characteristics, but which did not become home to art galleries.

[5] Landmarks Preservation Commission, *Soho Cast-Iron Historic District Designation Report* (New York: 1973). (www.nyc.gov/html/lpc/downloads/pdf/reports/SoHo_HD.pdf)

What Influences Gallery Location Decisions?

To develop a conceptual framework for gallery location decisions, I draw two strains of literature: the qualitative neighborhood case studies and economic theories of retail location models. In explaining gallery movements into both Soho and Chelsea, historical researchers have highlighted the importance of the physical building stock.[6] Galleries that display very large artworks may require high-ceilinged open spaces, such as those found in older manufacturing and warehouse buildings. It also seems plausible that gallery owners are sensitive to building aesthetics and prefer distinctive or attractive architecture in which to display their art. Standard retail location models suggest that galleries should choose locations that are attractive and convenient to potential consumers.[7] Because art collectors are likely to be highly affluent individuals, galleries should locate in high-end residential or commercial areas. In general, proximity to amenities such as employment centers, transportation infrastructure and high population density increase the volume of potential consumers. However, for luxury retailers such as galleries, access to the CBD or public transportation may be less important, or even considered a drawback: high-end galleries may prefer to have a small and exclusive clientele rather than a large volume of casual visitors. Proximity to museums and other cultural institutions may be beneficial in drawing art-loving visitors to a neighborhood.[8] Retail location theory suggests that galleries benefit from agglomeration economies: locating near other galleries should increase the volume of potential consumers without the drawback of price competition, because consumers choose artworks based on aesthetic characteristics rather than

[6] Molotch and Treskin, "Changing Art", pp. 524; Shkuda, *From Urban Renewal to Gentrification*, p. 14.
[7] Brian Berry, *Geography of Market Centers and Retail Distribution*. (Englewood Cliffs, NJ: Prentice Hall, 1967). David L. Huff, "Defining and Estimating a Trading Area," *Journal of Marketing* vol. 24 (Fall 1964), pp. 34-38. Gabriel Picone, David Ridley and Paul Zandbergen, "Distance Decreases with Differentiation: Strategic Agglomeration by Retailers," *International Journal of Industrial Organization* vol. 27 (Fall 2009), pp. 463-473.
[8] David Halle and Elisabeth Tiso, *Far West in New York: Contemporary Art, Mega Projects, Preservation and Urban Change.* Unpublished manuscript (2012), Ch 4. Chin-tao Wu, *Privatising Culture: Corporate Art Intervention Since the 1980s,* (London: Verso Books, 2003).

price.[9] A recent empirical study has documented high spatial concentration among galleries, and a preference of newly opening galleries to locate near existing gallery clusters.[10] Some important distinctions between gallery clusters and the Arts Districts discussed by other chapters in this volume, notably Breznitz and Noonan, and Schmitz, are that gallery clusters are naturally occurring, do not carry specific zoning or tax status, and have no formal boundary designations.

As suggested by the Soho example, most of the factors that are likely to attract galleries to a neighborhood will arguably exert independent impacts on the probability that the neighborhood undergoes economic or physical change. Distinctive and attractive architecture will appeal not only to gallery owners, but to real estate developers who wish to sell or lease the space for housing, retail or entertainment purposes.[11] For example, many of the Cast Iron buildings in Soho are now occupied by high-end furniture stores, restaurants, and lofts, with an Apple store occupying a prominent storefront. Proximity to employment centers, museums and cultural institutions, and affluent residential populations will increase the value of buildings for various real estate types, including housing, retail, entertainment and offices.[12] Therefore it seems likely that neighborhoods with high levels of physical and economic amenities will attract investment, even in the absence of galleries.

Empirical Analysis

The remainder of this chapter explores two research questions in the context of New York's art market: in what types of neighborhoods do galleries choose to locate, and do neighborhoods with galleries experience more redevelopment? New York City offers a rich

[9] Picone et al, "Distance Decreases with Differentiation", p. 465.
[10] Schuetz and Green, "Is the Art Market More Bourgeois Than Bohemian", p. 25-26.
[11] Hans Koster, Jos van Ommeren and Piet Rietveld, "Upscale Neighborhoods: Historic Amenities, Income and Spatial Sorting of Households," Working paper, presented at Urban Economics Association Meetings (Nov 2011).
[12] Jan Brueckner, Jacques-Francois Thisse and Yves Zenou, "Why is central Paris rich and downtown Detroit poor? An amenity-based theory," *European Economic Review* vol. 43 (Spring 1999), pp. 91-107.

setting to conduct statistical analysis of art galleries' location patterns. New York (and specifically Manhattan) is the largest art market in the United States, with roughly twice as many art galleries as Chicago or Los Angeles.[13] During the period 1990-2003, approximately 900 galleries per year operated in Manhattan, with two-thirds of those galleries contained in just four neighborhoods: Chelsea, Midtown, Soho and the Upper East Side (Figure 2-1). Comparing the economic and physical characteristics of these neighborhoods to one another and the rest of Manhattan allows us to test which of the hypotheses described above can explain galleries' location choices. The analysis focuses particularly on location-specific neighborhood amenities that pre-date the emergence of gallery clusters. The second stage of the analysis examines whether and how galleries influence patterns of redevelopment in the surrounding neighborhood. I test whether city blocks that house art galleries experience more redevelopment – including adaptive reuse, new construction, and changes in land use patterns – than initially similar blocks without galleries. [14]

