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Gentrification has been viewed by some as a solution to many of the problems facing older central cities. At the same time, many are wary of the potential for gentrification to displace disadvantaged residents. To date, however, surprisingly little reliable evidence has been produced about the magnitude of this problem that could guide planners, policymakers, or community-based organizations. The study described in this article attempts to fill this void by examining residential mobility among disadvantaged households in New York City during the 1990s. We found that rather than rapid displacement, gentrification was associated with slower residential turnover among these households. In New York City, during the 1990s at least, normal succession appears to be responsible for changes in gentrifying neighborhoods. The article concludes with a discussion of the implications of these findings for planning.

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During the past several decades, neighborhoods in a number of cities have experienced gentrification—a dramatic shift in their demographic composition toward better educated and more affluent residents. If it continues, this reurbanization of the middle and professional classes presents a historic opportunity to reverse central-city decline and to further other widely accepted societal goals. Many cities face fiscal problems because higher income households have migrated to the suburbs and disadvantaged (poor and less educated) households are concentrated in the urban core. These problems could be ameliorated if wealthier households increasingly settle within central cities, raising taxable income and property values and stimulating retail activity and sales tax proceeds (Miesowski & Mills, 1993).

If it proceeds without widespread displacement, gentrification also offers the opportunity to increase socioeconomic, racial, and ethnic integration. An increasing middle class in central-city neighborhoods, to the degree that it includes White households, could help desegregate urban areas and, eventually, their school districts (Lee et al., 1985). Moreover, the concentrated poverty that is thought to diminish the life chances of the poor might be reduced if middle-income residents settle in formerly depressed neighborhoods (Wilson, 1987).

In addition, existing residents of inner-city neighborhoods could benefit directly from gentrification if it brings new housing investment and stimulates additional retail and cultural services. Furthermore, the infusion of residents with more political influence may help the community to procure better public services. The employment prospects of low-income residents could also be enhanced if gentrification contributes to local job creation or if informal job information networks are enriched by an influx of working residents.

Despite these potential benefits, local populations and community activists often oppose the gentrification of urban neighborhoods. Although the rhetoric of resistance sometimes expresses class and racial resentments, the principal concern is usually that lower-income households are vulnerable to displacement resulting from redevelopment projects or rising rents. A common response is for activists to pressure local government for more affordable housing development, to organize community development corporations for that end, or to establish service programs that provide legal or financial assistance to renters who face eviction. In

some cases, however, opponents have sought to block community improvement projects through political pressure or legal challenge (Lin, 1995; Robinson, 1995).

The degree to which government policies should actively promote gentrification in order to achieve fiscal and societal goals is a policy calculation that should consider adverse consequences such as displacement. Consequently, it is imperative that social scientists and policy analysts provide better quantitative evidence of the extent and implications of displacement and of the effectiveness of strategies intended to mitigate it.

Background and Prior Research on Displacement

Scholars have been drawn to the phenomenon of gentrification since it first emerged during the 1970s as a major force shaping the fate of urban neighborhoods. They first sought to document whether inner-city revitalization was actually occurring and if so, to what extent (Baldassare, 1982; Clay, 1979; James, 1977; Lipton, 1977; National Urban Coalition, 1978; Sumka, 1979). The studies were consistent in showing that although gentrification was a small part of the overall scheme of metropolitan shifts, it was indeed a reality in many older central-city communities during the 1970s. With gentrification's existence documented, theorists debated about its origins and its consequences for cities. What emerged from this debate was recognition of the importance of several factors as preconditions for gentrification, including changing demographics and lifestyle preferences, professionals clustering in cities to provide services for the gentrifiers, and a history of disinvestment that created ripe opportunities for reinvestment in certain neighborhoods (Beauregard, 1986; Hamnett, 1991; Ley, 1980; Rose, 1984; Smith, 1979).

Although it did not signal the demise of gentrification, as some observers claimed, the recession of the late 1980s and early 1990s did reverse or at least slow the process in many cities (Lees & Bondi, 1995; Smith & Defilippis, 1999). The economic boom of the 1990s, however, erased any lingering doubts that gentrification would be a long-lasting phenomenon. The boom, coupled with shifts in the housing finance industry that were favorable to low-income neighborhoods and reinvestment in federal low-income housing through the HOPE VI program, created conditions that expanded the process of gentrification in many cities (Wyly & Hammel, 1999). To be sure, gentrification still affected only a small share of all U.S. neighborhoods (Kasarda et al., 1997), but this share was prominent enough to reawaken old fears about displacement. In response, community-oriented organizations set up Web sites to dampen its impacts on the poor (PolicyLink, 2003), and even popular magazines addressed the displacement perils of gentrification, referring to it is as "hood snatching" (Montgomery, 2002, pp. 34–37). Thus, in spite of all the promise for central-city rebirth associated with gentrification, for many, the assumption that it causes widespread displacement makes it a dirty word.

Prior Research and Its Limitations

Given the fears of displacement that have long been associated with gentrification, it is not surprising that scholars have attempted to define and measure this relationship. Researchers have generally used two approaches to assess the degree of displacement resulting from gentrification: (1) studies of succession that examine how the socioeconomic characteristics of in-movers differ from those of out-movers and (2) surveys that ask residents why they moved from their former residence.

