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Jane Jacobs and 'The Need for Aged Buildings': Neighborhood Historical Development Pace and Community Social Relations

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Abstract

Jacobs argued that grand planning schemes intending to redevelop large swaths of a city according to a central theoretical framework fail because planners do not understand that healthy cities are organic, spontaneous, messy, complex systems that result from evolutionary processes. She argued that a gradual pace of redevelopment would facilitate maintenance of existing interpersonal ties. This paper operationalizes the concept of pace of development within a cross-sectional framework as the "age diversity of housing." Analysis of a population-based multilevel community survey of Chicago linked with census housing data predicts individual perceptions of neighborhood social relations (cohesion, control, intergenerational closure, and reciprocal exchange). A gradual pace of redevelopment resulting in historical diversity of housing significantly predicts social relations, lending support to Jacobs's claims.

Community Social Relations

A large literature in social science and public health documents the importance of social relations in residential neighborhoods for a broad variety of health and social outcomes for individuals and communities (Entwisle 2007). Some of this work is motivated by a claim that community informal social networks may be weakening (Putnam 1995) within and across all social groups and by concern that changes in community social networks will hurt members of the poorest urban communities (Klinenberg 2002) who may lose networks they previously relied on without gaining access to emergent social relational formats. Others have pointed out that dense social ties in communities may not always be beneficial; cohesion may foster pressure to conform and even contribute to problematic social organizations such as gangs (Sampson 2012).

Most research on community social relations has focused on neighborhood social composition, but there is good reason to believe that the built environment may be important too. Research in a variety of literatures, including urban planning, criminology, environmental psychology, landscape architecture, and early work from the Chicago School, describes urban design's implications for the interaction between people and their environments by influencing opportunities for surveillance and casual encounters. Widely discussed theories such as New Urbanism and defensible space, along with research on the health effects of housing, transportation, and commercial development, can also inform research on neighborly social relations.

Sociologists of the early Chicago School promoted theoretical approaches that took seriously the role of the physical environment in shaping social processes over time

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(Sampson and Morenoff 1997). Of course, these physical ecological dynamics are themselves molded by local governments, institutions, social movements, developers, and others who influence policy and market structure to shape neighborhood trajectories (Brown and Chung 2008; Massey et al 2009; Rothwell and Massey 2009, 2010; Sampson and Morenoff 1997; Taub et al 1984). These ecological approaches are still available to us, and indeed the ability to measure physical characteristics of neighborhoods has undergone a revolution due to advances in geoprocessing and neighborhood-based survey methodology (Diez Roux and Mair 2010).

Measurement may have improved, but theory has not kept pace, to the extent that a focus on methods has eclipsed a great deal of valuable theory. Rich theoretical narratives are not only valuable in framing and motivating urban research, but can also be a great source of testable hypotheses for empirical examination. This is why it makes sense to turn to the work of that most beloved of urban planning theorists, Jane Jacobs.

This paper first presents an overview of Jacobs's concept of development pace and very briefly summarizes research to date on community social relations, focusing on work linking housing and social behavior. The analysis then operationalizes historical development pace as a measure of the diversity of housing ages, and uses this measure along with controls (individual sociodemographics and neighborhood built and social characteristics) to predict four measures of neighborly social relations in a multilevel framework using data representative of the city of Chicago in 2000.

Jacobs on Neighborhood Change and Social Ties

Jacobs's book *The Death and Life of Great American Cities* (1961) opposed "one size fits all" planning approaches and large-scale building themes, emphasizing instead allowing places to gradually evolve through natural selection and infill development, with minimal government intervention and in careful consultation with local residents. Many of her comments were attacks on urban planning movements of the early 20th century, such as Ebenezer Howard's Garden City movement, which sought to replace slums with planned, wholesome communities with plenty of green spaces; the grand designs of Le Corbusier's high-density aesthetic Radiant City; and Robert Moses's emphasis on freeways as a means to modernity. These reformers disliked the mix of land uses and architecture styles and the high-density and chaotic street life of (usually poor) urban neighborhoods; they thought that planning for separated and distinct spaces for home, outdoor leisure, employment, and commerce would improve urban life and modernize cities. They saw themselves as the continuation of a history of public health benefits from urban planning changes, such as sewage systems, decreased crowding resulting in lower infection rates, and separation of toxic land uses from housing areas (Perdue et al 2003).