Neighborhood Choice By Galleries

As is true for other types of arts and cultural venues described throughout this volume, art galleries are not uniformly distributed across space within cities. In 2000, nearly 70 percent of Manhattan's 955 galleries were located in just four neighborhoods: Chelsea, Midtown, Soho and the Upper East Side (Figure 2-1). Even within these neighborhoods, galleries tend to cluster

[13] Data on art galleries across metropolitan areas is available from the Census Bureau's County Business Patterns dataset. (www.census.gov/econ/cbp/)

[14] Primary data on art gallery locations come from the Manhattan Gallery Database (see Schuetz and Green, "Is the Art Market more Bourgeois", pp. 7-11, for a full description of the database). Detailed information on land use patterns and building characteristics for every tax parcel in Manhattan are taken from New York City administrative records kept by the Departments of Finance and City Planning, and the Landmarks Preservation Commission. These datasets are combined with economic and demographic characteristics at the census tract level, taken from Geolytics' Neighborhood Change Database. Analytical techniques used include mapping and spatial analysis, descriptive statistics, and multivariate regression analysis. Full details on data and statistical methods are available in Jenny Schuetz, "Do Art Galleries Transform Neighborhoods?" Los Angeles: USC Lusk Center for Real Estate working paper (2012), pp. 10-20.

along certain streets or blocks (Madison Avenue on the Upper East Side, 57th Street in Midtown, and between 24th and 26th Streets along Tenth Avenue in Chelsea). Each of the four dominant gallery neighborhoods in Manhattan has certain amenities that may be attractive to gallery owners, although the amenities vary somewhat across the four neighborhoods (Table 2-2).

The Upper East Side is Manhattan's oldest gallery cluster, dating back to the 1950s (some individual galleries have existed nearly the entire time). For decades it has been a prestigious residential neighborhood, attracting high income residents and accordingly high real estate prices. Seventy percent of the land is used for residential purposes, double that of Manhattan's overall residential land share. Even by Manhattan standards, the building stock is quite old and is considered both historically and architecturally noteworthy; between 1967 and 1998, six separate historic districts had been created in the Upper East Side, covering nearly 80 percent of the land area.[15] Adding to the prestige of the neighborhood, since the 19th century the Upper East Side has been home to many of New York's oldest and best-known museums and cultural institutions, including the Metropolitan Museum of Art (1870), the Guggenheim Museum (1959), and the Frick Collection (1935). The stretch of Madison Avenue from 59th Street to 86th Street, along which most galleries are located, also contains numerous luxury retailers. Zoning may constrain the location of galleries within the Upper East Side: galleries (and other retail uses) are allowed along most north-south avenues but not in the central residential areas of east-west cross streets.

Midtown has also been well known as an established gallery neighborhood dating back to the post-World War II years. It is a predominately commercial area, with 40 percent of the land

[15] Treadwell Farm in 1967 was one of Manhattan's earliest historic districts but is quite small. Carnegie Hill (1974, expanded 1993), Metropolitan Museum (1977) and Upper East Side (1981) cover the largest areas. Maps of all historic district boundaries are available on the Landmarks Preservation Commission website, (www.nyc.gov/html/lpc/html/maps/historic_district.shtml).

used for offices, including financial services, law firms and other high-paid professional services. A luxury shopping district has been concentrated around the intersection of Fifth Avenue and 57th Street, at least since 1940 when Tiffany's opened its flagship store at that corner.[16] Most of Midtown's galleries cluster around 57th Street on or near this intersection. Galleries are often stacked in multilevel buildings in Midtown, not just occupying ground floor showrooms. Midtown also houses several major cultural institutions, including the Museum of Modern Art (1937) and the venerable main branch of the New York Public Library at Fifth Avenue and 42nd Street (1911). Although Midtown has a large number of subway stations connecting to nearly all subway lines, galleries are not clustered immediately around stations. Virtually all the land in Midtown is zoned to allow commercial uses, including galleries. The residential population is relatively small, but more affluent and highly educated than Manhattan's overall population. Reflecting the high underlying land values, the price of Midtown real estate – commercial and residential uses – is among the highest in any part of Manhattan. Relatively little land had been designated as part of an historic district as of 2000.[17]

As discussed in the previous section, Soho first attracted art galleries during the mid-1970s. The number of galleries continued to grow rapidly through the mid-1990s, before declining somewhat through early 2000s. Soho has a diverse mix of residential and commercial land uses, with an unusually large share of loft and industrial buildings (24 percent of land in Soho compared to about three percent in Manhattan overall). The central part of Soho, in which the vast majority of galleries are located, is composed of architecturally notable cast iron

[16] Corporate history for Tiffany's and Co. available on (www.tiffany.com/About/TheTiffanyStory/default.aspx#p+1-n+6-cg+-c+-s+-r+-t+-ri+-ni+1-x+-pu+-f+/5/0/6)

[17] Two historic districts were added to Midtown after 2000, both relatively small, one around Madison Square Garden, the other to the east near Murray Hill.

buildings, originally constructed as factories in the 19th century.[18] In 1972 the area of Soho containing these buildings (West Broadway on the western edge, Crosby Street on the east, Houston to the north and Canal Street in the south) was designated as the Cast Iron Historic District. Historic district status protects building exteriors from demolition or changes that would damage the architectural integrity, but allows fairly flexible renovation and reuse of interior space. Many of Soho's Cast Iron Buildings were vacant at the time of their historic designation and have undergone adaptive reuse since that time, with extensive reconfigurations to fit the interiors for residential, retail, restaurants, offices, and other tenants. Most of the buildings have also undergone exterior restoration and maintenance after the 1972 designation. Like Midtown, virtually all of Soho has commercial-friendly zoning that would accommodate galleries. The population is the least affluent of the four main gallery neighborhoods, with incomes and residential rents slightly below Manhattan's average as of 2000.