Succession Studies. Succession studies examine whether individuals moving into a housing unit are of higher socioeconomic status than those moving out, as would be expected if gentrification were occurring. By focusing on specific locales, one can get a sense of the extent to which gentrification is occurring. Using this approach in a study of nine Midwestern cities, Henig (1980) found that the majority of the neighborhoods lost professional households, and those that experienced a net increase did not experience a concomitant decrease in blue-collar/service workers, households headed by females, or the elderly. Henig concluded that although displacement may be a problem in certain neighborhoods, it was probably not as widespread as the popular wisdom of the time perceived it to be.

Spain et al. (1980) performed a similar analysis using American Housing Survey data for 1973–1976. If gentrification is associated with the socioeconomic and demographic transformation of neighborhoods, then middle-income households, who are often White, should increasingly occupy the units vacated by lower-income households, who are often Black. The results of their analysis were consistent with an increase in gentrification during the decade. Because Spain and her colleagues did not stratify their analysis at a finer geographic level than central city/suburb, however, it is impossible to know if the White-to-Black or poor-to-middle-income successions were concen-

trated in gentrifying neighborhoods. Moreover, succession studies can only help to define the upper boundary of displacement; they cannot be used to determine whether housing or neighborhood transitions occurred through the induced departure of low-income households or through normal housing turnover and succession, because they do not consider other reasons that households might move. Succession studies can thus verify that the process of gentrification is underway, but without additional information, they cannot demonstrate how that process occurs.

Resident Surveys. Studies based on asking respondents why they moved generally use some variation of Grier and Grier's (1978) definition of displacement:

> . . . when any household is forced to move from its residence by conditions which affect the dwelling or its immediate surroundings, and;
> 1. Are beyond the household's reasonable ability to control or prevent;
> 2. Occur despite the household's having met all previously imposed conditions of occupancy; and
> 3. Make continued occupancy by that household impossible, hazardous, or unaffordable. (p. 8)

Newman and Owen (1982) used this definition, amended to exclude natural disasters. They estimated a displacement rate of approximately 5% for the entire U.S., based on data from the Panel Study of Income Dynamics.

Lee and Hodge (1984) used a somewhat more restrictive definition, limiting it to those displaced by "private action including abandonment, demolition, eviction, condominium conversion, mortgage default and the termination of a rental contract" (p. 221). They estimated a displacement rate of 3.31% for the entire U.S., based on data from the American Housing Survey.

Out-Movers Study. The biggest problem with studies that focus retrospectively on motives for moving is that they typically fail to identify the location of the respondent's former residence. Consequently, it is impossible to determine how much, if any, of the displacement observed is due to gentrification.

Schill and Nathan (1983) attempted to solve this problem by focusing on gentrifying neighborhoods and the individuals moving out of them with a narrow definition of displacement that could be directly attributable to gentrification. They then used local sources and data from the R.L. Polk Company to track down residents who had moved from each of nine neighborhoods in five mid-sized cities in the previous year.

In the sample of out-movers from gentrifying neighborhoods, Schill and Nathan determined that 23% were displaced. The principal drawback to this method was that no baseline displacement rate could be estimated. Consequently, one cannot compare displacement rates in gentrifying and nongentrifying areas. Moreover, there is no measure of the relative mobility of households in different types of neighborhoods, so a higher percentage of moves from gentrifying areas may be displacements while the aggregate number of displacements from those neighborhoods may be the same or lower.

Comparison Study. In order to determine whether gentrification causes an increased number of disadvantaged households to be displaced, there must be a basis of comparison to neighborhoods in which gentrification is not occurring. In a recent study of the effects of gentrification on the disadvantaged in Boston, Vigdor (2001) attempted to do just that by evaluating the mobility rates of both the poor and the less-educated households in gentrifying and nongentrifying areas. Using the American Housing Survey, which after 1985 divides the Boston metropolitan area into 36 geographic zones, Vigdor evaluated exits from housing units between 1985 and 1989. Two classifications of gentrifying zones were identified (one narrower than the other) and probit regressions were estimated. Controls were included for householder age, income, tenure, whether a unit had rent regulation, and several other household and housing characteristics.

Using his narrower classification of gentrifying zones and defining disadvantaged households as those in which the head had no post-secondary education, Vigdor found that gentrification increased the exit rate from housing units overall but decreased it for less-educated households, who were significantly more likely to remain in their housing units in gentrifying areas than those elsewhere in the metropolitan area. Although Vigdor could not determine the reasons for exits from housing units, he concluded that the results provide "compelling evidence of the importance of considering baseline exit rates in any study of residential displacement" (p. 26).

Summary. Considering the concern that residential displacement generates in gentrifying or potentially gentrifying urban neighborhoods, the research record on displacement is surprisingly inconclusive. Most of it suggests that a relatively small percentage of housing moves can be attributed to displacement, and there is little evidence that implicates neighborhood gentrification in the process. The research of Schill and Nathan (1983) does indicate that the proportion of housing exits in gentrifying areas that could

be considered displacement is fairly high, but Vigdor's (2001) results indicate that overall exits of disadvantaged households from gentrifying areas are actually below those elsewhere. Although those results are not inherently contradictory, the disparity in the time and place of the two studies suggests that more research is necessary before those countervailing patterns can be considered characteristic of the gentrification process.

