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**Differences in Neighborhood Conditions among Immigrant and Native-born Children  
in New York City**

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## **Differences in Neighborhood Conditions among Immigrant and Native-born Children in New York City**

### **Abstract**

In this paper we use a specially created data set for New York City to evaluate whether the context of children's neighborhoods varies by their immigrant status, and, if so, whether the relationship between neighborhood context and immigrant status varies by children's race and ethnicity. Overall, when compared to native-born children, immigrant children live in neighborhoods with higher rates of teenage fertility, and higher percentages of students in local schools scoring below grade level in math and of persons receiving AFDC, but lower rates of juvenile detention. However, further comparisons revealed that race/ethnicity is by far a more potent predictor of where children live than is immigrant status *per se*. Specifically, we find evidence of a hierarchy of access to advantageous neighborhoods, whereby native- and foreign-born white children have access to the most-advantaged neighborhoods while native-born black children consistently live in the least-advantaged neighborhoods, as measured by our four indicators. In between these extremes, the relative ranking of foreign-born black and native- and foreign-born Hispanic children varies, depending on the measure of neighborhood context.

## **Introduction**

In recent years, the attention of scholars and policy makers has increasingly focused on immigrant children and the children of immigrants. Much of this attention derives from concerns over the costs of the “new immigration” in the short term, as well as the long-term significance of immigrant children’s future social and economic success. Since immigrant children and the children of immigrants currently comprise the fastest growing segment of the under 15 population in the United States (Board of Children and Families 1995; Oropesa and Landale 1997), their social and economic achievements will greatly influence the productivity of the adult population in the near future.

Considerations of the predictors of children’s social and economic achievements have increasingly emphasized the significance of neighborhoods and the resources available within them (Ellen and Turner 1997; Gephart 1997). Neighborhoods are highly varied in terms of the quantity and quality of resources they possess. While some neighborhoods offer their residents broad access to such important resources as high-quality schools and safety, others are not as replete with these and other resources that can positively affect residents’ quality of life and their life chances. If the opportunity to reside in neighborhoods possessing high-quality resources is differentially distributed by race and immigrant status, then the potential for upward mobility may be substantially diminished for the adversely affected group(s). Although there is a tremendous amount of evidence to expect that children’s neighborhoods will differ according to their *race/ethnicity*, virtually none of this research uses children as the units of analysis, nor does it focus on children’s immigrant status. This gap in the literature is particularly notable in light of theoretical approaches to immigrant children’s adaptation prospects which emphasize the role of place-based opportunities and constraints. In this paper we fill this void by using a specially created data set for New York City to evaluate whether the context of children’s neighborhoods varies by their immigrant status, and, if so, whether the relationship between neighborhood context and immigrant status varies by children’s race and ethnicity.

While focusing on a single city inevitably limits our ability to generalize our findings to other locations, there are many reasons why New York City is an ideal case study for this type of analysis. First and foremost is New York's high degree of racial and ethnic diversity, as well as its historic role as one of the premiere destinations for immigrants arriving in the U.S. (Farley 1997; Salvo and Lobo 1997). New York currently receives a disproportionate share of all immigrants arriving in the U.S., and, when compared to the nation as a whole, New York receives far larger shares of immigrants from the Caribbean and Latin America, and lower shares -- but still sizable numbers -- of immigrants from Asia (Salvo and Lobo 1997). Recent data from the Immigration and Naturalization Service, moreover, show that Ghana and Nigeria have made onto the list of the "top twenty" sending countries to New York City (Salvo 1998), joining such diverse countries as the Dominican Republic, China, the former Soviet Union, Poland, Jamaica, and Guyana. Thus, the many non-Hispanic white and black immigrants, along with immigrants of Hispanic and Asian origin, offer an unparalleled opportunity to evaluate if and how nativity differences in the quality of children's neighborhoods are contingent on race/ethnicity.

There are, however, many features of New York's housing market that emphasize the uniqueness of this case study. Specifically, immigrants to New York arrive in one of the tightest housing markets in the U.S., characterized by consistently low vacancy rates and low rates of new construction (Schill and Scafidi 1999). In addition to these constraints, New York City is characterized by a high degree of racial/ethnic residential segregation, which limits the housing choices of minority householders throughout the city (Rosenbaum 1994, 1996a, 1996b). New York's high degree of segregation, moreover, exceeds that of other major immigrant-receiving cities (Massey and Denton 1993). Thus, as a group, immigrants in New York may face more serious obstacles to acquiring residence in high-quality neighborhoods than immigrants elsewhere, and certain immigrants, especially those of African ancestry, may be disproportionately disadvantaged. Finally, and perhaps most important, by not including the suburban communities surrounding New York, locations to which immigrants with the means to improve their living

situations may move (cf. Alba, Logan, Stults, Marzan, and Zhang 1999), our results may overstate the degree to which children's neighborhoods differ.

The organization of our paper is as follows. In Part 1, we discuss the theoretical frameworks that guide our analysis. Following that, in Part 2, we discuss the two sources of data on which our analysis relies, as well as the bivariate and multivariate approaches we use in the analysis. Finally, in Parts 3 and 4, we discuss and summarize our results, respectively.

## **Part 1: Theoretical Frameworks**

### **Neighborhoods, social mobility, and segmented assimilation**

As mentioned above, neighborhoods vary greatly in the type and amount of resources they contain. Some neighborhoods are well-stocked with resources that may enhance the chance for social and economic success, such as high-quality schools and numerous job opportunities, while others may contain disamenities -- including high crime rates and widespread poverty -- with the potential to adversely affect their residents' life chances. Insofar as the opportunity to reside in neighborhoods replete with high-quality resources is differentially distributed by race/ethnicity and/or immigrant status, then the potential for upward mobility may be substantially diminished for the adversely affected group or groups. Indeed, the notion that the "geography of opportunity" (Galster and Killen 1995) varies has been demonstrated in evaluations of the Gautreaux program (e.g., J. Rosenbaum 1995) and thus forms the basis for mobility programs such as Moving to Opportunity (U.S. Department of Housing and Urban Development 1996).