Chelsea is the newest of Manhattan's gallery districts, rising to prominence in the late 1990s, concurrent with Soho's decline. The neighborhood is quite mixed in both land uses and populations. The western edge of Chelsea, which borders the Hudson River and former railroad yards, was originally developed for manufacturing and warehouses, and like Soho retains a fair number of industrial structures (19 percent of land was loft or industrial space as of 2000). The southern edge of Chelsea abutting Greenwich Village and the eastern part along Fifth Avenue have long been occupied by residential and mainstream commercial uses, including the historic "Ladies' Mile" shopping area along Fifth Avenue. Some of the residential areas have historically served affluent households (including the author Clement Clarke Moore), and since

[18] Photographs of some of the cast iron buildings that still house galleries can be found in Schuetz, "Do Art Galleries Transform Neighborhoods," p. 38.

the early 1970s have been designated as historic districts.[19] Other parts of the neighborhood contain large superblocks of high-rise public housing. A smattering of galleries is located along Fifth Avenue, but most are clustered along Chelsea's western edges near Tenth Avenues, in converted lofts and industrial spaces. Like in Midtown, some buildings house multiple galleries stacked vertically on several floors. Chelsea has received considerable large-scale investment during the past 10-15 years, including the Chelsea Piers entertainment complex, the northern extension of Hudson River Park along the western edge, and most recently, the highly renowned redevelopment of unused rail yards into the High Line Park.[20]

The descriptive analysis of Manhattan's four gallery neighborhoods suggests that place-based amenities may be relevant in galleries' location decisions, but also that galleries may value different types of amenities. Large display spaces made possible by formerly industrial buildings could explain galleries' presence in Soho and Chelsea, but not in Midtown or the Upper East Side. Older, architecturally notable buildings may draw galleries to Soho and the Upper East Side, but are less relevant for Chelsea and Midtown. One possible interpretation is that different types of galleries – perhaps varying by the genre or period of the art displayed, or aesthetic tastes of the gallery owner – prefer different types of neighborhood amenities. Another striking fact that emerges from considering the trajectory of gallery neighborhoods is the degree of persistence in gallery clusters: two of the four neighborhoods have been home to large numbers of art galleries for half a century, and even after Soho's much documented "decline," it retains

[19] See Landmarks Preservation Commission, *Chelsea Historic District Designation Report* (1970) and *Ladies' Mile Historic District Designation Report, Volume 1* (1989) for details on district designations. Historic districts in Chelsea include Greenwich Village (1969), Chelsea (1970, extended 1981), Ladies Mile (1989). Galleries mostly fall into the area belonging to the West Chelsea Historic District but it was not designated until 2008, after the period studied.

[20] Halle and Tiso, *Far West in New York*, Ch. 4.

nearly twenty percent of Manhattan's galleries.[21] The persistence of galleries in certain neighborhoods is consistent with strong agglomeration economies: for newly opening galleries in particular, one of the best ways to attract visitors is to locate among other, more established galleries in a neighborhood with a reputation as a gallery district.

To provide a more systematic test of the factors that affect gallery location decisions, I estimated a series of regressions modeling the number of galleries in a census tract or city block as a function of the lagged presence of galleries and various physical amenities, such as building vintage, land use shares, presence of historic districts and property values.[22] In general, the regressions provide support for some of the hypotheses suggested by the neighborhood descriptive analysis. The presence of notable or "star" galleries in the neighborhood five years earlier was the most robust predictor of current gallery locations: galleries seek to locate where other well-known galleries have established a foothold. The number of galleries in the census tract or block is positively associated with the share of pre-1940 building stock, as well as with the share of land in historic districts, suggesting some preferences over architectural styles or characteristics. The presence of museums or other cultural institutions is also positively predictive of the number of galleries in a tract or block; these institutions may also attract culturally-minded visitors to the neighborhood. The regressions provide somewhat weaker evidence that a lack of commercial zoning may constrain galleries' location choices. Almost all blocks in Manhattan have some commercially zoned land, so that zoning likely affects location choice at a very fine level of geography (i.e. galleries can operate on block faces that front on north-south avenues but not in the middle of east-west residential streets). The assessed value of

[21] For discussion of Soho's decline, see Molotch and Treskin, "Changing Art", pp. 524-525; Halle and Tiso, *Far West in New York,* Ch. 1.
[22] Full details on the data and estimation techniques can be found in Schuetz, "Do Art Galleries Transform Neighborhoods," pp. 10-20.

buildings (per square foot) is positively correlated with the number of galleries in the neighborhood in all estimations, although not always statistically significant. Building values should reflect the quality or desirability of the building itself and the value of amenities in the neighborhood. When population characteristics are added to the regression, it appears that galleries are more prevalent in neighborhoods with high population density and high household income, consistent with behavior of luxury retailers.