Displacement in New York City, 1991–1999

In this study, we focused on New York City during the 1990s. The city provides a prime laboratory to study the patterns and processes of gentrification, insofar as its size and economic vitality have produced several distinct areas of gentrification activity. Following a regional recession that bottomed out in 1993, the city experienced rapid economic growth and strong job creation for the remainder of the decade. Job creation and income growth were particularly strong in the creative and information processing sectors of the economy, including finance, insurance, and real estate; communications; higher education; and business services. Growth in those economic sectors is often considered a prerequisite for gentrification, as their businesses tend to prefer central business district locations and employ workers who have educational and other characteristics that make them predisposed to urban lifestyles and residence. A large renter population and the presence of rent regulation also permit large-sample statistical analysis of renter mobility and displacement and an evaluation of the role rent regulation may play in mitigating it.

It is well known that New York City has had some form of rent regulation in place continuously since 1943; it is less widely appreciated that the city has transitioned from the earlier, rigid form of regulation known as rent *control* to a more flexible, "second-generation" form known as rent *stabilization.* Currently, there are about 50,000 controlled rental units and 1.05 million stabilized rental units—representing about 3% and 52% of the rental stock, respectively (Lee, 2002). Under rent stabilization, permissible rent increases on 1-year and 2-year leases are determined annually by a nine-member panel composed of public, tenant, and owner representatives. Permissible rent increases for occupied units generally correspond to the rate of inflation in operating costs; vacant units are permitted to rent at higher prices according to a complex "vacancy allowance" formula. In addition, the rents of many other units are regulated through a variety of federal and state housing assistance programs.

Our study of gentrification in New York City was facilitated by the availability of the New York City Housing and Vacancy Survey (NYCHVS), a representative sample of approximately 16,000 housing units, of which about 70% are rental units. It is conducted every 3 years by the Census Bureau for New York City in accordance with the City's rent regulation guidelines. For this analysis, we used the 1991,[1] 1993, 1996, and 1999 NYCHVS longitudinal data files. Although the chief purpose of the survey is to collect data regarding New York City's vacancy rate, the NYCHVS also collects a variety of other housing, socioeconomic, and demographic data that are useful for studying gentrification.

Methodology

To discern how gentrification is related to displacement, we examined the relationship between residence in a gentrifying neighborhood and residential mobility among disadvantaged households. If gentrification increases displacement, all other things being equal, we should observe higher mobility rates among disadvantaged households residing in gentrifying neighborhoods than among those residing elsewhere in the city.

The longitudinal feature of the NYCHVS facilitates an analysis of mobility patterns. The same panel of dwelling units is generally visited for each triennial survey, with some alterations to account for additions and losses to the stock and for reweighting to account for population changes. Overall, about 90% of the observations in the 1999 survey were linked to observations of the same dwelling in previous surveys. Within that constant frame of dwelling units, the resident households may have changed, but their year of initial occupancy is provided. Those longitudinal features of the survey allowed us to identify which dwelling units had new occupants as of each survey and to recover from earlier surveys a significant amount of information about the previous occupant household. Using this procedure, we were also able to analyze exits from housing units on a neighborhood basis.

Selection Criteria

Neighborhoods are defined as the 55 subborough areas coded in the NYCHVS data. These subborough areas correspond closely to New York City's Community Board Districts, the smallest unit of municipal government, which were initially drawn to represent coherent geo-

graphic, demographic, and political entities. In 1999, they consisted of approximately 46,000 households each. Although this number is much larger than what is typically considered a neighborhood in social science research, the density of New York City is unusually high, and most of these areas represent well-known sections of the city, such as the Upper East Side, Brooklyn Heights, or Flushing.

Based on our familiarity with recent trends in neighborhood change, we classified the subboroughs of Chelsea, Harlem, the Lower East Side, and Morningside Heights in Manhattan and Fort Greene, Park Slope, and Williamsburg in Brooklyn as gentrifying neighborhoods. Figure 1 shows the locations of these neighborhoods. Figure 2 illustrates how gentrifying neighborhoods changed during the 1990s in contrast to other New York neighborhoods: The proportion of Whites in gentrifying neighborhoods increased even as the proportion in the rest of the city declined. Moreover, average monthly rent, educational

attainment, and median income were also rising faster. These changes are consistent with what would be expected for gentrifying neighborhoods—relative increases in socioeconomic status—and lend support to our designation of these neighborhoods as gentrifying.

To determine if a household subsequently moved, we first identified housing units that had a new occupant in year t. If so, we considered the occupant of that housing unit in year t−3 as having moved.[2] We then used characteristics of the occupants of the unit in year t−3 as predictors of mobility. Consequently, we observed residential mobility between 1991 and 1993, 1993 and 1996, and 1996 and 1999.

We used two indicators of disadvantage: the household's income level and the household head's educational level. A disadvantaged household had an income below the federal poverty line in the year prior to the survey or the head lacked a college degree. While income level is more

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Figure 1. Gentrifying neighborhoods in New York City, 1999.

