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Members Only: Gated Communities and Residential Segregation in the Metropolitan United States

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Abstract

Using the American Housing Survey for 2001 and Census 2000, I examine the link between gated communities and residential segregation. I hypothesize that gating and segregation are defined by similar mechanisms, thus reinforcing urban inequality in U.S. cities. The results, however, indicate a more complex relationship. On the one hand, there are common mechanisms behind the two processes: the pursuit of higher property values, fear of crime, and fear of increased social heterogeneity. An increase in percent recent immigrants leads to higher levels of both segregation and gating. On the other hand, factors such as region, percent black, percent Hispanic, percent college graduates, and functional specialization affect the two processes differentially. Although segregation is less pronounced and declining in the U.S. urban Southwest, gated communities are much more prominent there. The results challenge the notion that the declines in residential segregation in recent decades indicate social progress.

Keywords

gated communities; inequality; race; residential segregation; urban sociology

INTRODUCTION

Gating is a relatively new urban process that has gained significance particularly in the last decade. Low (2003) reports that the number of people estimated to be living in gated communities (GCs) in the United States increased from 4 million in 1995, to 8 million in 1997, to 16 million in 1998. Webster et al. (2002) show that the number of gated and guarded communities and condominiums in the United States almost doubled, starting from a little over 25,000 in 1990 and reaching more than 40,000 in 1998. In conceptual terms, many scholars (Blakely and Snyder, 1997; Caldeira, 2000; Conell, 1999; Davis, 1990; Le Goix, 2005; Low, 2003; Marcuse, 1997) have compared the process of gating to the process of residential segregation and have argued that gating leads to an increase in urban inequality. The present study continues this new line of research by focusing on the contemporary link between gating and residential segregation in the context of urban inequality. I pose the following research question: Do the factors that affect segregation also affect gating?

Residential segregation has long been under scrutiny as a salient dimension of urban inequality. Segregation, together with other forms of urban inequality such as occupational, racial, and gender inequality, constitutes a central subject of inquiry within urban sociology, for it has serious implications for public policy and everyday life in large cities (Alba et al., 2000; Farley and Frey, 1994; Logan and Molotch, 1987; Logan et al., 2004; Massey and Denton, 1993). In this respect, the historic parallel between the current context of GCs and the earlier stage of residential segregation is striking: during the early periods in the process of residential segregation, the 1940s and 1950s, two of the major reasons behind the establishment of neighborhood improvement associations and realtors' redlining practices were the protection of house property values and the level of racism in U.S. society. The conditions set in the associations' and realtors' contracts worked effectively as a barrier to blacks and other minorities in entering specific, mostly white and affluent, neighborhoods (Jackson, 1985; Massey and Denton, 1993; Oliver and Shapiro, 1995). Those restrictions were as effective as walls. The urbanites and the policymakers at the time most likely did not envision how difficult and costly it would be in the future to undo the harsh consequences of segregation. The new signs of increased walling off seem to invoke troubling parallels with the 1940s and 1950s and also beg the question whether this is a trend with which American Society will have to struggle not too far down the road.

The research question I pose here reflects the idea that some dimensions of urban inequality are correlated (Ovadia, 2003); thus the main expectation for this analysis is that gating and segregation involve similar mechanisms and causal factors. Therefore, I hypothesize that the process of gating most likely reinforces the process of segregation, leading to the perpetuation of urban disadvantages. The next section of the article begins with the definition of a GC and follows the recent trends in gating in order to show the increased importance of this process for the United States. The third section focuses on the existing literature related to the link between gating and segregation. Even though there are substantiated arguments discussing the relationship between these two processes, previous research is not conclusive about this relationship. My work supports the arguments that gating is a form of urban inequality that bears some common as well as distinctive characteristics with residential segregation. The data, variables, and methods applied in this analysis are explained in the forth section of the article, followed by a discussion of the research findings in the fifth section.

The main contribution of this research is that it is the first study to address the contemporary link between gating and residential segregation for the metropolitan United States. There have not been many comprehensive studies of gating in general because, until very recently, there was no representative national data available to study GCs. With the introduction of a panel of questions on GCs in the national samples of the American Housing Survey (AHS) in 2001, it is now possible to examine simultaneously the process of gating and the process of segregation. Therefore, this research makes serious contributions to the evolving sociological literature on GCs and residential segregation, and also contributes to the larger understanding of urban inequality.

THE PROCESS OF GATING

Over the history of the United States, GCs have evolved significantly. Although they initially served as means of protection for colonists against indigenous-people groups, in the nineteenth and early twentieth centuries these fortified residential communities developed into areas that provided prestige, privacy, and protection for wealthy inhabitants. Modern GCs became common through the prevalence of gated retirement communities, country clubs, and resorts. Today's residential GCs have different faces, both houses and apartment complexes, and people living in these communities are more diverse than those of the past.

Definition

Most commonly, a gated community is considered to be a residential area that is enclosed by walls, fences, or landscaping that provides a physical barrier to entry. Access is restricted to GCs, not only to personal residences, but also to streets, sidewalks, and neighborhood amenities (Low, 2003). Two aspects need to be emphasized: (1) the physical barrier to entry and (2) the restricted access to streets and so forth. The restricted access to streets and other public amenities, not typical for either gated single residences or previous forms of exclusion like segregation, exacerbates the privatization of space.