That neighborhood resources act as "inputs" in the social mobility process is perhaps most salient in the case of children. A growing literature consistently demonstrates that neighborhood characteristics -- typically operationalized by such census-derived indicators as low-income neighbors, female-headed households, male joblessness, residential instability, neighborhood poverty, and welfare receipt (Gephart 1997) -- have potentially negative effects on children's cognitive and behavioral development and on teenagers' educational attainment, fertility, and

delinquent behavior (Gephart 1997; Ellen and Turner 1998; Leventhal and Brooks-Gunn 1997). Such effects are usually interpreted as reflecting the outcomes of one or more mechanisms. Among these mechanisms, initially elucidated by Jencks and Mayer (1990), is “collective socialization” which emphasizes the importance of adult role models and other adults who monitor and supervise children’s activities. In neighborhoods that are less socially organized, there are fewer positive adult role models and fewer adults available and willing to oversee children’s public behavior and to intervene when children transgress collective norms of appropriate behavior. Another mechanism can be referred to as “contagion,” which emphasizes the role of neighbors and peers as actors whose own behavior influences that of the individual child/youth. Children who live in neighborhoods where socially undesirable behavior is widespread are considered at greater risk of adopting the undesirable behavior than are children who live in other areas.

These mechanisms linking neighborhood resources to children’s behavior, then, emphasize the role of social interaction with others and exposure to role models in transmitting the “neighborhood effect” to the individual child. A similar emphasis can be found in “segmented assimilation” theory (Portes and Zhou 1993).

Segmented assimilation theory argues that contemporary immigrants -- who are largely nonwhite -- enter a society that is characterized not by a single, monolithic culture, but by a variety of subcultures organized largely by race/ethnicity (Portes and Rumbaut 1996; Waters 1994). Today’s second generation, therefore, may follow various paths of adaptation to life in the U.S. -- as opposed to the “straight-line” path of assimilation followed by the largely white second generation of earlier waves of immigrants -- with the particular path depending on the “segment” of American society in which they are received (Bankston and Zhou 1997; Zhou 1997). Some of these paths lead to improvements in social and economic attainments relative to the attainments of the parental generation, while others lead to losses or stasis in social and economic status.

According to proponents of segmented assimilation theory, the key determinants of

assimilation outcomes among members of the current second generation include family-based resources (e.g., financial and human capital, family structure, and the existence and strength of bonds to family and ethnic support networks), resources within the ethnic community (e.g., patterns of social relations, employment opportunities), and -- especially pertinent to the current analysis -- the intersection of racial stratification and spatial segregation in the host society (Bankston and Zhou 1997; Portes and Rumbaut 1996; Zhou 1997). That is, the disproportionate concentration of immigrants in central cities is argued to expose immigrant children to the “urban underclass,” whose very existence and consequent set of behaviors are the legacy of past discrimination and blocked opportunities (Portes and Rumbaut 1996; Zhou 1997). Moreover, the immigrant groups at greatest risk of exposure to the underclass are those that share with native-born minorities the experience of discrimination on the basis of race/ethnicity, namely those of African and Hispanic ancestry (cf. Gans 1992; Waters 1994). In general, exposure to the underclass increases the chance of adopting its “adversarial stance” to middle class culture, which in turn has the potential of thwarting the upward progress of immigrant children.

Implied here is that the prospects for success will vary depending on the social groups with whom immigrant children come into contact, and thus on the neighborhood context -- the context in which exposure to others and role models takes place -- in which immigrant children find themselves. Case studies of various groups of immigrant youth provide support for this idea (Bankston and Zhou 1997; Portes 1995; Portes and Rumbaut 1996; Portes and Zhou 1993; Waters 1994; Zhou 1997), and imply that some immigrant children -- notably those who are of African and Hispanic ancestry -- will be differentially exposed to potentially disadvantageous environments. To date, however, no one has established, using data from a general population sample, if immigrant children are more or less likely than native-born children to live in areas rich with the kinds of resources that can promote success in American society, or if the neighborhood resources available to immigrant children vary by race/ethnicity. The goal of our paper is to fill this void. Using a specially created data set for New York City, we evaluate whether the context

of children's neighborhoods varies by their immigrant status, and, if so, whether the relationship between neighborhood context and immigrant status varies by children's race and ethnicity. To measure neighborhood context we use four non-census-derived indicators: the juvenile detention rate, the teenage fertility rate, the percentage of the population receiving AFDC, and the percentage of students scoring below the grade level in math. All four have direct relevance to the developmental trajectories of children and youth, and because they are based administrative data, rather than census data, these indicators come closer to proxying the existence of potentially harmful peer effects.<sup>1</sup> Moreover, each of the four has been implicated as a potential feature of "second-generation decline" (Gans 1992), and thus all are integral to the propositions of segmented assimilation theory.

### **The determinants of where children live**

Children, by definition, are dependents in the households headed by the adult or adults in their lives. For this reason, children do not independently make decisions about where they live, but rather are subject to the decision making of the adult heading the household in which they live. Thus, in order to derive expectations concerning the predictors of children's locations, we must turn to models describing the residential location process of *households*.