Racial Composition

White (%)

Rent

Average Monthly Rent (%)

Education

College Graduate (%)

Income

Average Annual Income (%)

Neighborhood Type

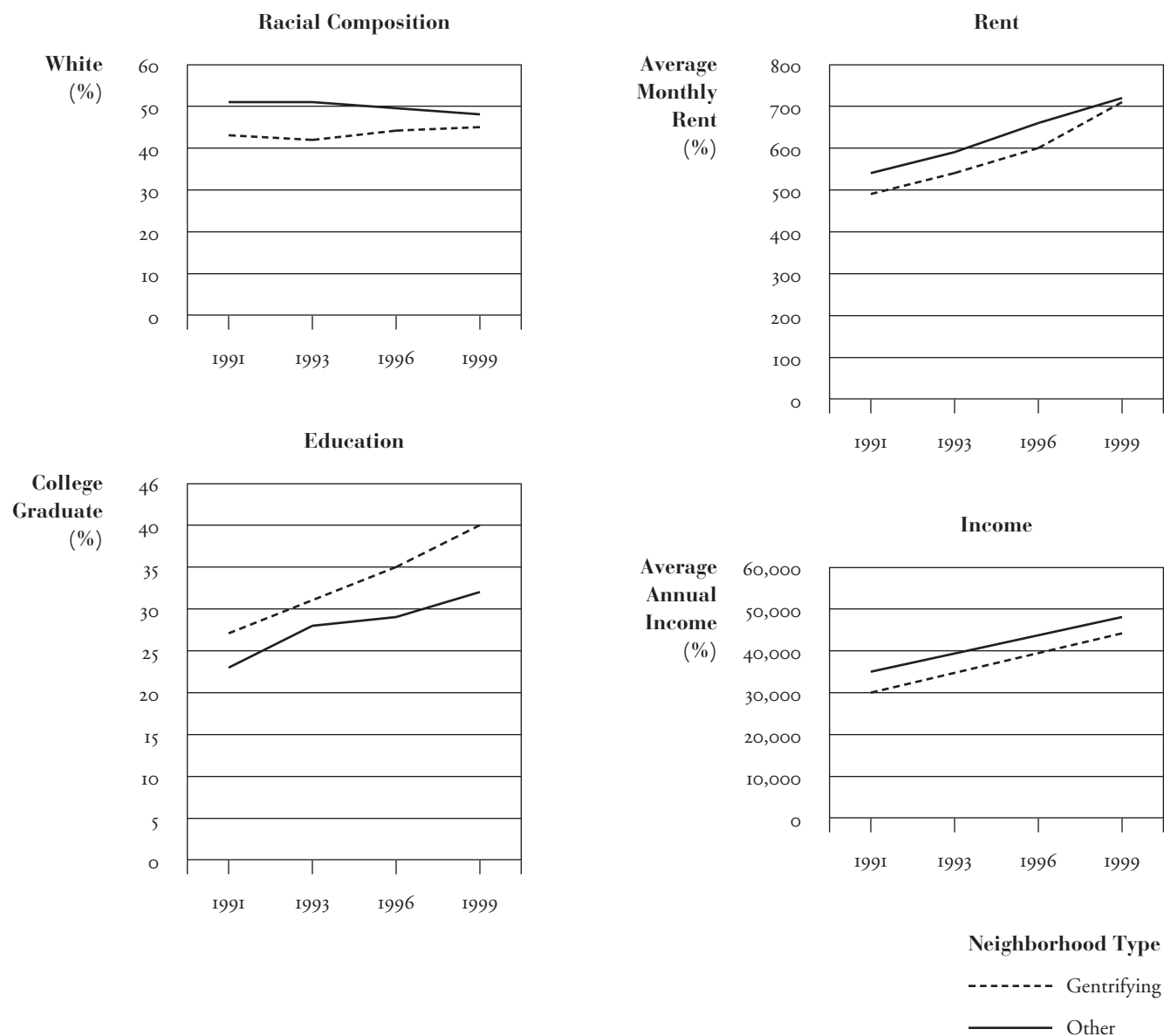- - - - - - Gentrifying

————— Other

Figure 2. Changes in four key socioeconomic indicators, 1991–1999.

directly related to rent-paying ability, educational status is not as subject to fluctuation and thus is a more stable indicator of socioeconomic status.

Controls

To control for the possibility that disadvantaged households in gentrifying neighborhoods differ systematically in a manner that makes them less likely to move, we developed a multivariate model of residential mobility. This model is based on the life-cycle model of housing consumption, which posits that life-cycle events typically trigger consumption/needs discrepancies that lead to a decision to move (Rossi, 1980; Speare, 1974). For example, marriage is a major life-cycle event likely to trigger a move by at least one of the partners. We used this theoretical framework to guide us in the development of a logistic regression model[3] that predicts the likelihood of someone moving.

Using the life-cycle framework, we controlled for age, marital status, and the presence of children in our model of residential mobility. Other demographic control variables included race, gender, income, employment status, and

educational attainment. We also controlled for housing unit characteristics likely to be associated with mobility, including monthly rent, length of tenure, overcrowding, the respondent's rating of their neighborhood's physical conditions, and the number of maintenance deficiencies in their unit.