A very important aspect of GCs is that they are characterized by self-governing homeowner associations, where elected boards oversee the common property and establish covenants, conditions, and restrictions (CC&Rs) as part of the deed. These legal residential contracts serve to exclude potential buyers based on income, race, or ethnic origin. Based on the existence of homeowners' associations as "private governments" McKenzie (1994, 2003) includes GCs in the larger category of common interest housing developments (CID). Even though there are common characteristics that allow GCs to be discussed within the larger umbrella of CIDs, it seems that the very physical barriers (walls, gates, security guards) put GCs also in a separate category not only of privatization of government functions but, more importantly, of privatization, commodification, and seclusion of space. Therefore, analyzing gating as a separate urban process makes it possible to isolate the specific characteristics and the specific implications from this process for urban inequality.

Why do households choose to live behind "velvet" bars? The GC is to offer protection from crime, to offer maintenance, and rise in property values, and also give some sense of a "feeling" of community. Even though Blakely and Snyder (1997) identify three different types of GCs (lifestyle, prestige, and security zone), each of which address different residential needs, (1) the security, (2) property values, and (3) the sense of community are still overall dominant factors in selecting life in GCs (Low, 2003; Sanchez and Lang, 2002; Sanchez et al., 2005). These are the factors also widely advertised by real estate developers in their marketing strategies. Just as developers and real estate agents during the 1940s and 1950s used a variety of strategies to keep blacks out of white neighborhoods (including intimidation and racial steering), the "gating" developers' advertisement campaigns build on customers' private fears and motives of gain.

MODERN TRENDS: CLASS, RACE, TENURE

The preservation and the more rapid appreciation of property values, as well as security from crime and the sense of community, have all been challenged in the scholarly literature as myths (see Blakely and Snyder, 1997; Glassner, 1999; Lofland, 1998; Sanchez et al., 2005; Wilson-Doenges, 2000). Behind these myths/motives, what really seems to drive people to choose GCs are the more subtle and hard to capture fears of increased racial/ethnic diversity in U.S. society (Low, 2003), the fear of the *stranger*, seen as somebody of a different race, ethnicity, religion, ability, gender, age, sexual orientation, class, or nationality (Byers, 2003). These fears seem to encompass a growing range of people along the three central social dimensions: class, race, and tenure.

Class

Unlike what has been assumed for some time in the scholarly literature, GCs are not only for the rich and affluent even though they have developed that way. Some of the first GCs in the United States originated in wealthy communities, on family estates, for purposes of year-round living. One such community, Llewellyn Park, was built in the 1850s in Eagle Ridge, New Jersey (Hayden, 2003). In these areas, wealthier people were often seeking to separate themselves from the bothersome aspects of the rapidly industrializing city (Blakely and Snyder, 1997). Other GCs were built as resorts for the wealthy, such as Tuxedo Park in New York, which opened in 1866 to provide hunting and fishing amenities and is surrounded by a barbed-wire fence that is 8 feet high and 24 miles long (Hayden, 2003). Early in the twentieth century, members of the aristocracies of East Coast and Hollywood families also built gated, fenced homes, seeking privacy, prestige, and protection (Blakely and Snyder, 1997).

Thus, until around 1970, GCs were relatively rare within the United States. The first wave of popularity happened in California, Texas, Florida, and Arizona, attracting people, especially retirees, because of the weather (Wilson-Doenges, 2000). Following the lead of these master planned retirement developments, other GCs were constructed around country clubs and resorts. In the 1980s, the same areas were also the first to experience large waves of Hispanic immigrants. From this point on, GCs sprang up in areas more accessible to the *middle class*. Scholars also argue that the increased popularity of GCs came as a result of the changing economic and political atmosphere during the early 1980s. Growing income disparities in society exacerbated already existing differences in neighborhood services and resources as well as created problems for lower-income families because of escalating housing costs (Low, 2003). Furthermore, traditional social order and social relations were broken down by economic restructuring and globalization and as many means of social control were not found effective, the GC was viewed as a viable way of taking security into one's own hands (Byers, 2003).

Evidence from our prior research confirms the fact that GCs are no longer only for the affluent social groups: 38% of residents of owner GCs in the South and West belong to the middle class and 37% belong to the upper class. The results further show that the effects of class on the propensity to live in a GC are mitigated by race. On average, black middle and lower classes (both homeowners and renters) are less likely to live in GCs compared to

affluent whites; on average, middle- and lower-class Latinos (again, homeowners and renters) are more likely to live in a GC compared to affluent whites. The results for Asians are mixed: middle-class Asian homeowners and lower-class Asian renters are more likely to live in a GC than affluent whites, on average.

Race and Ethnicity

Race, therefore, seems to be the second important dimension of GC diversification. Unlike prior studies that focused on GCs as oases of affluent white homeowners, Sanchez et al. (2005) found that Latinos tend to live in renter GCs more so than the other minority groups. According to AHS data, owner GCs in urban areas are comprised of 76% non-Hispanic whites, 13% Hispanics, 5% non-Hispanic blacks, 6% Asians, and 1% other.³

Tenure

The third, somewhat surprising, empirical finding is that there are not only homeowner gated communities, but also renter communities. Again, support can be found in Sanchez et al. (2005) as well as in the AHS data itself: in 2001, among renters, 14.3% live in GCs, whereas among homeowners, 5.6% live in such communities. Also, of households living in GCs, only 40% are homeowners, while 60% are renters. Minorities are much better represented in rental GCs than in owner GCs: rental GCs consist only of 48% whites, non-Hispanic blacks are 17%, Hispanics are 23%, and Asians 10%.