Taken altogether, the regression results suggest that, far from seeking out blighted neighborhoods in need of gentrification, galleries prefer to locate in high-amenity neighborhoods that are likely to attract residential and commercial investment. Certainly two of the main gallery neighborhoods – Midtown and the Upper East Side – have been wealthy and high-value neighborhoods for many decades, while even Soho and Chelsea have distinct place-based amenities not enjoyed by the rest of Manhattan. As a first estimation, then, it appears somewhat unlikely that art galleries will be effective mechanisms of neighborhood economic development because they tend not to move into initially blighted areas in need of regeneration.

Have neighborhoods around galleries transformed?

As other chapters in this volume have suggested, the impact of arts-related activities may be tested using a variety of economic indicators, including productivity and innovation (see the chapters by Bakhshi, Lee and Mateos-Garcia, and by Breznitz and Noonan), income (Sheppard), and expenditures or employment in the arts themselves (see the chapters by Kushner, by Markusen, and by Schmitz). Impacts can also be measured at different levels of geography, from metropolitan area, to neighborhood, to individual organization. This chapter focuses on identifying the impact of art galleries on the surrounding physical environment at two intensely local levels: census tract and city block. That is, does the presence of art galleries cause changes

in land use patterns and building stock in the immediate vicinity of the galleries? The form of this question arises directly from the qualitative neighborhood histories, which argue that the arrival of artists and galleries in neighborhoods such as Soho led to adaptive reuse of formerly industrial structures to residential and retail uses and the reduction of visual blight in those neighborhoods.

Manhattan presents a challenging setting to examine physical neighborhood changes. As an island, land availability is strictly limited by immovable boundaries. The existing building stock is old and quite dense compared with many U.S. cities, while the regulatory environment – both formal zoning and citizen political pressures – make the development process long, costly and uncertain.[23] The demand for additional built space puts enormous upward pressure on land values, which should encourage greater development, yet natural and artificial supply constraints limit the pace and quantity of development. This raises questions about the best way to measure neighborhood change. The most straightforward metrics capture the quantity of new development, such as number of new buildings or new residential units. But in Manhattan, development of new buildings may take three to five years (or longer) to be completed, so there may be a long lag between initial stimulus – such as the arrival of a gallery – and completion of new construction or an increase in total number of residential units.[24] Alternatively, qualitative studies suggest that the arrival of galleries often prompts change in use of existing buildings, either to house the gallery itself or conversion of neighboring buildings from lower-value uses (warehouses, garages, industrial space) to higher-value uses (residential, retail, office). Depending on the initial condition of the building and the degree of remodeling needed, adaptive

[23] Edward L. Glaeser, Joseph Gyourko and Raven Saks, "Why is Manhattan So Expensive? Regulation and the Rise in Housing Prices," *Journal of Law and Economics* vol. 48 (Fall 2005), pp. 331-370.
[24] For analysis of the length of development in New York City, see Furman Center for Real Estate and Urban Policy, *State of New York City's Housing and Neighborhoods 2006,* (New York University, 2006).

reuse of an existing property could be apparent in as little as one year. Existing properties can also be reconfigured or expanded to offer more leasable space, such as converting a basement or laundry room into an additional housing or commercial unit or adding floors on top of the existing structure. These changes also allow property owners to capture more rents, in response to rising property values, with less time and money expended than demolition and redevelopment. In summary, to track the nuances of physical change in Manhattan will require use of a variety of metrics on the quantity, type and size of the built environment.

To illustrate the types of change that do occur in Manhattan, Tables 2-3a and 2-3b show transitions of two blocks with many galleries. These blocks were selected because each has the largest number of galleries per block in their respective neighborhoods for the beginning year. Block 697 in Chelsea (located on 25th and 26th Streets between Tenth and Eleventh Avenues) has six lots that change uses between 2000 and 2003, in each case moving from a lower-value use (vacant, warehouse, garage, factory) to a higher-value use (office, store, loft, museum). In five of these cases, one or more galleries are located in the building that changes use type. Lots 23 and 42 also acquire galleries during this time period but do not change building uses. Note that galleries are located in several different building classes: warehouse, office, store, loft, factory and museum. None of the lots on Block 697 experience changes in the size of the building (lot size, number of stories and units) and no demolition or redevelopment occurred on the block. Physical changes made during adaptive reuse may be relatively minor and only observable from the interior, or they may be comprehensive restorations of interior and exterior spaces that would be widely visible to the neighborhood.

Block 1293 in Midtown (57th and 58th Streets between Madison and Fifth Avenues) illustrates not only changes in building use, but two examples of demolition and redevelopment

between 1995 and 2000. On lot 12, a six-story loft building dating from 1930 was demolished and replaced by a 16-story store building in 1996. Three adjacent lots (13, 14 and 15) that housed five-six story lofts and a walk-up apartment building were combined, the existing buildings demolished and replaced by a single 24-story office building occupying the larger lot. Note that on this block, four of the five changes in building class occurred in buildings without galleries, while the building with the largest number of galleries (lot 26) does not change use or size. This illustrates the challenge of making a causal link between galleries and redevelopment: did the presence of galleries cause neighboring property owners to change uses or redevelop larger buildings, or did galleries choose to locate on a block experiencing development pressures for other reasons, such as increased demand for retail and office space in Midtown?