As access to both subsidized housing units and rent-regulated units occurs on a first-come, first-served basis, a model of residential mobility should also take into consideration how the rent regulation/housing subsidy status of the dwelling unit might affect a household's decision to move. Households residing in regulated or subsidized units are likely to think twice before moving, cognizant of the scarcity of other available units with mechanisms for keeping rent affordable and the high cost of housing in the unregulated private sector. With this in mind, we excluded from our analysis both residents of public housing and residents of units acquired by the City because the owners did not pay their taxes. We did control for residence in a rent-regulated unit, including those regulated under the State of New York Mitchell Llama Program[4] and under U.S. Department of Housing and Urban Development programs.[5] Our rationale for including these controls is that gentrification might increase pressure on landlords to "encourage" residents of rent-regulated units to leave and that other types of subsidized housing typically expire after a given period—say 15 or 20 years. Table 1 shows a full list of the variables included in the analysis and their descriptive statistics.

Results of Multivariate Analyses

Gentrification as Independent Variable

Table 2 presents the results of our multivariate analyses. It shows that after controlling for all of the factors described above, poor households residing in one of the seven gentrifying neighborhoods were found to be 19% less likely to move than poor households residing elsewhere (see second and third columns of Table 2). When we controlled for the factors listed above and limited our sample to respondents who lacked a 4-year college degree, disadvantaged households residing in one of these neighborhoods were still 15% less likely to move than their counterparts residing elsewhere (see fourth and fifth columns of Table 2).

The results pertaining to the rent regulation variables are also suggestive. The coefficient on rent control indi-

cates that occupants of such units exit at a much higher rate than occupants of unregulated units. This is probably because under the City's rent regulations, only apartments that have been continuously occupied since 1972 by the same tenant (or one with legal rights to succession) are "controlled." Consequently, elderly tenants, who are more apt to exit only when they retire, are institutionalized, or die, occupy controlled units disproportionately. Rent stabilization is by far the more common form of rent regulation in New York City. Our results indicate that poor tenants in such units are insignificantly less likely to exit than those in unregulated units. Rent stabilization does appear, however, to substantially reduce the odds that a less-educated household will move from their dwelling unit during any given time period. These results are consistent with conventional wisdom in New York, which holds that rent regulation is a program that primarily benefits the lower middle class rather than the very poor. In many of the city's poorest neighborhoods, regulated rents are comparable to market rents, and hence are superfluous to keeping rents affordable. We also tested in our regressions a variable interacting residence in a rent-regulated unit and in a gentrifying area and found that it was not significant. This indicates that while rent regulation tends to decrease tenant mobility, it does not do so more in gentrifying areas than in others.

Rent Inflation as Independent Variable

Although most knowledgeable observers would concur with our designations of the seven gentrifying neighborhoods, it is possible that we have erred in our categorization. An alternative approach is simply to measure the rate of increase in neighborhood market rents, on the assumption that the market appropriately values the increasing or decreasing desirability of residential areas. After all, it is the notion that gentrification leads to increased demand in a neighborhood, and consequently to rising rents, that is thought to spur displacement.

Thus, as a further robustness check, we examined the relationship between the average rate of rent inflation among unregulated units in a neighborhood and the likelihood that a disadvantaged household in that neighborhood would move. Because of New York City's large rent-regulated housing stock, we use the rate of rent increase only for unregulated units to proxy for the degree of gentrification in a neighborhood. To the extent that gentrification causes rent inflation, and rising rents induce displacement, we would expect a positive relationship between rent inflation and the likelihood of moving.

Variable	Poor households		Non-college-graduate head of household	
	Gentrified neighborhoods	Other neighborhoods	Gentrified neighborhoods	Other neighborhoods
Moved	21.00%**	24.70%	21.20%***	24.00%
Monthly rent	$427.00***	$495.00	$475.00***	$550.00
Average rent increase 1991–99	25.10%***	10.40%	24.80%***	9.50%
Years in current residence	11.50***	9.40	12.30***	10.10
Rent-stabilized unit[a]	63.80%***	58.60%	59.70%***	53.60%
Rent-controlled unit[a]	9.70%***	5.00%	12.00%***	5.70%
Other regulated unit[a]	6.10%*	4.60%	6.70%***	5.20%
No. maintenance deficiencies	3.90***	3.50	3.90%***	3.50
Overcrowded unit	4.60%***	8.10%	5.30%*	6.30%
Seriously overcrowded unit	7.20%*	5.50%	5.70%***	3.80%
Native born	43.60%**	39.60%	46.30%***	43.20%
Black	26.80%	24.60%	26.30%*	24.60%
Hispanic	35.90%	37.70%	27.60%*	29.50%
Asian	14.30%***	4.80%	11.00%***	4.60%
Other	.01%	.01%	.01%	.01%
Age (years)	49.10**	47.20	49.00***	47.80
Male	34.10%***	28.40%	46.90%*	44.90%
Married	16.10%**	19.80%	26.10%***	34.50%
Has child	37.40%***	48.40%	28.10%***	36.70%
High school graduate	22.20%***	27.90%	31.50%***	36.20%
Some college	12.60%	13.50%	23.30%	24.30%
College graduate	12.10%	10.60%	—	—
Employed	17.80%	17.60%	43.60%**	46.30%
Income	$5,516.00*	$5,815.00	$23,381.00***	$24,978.00
Neighborhood Rating[b]				
Excellent	5.00%**	7.00%	6.30%***	9.30%
Good	37.50%***	44.00%	38.60%***	46.20%
Fair	37.10%***	31.00%	32.10%***	26.40%
N	760	4,527	1,179	16,489

a. Reference category: unregulated unit

b. Reference category: poor

* $p < .10$ ** $p < .05$ *** $p < .01$

Table 1. Descriptive statistics for variables used in regressions.