*Residential mobility models* (Long 1985; Rossi 1955) propose that a household's choice of where to live is derived from an evaluation of its needs and preferences, subject to budget constraints. Needs and preferences are based on life cycle considerations, and imply that married couples need, for example, more space than single individuals, and that families with children not only need more space than married couples, but may have stronger preferences for neighborhoods

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<sup>1</sup> A widely recognized limitation of the neighborhood effects literature is its reliance on census-derived indicators, and its relative omission of measures of the mechanisms that transmit the given neighborhood effect (Duncan and Raudenbush 1998). The literature on locational attainments is also limited by its reliance on census-based indicators of neighborhood quality. Thus, one strength of our analysis is our use of neighborhood indicators that move beyond those available in the census.

with good schools, safe streets, other families with children, and other child-centered amenities. Within this general model, it can also be argued that families with teenagers may include different amenities in their “bundle” of preferences than do families with small children, since teenagers spend more time away from the family. Thus, families with teenagers may place greater emphasis on the quality of high schools and the prevalence of gang activity and teenage childbearing, while families with very young children may be more concerned with the safety and upkeep of local playgrounds and the availability and quality of day care and preschools.

Budget constraints are directly related to a household’s ability to “purchase” its desired “bundle” of housing and locational amenities. Simply put, wealthier households are better able to afford a given mix of residential amenities than are less-affluent households. Similarly, households headed by older and more-educated householders will have more resources than those headed by younger and less-educated householders. Finally, households headed by married couples will be better able than those headed by a single parent to purchase a given mix of housing amenities, and those receiving some form of public assistance will be at a serious disadvantage in their ability to afford their preferred living situations.

Thus, residential mobility models suggest that among the key predictors of children’s residential locations are indicators of household structure (headship by a married couple versus a single parent), the financial and human capital commanded by the household (household income, receipt of public assistance, age of householder, and the educational attainment of the householder), and indicators related to the needs of households with children at different stages of development (age of the child).

The same kind of economic “free choice” to locational outcomes that is implied in residential mobility models is intrinsic to the main model used to predict the locational outcomes of racial/ethnic and immigrant groups, namely, the *spatial assimilation model*. The main tenets of this model suggest that as members of minority groups acquire higher levels of education, enter the mainstream economy, and earn higher incomes, they seek to move to neighborhoods that are

more in line with their improved social and economic status (Massey 1985). Since this process may involve leaving the ethnic neighborhood for an area inhabited mainly by majority group members, one potential outcome is increasing similarity between the residential outcomes of minority and majority group members (Alba and Logan 1991; Logan and Alba 1993). In short, the spatial assimilation model predicts that once individual-level characteristics (such as financial and human capital, life-cycle stage, and acculturation-related variables) are controlled for, any observed racial/ethnic differences in residential characteristics should disappear (Alba and Nee 1997).

The inability of the spatial assimilation model to successfully describe the locational attainment process of certain groups, notably blacks, Puerto Ricans, and non-white Hispanics, suggests that opportunities for converting social and economic attainments into improved residential outcomes are constrained by being black. The significance of structural constraints in maintaining racial/ethnic inequality in residential outcomes has given rise to another theoretical perspective to locational outcomes, the *place stratification framework*. This model derives from the hierarchical ordering of places and social groups, and the mechanisms that more-advantaged groups use to maintain social and physical distance from their less-advantaged counterparts (Logan and Molotch 1987). Prominent among these mechanisms are discriminatory acts<sup>2</sup> that create and maintain racially segregated neighborhoods (Massey and Denton 1993) and thus constrain minority residential choices to areas that are of lower quality than those available to whites (Turner 1993; Yinger 1995). In short, the place stratification framework extends the individual-level explanation proposed by the spatial assimilation model to emphasize the role played by structural constraints that limit the housing choices of blacks and other nonwhite

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<sup>2</sup> Among the discriminatory acts referred to here are the unequal treatment of minority homeseekers by landlords and realtors (Yinger 1995), as well as the actions of local governments (Schill and Wachter 1995), mortgage lenders (Leahy 1985; Munnell et al. 1992), and neighbors (Massey and Denton 1993). Spatial stratification may also occur because of varying preferences among whites and nonwhites for neighborhoods of varying racial/ethnic compositions (Farley 1993; Farley, Fielding, and Krysan 1998).

minorities.

## **Hypotheses**

Thus, the preceding discussion suggests a number of hypotheses. We expect that children living in households that are headed by married couples, and older and more-educated householders, will live in neighborhoods with lower juvenile detention and teenage rates, lower percentages of the population receiving AFDC, and lower percentages of students scoring below grade level in math than their counterparts in households headed by single persons, younger and less-educated householders. A similar advantage in neighborhood context is expected for children living in households with higher levels of income and lower levels of public assistance receipt, relative to their peers in less-affluent households. In addition, because parents of teenagers may be more concerned about the potential for negative peer groups for their children in the neighborhood, we expect to find an inverse relationship between the child's age and the level of the potentially adverse condition in the neighborhood.

With respect to immigrant-status differences, the spatial assimilation model suggests that immigrant children are likely to live in neighborhoods with higher levels of the four conditions than those in which native-born children live, but that once the individual-level predictors are controlled for, we should see little or no difference in neighborhood context by immigrant status. While we can expect to find, at the bivariate level, that black and Hispanic children live in neighborhoods with higher levels of the four conditions than those in which white children live, the place stratification model suggests that controlling for the aforementioned individual-level predictors will not erase these disadvantages. The expected pre-eminence of race and ethnicity specified by the place stratification model, therefore, leads us to further predict that black and Hispanic native- and foreign-born children are likely to live in lower-quality neighborhoods than native-born white children, while the neighborhood contexts of native- and foreign-born white children should differ minimally, if at all.