As a more systematic analysis of the relationship between galleries and physical change, I next compare various metrics of change across city blocks with and without galleries (Table 2-4). The indicators of change are: the percent of lots on a block that changed use type or size; change in the total number of buildings, stories, and residential units on the block; and, change in the block's share of land that is residential or vacant. Each of the change metrics are calculated over a four or five-year period (1990-1995, 1995-2000, 2000-2004), while the presence of galleries is measured in the first year of each period. The first two columns in Table 2-4 show the average of each metric, comparing blocks that had at least one gallery at the beginning of the period to blocks with no initial galleries. Comparing all city blocks in Manhattan, it appears that blocks with galleries undergo more change on almost all measures. For blocks with at least one gallery, approximately seven percent of lots undergo change in building class, compared to 5.76 percent of lots on non-gallery blocks. Blocks with galleries also see larger increases in the total number of buildings, total number of stories, and total residential units, relative to blocks without

galleries. The size of additional construction measures are quite small – gallery blocks gain 0.58 buildings, 2.24 stories and 24.36 residential units over the five year period – reflecting the lengthy and costly redevelopment process in Manhattan. Gallery blocks see a greater increase in residential land share, but not a significantly larger decrease in vacant land share.

But comparing outcomes across all city blocks in Manhattan does not address the underlying differences in the location of galleries explored previously in the paper. That is, blocks on which galleries are located tend to be in higher amenity, higher income neighborhoods like Midtown and the Upper East Side, while many of the non-gallery blocks are located in low-amenity, low-income neighborhoods, which are less likely to experience development for a variety of other reasons. A cleaner analysis would be to limit the comparison to blocks within the same larger neighborhood, to control for the differences across neighborhoods that may affect gallery location choices and physical changes. As an example, the last three columns in Table 2-4 compare each of the change metrics across blocks with and without galleries, but limits the sample to Chelsea. The results indicate fewer statistically significant differences between gallery and non-gallery blocks within the neighborhood than the all-Manhattan comparison revealed. Gallery blocks do have a larger share of lots that change building class (12.04 percent versus 8.54 percent) and a greater increase in residential land share (2.75 percentage points compared to 1.21 percentage points). But most of the metrics do not show statistically significant differences between gallery and non-gallery blocks. The difference between the all-Manhattan and Chelsea comparisons suggests that galleries locate in larger neighborhoods that are more likely to undergo future change, but within smaller areas, the presence of galleries has less of an impact development patterns.

Manhattan's relatively restrictive zoning raises some concerns about whether the building stock can effectively be redeveloped in response to gentrifying influences: perhaps galleries do increase underlying property values, but the surrounding buildings cannot be altered because of constraints. Comparing changes across blocks within the same neighborhood helps control for differences in zoning across Manhattan that might conflate the effect of galleries with the effects of tighter zoning. One possible explanation for the larger changes in blocks with galleries than blocks without galleries across all neighborhoods is that galleries tend to locate in less restrictively zoned areas. But the lack of difference in block-level changes within neighborhoods could only be explained by the opposite relationship: galleries would have to be systematically located on more restrictively zoned blocks within the same neighborhood for zoning to cause downwards bias in the estimated effects of galleries. To control for this possibility, a measure of initial zoning is included in regression analysis, described next.

Regression analysis conducted at both the census tract and city block level largely confirms the results of the difference in means shown in Table 2-4.[25] The number of baseline galleries in the census tract is positively correlated with tract-level changes across a variety of metrics, including share of lots that change building class, increase in total number of buildings and increase in residential land share. However, almost none of the results remain statistically significant once controls are added for initial neighborhood amenities, such as building vintage, historic district status, amount of commercial zoning and building dimensions. Analysis at the city block level provides slightly more robust evidence that galleries are correlated with neighborhood change. The number of galleries per block is positively associated with the percent of lots changing building class and increase in residential land share, controlling for baseline neighborhood amenities. However, there is some evidence that galleries choose to

[25] Full regressions results can be found in Schuetz, "Do Art Galleries Transform Neighborhoods," p. 44-52.

locate on blocks that are more likely to change, rather than causing the change. One possible interpretation is that gallery owners are adept at identifying blocks in early stages of transition that are not observable in the building metrics – for instance, blocks where a property owner has filed for a building permit but before construction has started, or an upgrade of tenants in an existing building. That is, the presence of a gallery on the block may be an indicator that (re)development is already underway.

Policy implications and future research

The purpose of this volume, to examine the relationship between the arts and economic development, is a broad task with many possible approaches. Various chapters illustrate the challenges of conducting empirical analysis on this topic: what type of arts-related activity should be studied, what kinds of organizations conduct the activity, what are the right measures of economic impact, and at what level of geography. These seemingly technical questions are relevant for policymakers as well as academic researchers: if policymakers seek to enhance the economic well-being of neighborhoods, cities, or regions through expansions of creative industries, it is critical to understand what type of activities and organizations will provide the most bang for the taxpayers' bucks. Moreover, understanding what makes an area attractive to artists and creative workers will help policymakers more effectively devise targeted tax incentives or other economic subsidies. In this chapter, I have explored one type of activity – art galleries – that has been frequently cited by qualitative research as a possible mechanism for arts-led neighborhood regeneration. Unlike some of the arts venues discussed elsewhere in the volume, art galleries are generally for-profit businesses engaged in the sale (but not the production) of art. In economic terms, galleries have more in common with luxury retail stores than with graphic design studios or artists' workshops.