Particularly during the 1990s and continuing into the twenty-first century, the trend in gated apartment complexes has steadily increased and has greatly contributed to the likelihood that renters will live behind gates. El Nasser (2002) reports that tenants include young professionals and newcomers to the area who are looking to buy homes. Older couples whose adult children have left home also seek a more secure and maintenance-free environment in these gated apartment homes. Gated apartment complexes are a far cry from the original perceptions of gated communities of the rich and famous; however, they often serve similar community and security functions in the eyes of their residents.

Even though the residents of the GCs seem to have diversified, the arguments in the literature persist that GCs are homogeneous enclaves (Blakely and Snyder, 1997; Blandy et al., 2003; Byers, 2003; Guterson, 1992; Judd, 1995; Low, 2003). Therefore, the participation of minorities and even immigrants (Sanchez et al., 2005) in the process of gating does not mean that there is an increase of integration. Most likely, led by the overall increase in the number of GCs, more minority members decide to participate because living in a GC confers similar status as particular zip codes. McKenzie (2005) points out an argument in support of building a wall around an old existing neighborhood in Las Vegas: the majority of the modern newly built communities in the area are gated. Therefore, pro-gating members of

³A caution has to be exercised here: the data, which Sanchez et al. and the present research are based on, the American Housing Survey, do not distinguish military housing from other housing units. A lot of military housing is located behind forts, but those are not the type of residential areas that should be included in the studies of gating. People living on military bases usually have restricted housing options and do not voluntarily chose to live in walled communities. The author believes that this survey's shortcoming is one of the reasons to have increased representation of minorities in GCs, particularly in rental GCs. In the current study, this issue is addressed at the aggregate level.

the homeowner association contended, in order to have the same appeal to young professionals their community had to become gated, too.

GATING AND RESIDENTIAL SEGREGATION

Many scholars have pointed to the links between the process of gating and the process of residential segregation (Blakely and Snyder, 1997; Blandy et al., 2003; Caldeira, 2000; Le Goix, 2005; Low, 2003; Webster et al., 2002), although specific empirical evidence of the relationship between the two processes is scarce. Low's (2003) anthropological study, conducted in two GCs, in San Antonio, Texas, and in Queens, New York, shows that many GC residents fear nonspecified "others" and this is among the main reasons to move into a GC. Based on a discourse analysis, Low discovered that GCs residents were concerned about "ethnic change" in the neighborhoods they moved from and had covert concerns about social order, social control, xenophobia, ethnocentrism, and other issues.

Le Goix (2005) studies GCs in the Los Angeles region (in seven counties) and uses the geographical concept of "discontinuity" to evaluate the social closeness of two adjacent spatial systems. According to the author's methodology, "discontinuity appears where a significant level of dissimilarity between two contiguous areas occurs" (2003:4). Le Goix concludes that GCs constitute more homogeneous and differentiated territories, which lead to an increase in segregation at the local scale. The author also points out that living in a GC is connected with age characteristics and age homogeneity, thus age is one of the most important factors of the integration between those living in a GC.

In another study, conducted again for the area of California, Gordon (2004) investigates the link between planned developments and residential segregation. The author concludes that the planned developments are, on average, less diverse with respect to race, but more diverse in respect to income. Since GCs are included in the larger category of planned developments, the results relate to GCs only by association. GCs do constitute a separate category because of the physical barriers separating them from the rest of the world.

Atkinson and Flint (2004:875), on the other hand, have found a "dynamic pattern of separation that goes beyond the place of residence." The authors argue that the relationship between gating and segregation is more complex, whereby the process of gating in fact helps the elite social groups in the United Kingdom to maintain social distance both at work and at home.

As Gordon herself points out, her data are limited to 1990, whereas the spread of GCs has been particularly prominent since then. In addition, the results in both articles, Le Goix's (2005) and Gordon's (2004), pertain to only one region of the United States. Despite the fact that the seclusion of the more affluent is "rampant in Southern California" (Bislev, 2004) and studies of this area are very instructive for the purposes of the present research, the above work is still not representative for the United States as a whole. The current research is the first attempt to conduct an investigation of the link between gating and segregation for the metropolitan United States using data as current as Census 2000 and AHS 2001.

RESEARCH DESIGN

Research Question: Do the Factors that Affect Segregation Also Affect Gating?

The expectation is that the same structural characteristics that determine the levels of segregation will influence the process of gating. The expectation reflects the notion that gating and segregation are closely related as dimensions of urban inequality. Both processes work together to perpetuate social exclusion. The hypothesis is related to the structural-level variables and their effect on levels of segregation and gating. The reasons for expecting similar causal mechanisms are rooted in the common characteristics of the two processes: even though gating has become more prominent in the last decade, thus being a relatively new dimension of urban inequality, the process resembles the process of segregation on several accounts. First and foremost, gating is a process of social exclusion, based on race, ethnicity, and income. Second, gating, as well as segregation, is rooted in the idea of preservation of property values. Third, people flee to the suburbs or gate in order to avoid crime and the increase in minority populations. Fourth, both processes are related to privatization of space and a certain level of neighborhood autonomy.

Data

The data for this analysis comes from the 2001 National Samples of the American Housing Survey (AHS) and from the Spatial Structures for Social Sciences website, based on Census data from 2000 (Spatial Structures for Social Sciences). The AHS is the largest, regular national housing sample survey in the United States. The U.S. Census Bureau conducts the AHS to obtain up-to-date housing statistics for the Department of Housing and Urban Development. The AHS is a panel sample of housing units, initiated in 1973, carried out annually through 1984, and biannually since then. The AHS contains both a national sample and a sample of selected metropolitan areas.