## Part 2: Data Set

The analysis is based on a specially merged data set of individual-level data on New York City children (aged 0-17) and their households, and aggregate-level data on the characteristics of the neighborhoods in which they live. The individual-level data derive from the 1996 panel of the New York City Housing and Vacancy Survey (HVS), and the aggregate-level data come from *Infoshare*, a database unique to New York City.

The HVS is a multistage probability sample of approximately 18,000 housing units located throughout the five boroughs of New York City that is surveyed every two or three years. The HVS is conducted by the Census Bureau under contract to New York City in compliance with city and state laws regarding rent regulation. Although the main focus of the HVS is housing conditions, a variety of socioeconomic and demographic indicators are collected for household members, making the HVS the most current source of information on the City's population and its housing stock. Detailed intrahousehold relationship codes permit the construction of a child-based file containing information on children, the adults (related and otherwise) with whom they live, and their households. Because 55% of children live in households in which they are not the only child, we randomly selected one child from each multi-child household to include in our analytical sample.

Although the HVS provides us with the most recent data available on New York's population and housing stock, it does not collect the full complement of immigration-related variables that would be ideal for an analysis such as ours. For example, while the HVS ascertains the place of birth for the householder as well as his/her parents, it does not collect information on either year of arrival in the United States or English language proficiency. Because these indicators capture differences in acculturation, which in turn are conceptually linked to individuals' abilities to acquire residence in various kinds of neighborhoods, our results will likely reveal larger intergroup differences than we might otherwise find if we were able to control for English language proficiency and time in the United States.

An advantage of using the HVS is that the “sub-borough areas” or subareas in which the sampled units are located are identified in the data file. There are a total of 55 subareas in New York, each of which is composed of an aggregation of census tracts and has a minimum population of 100,000. Although a smaller geographic unit may be more appealing conceptually as a proxy for a “neighborhood,” the Census Bureau’s confidentiality requirements prohibit the release of microdata for geographic units consisting of fewer than 100,000 persons. Moreover, because the 55 subareas are based on the 59 community districts that serve as the main administrative units for services and other amenities, results based on this level of geography are more meaningful for policy makers than would be results based on smaller geographic units, such as census tracts.

*Infoshare*, the source for our dependent variables, is a unique database for New York City that combines information from a variety of public and private sources, and enables the user to aggregate indicators to different geographic levels, including the HVS subarea. Indicators from *Infoshare* include rates of disease prevalence and other health-related conditions, rates of vital events, crime rates, and other information relevant to the quality of life experienced by neighborhood residents.

### **Part 3: Analytical Methods**

A central variable in our analysis is the child’s *nativity status*. Because place of birth is ascertained for householders only, we define “immigrant children” as those who live in a household headed by someone who was born outside of the 50 states, and whose parents were also born outside of the 50 states. “Native-born children,” then, are defined as those who live in a household headed by someone born in the 50 states. While data defining children’s *own* immigrant status would be ideal, our definitions concur with those used by other researchers

(Jensen and Chitose 1994).<sup>3</sup> Although Puerto Rico is part of the United States, for the purposes of this analysis we treat children living in households headed by island-born Puerto Rican householders as “foreign born.”<sup>4</sup>

Other individual-level variables relevant to the analysis include life-cycle-related and socioeconomic characteristics of the household, and the child’s race and ethnicity. Life cycle factors are represented by the householder’s age and a dichotomous variable indicating whether the household is headed by a married couple (versus a single person). We also use a dichotomous variable to indicate whether there are any adults present in the household beyond those in the nuclear family. Although we do not specify whether these other adults are related to the householder, this measure will allow us to control for the use of a multiple-earner strategy which could theoretically enable immigrant and native-born minorities to improve their living conditions (cf. Jensen 1991; Rosenbaum 1996a). In this context, we would expect to see a negative relationship between the presence of other adults and low levels of neighborhood quality.<sup>5</sup> Socioeconomic status is measured by the householder’s educational attainment (entered as two dummy variables indicating whether the householder has less than a high school education and

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<sup>3</sup> While some children may differ in nativity status from the person heading their household (for example, if a native-born child lives with a foreign-born parent), our theoretical framework emphasizes the relative importance of the householder’s characteristics in determining where children live. Thus, the extent to which children’s nativity status is misidentified will not adversely affect our results.

<sup>4</sup> We differentiate between children in island- and mainland-born Puerto Rican households because it is possible that island-born Puerto Ricans households have similar experiences in the housing market as do immigrant households. Moreover, there is ample evidence that island-born Puerto Ricans differ from mainland-born Puerto Ricans on a number of social, economic, and demographic indicators (e.g., see Salvo, Ortiz, and Lobo 1994), and other researchers examining immigrant children’s well-being have also treated Puerto Rican children as foreign born (e.g., Oropesa and Landale 1997).

<sup>5</sup> More generally, the fact that immigrant and minority households are more likely to be extended than are native-born white households (Angel and Tienda 1982; Jensen 1989; Tienda and Angel 1982) argues that we control for this difference. It is possible that, should the reason for household extension be one more of “getting by” than “getting ahead” (cf. Edin and Lein 1997), then we might expect a *positive* relationship between the presence of other adults in the household and the chance of residing in a disadvantaged neighborhood.

whether he or she has a high school degree, with the reference category being some college or more), household income (logged)<sup>6</sup> and a dummy variable indicating whether any members of the household receive public assistance. We also control for whether the child lives in a rented (versus an owned) housing unit, under the assumption that owners, having made a greater financial and emotional investment in the neighborhood, would live in better neighborhood contexts than do renters.