Somewhat contrasting with the conclusions of neighborhood case studies, the results of statistical analysis suggest that art galleries tend to locate in relatively high-amenity, affluent neighborhoods, not blighted marginal areas in need of regeneration. Types of amenities that attract galleries include older building stock, historic districts, museums and other cultural institutions, and commercial-friendly zoning, although specific amenities vary across neighborhoods. Galleries have a strong propensity to locate near existing gallery clusters, suggesting some level of path dependence, and possibly a need for a critical mass to sustain a gallery cluster. Galleries appear to be more sensitive to physical and economic amenities than to real estate values. On the occasions when galleries locate in relatively lower-income, lower-rent neighborhoods, these neighborhoods tend to have high levels of place-specific amenities, which may portend gentrification for the neighborhood even in the absence of galleries. Results also provide at best weak evidence that galleries spur physical development. Although simple correlations suggest that tracts and blocks with galleries undergo more change in land use patterns and building stock than blocks without galleries, these differences largely disappear once initial neighborhood amenities are accounted for. Galleries are like the canary in the coal mine: once galleries appear on a block, change is already underway.

These results offer somewhat mixed implications for policymakers interested in encouraging arts-related economic development. If physical amenities are important to galleries' location choice, policymakers should consider the availabilities of these amenities across neighborhoods in deciding whether and where to establish gallery-oriented Arts Districts or Art Walks. Offering financial subsidies such as reduced property taxes may not be effective at attracting galleries to neighborhoods that lack the desired type of building stock or are too remote from established cultural institutions. In addition, because galleries benefit strongly from

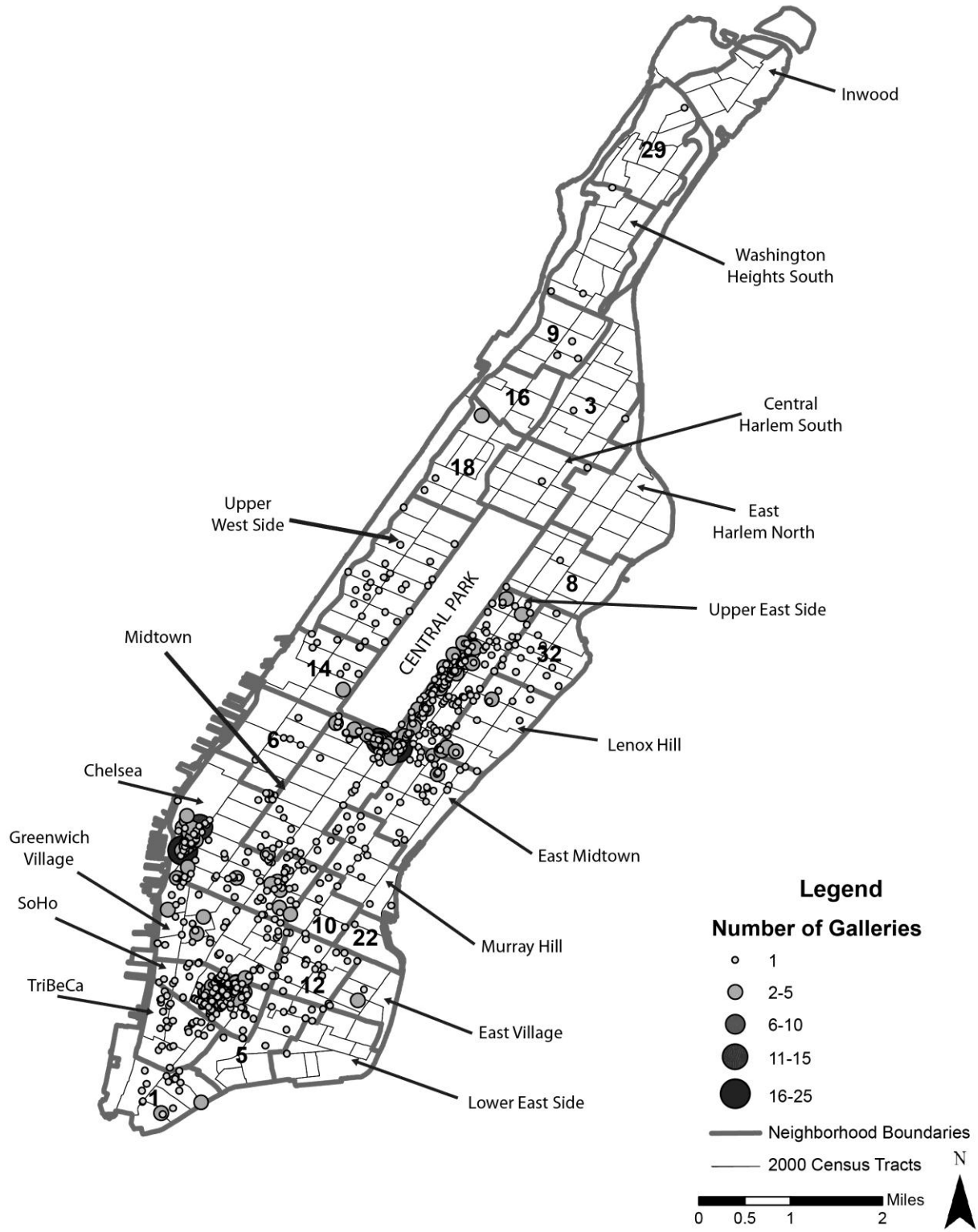
proximity to other galleries, attracting a critical mass – and potentially some more well-known, well-established galleries – may be necessary to create an enduring gallery cluster in a neighborhood without a prior reputation as an art center. One of the key questions in the arts-and-economic development field is what type of arts venue is likely to generate the greatest increase in economic activity. These results suggest that galleries may not be the most effective or efficient target for economic development. Because galleries' economic success is dependent on access to affluent collectors, they are less likely than art production facilities to venture into marginal neighborhoods to begin with. And galleries are typically much smaller and attract a lower volume of visitors than museums or performing arts venues, which could explain the observed lack of spillover effects into surrounding neighborhoods. Subsequent chapters in this volume suggest that other types of arts activity may give policymakers more bang for their buck, in terms of increased economic output. This is, however, an important area for future research: analysis that directly compares the spillover impacts of different types of artistic venues within the same geographic context would be helpful to determine the most effective policy.