Variables

As dependent variables in the analysis I have selected three variables: percent gated households at MSA level from the AHS national sample in 2001, the index of dissimilarity measuring black-white residential segregation in 2000, and the index of dissimilarity measuring Hispanic-white segregation. The variable percent of gated households is measured by a “yes/no” answer to the question: “Is your community surrounded by walls or fences preventing access by persons other than residents?” The index of dissimilarity is based on the full-count PL-794 and SF1 files of Census 2000 (Spatial Structures for Social Sciences).

The independent variables included in the analyses are based on the Census data, calculated at metropolitan level. The first group is population variables, consisting of percent black, percent Hispanic, and percent immigrants between 1990 and 2000. The second group is region, where the United States is divided into four regions: Northeast, South, West, and Midwest. The group of macroeconomic variables includes percent unemployed, percent college educated, and black/white median income ratio. Housing characteristics include percent owners and percent vacant housing units.

The functional specialization is based on the analysis by Logan et al. (2004), where they used standardized scores for the relevant industry/education variables and converted them to dummy variables. The authors determined whether a metropolis was at least 1 standard deviation above the national average for the 325 metropolises they used in the analysis with regard to the following dimensions based on Census 1990: (1) Retirement Metropolises: measured by the percentage of population age 65 and over; (2) Durable Goods Manufacturing Metropolises: measured by the percent of employed workers in durable goods industries; (3) Nondurable Goods Manufacturing Metropolises: measured by the percent of workers in nondurable goods manufacturing; (3) Governmental Metropolises: measured by the percent of employed persons working for the local, state, or federal government; (4) Educational Metropolises: measured by the percent of the 18–24-year-old population enrolled in school; and (5) Military Metropolises: measured by the percent of workers employed by the armed forces.

In the analysis here I have combined the retirement and durable goods metropolises because they work in the same direction, positively related to segregation, as demonstrated by Logan et al. (2004). The same is true for nondurable goods, government, and education metropolises, which are negatively related to segregation, while controlling for other factors. Military metropolises are negatively related as well, but I have used this dummy variable separately to control for the possible independent effect of armed forces concentration.

The variable *age of metropolis* is a dummy variable indicating when the central city reached a population of 50,000.

One limitation stemming from the fact that I was working with the largest MSAs in the United States is that I cannot include the population size as an explanatory variable in the regressions. I have included one additional variable as a differentiating factor of metropolitan areas—the ratio between black median family income and white median family income, and two additional variables to capture the state of the housing in metropolitan areas: percent homeowners and percent vacant housing unit. The income ratio is included because “[e]conomic models presume that income differentials are a key contributor to residential segregation” (Logan et al., 2004:18). The factor *percent homeowners* is particularly important since the process of gating may be slightly different for homeowners and renters. Even though Sanchez et al. did not find support for this hypothesis, it is nonetheless necessary to test it here. The variable *percent vacant units* is normally used in analysis of residential patterns because it is a good indicator of the state of housing provision and the housing market in different areas.

Methods

I study the contemporaneous relationship between segregation and gating in 2000–2001.⁴ The analysis involves estimating a negative binomial regression model, an OLS regression model, and an OLS regression model including Heckman’s selection bias correction coefficient, with gating (measured in 2001 AHS at the metropolitan level) and segregation

⁴Even though segregation is measured in 2000 and gating is measured in 2001, both years are close enough so they are taken to represent the same period of time.

(measured by the dissimilarity index in 2000 Census data) as respective dependent variables and all metropolitan-level characteristics as independent variables.

The dependent variable measuring the level of gating at the metropolitan-level contains 22 cases of zero, which constitutes 16% of all cases ($N = 135$). When the dependent variable has a number of cases with zero counts, the OLS regression produces inconsistent, biased estimates (Jacobs and Carmichael, 2002). The relevant approaches include the Poisson and negative binomial models (Minkoff, 1997).⁵ To meet the expectations for a Poisson distribution, the conditional mean and the conditional variance of Y_j given X_j have to be equal. If this assumption is violated, the standard errors will yield biased estimates. One way to assess the model fit is to study the following measures: deviance, scaled deviance, Pearson χ^2 , and scaled Pearson χ^2 . If all these measures are close to 1, then using the Poisson regression model is appropriate. In this study, I started by using the Poisson modeling technique, which indeed scaled down the standard errors and produced biased estimates (most coefficients became statistically significant). The measures of fit showed values higher than 4, which led me to use the negative binomial regression. This modeling approach was much more successful because it fits the data better and I report the results based on it.

A second important technique was used in order to test the possible selection bias related to including only the largest metropolitan areas (a possible bias based on population size). I applied Heckman's (1979) two-step probit-based methodology to adjust for sample selection bias. The first step consists of using ML probit equations of segregation as 1/0 response (1 for the metropolitan areas included in the substantive analysis and 0 for the areas excluded from the analysis, $N = 331$) to estimate a "hazard rate" instrument, denoted as λ . The second step is to include λ as a regressor in the two substantive OLS regressions where the dependent variables are black-white segregation and Hispanic-white segregation.

FINDINGS

Table I presents the descriptive statistics for the variables used in the analyses. I analyze 135 MSAs because only the largest MSAs are identified in the AHS data for confidentiality reasons. The mean of urban gated households is 7.55% in 2001.

Table II shows the top 20 metropolitan areas with the highest percent of gated households. The leading metropolitan area is Hartford, Connecticut, followed by Las Vegas, Nevada and Houston, Texas. As the following analysis reveals, 15 out of the top 20 metropolitan areas are in the South and West regions of the United States.