Jacobs argued that grand planning schemes intending to redevelop large swaths of a city according to a central theoretical framework fail because planners do not understand that healthy cities are organic, spontaneous, messy, complex systems that result from evolutionary processes. This suggests that neighborhoods that have experienced gradual rather than intensive redevelopment would experience better allocation of land uses, perhaps resulting in more walking, less vacant area, and greater diversity of uses. Encouraging disinvestment in a community (to clear the way for large-scale redevelopment of land) rather than fostering small-scale reallocation of buildings and land uses would also break up existing social relationships. Other, more recent urban policy researchers, including Galster (1987), have also emphasized the importance of neighborhood reinvestment.

Housing, Social Composition, and Social Relations

There are three main sociological approaches to the study of neighborhood social relations (Swaroop and Morenoff 2006), aside from a perspective focusing on the concentration of poverty(Wilson 1987) and the emphasis on the negative externalities of urban living itself (Wirth 1938). The systemic or social disorganization perspective emphasizes the role of residential stability (low population turnover) in supporting social relations (Kasarda and Janowitz 1974; Shaw and McKay 1942), particularly for informal exchanges (Sampson 1988; Sampson and Groves 1989). The social needs perspective suggests that challenged communities may actually interact more in the attempt to resolve problems or seek protection (Kasarda and Janowitz 1974), although this empirical support for this view appears to be limited to community problem solving behavior in the face of challenges (Woldoff 2002). Finally, the limited liability approach suggests that instrumental participation and formation of ties serve as strategies to protect the safety and well-being of household members and property and to solve collective problems (Greer 1972; Guest et al 2006).

By contrast, studies of crime and health policy sometimes address features of the physical environment such as land use, accessibility, access to goods and services, exposure to physical hazards, and “walkability.” The “built environment” consists of the human-modified components of the physical environment, such as housing and commercial land use, transportation networks, landscape design, etc., and the accompanying benefits and risks (e.g. traffic risks, access to parks). Although these two dimensions (social and physical) are considered to be interlinked spatial and temporal processes, very little work has investigated the complex relations among physical and social neighborhood-level characteristics (Dannenberg 2003; Roman and Chalfin 2008; Singh et al 2010; Srinivasan et al 2003; Wen and Zhang 2009).

A few studies have examined how housing building types predict neighborhood social relations. Respondents in townhouses or villas reported higher and those living in duplexes and apartments or flats reported lower levels of social capital than residents of detached houses in Australia (Wood et al 2008). Glaeser and Sacerdote (2000) found that residents of large apartment buildings have more social connections but less involvement in local politics; residents of areas around apartment buildings experienced more robberies and auto thefts. Public housing developments may have stronger social interaction when low-rise buildings are close together than when high-rise buildings are set far apart (Amick and Kviz 1975). The positioning of doors, paths, and common spaces has been shown to predict social contacts (Festinger et al 1950; Gans 1962; Michelson 1970, 1977; Talen 1999).

Some recent work has described a possible change in the worth of older housing that the earlier neighborhood change models did not reflect. Although affluent households still choose newer housing and moderately older housing still portends a neighborhood economic decline, older housing is becoming more attractive for gentrification (Rosenthal 2008), even as there is increased demand for access to the amenities (e.g. shops, restaurants, and services, but also including positive neighborly social relations) provided in denser cities (Glaeser and Gottlieb 2006). Aside from a considerable body of descriptive analysis of specific redevelopment projects, especially public housing, little empirical work has considered the implications for social relations of housing age and development trajectories at larger spatial scales. In one exception, older local housing was positively related to social interaction and organizational participation (Guest et al 2006). Despite these efforts to understand the influence of housing age and type on social relations, Jacobs’s narrative describing the benefits of gradual evolutionary redevelopment has still received little attention. Specifically, she proposed that a “district must mingle buildings that vary in age

and condition, including a good proportion of old ones" (Jacobs 1961, p. 187). It remains to be seen whether the diversity of forms created by gradual development in fact predicts better neighborly social relations.

Analytic Plan

This analysis provides an empirical test of Jacobs's narrative assertion that gradual neighborhood development predicts a more sociable climate. To assess this claim, historical development pace is operationalized in a cross-sectional framework as age diversity of housing units, while neighborly social relations are represented by four measures common to health and social research to represent neighborly social relations: cohesion, control, intergenerational closure, and reciprocal exchange (Sampson et al 1999). Linking a representative survey of Chicago in 2001–03 with objective and new census-based measures of the neighborhood housing environment, this paper examines linkages between the housing environment and neighborly social relations. The specification of housing includes a new measure, *age diversity*, inspired by Jacobs's writings on the benefits of gradual rather than large-scale development for neighborhood social vitality, as well as new factors representing housing construction eras.