Variable	Poor households		Non-college-graduate head of household	
	Odds ratio	p value	Odds ratio	p value
Monthly rent	1.01	.01***	1.01	.01***
Residence in gentrified neighborhood	.81	.05**	.85	.01***
Years in current residence	.98	.01***	.97	.01***
Rent-stabilized unit[a]	.94	.48	.87	.01***
Rent-controlled unit[a]	1.39	.13	1.47	.01***
Other regulated unit[a]	.78	.08	.66	.01***
No. maintenance deficiencies	1.01	.32	1.01	.42
Overcrowded unit	1.37	.02**	1.17	.05*
Seriously overcrowded unit	1.17	.29	1.19	.06*
Native born	.91	.27	.96	.39
Black	.93	.46	.93	.17
Hispanic	1.03	.79	1.02	.74
Asian	.91	.56	1.11	.20
Other race	1.07	.93	.63	.23
Age	.93	.01***	.93	.01***
Age squared	1.01	.01***	1.01	.01***
Male	1.10	.27	1.14	.01***
Married	.90	.34	.86	.01***
Has child	.77	.01***	.90	.03**
High school graduate	1.17	.06*	—	—
Some college	.97	.76	—	—
College graduate	1.24	.09*	—	—
Employed	1.01	.92	1.06	.22
Annual Income	.99	.63	.99	.10*
Neighborhood Rating[b]				
Excellent	.81	.23	.82	.03**
Good	.89	.29	.83	.01***
Fair	.91	.44	.88	.08*
Year = 1993	1.45	.01***	1.52	.01***
Year = 1996	1.17	.11	1.42	.01***
Wald χ^2	191.48	.01***	783.22	.01***
Summary statistics				
% correct predictions	65%		65%	
N	4,943		16,051	

a. Reference category: unregulated unit

b. Reference category: poor

* $p < .10$ ** $p < .05$ *** $p < .01$

Table 2. Logistic regression model using gentrification as independent variable.

We found that increases in rent are indeed related to the probability of a household moving. But as was the case with the seven gentrifying neighborhoods, these increases were associated with a *lower* probability of moving rather than a higher one. Table 3 illustrates the results of our logistic regression analysis predicting if a household would move, using the rate of rent inflation as the independent variable.

The first and third columns show that the probability of a poor or less-educated household moving from a unit declines as the rate of rent inflation in the neighborhood increases. For poor households, a 1% increase in rent inflation is associated with a 1% decrease in the odds of moving. The same is true for households whose head lacks a college degree. Moreover, this relationship persists even when other factors associated with residential mobility are controlled for.

As a final robustness check, we tested whether rent inflation had a stronger effect on disadvantaged households in low-rent neighborhoods. These are neighborhoods where rent inflation might be especially burdensome and most associated with displacement. To test this possibility, we classified neighborhoods with rents below the citywide median in 1991 as low-rent and neighborhoods with rents above the citywide median in 1991 as high-rent, using a dummy variable. We then interacted this dummy variable with the rate of rent inflation, measured as described above. If residence in a low-rent neighborhood renders disadvantaged households especially sensitive to rent inflation, then this interaction term should be statistically significant and positive. For the sake of brevity, we do not report the results here; we only note that the interaction term was not statistically significant. This suggests that the effect of rent inflation on mobility was invariant with regard to the average rent levels in the neighborhood at the beginning of the decade. The relationship between residential mobility and gentrification thus appears robust across different measures of gentrification.

Rethinking the Gentrification Process

Gentrification has become one of the more controversial issues for planners and others who work in low-income communities. For reasons described in the introduction, gentrification has both boosters and detractors. The latter are motivated primarily by fears of displacement. Gentrification has typically been depicted as a process of higher socioeconomic households displacing disadvantaged households. Indeed, some have defined gentrification as this type of displacement (Marcuse, 1986). The assumption behind

this view is that displacement is the principal mechanism through which gentrification changes the socioeconomic character of a neighborhood. The results presented here, in conjunction with Vigdor's (2001) analysis, which produced similar findings, suggest that a rethinking of the gentrification process is in order. Insofar as many of the other reasons people change residence (marriage or divorce, change of job, want a bigger unit, want to own, etc.) would not be expected to diminish as their neighborhood gentrifies, the reduced mobility rates we find in gentrifying neighborhoods are inconsistent with a process dependent on the massive displacement of disadvantaged residents. Rather, demographic change appears to occur primarily through normal housing succession and may even be slowed by a below-normal rate of exit by existing residents.