In Table III, I report the regression coefficients from the analyses where the first dependent variable is percent gated households at the metropolitan level and the other two dependent variables are black-white and Hispanic-white segregation. The application of Heckman's

⁵The Poisson distribution (in conjunction with the negative binomial distribution) is most often applied to count data. However, Agresti (2002:385) argues that "when outcomes occur over time, space or some other index of size, it is more relevant to model their *rate* of occurrence than their raw numbers." He gives an example with a study of homicides in a given year for a sample of cities and suggests that in this case it might be modeled "as homicide rate, defined for a city as its number of homicides that year divided by its population size" (Agresti, 2002:132). The same technique is used in the present study.

two-step selection bias estimator revealed no selection bias in the study of black-white segregation (λ is not statistically significant). Therefore in Table III, I report the unstandardized OLS regression coefficients without λ .⁶ In the case of Hispanic-white segregation, there is a selection bias and I include λ as a regressor in the analysis.

The results from the negative binomial regression analysis of gating reveal that the process of gating is positively and significantly affected by the percent of recent immigrants, negatively and significantly influenced by metropolitan areas specializing in everything else except military personnel, and positively and significantly affected by location in the South and West regions of the United States. When I transform the coefficient for recent immigrants into percent change (based on $[(\exp b) - 1] * 100$) (Isaac and Christiansen, 2002), I find that a 1% increase in recent immigrants leads to 8.2% increase in GCs at the metropolitan level. Metropolitan areas in the West and South tend to house about two times more GCs compared to the Midwest. In terms of functional specialization, metropolitan areas of any type of concentration, except military, are 0.6 times less likely to contain GCs compared to metropolitan areas with no specialization.

From the analysis it is clear that the process of gating and the process of residential segregation do not exhibit exactly the same patterns. On the one hand, as shown in previous studies, percent black has a strong and positive effect on the level of black-white segregation; in the case of gating it has no effect. On the other hand, the effect of percent recent migrants is positively and significantly related to both black-white segregation and gating. In the case of Hispanic-white segregation, the strongest population predictor is percent Hispanic, which has positive and significant effect on the dependent variable.

Residential segregation levels are significantly lower in the South and West regions in the country compared to the Midwest for black-white segregation and significantly higher in the Northeast for Hispanic-white segregation; in contrast, the levels of gating are significantly higher in the South and the West compared to the Midwest. The lower the black/white income ratio, the higher the levels of black-white segregation, whereas the level of black/white income ratio does not affect the levels of gating at all.

The functional specialization variables also have different effects across the dependent variables. I have to note that the variable for military specialization does not have a statistically significant effect either on levels of gating or on levels of segregation. The zero-order correlation coefficients reveal that the variable for retirement and durable goods metropolises is positively and significantly related to black-white segregation, while negatively and significantly related to gating. Further investigation—when it becomes possible to study most metropolitan areas—should determine whether this opposite effect is in place for most metropolises. From the analysis it appears that the levels of gating and black-white segregation are significantly lower for metropolises specializing in nondurable goods, government, and educational employment.

⁶The inclusion of λ in the substantive black-white segregation analysis not only revealed that λ is not statistically significant, but it changed very little the rest of the coefficients. No changes in significance levels or direction of the effects were observed. The changes in the magnitude of the regression coefficients were not meaningful.

The effects of age of metropolis are not statistically significant in any of the equations. Even though it does not come through the regression analyses, the correlation coefficients between all four dummy variables, pre-1900, 1910–1940, 1950–1960, and 1970 or later, have opposite signs for gating and segregation (both black-white and Hispanic-white), respectively. The Pearson correlation coefficient between pre-1900 and black-white segregation is $r = 0.41$ ($p < 0.0001$), and between pre-1900 and Hispanic-white segregation is $r = 0.32$ ($p < 0.0001$), whereas the coefficient between pre-1900 and gating is $r = -0.33$ ($p < 0.001$). Similar is the strength and the opposite signs for the relationship between the dummy variable for the period 1950–1960 and gating and segregation. The coefficients of correlation for the other two dummy variables capturing the age of the metropolis and gating and black-white segregation, although statistically insignificant, are also in opposite directions.

From the analysis above it seems that gating and residential segregation are two processes that partly reinforce each other but at the same time are alternatives to each other: in the places where there are lower levels of residential segregation, the South and the West, I observe higher levels of gating. The traditionally strong predictors of black-white segregation, percent black, and black/white income ratio have no impact on levels of gating in metropolitan areas. Interestingly, the proportion of Latinos at the metropolitan level does not have a statistically significant effect on the levels of gating, even though the correlation between percent gated households and percent Hispanic is 0.44 ($p < 0.0001$). The proportion of recent immigrants (a significant proportion of which are Latinos) and the region (Latinos are disproportionately concentrated in the South and the West) exhibit stronger effects on the levels of gating when I control for all relevant factors.

Linking the results back to the initial research question I find that some of the well-established factors that affect the processes of segregation also affect the process of gating. The direction of the effects, however, depends on the factors. An increase in the proportion of recent immigrants in metropolitan areas leads to an increase in levels of segregation and gating. The explanations of this effect are most likely related to common fears among the native-born population in the United States about increased diversity. Some of these fears have been strengthened since 9/11 and reproduced through media and government policies (Graham, 2004). In addition, however, the analyses of AHS data have demonstrated that many recent immigrants can in fact be found living in GCs themselves (Sanchez et al., 2005). A reason for this pattern is the spread of GCs around the world and the associated benefits, such as status, property values, and protection from crime.