Multivariate hierarchical linear models with neighborhood random effects and robust standard errors are presented. All models control for basic individual-level sociodemographic composition. For each outcome, associations of housing building type and housing age factors with the outcome are first presented in separate models (Models 1 and 2) to establish that these measures are in fact appropriate built environment controls. Models 3 add the key variable of interest, the housing age diversity measure, along with the housing building types and housing age factors. The final models (Models 4) additionally incorporate controls for neighborhood social composition.

Data and Methods

Survey Data

The Chicago Community Adult Health Study (CCAHS) is a multilevel probability sample of 3,105 adults aged 18 and older living in the city of Chicago, with a response rate of 71.8% for face-to-face interviews. Content includes the individual socioeconomic, psychosocial, and behavioral factors on health; and social and physical characteristics of neighborhoods. The CCAHS built on the clustered sampling framework of the Project on Human Development in Chicago Neighborhoods (PHDCN), drawing an average of 9 respondents from each of the 343 neighborhood clusters (NCs) covering the entire city. These NCs are groups of contiguous census tracts grouped to reflect physical barriers, local cultural knowledge, and cluster analyses of census data, so they are relatively homogeneous (Sampson et al 1999).

Perceived Neighborly Social Relations

An important component of the CCAHS was the community survey, a portion of the questionnaire that covers perceptions of the respondents' neighborhoods along a wide range of domains. Of these, four are most pertinent. *Social cohesion* assesses closeness and shared values among neighbors, a form of bonding capital that emphasizes the social networks among individuals who agree to a shared system of norms, at times to the exclusion of individuals on outer rings of a concentric network of trust (Fukuyama 2000). *Informal social control* taps into the shared beliefs and expectations of a community that they can and will intervene for the collective good. When social cohesion and control are combined, they constitute a shared willingness to take action to enforce collective norms, known as "collective efficacy" (Sampson et al 1997). *Intergenerational closure* assesses the extent to

which adults and parents in the neighborhood are aware of and looking out for local children. *Reciprocal exchange* focuses on the exchange of favors, advice, material goods, and information that makes up a social support network within the community; the exchange is reciprocal because of the tacit expectation that this care may be repaid in the future, although possibly in a different mode and by unspecified neighbors (Portes 1999).

The four continuous standardized neighborhood social relations outcomes each come from principal components factor analysis of five items measured on Likert scales. Imputed versions of the scales from the public version of the dataset were used; the imputation considered basic sociodemographics. Table 1 reports scale component item descriptions and summary statistics. Scale items display acceptable levels of internal reliability (Cronbach's alpha, 0.79–0.83) and levels of reliability of OLS estimates across neighborhoods based on the random effects of level 1 intercepts (0.47–0.60). Intraclass correlations assess the extent to which a single variable varies by neighborhood – that is, the proportion of overall variance attributed to the neighborhood level by the random-effects model. The intraclass correlations of 0.09 (reciprocal exchange) to 0.14 (control) indicate considerable agreement about social relations within neighborhoods, greater than that for most health outcomes frequently studied in neighborhood context (King 2012).

Individual Sociodemographic Controls

Individual-level controls are included to account for factors that may affect reports of neighborly social relations: race/ethnicity (non-Hispanic Black, Hispanic, non-Hispanic other, with non-Hispanic white as the reference category), variables indicating whether the respondent is female or is an immigrant, and dummy variables for age (30–39, 40–49, 50–59, 60–69, and 70 years and over, with 18–29 as the reference group), education (12–15 years or 16+ years, with 0–11 years as the reference category), and annual income of respondent and their spouse if applicable (less than $5,000, $15,000–$39,999, and $40,000 and over, with $5,000–$15,000 as the reference category). In models not shown, additional controls were examined including individual home and car ownership, household structure, residential tenure, and walking, but they did not substantively affect the central relationship.

Neighborhood Built Environment

Housing—The census housing building type categories include buildings with 50 or more units (also called high-rises), with 5–49 units, with 2–4 units, and nonstandard types (units attached to nonresidential buildings, mobile homes, boats and motor vehicles, and other types of housing), with detached single-unit homes as the reference group. Housing building type patterns show a clear concentric ring pattern, with high-rises concentrated along Lake Michigan (and a slight spoke-and-hub pattern around highways), 3- to 4-unit buildings in a smooth ring distant from the Loop, and a gradual transition to single-family houses toward the city outskirts.