There are three categories of race and ethnicity, based upon the reported race and ethnicity of the child: (1) white, non-Hispanic; (2) black, non-Hispanic; and (3) Hispanic (which includes children identified as Puerto Rican, Dominican, Cuban, South/Central American, Mexican, Mexican-American, Chicano or other Hispanic). By relying on such broad categories we run the risk of ignoring important social, economic, and cultural differences across specific national-origin groups (e.g., Oropesa and Landale 1997), yet this decision was necessitated by concerns for adequate cell sizes. However, because Puerto Rican children comprise the vast majority of native-born Hispanic children (in excess of 80% in the analytical data set), it is clear that their experiences will dominate the results we find for native-born Hispanic children.<sup>7</sup> We omit Asian children from our analysis since over 96% live in households headed by foreign-born householders, preventing us from examining nativity-status differences within this group.

We also control for two additional characteristics of children, namely, gender and the child's relationship to the householder. While it may be that a household's residential decisions are influenced by children's gender (if, for example, parents of sons have different preferences than parents of daughters), we make no such assumptions and offer no hypotheses concerning the

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<sup>6</sup> Household income includes all income received by any household member including cash assistance from the government. The distribution of income was very skewed to the right; taking the log helped to normalize the distribution.

<sup>7</sup> Moreover, Puerto Rican and Dominican children account for approximately two-thirds of foreign-born Hispanic children in the analytical dataset, with Central/South American children making up an additional 20%. Our results for foreign-born children, then, will be less dominated by a single group, but will still be significantly affected by the experiences of Puerto Rican and Dominican children.

potential effect of gender. By contrast, there is reason to expect that the children who live in households headed by someone other than their parent or parents may live in less advantageous neighborhoods than children living in households headed by their parents. For instance, co-residence by the child (and his/her parent[s]) in someone else's household may indicate severe economic distress or other problems in the child's own family (Rosenbaum 1999), thus increasing the chance that that child lives in a disadvantaged neighborhood. Moreover, because migration streams often result in very complex living arrangements (cf. Foner 1997), immigrant children will be more likely than native-born children to live in a household headed by someone other than their parent or parents. This difference alone requires that we control for this characteristic of children.

As mentioned above, we utilize four dependent variables to measure dimensions of neighborhood context with direct relevance to the developmental trajectories of children and youth. The first is the juvenile detention rate, measured as the number of minors (whose home address is in the subarea) in detention per 1,000 children (0-17). The youth in detention include those who had been arrested and charged with felonies, misdemeanors, violations, and for other reasons, and those who had been served with warrants. The data originate from the New York City Police Department, and pertain to 1998. The second indicator is the teenage fertility rate (1996), which derives originally from vital statistics data provided by the New York City Department of Health. The teenage fertility rate is measured as the number of births to women age 15-17 per 1,000 women of the same age. The third indicator, the percentage of students in local public schools who score below grade level in math, relies on data from the New York City Board of Education, and pertains to the 1995-1996 academic year.<sup>8</sup> The final indicator, the percentage of the population receiving AFDC, refers to 1996 and relies on information originating

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<sup>8</sup> We chose math scores rather than reading scores since reading scores in immigrant neighborhoods may be influenced by immigrant children's limited English proficiency. The addresses of particular schools are the addresses geocoded and aggregated up to the subarea level. Because school districts are not completely contiguous with subareas, this variable may not always represent the quality of the schools in a given child's district. However, it can be argued that this variable may reflect the prevalence of a negative attitude about school, or about the value of education, among youth in the area.

from the New York City Human Resources Administration.<sup>9</sup>

A descriptive analysis is employed to compare the neighborhood, household, and child-level characteristics of foreign- and native-born children, and significance tests are performed as appropriate. To examine the relationship between nativity status, race/ethnicity, and neighborhood context more fully, that is, while controlling for the range of theoretically relevant independent variables, we specify a multivariate model that utilizes dichotomous variables identifying children's nativity status and race/ethnicity concurrently. By using native-born white children as the reference group, this model evaluates the relative abilities of immigrant and native-born children from specific racial/ethnic groups to gain access to advantageous neighborhood contexts.

One problem inherent to models that predict an aggregate-level outcome as a function of individual-level characteristics is spatial autocorrelation, since multiple cases share the same value on the dependent variable. This problem has the potential of producing correlated error terms, and thus of underestimating the standard errors of regression coefficients. To address this problem, we use feasible generalized least squares to estimate our multiple regression models. This technique produces regression coefficients and standard errors that take into account the fact that the error variance across subareas are different.<sup>10</sup> A second problem common to this type of

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<sup>9</sup> For the juvenile detention and teenage fertility rates, and for the percent of the population receiving AFDC, the addresses that are geocoded (and thus aggregated to the subarea level) are the residential addresses of juvenile detainees, teen mothers, and AFDC recipients, respectively.

<sup>10</sup> To correct for spatial autocorrelation, we need to superimpose a structure on the covariance matrix. Traditionally this is done using "time" in time series analysis data and "distance" in geographic data. In our case, although we can identify the subarea in which respondents live, we cannot identify how respondents within subareas are geographically related to one another. Therefore we cannot use this traditional technique.

An alternative would be to specify a random effects model with an individual-specific error and a subarea-specific error. However, in our case, since individuals within the same subarea have identical values for each dependent variable, we cannot specify a within-subarea individual-specific error.

analysis is that although we are seeking to explain why some children live in neighborhoods exhibiting certain characteristics, these characteristics, themselves, are influenced by the characteristics of neighborhood residents (and thus by our independent variables) (cf. Tienda 1991).

## Part 4: Results

### Descriptive results

Our analysis begins with an overview of the differences in the neighborhood contexts experienced by native- and foreign-born children. Do immigrant children live in neighborhoods

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To address the potential for autocorrelation, then, we used the best of the limited options available to us, namely, feasible generalized least squares. This technique allows us to estimate unique error variances for each of the K subareas. FGLS takes the general form:

$$y = X\beta + \varepsilon$$

where y is the dependent variable and X is the matrix with explanatory variables. The vector  $\beta$  contains the regression coefficients.