The second important factor that affects both segregation and gating is region: GCs seem to be spread much more in the South and West, whereas segregation remains less prevalent in these two regions. One interpretation of this finding can be that since the metropolitan areas in these two regions are newer, it is only self-evident to find that GCs are increasing there. However, in the analysis I have controlled for the effect of age of metropolis and still the effect of region persists. In addition, there is evidence from the literature that there are no barriers for existing communities to gate and many choose to do so (McKenzie, 2005).

Based on the analyses, I believe that the two forms of urban inequality work, to some extent, as *alternatives* of social and spatial exclusion. I call them alternatives because, on the one hand, gating shares with segregation some of the same attributes of social exclusion: fears regarding increasing minority populations, crime, and falling property values and the presence of homeowner associations to provide protective safety nets. On the other hand, GCs are spreading mostly in areas where segregation has traditionally had lower levels, and has declined in recent decades: in the West and the South regions of the United States. Given this finding, I can seriously question whether the average decline in black/white segregation in recent decades and the lower segregation levels in the South and the West should be regarded as social progress.

In addition, as demonstrated in this research, the proportion of blacks and black/white income ratio, salient factors behind the increase in segregation, do not influence the levels of gating. The level of college graduates, which affects negatively and significantly the levels of black-white segregation, does not influence the levels of gating. This research also indicates that some other structural factors, such as the age of metropolis and functional specialization, may prove to have opposite effects on levels of segregation and on levels of gating when data for the entire metropolitan United States becomes available.

CONCLUSION

In this article I focus on the relationship between two contemporary processes of urban inequality: gating and residential segregation at the metropolitan level. I hypothesize that both processes are driven by similar mechanisms, thus reinforcing each other and, as a result, perpetuating urban group disadvantages in the United States.

The results showed that residential segregation is less prevalent in the U.S. urban Southwest, that black-white segregation heavily depends on the level of black population and black/white income ratio in metropolitan areas, and that Hispanic-white segregation is strongly influenced by the proportion of Latinos. At the same time, the level of gating is significantly higher in the West and the South and does not depend on the proportion of blacks or Latinos. The levels of gating and segregation also seem to differ across metropolises based on the functional specialization of the place.

The implications for urban areas are related to three axes of inequality: region, population characteristics, and functional specialization. The regional effect seems to be a result of two factors. (1) The metropolitan areas in those two regions were built after the Fair Housing Act of 1964, which prohibited discrimination in housing, they have more single-family housing, and there are more military bases located in those regions. As a consequence, the levels of residential segregation have been consistently lower in the two regions (Farley and Frey, 1994) and those who wanted to still separate themselves had to come up with a new social mechanism of exclusion. Gating seems to be this new mechanism. (2) Related to (1), the increase, particularly, of the Hispanic population in the South and the West seem to have led also to an increased desire for clear demarcation of residential lines and, again, gating provided the option of secluded residential space. Moreover, gated residences offer one important advantage compared with the process of residential segregation: residents do not

have to escape to second, third, and forth rings of suburbs in order to avoid poverty or an increase in minority groups. A more efficient method is the walling off, which generally can take place anywhere in the metropolitan area. In addition, gating, unlike residential segregation, is not regulated by any federal legislation (Schrager, 2001). In fact, many local governments have a vested interest and encourage the building of GCs (McKenzie, 1994, 2004).

For more than half a century, U.S. scholars have explored the levels, causes, and consequences of residential segregation for the urban society. The consequences are particularly troubling because segregation is persistent: despite the small overall decline in black-white segregation since the 1970s (Fischer, 2003; Fischer et al., 2004; Iceland and Wilkes, 2006), the national weighted average in 2000 was still 65% (Logan et al., 2004). In addition, Latino-white and Asian-white segregation slightly increased between 1990 and 2000, reaching 52% and 42%, respectively (Logan et al., 2004). It seems that relatively little has changed in segregation levels despite antidiscriminatory legislation and efforts by various social groups, social movements, and federal and local institutions. At the same time, residential segregation has led to exclusion in other areas of life, including schools, workplaces, places of worship, health-care systems, entertainment, and leisure. The far-reaching social consequences of segregation cannot be overstated. It seems that instead of finding more effective remedies to this process, a very powerful alternative to segregation has developed in the urban United States: gated communities.

With the continuation of the American Housing Survey's future national studies it will be necessary to follow the process of gating on a longitudinal basis and look further at aggregate and household-level causal mechanisms. When the Census 2010 is conducted, given that questions about gating are included, scholars should evaluate the reciprocal causal mechanisms between gating and segregation. Establishing a strong line of urban research about the process of gating should become a priority, given the links between gating and segregation and the proliferation of GCs in the United States. As a new powerful form of urban inequality and privatization of space, gating has the potential to reconfigure the social and spatial organization of cities for centuries to come.

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REFERENCES

- Alba Richard D., Logan John R., and Stults Brian J.. 2000 "How Segregated Are Middle-Class African Americans?" *Social Problems* 47: 543–558.
- Atkinson Rowland, and Flint John. 2004 "Fortress UK? Gated Communities, the Spatial Revolt of the Elites and Time-Space Trajectories of Segregation," *Housing Studies* 19(6): 875–892.
- Bislev Sven. 2004 "Globalization, State Transformation, and Public Security," *International Political Science Review* 25(3): 281–296.
- Blakely Edward James, and Snyder Mary Gail. 1997 *Fortress America: Gated Communities in the United States*. Washington, DC: Brookings Institute.