Housing remaining from before 1940 is more common on the north side of Chicago, Uptown, and curving along the river, as well as in Hyde Park and Beverly. Housing from the 1940s is more spatially dispersed, but located away from the Loop. Fifties-era construction occurred at a fairly even prevalence across the city except for concentrations on the outskirts of the city. The 1960s and 1970s saw considerable investment in the waterfront and the Loop and redevelopment in the South Side and outskirts, especially both around Lake Calumet and near Ashburn and Belmont. Waterfront redevelopment continued in the 1980s and in the 1990s spread to the west away from the waterfront.

Redevelopment Pace/Historical Diversity—The next step is to operationalize the measure capturing an element of urban design suggested by Jacobs as important to

neighborhood social relations, but that has not yet been empirically analyzed: the historical age diversity of housing stock. Jacobs argued that diversity of physical form, especially the gradual repurposing, reconstruction, and infilling of newly developing properties, is essential to maintaining a dynamic flexibility necessary to keep an urban neighborhood thriving. The gradual redevelopment of housing properties is captured by applying a common measure of ecological diversity (Talen 2010), the Simpson diversity index (Simpson 1949) (also known as a Herfindahl index), which measures the diversity of a distribution among categories. The Simpson index is calculated by $S = \Sigma_k ((n_k/N)^2)$ where n_k is the number of units in a category and N is the total number of units, and must be between 0 and 1. Here the categories represent the number of housing units in each NC constructed (1) during the 1930s and before, (2–6) in the 1940s, 1950s, 1960s, 1970s, and 1980s, and (7) from 1990 to 2000, using aggregated data from the 2000 Census via NCDB.

Additional Measures—An extensive set of alternate and additional measures of the neighborhood built environment were also considered, but they did not alter the substantive findings. First, given the claims of New Urbanism that walkability and walking promote social relations (Leyden 2003), walkable urban form (operationalized using residential density, street connectivity, and land use mix) was examined. Next, other measures of variability in the housing environment such as building type diversity and variation in the number of bedrooms, etc. were examined. Results were also robust to separate inclusion of a long list of variables including vacancy rates, physical disorder, ambient stressors, Hispanic/foreign-born composition, open space, physical barriers, commercial destinations, and industrial facilities.

Neighborhood Social Composition

Five measures of social composition are included as controls: disadvantage, affluence, and residential stability, and the proportions of residents who are under 18 and 65 and older, based on census data for 2000.

Recent studies have tended to approach neighborhood social composition by using factor analysis of census social composition data to create scales (Land et al 1990), most often disadvantage and affluence, but also including Hispanic/foreign-born composition, family structure, and older age composition (Sampson and Morenoff 1997). Disadvantage is characterized by large positive loadings on measures such as low income, public assistance, unemployment, female-headed households, low education, and young age structure, whereas affluence is characterized by large positive loadings on measures such as high education, professional/managerial occupation, and middle age composition. These are not merely opposites: although almost no neighborhoods are both affluent and disadvantaged, many neighborhoods have low levels of both. Incorporating the affluence dimension captures important variation in neighborhood socioeconomic composition; affluence is a powerful predictor of health and health behavior as well as of the racial disparities therein. Neighborhood affluence appears to have strong positive associations with intergenerational relations (closure), reciprocal exchange, social control (Sampson et al 1999), and social interaction (Guest et al 2006), whereas social control is lower in disadvantaged areas (Sampson et al 1999). The literature has paid little attention to age composition.

The disadvantage and affluence scales used here were constructed by calculating the average value of a set of standardized census-based variables for each NC, informed by prior exploratory factor analysis (Morenoff et al 2008). The socioeconomic disadvantage scale (Cronbach's alpha=0.96) loads positively on low family incomes and high levels of poverty, public assistance, unemployment, and vacant housing, and negatively on high family incomes. The affluence scale (Cronbach's alpha=0.94) consists of three components: the

proportions of the population with professional/managerial occupation, with less than 12 years of education (reverse coded), and with more than 16 years of education. Residential stability, or the proportion of residents in place for 5 or more years, and the proportions of minors and older adults, were also standardized.

Results

Table 2 reports summary statistics on individual sociodemographics controls for the total study sample (n=3,105). Because this study is representative of Chicago's adult population in terms of age, race-ethnicity, and sex (Morenoff et al 2008), there are substantial proportions of Blacks (32.1%), Hispanics (25.8%), first-generation immigrants (26.7%), and persons with annual income less than $15,000 (20.1%), and slightly more than half are female (52.6%).