It is possible that the lower rates of residential mobility we observed among poor and less-educated people in gentrifying neighborhoods are due entirely to a lower rate of moves *within the neighborhood*, because of a lack of affordable housing alternatives in nearby, familiar locations. However, in a separate analysis not presented here, we identified renters who had been displaced as those who had moved because (1) they wanted a less expensive residence and/or had difficulty paying their previous rent, (2) they experienced landlord harassment, or (3) their units were converted to condominiums or coops but they did not have the desire or means to stay.[6] Those displaced renters were no less likely to be found residing in gentrifying neighborhoods than in nongentrifying ones. This suggests that for residents who seek to lower their rent bills, trade-down options exist even within gentrifying neighborhoods. In any event, a claim that intraneighborhood mobility is reduced for low-income residents in gentrifying neighborhoods is fundamentally different from a claim that they will be displaced from their existing homes.

An Alternative Interpretation

If the lower mobility rates in gentrifying areas are not a statistical illusion, what might be causing them? The most plausible interpretation may also be the simplest: As neighborhoods gentrify, they also improve in many ways that may be appreciated as much by their disadvantaged residents as by their more affluent ones. To the extent that gentrification is associated not only with an influx of higher-income households but also with better retail and public services, safer streets, more job opportunities, and improvements in the built environment, disadvantaged households may have less reason to change residences in search of a better living environment. Indeed, the strong

Variable	Poor households		Non-college-graduate head of household	
	Odds ratio	p value	Odds ratio	p value
Monthly rent	1.01	.01***	1.01	.01***
Rate of rent inflation in neighborhood	.99	.01***	.99	.01***
Years in current residence	.98	.01***	.97	.01***
Rent-stabilized unit[a]	.96	.63	.89	.01**
Rent-controlled unit[a]	1.42	.10*	1.49	.01***
Other regulated unit[a]	.81	.12	.68	.01***
No. maintenance deficiencies	1.01	.31	1.01	.40
Overcrowded unit	1.37	.02**	1.16	.06*
Seriously overcrowded unit	1.16	.30	1.19	.06*
Native born	.92	.31	.97	.44
Black	.93	.51	.93	.18
Hispanic	1.04	.74	1.02	.71
Asian	.91	.57	1.11	.20
Other race	1.08	.89	.63	.24
Age	.93	.01***	.93	.01***
Age squared	1.01	.01***	1.01	.01***
Male	1.11	.24	1.14	.01***
Married	.89	.28	.85	.01***
Has child	.77	.01***	.90	.02***
High school graduate	1.17	.06*	——	——
Some college	.97	.79	——	——
College graduate	1.25	.08*	——	——
Employed	1.01	.94	1.06	.23
Annual Income	.99	.65	.99	.08*
Neighborhood Rating[b]				
Excellent	.81	.23	.81	.02**
Good	.87	.24	.82	.01***
Fair	.90	.37	.87	.06*
Year-1993	1.45	.01***	1.52	.01***
Year-1996	1.16	.12	1.41	.01***
Wald χ^2	193.02	.01***	787.31	.01***
Summary statistics				
% correct predictions	64%		64%	
N	4,943		16,051	

a. Reference category: unregulated unit

b. Reference category: poor

* $p < .10$ ** $p < .05$ *** $p < .01$

Table 3. Logistic regression model using average rate of rent inflation as independent variable.

association between a resident's rating of their neighborhood and their propensity to remain in place is demonstrated by the results of the logistic regressions in Tables 2 and 3. Although the NYCHVS questionnaire asks respondents to rate only the *physical* condition of their neighborhood, the strong correlation between a neighborhood's physical and social conditions permits us to interpret this rating as a proxy for overall neighborhood quality. Although the coefficients are statistically significant only for the less-educated sample, mobility appears to decrease as neighborhood quality increases for both categories of disadvantaged residents.

A neighborhood can gentrify without direct displacement as long as in-movers are of a higher socioeconomic status than out-movers. Given the typical pattern of low-income renter mobility in New York City, a neighborhood could go from a 30% poverty population to 12% in as few as 10 years without any displacement whatsoever, providing that all vacated units are rented by non-poor households. Even if disadvantaged households who reside in gentrifying neighborhoods are less likely to move, these neighborhoods can still undergo demographic transformations if the households moving into vacated units are of a higher socioeconomic status than those leaving. Indeed, that appears to be the case in the gentrifying neighborhoods in New York City from 1991–1999. Table 4 shows that households moving into units in gentrifying neighborhoods had substantially higher incomes, higher levels of educational attainment, and lower poverty rates than the previous residents of those units. Because the NYCHVS does not allow us to determine where in-movers are coming from, we cannot be sure that all of these in-movers are indeed coming from outside of the neighborhood. While it appears that disadvantaged households are less likely to move away if they live in a gentrifying neighborhood, they are also less likely to move into one if they do not already live there.

Implications for Planning

We believe our results have implications for how we understand the process of gentrification, what gentrification may mean to disadvantaged households, and how housing policy should be crafted to address concerns about gentrification. We discuss each of these below.