- Blandy Sarah, Lister Diane, Atkinson Rowland, and Flint John. 2003 "Gated Communities: A Systematic Review of the Research Evidence," CNR Paper 12, ESRC Center for Neighborhood Research.
- Byers Michelle. 2003 "Waiting at the Gate," In Lindstrom J and Bartling H (eds.), *Suburban Sprawl: Culture, Theory, and Politics*: pp. 23–44. Boston: Rowman and Littlefield.
- Caldeira Teresa. 2000 *City of Walls: Crime, Segregation and Citizenship in Sao Paulo*. Berkeley, CA: University of California Press.
- Davis Mike. 1990 *City of Quartz: Excavating the Future of Los Angeles*. London: Verso.
- Nasser El, Haya. 2002 "Gated Communities Are Not Just for the Wealthy," *USA Today*, December 16.
- Farley Reynolds, and Frey William. 1994 "Changes in the Segregation Between Blacks and Whites During the 80s: Small Steps Toward a More Integrated Society," *American Sociological Review* 59: 23–45.
- Fischer Claude, Stockmyer Gretchen, Stiles Jon, and Hout Michael. 2004 "Distinguishing the Geographic Levels and Social Dimensions of U.S. Metropolitan Segregation, 1960–x201D; *Demography* 41: 1: 37–59. [PubMed: 15074124]
- Fischer Mary. 2003 "The Relative Importance of Income and Race in Determining Residential Outcomes in U.S. Urban Areas, 1970–2000," *Urban Affairs Review* 38: 5: 669–696.
- Glassner Barry. 1999 *The Culture of Fear: Why Americans are Afraid of the Wrong Things*. New York: Basic Books.
- Gordon Tracy. 2004 "Moving Up by Moving Out? Planned Developments and Residential Segregation in California," *Urban Studies* 41: 2: 441–461.
- Graham Stephen (ed.). 2004 *Cities, War and Terrorism*. Malden, MA: Blackwell Publishing.
- Guterson David. 1992 "No Place Like Home," *Harper's Magazine*, November: 35–64.
- Hayden Dolores. 2003 *Building American Suburbia: Green Fields and Urban Growth, 1820–2000*. New York: Pantheon Books.
- Heckman James. 1979 "Sample Selection Bias as a Specification Error," *Econometrica* 47: 153–161.
- Iceland John, and Wilkes Rima. 2006 "Does Socioeconomic Status Matter? Race, Class and Residential Segregation," *Social Problems* 53: 2: 248–273.
- Isaac Larry, and Christiansen Lars. 2002 "How the Civil Rights Movement Revitalized Labor Militancy," *American Sociological Review* 67: 5: 722–746.
- Jackson Kenneth. 1985 *Crabgrass Frontier: The Suburbanization in the United States*. New York: Oxford University Press.
- Jacobs David, and Carmichael Jason. 2002 "Subordination and Violence Against State Control Agents: Testing Political Explanations for Lethal Assaults Against the Police," *Social Forces* 80: 4: 1223–1251.
- Judd Dennis. 1995 "The Rise of New Walled Cities," Ligget H and Perry DC (eds.), *Spatial Practices*: pp. 144–165. Thousand Oaks, CA: Sage Publications.
- Renaud Le Goix. 2005 "Gated Communities: Sprawl and Social Segregation in Southern California," *Housing Studies* 20: 2: 323–344.
- Lofland Lyn. 1998 *The Public Realm*. New York: Aldine de Gruyter.
- Logan John, and Molotch Harvey. 1987 *Urban Fortunes: The Political Economy of Place*. Berkeley, CA: University of California Press.
- Logan John, Stults Brian, and Farley Reynolds. 2004 "Segregation of Minorities in the Metropolis: Two Decades of Change," *Demography* 41: 1: 1–22. [PubMed: 15074122]
- Low Setha. 2003 *Behind the Gates: Life, Security, and the Pursuit of Happiness in Fortress America*. New York: Routledge.
- Marcuse Peter. 1997 "The Ghetto of Exclusion and the Fortified Enclave: New Patterns in the United States," *American Behavioral Scientist* 41: 311–326.
- Massey Douglas, and Denton Nancy. 1988 "The Dimensions of Residential Segregation," *Social Forces* 67: 281–315.
- Massey Douglas, and Denton Nancy. 1993 *American Apartheid: Segregation and the Making of the Underclass*. Cambridge: Harvard University Press.

- McKenzie Evan. 1994 *Privatopia: Homeowner Associations and the Rise of Residential Private Government*. New Haven/London: Yale University Press.
- McKenzie Evan. 2003 "Common-Interest Housing in the Communities of Tomorrow," *Housing Policy Debate* 14: 1&2: 203–134.
- McKenzie Evan. 2005 "Constructing the Pomerium in Las Vegas: A Case Study of Emerging Trends in American Gated Communities," *Housing Studies* 20: 2: 187–203.
- Minkoff Debra. 1997 "The Sequencing of Social Movements," *American Sociological Review* 62(5): 779–799.
- Oliver Melvin, and Shapiro Thomas. 1995 *Black Wealth/White Wealth*. New York: Routledge.
- Ovadia Seth. 2003 "The Dimensions of Racial Inequality: Occupational and Residential Segregation Across Metropolitan Areas in the United States," *City and Community* 2: 4: 313–333.
- Sanchez Thomas, and Lang Robert. 2002 "Security Versus Status. The Two Worlds of Gated Communities," *Census Note* 02:02. Alexandria, VA: MI at Virginia Tech.
- Sanchez Thomas, Lang Robert, and Dhavale Dawn. 2005 "Security Versus Status? A First Look at the Census's Gated Community Data," *Journal of Housing Education and Research* 24: 281–291.
- Schragger Richard. 2001 "The Limits of Localism," *Michigan Law Review* 100: 2: 371–472.
- Spatial Structures in the Social Sciences, Brown University 2001 "Ethnic Diversity Grows, Neighborhood Integration Lags Behind," Report by the Lewis Mumford Center.
- Webster C, Glasze G, and Franz K. 2002 "The Global Spread of Gated Communities," *Environment and Planning B: Planning and Design* 26: 3: 315–320.
- Wilson-Doenges G 2000 "An Explanation of Sense of Community and Fear of Crime in Gated Communities," *Environment and Behaviour* 32: 5: 597–611.