Table 3 gives summary statistics for neighborhood-level variables. On average within NCs, buildings of 2–4 units were the most common building type (38%), while 22% of units were in buildings containing 5–49 units, 8% were in buildings with at least 50 units, 28% were in stand-alone single-family houses, and 4% were in less standard building types (mobile units, housing attached to nonresidential properties, and other units). However, NCs ranged widely in distributions of building types. The modal housing unit was built in the 1930s or earlier (39% in the average neighborhood), with on average more than 10% of units built in each of the 1940s, 1950s, and 1960s, and little construction thereafter. However, some NCs were substantially redeveloped in any of the postwar decades, ranging as high as 64% of units constructed in the 1960s in one NC. To reduce the dimensionality of the housing age categories, principal components analysis is employed. Two factors have eigenvalues over the conventional critical value of 1.0 (Table 4); these factors are interpreted as representing (1) recent and (2) midcentury construction. The Simpson diversity index for housing construction decades averages 0.38 (0.13–0.54).

The standardized principal components measures of disadvantage and affluence are similar to those used in prior studies (Morenoff et al 2008) but have not been rotated to achieve orthogonality and so have a correlation of −0.49. On average, 56% of respondents had been in their homes for at least 5 years, but some neighborhoods had as many as 83% or as few as 20% of their residents staying in a home that long. NCs averaged 28% minors and 10% older adults.

Table 5 reports neighborhood-level coefficients from 4 hierarchical linear models for each of the 4 outcomes. Models 1 and 2 report associations of housing building type and housing age factors, respectively, with the outcomes. For cohesion and closure, increasing proportions of large building types are associated with increasing negative associations with social relations, compared with proportions of single-unit houses; these associations are not monotonic for control. A significant difference between proportions of houses and buildings with 5–49 units is also found for reciprocal exchange. No significant differences between proportions of houses and of other building types is found. The mid-century building factor is significantly associated with higher levels of all four types of social relations, but recent construction is negatively associated only with social control. When all three sets of housing measures are included in Model 3, the other housing features become non-significant (except proportions of large buildings vs. houses with cohesion). However, age diversity of housing is significantly associated with all 4 social relations outcomes. The addition of social composition controls in Models 4 gives a similar pattern: among the housing measures, only age diversity of housing is significant.

Discussion

The primary aim of the analysis was to assess the potential contribution of a concept from Jacobs's *The Death and Life of Great American Cities*: the importance of gradual rather than large-scale redevelopment (resulting in historical diversity) for place-specific social ties. Empirical results show significant links between housing age diversity (historical development pace) and four measures of neighborly social relations, even when controlling for other neighborhood housing features, social composition, and individual sociodemographics. It may be that gradual redevelopment preserves community ties, which may take decades to form and which new residents may "inherit" from previous neighbors. Alternatively, the significant association of historical diversity may not be due to Jacobs's explanation and may instead have other interpretations. Historical diversity may (1) result from the continued vibrancy of neighborhoods across previous decades (a reciprocal effect of social relations) or (2) arise in neighborhoods that contain more local physical or social barriers to large-scale redevelopment, barriers that somehow foster social interactions. The finding should be repeated in other contexts, with longitudinal data, and for other outcomes to better understand whether we should interpret it as evidence that Jacobs's narrative was correct.

The previous pages discussed some ideas of Jacobs and others about how physical features of places predict local social relations, but in evaluating the results, it is imperative to avoid what Glaeser (2011) calls the "edifice complex," the idea that built features are sufficient in themselves to bring about desired outcomes. The analyses presented here do not establish any kind of causality, and it would be dangerous to attempt to dictate precise policy prescriptions on the basis of descriptive analysis. Rather, these cross-sectional results on several measures of the social climate in a single city suggest the validity of Jacobs's argument for further analysis using other methods, in other locations, and over time. This approach was informed by the belief that in evaluating current conditions to inform urban planning, health, and social policy, one should work with natural patterns of human-environment interaction rather than against them, and to this end, to seek to better understand those patterns before turning to the investigation of causality.

There are several limitations to this research. First, although urban planning and social policy can benefit greatly from research on the effects of the built environment on quality of life, evidence is needed at the "design level"—the level at which intervention in the built environment is possible. The present analysis may cover larger neighborhood sizes that may not match up well with what residents consider as their neighborhoods, although these larger spatial units may do a better job than building-level studies of capturing the neighborhood context into which buildings and block faces are set. This study has made no effort to consider the spatial context of the NCs, either by controlling for the context of surrounding NCs or by specifying aspects of location such as distance to downtown or from Lake Michigan. In addition, this analysis deals with a case in which the neighborhoods had had established housing stocks for decades, so this research does not apply to greenfield development. Future research should examine the social capital implications of additional built environment features such as transportation, commercial, and institutional features of places; the narrow focus here was on investigating how development pace may be related to neighboring over and above associations with housing and walkable urban form.