To estimate the vector  $\beta$ , we use the feasible generalized least squares (FGLS) estimator, denoted as

$$\hat{\beta}_{fpls} = (X' \hat{\Omega}^{-1} X)^{-1} \hat{\Omega}^{-1} y$$

where  $\hat{\Omega}$  is a consistent estimate of the variance-covariance matrix W. To get this consistent estimate we first do ordinary least squares regression (OLS) on the pooled data and then use the residuals from the OLS regressions to compute the mean squared residual for each of the K subareas respectively. The consistent estimate of W, then, has the following shape:

$$\begin{pmatrix} \hat{\sigma}_1^2 I & 0 & .. & 0 \\ 0 & \hat{\sigma}_2^2 I & .. & .. \\ .. & .. & .. & 0 \\ 0 & .. & 0 & \hat{\sigma}_K^2 I \end{pmatrix}$$

where the  $\hat{\sigma}_i^2$  are mean squared residuals for each of the subareas.

with higher juvenile detention and fertility rates, lower performing schools, and higher levels of welfare dependency? And, to what degree does the context of children's neighborhoods depend on children's race/ethnicity? Table 1 and 2 provide descriptive statistics to begin to answer these questions.

[Table 1 about here]

The data in Table 1 indicate initial support for the hypothesis that immigrant children live in neighborhoods with higher levels of potentially adverse conditions. That is, on three of the four indicators of neighborhood context -- the teenage fertility rate, the percentage of students in local schools underperforming in math, and the percentage of persons receiving public assistance -- immigrant children live in significantly worse neighborhoods than do native-born children. In contrast, and contrary to expectations, immigrant children appear to be exposed to significantly lower rates of juvenile detention among their neighboring peers. However, in every instance, the magnitude of the differences between immigrant and native-born children is fairly small.

[Table 2 about here]

To what degree are the neighborhood conditions of immigrant and native-born children contingent on race/ethnicity? Table 2 presents the neighborhood-level rates and percentages for foreign- and native-born children stratified by race/ethnicity. The data indicate very clearly that when compared against native-born white children, native- and foreign-born black and Hispanic children live in neighborhoods where they are exposed to much higher levels of all four conditions. The differences, moreover, are quite large. For example, while native-born white children live in neighborhoods with an average juvenile detention rate of only .92 per 1,000 youths, the respective neighborhood rates among native- and foreign-born blacks and Hispanics are at least twice as high. Similar magnitudes of difference are evident for the remaining indicators of neighborhood context, with the largest differences typically occurring between native-born white children and their native-born black counterparts.

In contrast to the striking differences in neighborhood context that emerge when native-

and foreign-born black and Hispanic children are compared against native-born white children, the neighborhood contexts of native- and foreign-born white children are less varied. That is, while foreign-born white children tend to live in neighborhoods with significantly higher percentages of persons receiving public assistance and higher percentages of students in local schools scoring below grade level in math, they are exposed to significantly *lower* levels of juvenile crime, and levels of teenage fertility that are not statistically different.<sup>11</sup>

The initial descriptive analysis, therefore, suggests support for our main hypotheses concerning immigrant-status differences in neighborhood context and the additional influence of race. That is, when considered as a group, immigrant children tend to live in neighborhoods with higher levels of three of the four conditions that could possibly have negative effects on their future economic and social achievement. However, when children are stratified by race/ethnicity and immigrant status simultaneously, exposure to the most disadvantageous neighborhood conditions is concentrated among black and Hispanic children, regardless of nativity status, while the neighborhood contexts of foreign- and native-born white children are much less varied and feature far lower levels of all four conditions. Because these initial analyses clearly suggest a pre-eminent effect of race/ethnicity over nativity status *per se*, the remaining analyses focus on foreign- and native-born children of specific racial/ethnic groups.

As discussed above, differences in children's neighborhood contexts may stem from group differences in key individual-level predictors. Insofar as these background factors work to the disadvantage of immigrant and/or minority children, they may be at the root of the nativity-status differences in neighborhood context observed in the descriptive comparisons. Table 3 presents descriptive statistics on the characteristics of children and their households for native- and

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<sup>11</sup> We also compared nativity-status differences in neighborhood context among blacks and Hispanics (data not shown but are available upon request from the authors). Among blacks, the neighborhood contexts of immigrant children are uniformly superior -- in terms of all four conditions -- than those of native-born children, while the opposite is the case (apart from the juvenile detention rate) among Hispanics. Thus, nativity status differences in the context of children's neighborhoods do not always work to the disadvantage of the foreign born, but the outcomes of such comparisons are highly dependent on race/ethnicity.

foreign-born children stratified by race/ethnicity.