Table I.Descriptive Statistics of Variables Used in the Study, $N = 135$

Variables	Mean	SD	Min	Max
Gating				
Percent gated households in 2001	7.55	7.49	0.00	40.54
Segregation (Dissimilarity Index)				
Black-white	58.37	12.38	23.17	84.72
Hispanic-white	44.08	11.67	18.88	75.43
Population Variables				
Percent black	12.34	9.82	0.37	45.70
Percent Hispanic	12.70	15.39	0.72	88.35
Percent recent immigrants	4.38	3.64	0.40	18.46
Macroeconomic Variables				
Percent unemployment	5.68	1.70	3.00	12.00
Percent college educated	25.44	6.90	12.90	52.40
Ratio, black/white median income	0.66	0.16	0.44	1.79
Housing Variables				
Percent homeowners	65.93	6.94	30.70	80.00
Percent vacant housing units	7.49	3.98	2.30	33.10
Functional Specialization				
Retirement and durable goods	22.96	42.22	0.00	1.00
Nondurable, government, education	20.74	40.70	0.00	1.00
Military	5.93	23.70	0.00	1.00
No specialization	50.37	50.18	0.00	1.00
Region				
Northeast	21.48	41.22	0.00	1.00
South	34.08	47.57	0.00	1.00
West	22.96	42.22	0.00	1.00
Midwest	21.48	41.22	0.00	1.00
Age of Metropolis				
Pre-1900	38.52	48.85	0.00	1.00
1910–1940	34.81	47.82	0.00	1.00
1950–1960	14.07	34.90	0.00	1.00
1970 or later	12.60	33.30	0.00	1.00

Table II.**Top 20 Gated Metropolitan Areas**

Metropolitan Area	Percent Gated Households
Hartford, CT	40.54
Las Vegas, NV-AZ	33.11
Houston, TX	27.02
Miami, FL	26.08
West Palm Beach-Boca Raton, FL	25.96
Jersey City, NJ	24.32
Sarasota-Bradenton, FL	22.22
Utica-Rome, NY	21.43
San Diego, CA	20.98
Honolulu, HI	20.89
Vallejo-Fairfield-Napa, CA	18.75
New Orleans, LA	18.30
Dallas, TX	18.05
Los Angeles-Long Beach, CA	18.01
Orange County, CA	17.72
Austin-San Marcos, TX	17.71
Stamford-Norwalk, CT	17.14
El Paso, TX	16.31
McAllen-Edinburg-Mission, TX	16.14
Phoenix-Mesa, AZ	14.53

Source: American Housing Survey, 2001.

Table III.Unstandardized Regression Coefficients for Models of Gating and Residential Segregation, $N = 135$

Variables	Gating		Black/White Segregation		Hispanic/White Segregation	
	Estimate	SE	Estimate	SE	Estimate	SE
Intercept	3.827 [*]	1.588	69.201 ^{***}	14.792	99.995 ^{**}	25.984
Population Variables						
Percent black	0.008	0.011	0.482 ^{***}	0.104	0.003	0.131
Percent Hispanic	0.007	0.010	-0.035	0.098	0.341 ^{***}	0.106
Percent recent immigrants	0.086 [*]	0.039	1.327 ^{**}	0.361	-0.392	0.516
Macroeconomic Variables						
Percent unemployment	-0.124	0.079	-0.525	0.721	-2.142 ^{**}	0.770
Percent college educated	-0.019	0.019	-0.459 ^{**}	0.165	-0.290	0.206
Ratio, black/white median income	-0.203	0.712	-16.739 ^{**}	6.612	-9.585	8.063
Housing Characteristics						
Percent homeowners	-0.021	0.018	0.156	0.152	-0.300	0.182
Percent vacant housing units	0.026	0.027	-0.019	0.217	-0.261	0.232
Functional Specialization						
Retirement and durable goods	-0.537 [*]	0.223	1.432	2.017	2.403	2.217
Nondurable, government, education	-0.660 ^{**}	0.218	-4.615 [*]	1.928	0.626	2.309
Military	-0.108	0.337	-4.452	3.101	-3.994	3.312
No specialization	—	—	—	—	—	—
Region						
North	0.326	0.273	0.692	2.354	14.154 ^{***}	2.516
South	0.635 [*]	0.264	-8.531 ^{**}	2.364	-0.920	2.523
West	0.583 [*]	0.295	-13.048 ^{***}	2.700	-0.259	2.940
Midwest	—	—	—	—	—	—
Age of Metropolis						
Pre-1900	-0.448	0.313	2.370	2.836	-8.203	6.399
1910–1940	-0.228	0.275	-0.868	2.579	-8.727	5.591
1950–1960	-0.038	0.287	-3.414	2.786	-7.671	4.353
1970 or later	—	—	—	—	—	—
Lambda (λ)	—	—	—	—	-11.862 [*]	5.082
Log Likelihood/Model R^2	1,340.158		0.660		0.570	
Scaled Deviance/Adjusted R^2	1.364		0.612		0.504	

^{*} $p < .05$ ^{**} $p < .01$ ^{***} $p < .001$.