It merits attention that neighborhoods fared better when construction was more evenly distributed over time than when there were large redevelopments in particular decades. For one thing, if it is really the gradual evolutionary pace of redevelopment that matters for neighborly social relations, massive interventions to redevelop troubled areas may not succeed as well as small projects. This might even be the case for supposedly evidence-

based communities master-planned along New Urbanist lines. Also, large-scale zoning frameworks that discourage transitions (such as the current trend to redevelop industrial spaces as loft apartments) may be even more problematic than previously thought, and infill development even more promising. However, further investigation is necessary in order to more fully understand the association between construction patterns and social outcomes before concrete policy recommendations can be made. For instance, investigation of how changes in the housing environment and changes in social composition (e.g. gentrification, white flight) dynamically and jointly influence social behavior would be very informative. Equally importantly, social interaction is only one of many domains on which to consider urban policy.

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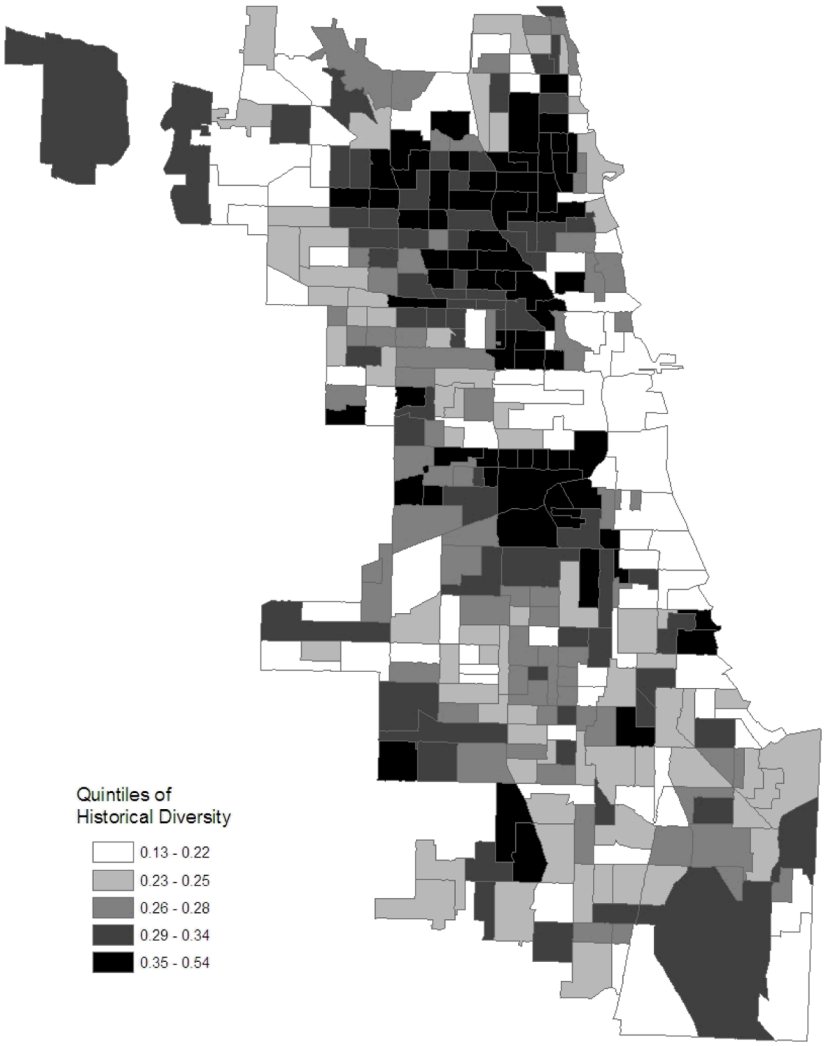

Figure 1.
Geographic Distribution of Housing Age Diversity
Source: Census 2000 data; CCAHS neighborhood boundaries

Table 1

Descriptions of Outcome Variable Components

Social Cohesion Scale (All items have been recoded such that 1=disagree strongly, 2=disagree somewhat, 3=agree somewhat, 4=agree strongly)	**N**	**Mean**	**SD**	**Range**
This is a close-knit neighborhood	2,983	2.74	0.80	[1,4]
People around here are willing to help their neighbors	2,978	2.97	0.63	[1,4]
People in this neighborhood generally get along with each other	3,025	3.04	0.58	[1,4]
People in this neighborhood can be trusted	2,939	2.76	0.73	[1,4]
People in this neighborhood share the same values	2,844	2.62	0.75	[1,4]
Standardized imputed summary measure	3,105	3.03	0.52	[1.22,4]