This analysis has focused on the art market in Manhattan, so some caveats apply in attempting to extrapolate the results to other cities. Manhattan offers a useful setting for conducting large-scale quantitative research, because of its unusually large inventory of galleries, the presence of four well-established gallery clusters, and not least, the availability of uniquely rich datasets that contain geographically and chronologically granular data on art galleries and physical neighborhood conditions. Beyond that, it is difficult to know whether the setting is likely to overstate or understate the effect of galleries on surrounding neighborhoods. On the one hand, the unusual density of galleries and presence of notable or "star" galleries in Manhattan would seem propitious for attracting the volume and type of visitors that might revitalize a

marginal neighborhood. As shown in Table 2-3, Chelsea and Midtown have some blocks with more than 25 galleries on a single block – this density is unlikely to occur in many other U.S. cities. On the other hand, the cost and difficulty of the development process may make it difficult for the physical environment to adapt to rising property values, while cities with more flexible development processes or more available land might respond more visibly to gentrifying influences. The stringency of zoning in Manhattan may constrain the overall level of changes observed in the building stock, but is unlikely to explain the lack of difference in redevelopment across blocks with and without galleries in the same neighborhood.

Although there are no equivalent datasets for either galleries or physical indicators exist for other U.S. cities, some comparative work could be undertaken using publicly available data, such as the ZIP Business Patterns (ZBP) or economic census, or proprietary datasets such as the National Establishment Time Series (NETS). At a minimum, the ZBP could be used to examine the degree and persistence of galleries' spatial concentration within other U.S. cities or metropolitan areas, down to the ZIP code level. Combining the ZBP with demographic and economic characteristics from the decennial census or the American Community Survey (ACS) would allow examination of whether art galleries in other cities also locate in high-income neighborhoods with older housing stock. The role of art galleries in neighborhood revitalization has so far mostly been studied by qualitative researchers; complementing these studies with larger scale statistical analysis would help place gallery neighborhoods within the larger urban context.

Figure 2-1: Manhattan gallery locations (2000)



Source: Manhattan Gallery Database (Schuetz and Green 2012)

Table 2-1: Was Soho a "typical" low-income neighborhood in 1970?

	Soho	**Other Manhattan tracts**	**Other low-income Manhattan tracts**
Income	35,345	52,712	31,981
	(5,841)	(32,416)	(5,538)
% in poverty	21.53	16.95	24.58
	(5.66)	(10.12)	(8.60)
% college educated	9.06	19.04	5.34
	(9.55)	(16.02)	(4.54)
Monthly rent ($)	296	572	348
	(130)	(314)	(62)
Distance to CBD (miles)	1.83	3.48	4.27
	(0.14)	(2.22)	(2.14)
% pre-1940 housing	91.29	65.67	70.65
	(10.40)	(26.31)	(26.18)
Distance to museums	0.94	1.14	1.30
	(0.06)	(0.65)	(0.63)
Number of tracts =	7	277	139

Sources: Author calculations using Geolytics' Neighborhood Change Database. Tract averages, weighted by population. Standard deviations shown in parentheses. Distance to Central Business District (CBD) calculated using latitude-longitude coordinates of census tract center and the Empire State Building. Distance to museums is a nearest neighbor index measuring average distance from census tract center to five nearest museums. Location of museums assembled from *The Rough Guide to New York City 2006* and museum websites.

Table 2-2: Comparison of Manhattan's Big 4 Gallery Neighborhoods

	Manhattan	**Chelsea**	**Midtown**	**Soho**	**UES**	**Other nhoods**
Galleries						
Galleries	955	140	125	194	207	14.19
Galleries/acre	8.94	34.42	25.66	115.19	74.30	4.08
Lagged galleries/acre	8.09	7.38	21.96	141.31	72.51	2.83
Land use & building characteristics						
Residential (%)	34.26	30.95	8.78	34.00	70.70	33.83
Retail (%)	2.55	3.41	6.96	8.85	3.36	2.10
Office (%)	6.01	8.55	42.02	13.36	4.72	4.12
Loft + Industrial (%)	3.30	19.33	9.40	24.06	0.15	2.50
Pre-1940 structures (%)	75.61	86.27	79.29	90.77	90.48	74.16
Other amenities						
Historic district (%)	20.97	35.88	1.51	64.11	87.96	16.92
Commercially zoned (%)	35.09	79.63	99.18	90.60	34.15	30.02
Cultural institution/acre	1.91	1.48	2.67	0.59	7.18	1.39
Subway lines/acre	1.37	1.97	4.31	5.34	2.51	0.53
Tax lots =	43,648	2367	2,207	1,603	2657	1221
Population characteristics						
Population/acre	141.85	116.49	56.54	144.89	228.97	97.33
Med HH income	51,037	56,271	68,222	47,339	122,365	47,266
Bachelor's, professional or graduate degree (%)	46.10	61.66	64.23	46.22	79.54	43.64
Median rent	960	907	1,340	846	1,377	931
Census tracts =	290	11	18	7	14	9.23