[Table 3 about here]

The data in Table 3 reveal many group differences in background characteristics that parallel the pronounced group differences in neighborhood context observed in Table 2. For example, when compared to native-born white children, all black and Hispanic children, as well as foreign-born white children, live in households with significantly lower levels of household income and education. In addition, black and Hispanic children, regardless of nativity status, are much less likely than native-born white children to live in a household headed by a married couple and in one that owns its home. Another particularly striking difference among the groups, that is clearly linked to race/ethnicity, is the relationship of the child to the head of the household. While native- and foreign-born white children are equally likely to live in households headed by their own parent or parents, black and Hispanic children, regardless of nativity status, are far less likely to do so. Instead, native-born black and foreign-born black and Hispanic children are far more likely than native-born white children to live in a household headed by a relative, and native-born black and foreign-born Hispanic children are additionally more likely to live in a household headed by a non-relative.<sup>12</sup>

### **Multivariate analyses**

The results of the descriptive analyses found that immigrant children, as a group, tend to live in neighborhoods that have significantly higher levels of three of the four indicators thought to have potentially negative effects on their chances for future social and economic success. Further analyses that stratified children also by race/ethnicity, however, suggested that disadvantageous environments are primarily the experience of black and Hispanic children, regardless of nativity status. Indeed, native- and foreign-born white children are exposed to far lower levels of each of

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<sup>12</sup> It should be noted that the child's parent(s) may be present in households headed by relatives or non-relatives. The focus of the variable is solely on the child's relationship to the person heading the household.

the four potentially hazardous conditions than are black and Hispanic children of both nativity-status groups. Group differences in background characteristics, in large part, tended to parallel the observed differences in neighborhood environments. However, to better evaluate whether observed differences in neighborhood context result from the relative inability of some groups of children to “purchase” residence in the same neighborhoods as native-born white children, multivariate analyses are required. In Table 4 we present these results.

[Table 4 about here]

Because our main focus is on the effects of nativity status and race/ethnicity, we discuss them first. The results in Table 4 indicate a persistent effect of race/ethnicity on children’s neighborhood context, even in the presence of controls for other relevant factors. Compared to native-born white children, native- and foreign-born black and Hispanic children appear to live in neighborhoods with significantly higher juvenile detention and teenage fertility rates, and significantly higher percentages of low-performing students and persons on AFDC. In addition, the coefficients for the native- and foreign-born contingent of each racial/ethnic group are of roughly similar magnitude, underscoring the notion that it is race/ethnicity, rather than nativity status, which is the main determinant of the kinds of neighborhoods in which minority children live in New York. Moreover, the finding that foreign-born white children tend to live in neighborhoods that are at least statistically similar to those in which native-born white children live further emphasizes the interpretation of the dominant effect of race/ethnicity on children’s neighborhood environments. Taken together, these results strongly suggest support for the place stratification framework’s emphasis on the structural constraints on minority housing choices.

We re-estimated all of the multivariate models with each of the other racial/ethnic-immigrant status groups serving as the reference group to evaluate the significance of between-group differences other than those involving native-born white. The results of this endeavor are summarized in Table 5. The plus and minus signs indicate the effect of membership in the group forming the row, relative to the group forming the column (i.e., the group in the column served as

the reference group in the model). Plus and minus signs in parentheses indicate differences significant at at least the  $p \leq .10$  level. Each panel refers to a particular neighborhood condition.

[Table 5 about here]

The summary in Table 5 again underscores the dominant effect of race/ethnicity in determining where children live, as well as the particularly serious disadvantages faced by native-born black children. Specifically, the results indicate that native-born black children live in neighborhoods with significantly higher levels of all four conditions than those in which foreign-born black, and native- and foreign-born Hispanic children live. In short, native-born black children are exposed to the worst neighborhood environments of all. At the other end of the spectrum lie foreign-born white children, who live in neighborhoods with far lower levels of all four conditions relative to the neighborhoods in which all black and Hispanic children live, regardless of nativity status.

In between these two extremes lie foreign-born black children and native- and foreign-born Hispanic children. The relative ranking of these three groups in terms of their neighborhood environments depends on the particular outcome. That is, on two of the outcomes (juvenile detention rates and underperforming students), foreign-born black children live in worse neighborhoods than children in either of the Hispanic nativity-status groups. On the other two measures (teenage fertility and percent of persons on AFDC), foreign-born Hispanic children live in the worst neighborhoods of the three groups. Finally, the only neighborhood condition on which native-born Hispanic children do significantly worse than their foreign-born peers is juvenile detention rates. All told, then, these comparisons reveal a hierarchy of access to neighborhood environments, in which white children, regardless of nativity status, have access to the most advantaged neighborhoods (according to our four indicators), native-born black children are limited to the least advantaged neighborhoods, and the relative ranking of the remaining three groups varies, depending on the specific neighborhood condition.

With respect to the effect of the background variables, we find support for the basic tenets

of the spatial assimilation framework (Table 4). Specifically, children living in households with higher income and those headed by a married couple consistently live in neighborhoods with significantly lower levels of the four conditions. In contrast, children who live in households receiving some form of public assistance and those headed by less-educated householders tend to live in neighborhood with significantly higher juvenile detention and teenage fertility rates, and higher percentages of low-performing students and persons on AFDC. While the child's age generally has no effect, the results suggest that male children tend to live in neighborhoods with higher rates of juvenile detention and higher percentages of low-performing students.

The results pertaining to the child's relationship to the householder are of particular note. That is, these results indicate that, compared to children living in households headed by their own parents, those living in a relative's household tend to live in neighborhoods with significantly higher rates of teenage fertility, and significantly higher percentages of low-performing students and persons receiving AFDC. The finding that the effect of living in a non-relative's household is also positively related to low-quality neighborhood conditions (though lacking statistical significance) suggests that overall, children living in households headed by their own parents live in better-quality neighborhoods than those co-residing in other people's households.

## **Part 5: Discussion**

The goal of this paper was twofold. One goal was to evaluate whether immigrant children, when compared with native-born children, live in neighborhoods with higher or lower levels of four neighborhood conditions with the potential to influence their chances for social and economic success. The second goal was to evaluate whether the relationship between children's nativity status and their neighborhood contexts was contingent on race/ethnicity. These goals were motivated by propositions of segmented assimilation theory which to date have eluded empirical tests. Drawing on three theoretical frameworks to predict children's locational outcomes, we expected that controlling for group differences in household life cycle and

socioeconomic status, and in children's own characteristics, would at least moderate differences in the neighborhood contexts of foreign- and native-born children. However, we also expected that race/ethnicity would remain a potent predictor of where children live, in that black and Hispanic children would continue to exhibit significant neighborhood-quality disadvantages, even after controlling for the range of theoretically relevant predictors. Using a specially created data set that combines individual-level data on children and their households with aggregate-level non-census-derived data on their neighborhoods, we found support for both of these expectations.