If our speculation that many disadvantaged households would prefer to stay in their neighborhoods as they gentrify is correct, this is all the more reason to fashion housing policy to mitigate some of the pressures of displacement. For although our results imply that the amount of displacement occurring in gentrifying areas may be no worse than in other parts of the city, this does not mean that no one is being displaced. In addition, those disadvantaged households staying in gentrifying neighborhoods may be devoting a substantial portion of their income for improved neighborhood conditions. Indeed, data from the NYCHVS shows that the average rent burden for poor households living in gentrifying neighborhoods was 61% during the study period, in contrast to a lower, although still problematic, 52% for poor households living outside of gentrifying neighborhoods.

Furthermore, disadvantaged households who wish to move into these neighborhoods may not be able to find an affordable unit, as may disadvantaged households in gentrifying neighborhoods who wish to move within their neighborhood. Moreover, if gentrification occurs on a sufficiently wide scale, it could result in a gradual shrinking of the pool of low-cost housing available in a metropolitan area. For these reasons, gentrification can still exacerbate the housing problems of the poor, even if widespread displacement is not occurring.

Ironically, two of the most maligned housing policies, rent regulation and public housing, may have a certain logic in the context of gentrification. We have already shown that rent regulation reduces housing turnover

	Average income	College graduate	Poverty rate
In-movers	$35,230*	47%*	23%*
Current residents	$26,887	23%	31%

* $p < .01$

Table 4. Characteristics of in-movers and current residents.

among disadvantaged renters, although no more so in gentrifying areas than elsewhere. It may be equally important in moderating the rent burdens of those who do stay in their apartments, however. Our tabulations, for example, show that between 1996 and 1999, rents for unregulated apartments in gentrifying neighborhoods of New York City increased by an average of 43.2%. For rent-stabilized apartments, the corresponding increase was 11.4%. More research is necessary, however, to determine how rent regulations affect the rent burdens of poor families already living in gentrifying areas and how those rent burdens might change if regulations were not in place.

Public housing, often criticized for anchoring the poor to declining neighborhoods, may also have the advantage of anchoring them to gentrifying neighborhoods. The households probably least at risk of being displaced in neighborhoods like Harlem and the Lower East Side of Manhattan are those in public housing; they are insulated from rent competition with more affluent households because of public housing's income eligibility rules. Tenant-based housing assistance offers no such assurances if market rents in a neighborhood rise above fair market rent levels. Likewise, owners of Low Income Housing Tax Credit (LIHTC) developments and other types of private, assisted housing may be quicker to opt out of the program at the end of the obligatory time period if the surrounding neighborhood is undergoing gentrification. This is an important consideration that should be kept in mind, especially if gentrification becomes a more widespread phenomenon in urban areas.

Conclusion

Our analysis indicates that rather than speeding up the departure of low-income residents through displacement, neighborhood gentrification in New York City was actually associated with a lower propensity of disadvantaged households to move. These findings suggest that normal housing succession is the primary channel through which neighborhood change occurs. Indeed, housing turnover may actually be slowed by the reduced mobility rates of lower-income and less-educated households. The most plausible explanation for this surprising finding is that gentrification brings with it neighborhood improvements that are valued by disadvantaged households, and they consequently make greater efforts to remain in their dwelling units, even if the proportion of their income devoted to rent rises.

The results of this study and Vigdor's analysis suggest that some degree of gentrification can occur without rapid and massive displacement of disadvantaged households. Insofar as gentrification in these studies does not appear to cause the widespread dislocation of the disadvantaged that some observers have claimed and it may also help to promote important fiscal and social goals, municipal governments may become more inclined to pursue policies explicitly geared to promoting it. Before pursuing that course, however, it would be wise for planners and policymakers to gain a better understanding of whether the effects we have identified would be likely to occur under different scenarios and under what circumstances, if any, widespread displacement could be a problem.

Even though urban gentrification may provide benefits to disadvantaged populations, it may also create adverse effects that public policies should seek to mitigate. Our results indicate that rent regulation can promote residential stability for disadvantaged households, but those effects do not seem to be consistent across all subgroups of the disadvantaged population. More research is needed to evaluate the usefulness of rent regulation in reducing displacement and moderating the rent burdens of disadvantaged households in gentrifying neighborhoods. Other traditional housing assistance programs, such as public housing and Section 8 rent subsidies, also need to be re-evaluated in the context of urban gentrification, rather than in the context of urban decline.

Notes

1. The NYCHVS was conducted in 1991 instead of 1990 to avoid overlapping with the decennial census.
2. t−2 in the case of the 1991–1993 interval.
3. Because each household contributed more than one observation to the dataset (one for each year observed), it was necessary to correct our estimates for possible dependence among observations. Although our models include numerous statistical controls, observations from the same household are still unlikely to be independent, and consequently the error terms correlated as well. To address this possibility, we estimated our models using a random effects approach (Conway, 1990).
4. The Mitchell Llama Program provides housing primarily for middle-income tenants.
5. This would include units developed under Section 8 New Construction, Substantial and Moderate Rehabilitation, and other subsidized construction and rehabilitation programs.
6. We did not use this approach to link gentrification with displacement because the NYCHVS does not allow us to identify the neighborhood of origin. Thus, we can categorize some recent movers as displaced, but we cannot say if it was due to gentrification because we do not know from which neighborhood they came.

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