Sources: Author calculations using data from NYC Dept. of Finance, Real Property Assessment Database (RPAD), Neighborhood Change Database, Manhattan Gallery Database (Schuetz and Green 2012), New York City Department of City Planning, Landmarks Preservation Commission. All NYC administrative datasets provided to author courtesy of New York University's Furman Center. Other neighborhoods column reports average across 26 other neighborhoods.

Table 2-3a: Chelsea, block 697, 2000-2003

Lot	Building class				Area	Story	Units	Yr built	Galleries	
	2000		2003						2000	2003
1	**V1**	**Vacant**	**G6**	**Parking lot**	19,750	0	0	0	0	0
5	**E9**	**Warehouse**	**O9**	**Office**	7,406	6	1	1926	**2**	**3**
8	**G2**	**Garage**	**K9**	**Store bldg**	5,896	1	1	1926	**0**	**1**
10	G6	Garage	-		6,448	1	1	1910	0	0
13	**E1**	**Warehouse**	**L2**	**Loft**	24,687	4	1	1910	**0**	**1**
23	L1	Loft	-		9,890	9	1	1917	**0**	**12**
27	E9	Warehouse	-		9,875	1	1	1942	0	0
31	E1	Warehouse	-		19,760	10	1	1928	**1**	**0**
42	F2	Factory	-		12,343	12	6	1927	**0**	**3**
47	**F2**	**Factory**	**P7**	**Museum**	22,219	10	4	1910	**12**	**13**
56	**G1**	**Garage**	**L3**	**Loft**	9,875	2	3	1929	**0**	**1**
60	**G1**	Garage	-		9,875	1	1	1929	0	0

Table 2-3b: Midtown, block 1293, 1995-2000

Lot	Building class				Area		Story		Year built		Galleries	
	1995		2000		1995	2000	1995	2000	1995	2000	1995	2000
1	**O3**	**Office**	**K9**	**Store**	6225		15		1931			
7	O3	Office			3012		21-22		1926		1	4
9	**L8**	**Loft**	**K9**	**Store**	2800		6		1916			
10	**L8**	**Loft**	**K9**	**Store**	3815		6		1930		2	
12	**L8**	**Loft**	**K9**	**Store**	**4317**		**6**	**16**	**1930**	**1996**		
13	**L8**	**Loft**			**1600**		**5**		**1953**			
14	**L8**	**Loft**	**O3**	**Office**	**2312**	**6221**	**6**	**24**	**1939**	**1998**	**1**	
15	**C7**	**Walk-up apt**			**2309**		**6**		**1930**			
26	O4	Office			12900		40-42		1929		14	25
47	**J1**	**Theatre**	**K1**	**Store**	5020		1		1930			
51	K3	Store			2500		5		1930		2	2
52	**O9**	**Office**	**K9**	**Store**	4650		7		1930			
59	O3	Office			18000		25		1965			1
69	O4	Office			21975		34-35		1930		1	3
7501	R5	Commercial condominium			26592		51		1990			

Sources: Manhattan Gallery Database and NYC Dept. of Finance Real Property Assessment Database.

Table 2-4: Do blocks with galleries undergo more physical change?

	All Manhattan blocks			Chelsea blocks		
	Gallery	No gallery	Difference	Gallery	No gallery	Difference
Any change (%)	10.98	9.84	1.142**	14.12	13.29	0.826
	(12.56)	(14.99)		(15.14)	(20.87)	
Use change (%)	7.30	5.76	1.547***	12.04	8.54	3.496*
	(10.61)	(11.99)		(14.96)	(17.08)	
Size change (%)	4.84	5.02	-0.186	3.52	5.43	-1.909
	(6.71)	(9.74)		(4.26)	(12.67)	
Buildings	0.58	0.34	0.244***	0.40	0.36	0.046
	(2.50)	(2.88)		(1.96)	(2.18)	
Stories	2.24	0.86	1.384***	3.43	1.22	2.204
	(14.59)	(11.61)		(22.31)	(5.34)	
Residential units	24.36	15.13	9.235*	39.89	26.72	13.171
	(137.20)	(165.38)		(101.28)	(81.87)	
Residential land share (%)	2.65	1.47	1.184***	2.75	1.21	1.544**
	(7.53)	(7.63)		(6.48)	(5.38)	
Vacant land share (%)	-0.42	-0.75	0.334	-0.61	-0.17	-0.439
	(3.90)	(7.61)		(5.58)	(13.07)	
n =	1167	4665		89	229	

Sources: Author calculations using RPAD (1991, 1996, 2000, 2004), Manhattan Gallery Database (2012). The first three metrics report percent of lots in census tract undergoing change over 5 years. Buildings, stories and residential units report changes in the number of each metric for the tract. Changes in building stock calculated for 1990-95, 1995-2000, 2000-2004. Gallery presence in initial year of each period. Standard deviations shown in parentheses. *, **, *** indicate significance at 10%, 5% and 1% levels, respectively.