Social Control Scale (How likely is it your neighbors would do something about it? All items have been recoded such that 1=very unlikely, 2=unlikely, 3=likely, 4=very likely)	**N**	**Mean**	**SD**	**Range**
A group of neighborhood children were skipping school and hanging out on a street corner	2,961	2.71	1.05	[1,4]
Some children were spray-painting graffiti on a local building	3,026	3.27	0.90	[1,4]
A child was showing disrespect to an adult	2,965	2.67	0.95	[1,4]
A fight in front of your house and someone was being beaten or threatened	2,986	2.89	0.98	[1,4]
Neighborhood residents would organize to try to do something to keep the fire station or library closest to your house open if the city were going to close it for budget cuts	2,982	3.20	0.86	[1,4]
Standardized imputed summary measure	3,105	3.17	0.66	[1.14,4]

Reciprocal Exchange Scale (All items have been recoded such that 1=never, 2=rarely, 3=sometimes, 4=often)	**N**	**Mean**	**SD**	**Range**
About how often do you and people in your neighborhood do favors for each other?	3,072	2.71	1.01	[1,4]
When a neighbor is not home or on vacation, how often do you and other neighbors watch over their property?	3,064	2.86	1.16	[1,4]
How often do you and other people in the neighborhood ask each other advice about personal things such as child rearing or job openings?	3,072	2.25	1.07	[1,4]
How often do you and people in this neighborhood have parties or other get-togethers where other people in the neighborhood are invited?	3,083	2.18	0.99	[1,4]
How often do you and other people in this neighborhood visit in each other's homes or on the street?	3,087	2.47	1.02	[1,4]
Standardized imputed summary measure	3,105	2.85	0.76	[1.00,4]

Intergenerational Closure Scale (All items have been recoded such that 1=disagree strongly, 2=disagree somewhat, 3=agree somewhat, 4=agree strongly)	**N**	**Mean**	**SD**	**Range**
Adults in this neighborhood know who the local children are	2,929	3.01	0.77	[1,4]
There are adults in this neighborhood that children can look up to	2,877	2.99	0.69	[1,4]
You can count on the adults in this neighborhood to watch out that children are safe and don't get in trouble	2,927	2.88	0.71	[1,4]
Parents in this neighborhood know their children's friends	2,663	2.89	0.63	[1,4]
Parents in this neighborhood generally know each other	2,835	2.92	0.61	[1,4]
Standardized imputed summary measure	3,105	2.97	0.51	[0.97,4]

Table 2

Summary Statistics for Outcome Measures at Individual Level

	Social Cohesion	Social Control	Intergenerational Closure	Reciprocal Exchange
Mean	3.04	3.20	2.98	2.86
S.D.	0.13	0.15	0.10	0.12
Minimum	2.70	2.68	2.62	2.55
Maximum	3.45	3.60	3.35	3.26
Cronbach's alpha	0.83	0.79	0.79	0.80
Individual-Level Variance	0.21	0.34	0.22	0.50
Neighborhood-Level Variance	0.03	0.05	0.03	0.05
Intraclass Correlation	0.14	0.13	0.14	0.09
Reliability	0.60	0.59	0.57	0.47

CCAHS 2001–03

Table 3

Individual-Level Sociodemographic Summary Statistics

Variable	Categories	Frequency	Population-Weighted Percent of Sample
Race/Ethnicity	Non-Hisp. White	1240	38.36
	Non-Hisp. Black	802	32.07
	Hispanic	983	25.81
	Non-Hisp. Other	80	3.76
Sex	Female	1870	52.62
Immigrant Status	First Generation	773	26.89
Age	Age 18–29	800	27.51
	Age 30–39	748	22.69
	Age 40–49	608	18.74
	Age 50–59	402	12.90
	Age 60–69	286	8.98
	Age 70+	261	9.19
Education	<12 years	792	23.42
	12–15	1576	48.68
	16+	737	27.90
Income	$0–4,999	185	5.17
	$5,000–14,999	501	14.94
	$15,000–39,998	894	26.44
	$40,000+	948	34.85
	Missing	577	18.60

CCAHS 2001–3

Table 4

Neighborhood-Level Variable Summary Statistics (Census 2000)

Variable	Mean	SD	Range
Housing			
Building Types			
% Detached Single-Household	0.28	0.26	[0, 0.94]
% 2–4 Units	0.38	0.23	[0, 0.82]
% 5–49 Units	0.22	0.16	[0.00, 0.77]
% 50+ Units	0.08	0.17	[0, 0.89]
% Non-Standard	0.04	0.06	[0.00, 0.58]
Housing Construction Decade			
1930's and Earlier	0.39	0.16	[0.01,0.72]
1940's	0.16	0.06	[0.00, 0.46]
1950's	0.18	0.10	[0.03, 0.57]
1960's	0.13	0.08	[0.02, 0.64]
1970's	0.07	0.05	[0.01, 0.45]
1980's	0.03	0.03	[0, 0.27]
1990's and 2000	0.04	0.05	[0, 0.33]
Housing Historical Diversity	0.28	0.08	[0.13, 0.54]
Social Composition			
Disadvantage	0.00	0.92	[−1.45, 3.85]
Affluence	0.00	0.95	[−1.26,3.90]
Residential Stability	0.56	0.12	[0.20, 0.83]
% Pop. Ages 0–17	0.28	0.09	[0.04, 0.55]
% Pop. Age 65+	0.10	0.05	[0.02, 0.30]

Table 5

Factor Loadings for Housing Age (CCAHS, n=343)

	Rotated Factor Loadings	
	Recent	Mid-Century
Construction Decade		
(1930's and Earlier Omitted)		
1940's	−0.77	0.08
1950's	−0.36	0.65
1960's	0.24	0.84
1970's	0.74	0.41
1980's	0.77	−0.07
1990's and 2000	0.52	−0.54
Eigenvalue	2.38	1.79

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Table 6

Associations of Housing Age Diversity with Neighborly Social Relations

	Cohesion				Control			
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	b	**b**	**b**	**b**	**b**	**b**	**b**	**b**
Housing								
Age Diversity			0.07**	0.06*			0.09**	0.08*
Building Type								
(Ref=House)								
% 2–4 Units	−0.08***		0.73+	0.29	−0.09***		0.47	−0.16
% 5–49 Units	−0.11***		−0.42*	−0.26	−0.08**		−0.12	0.02
% 50+ Units	−0.14***		−0.42*	−0.29	−0.12***		−0.13	−0.01
% Other Types	0.03		0.03	0.03	0.00		0.01	0.01
Building Age								
Recent		−0.04	−1.66+	−0.70		−0.08***	−1.06	0.27
Mid-Century		0.18***	−0.41	−0.40		0.15***	−0.03	0.02
Social Composition								
Disadvantage				−0.20**				−0.24***
Affluence				0.10+				0.08
Residential Stability				0.16+				0.05
% Ages 0–17				0.12+				0.10
% Ages 65+				0.07*				0.15***
Constant	−0.22**	−0.22**	−0.12	−0.23*	−0.30***	−0.30***	−0.25**	−0.40***

	Closure				Exchange			
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	b	**b**	**b**	**b**	**b**	**b**	**b**	**b**
Housing								
Age Diversity			0.05+	0.05*			0.10***	0.11***

	Closure				Exchange			
	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 1**	**Model 2**	**Model 3**	**Model 4**
	b	**b**	**b**	**b**	**b**	**b**	**b**	**b**
Building Type								
(Ref=House)								
% 2–4 Units	−0.06**		0.18	0.05	0.01		−0.33	−0.20
% 5–49 Units	−0.13***		−0.34	−0.19	−0.08**		−0.16	−0.07
% 50+ Units	−0.16***		−0.36	−0.25	−0.03		−0.09	−0.03
% Other Types	0.04		0.03	0.04	0.01		−0.01	0.01
Building Age								
Recent		0.02	−0.57	−0.20		0.06+	0.52	0.37
Mid-Century		0.20***	−0.30	−0.32		0.07**	−0.11	−0.12
Social Composition								
Disadvantage				−0.05				0.08
Affluence				0.16*				0.12*
Residential Stability				0.23*				0.20*
% Ages 0–17				0.17*				0.10
% Ages 65+				0.09*				0.02
Constant	−0.29**	−0.30***	−0.26*	−0.26*	−0.17*	−0.17*	−0.21*	−0.15

Standardized NC-Level Coefficients from Weighted HLM Regressions with Individual Sociodemographic Controls Not Shown

+ $p < 0.10$;

* $p < 0.05$;

** $p < 0.01$;

*** $p < 0.001$

CCAHS 2001–03 (3,105 Respondents) and Census 2000 (343 Neighborhoods)

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