Specifically, at the descriptive level we found that immigrant children, as a group, lived in areas with higher rates of teenage fertility, higher percentages of students in local schools scoring below grade level in math, and higher percentages of persons receiving AFDC, relative to native-born children. Further analyses, however, revealed that black and Hispanic children, regardless of nativity status, live in far more disadvantaged neighborhood environments than either native- or foreign-born white children. Controlling for other relevant factors, moreover, did not eliminate these significant disadvantages in neighborhood conditions for black and Hispanic children. Rather, our multivariate models revealed that, compared to native-born white children, both native- and foreign-born black and Hispanic children lived in neighborhoods exhibiting far higher levels of juvenile crime and detention, teenage childbearing, under-performing students, and welfare dependency, while the neighborhood environments of foreign- and native-born white children were virtually indistinguishable. Finally, intergroup comparisons revealed a hierarchy of access to advantageous neighborhood environments, whereby white children live in the best neighborhoods, native-born black children in the worst, and the neighborhood environments of foreign-born black and native- and foreign-born Hispanic children lying in between.

These findings strongly suggest that living in potentially deleterious neighborhood environments is an experience disproportionately limited to black and Hispanic children. On the one hand, since a growing literature suggests that neighborhood conditions have the potential to derail children's social and economic progress, these findings cast pessimism on the chances for

future reductions in racial/ethnic inequality. Moreover, they provide empirical evidence for propositions set forth by advocates of segmented assimilation theory. That is, they demonstrate that the exposure to potentially adverse neighborhood conditions is limited to certain groups of immigrant children, and thus point to the possibility that the long-term social and economic success of these immigrant children may be compromised.<sup>13</sup>

Our results also point to another risk factor for living in disadvantaged neighborhood environments among children, namely, living in a household headed by someone other than their parent(s). Our results consistently demonstrated that children living in relatives' households also lived in neighborhoods with significantly higher levels of all the neighborhood conditions (except juvenile detention rates) than the neighborhoods lived in by children residing in their parents' households. Moreover, the effect of living in a nonrelative's household was also positive (albeit nonsignificant) underscoring the importance of living in a household headed by one's own parent(s). Whether this finding reflects an effect of poverty/severe economic distress that is not picked up by income or public assistance usage, or that the locational decision making process varies across households headed by parents and those headed by nonparents is unclear. However, the differentials in neighborhood resources available to children by virtue of their living arrangements is a topic that calls for further examination.

Although our results consistently point to the disproportionate exposure of black and Hispanic children, immigrant and non-immigrant alike, to potentially adverse neighborhood environments, the data we utilize do not permit us to isolate the precise mechanism that generates the patterns we uncover. It is likely that continuing racial discrimination in New York's housing market constrains the locational choices of racial/ethnic minorities to less desirable neighborhoods and/or that the neighborhoods with high proportions of these households receive fewer of the resources and investments, both public and private, that foster positive neighborhood environments.

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<sup>13</sup> Clearly, it is beyond the scope of this paper to evaluate neighborhood effects *per se*.

It is also possible that historical discrimination and the segregation that it fostered interact with preferences for different neighborhood compositions to generate the patterns we uncover. Contemporary patterns of segregation in New York are the legacy of decades of illegal discrimination by various actors in the housing market and the government, as well as the flight of whites to suburban communities (Massey and Denton 1993). Insofar as racial/ethnic minority immigrants to New York prefer to live in neighborhoods composed of co-ethnics, they may seek housing in such areas, despite the fact that they are deemed “less desirable” on the range of indicators we use.

In addition to our inability to pinpoint the precise causes of the patterns we uncover, it is clear that our analysis suffers from other limitations. Of particular importance is the absence of acculturation-related variables, such as time in the U.S. or English language proficiency. If we had access to these variables, controlling for their effects could have moderated some of the disadvantages we find for foreign-born black and particularly for foreign-born Hispanic children. Indeed, other research (e.g., Logan and Alba 1993) clearly points to the beneficial effects of English language ability and time in the U.S. on the locational attainments of Hispanics. In addition, since we examined patterns in only one city, it is difficult to say with precision if the same results would emerge in other locations, including those in suburban areas. Others have shown that racial/ethnic disparities in residential attainment tend to be larger in central cities than in suburbs (Logan, Alba, McNulty, and Fisher 1996). However, because an abundant literature points to the continuing salience of race/ethnicity in determining where people live, we are confident that the substance of our findings, i.e., the marked disadvantages experienced by black and Hispanic children, would hold, regardless of location.

In terms of public policy, our findings suggest that policies targeted to racial/ethnic minorities will be of use in improving the neighborhood environments of immigrant children who are most in need of such help. Among these initiatives are increased efforts by government to enforce federal, state, and local laws that outlaw racial/ethnic discrimination in the housing

market. In addition, other efforts to promote positive investment in minority communities, such as community-based initiatives or the Community Reinvestment Act, would also have a positive effect on the general availability of resources in minority neighborhoods, but our results point to the importance of focusing efforts on improving the quantity and quality of resources available for children in particular.

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Table 1. Neighborhood Characteristics of Foreign- and Native-Born Children in NYC  
(Weighted)

	Foreign born	Native born
1998 Juvenile Detention Rate <sup>1</sup> (per 1,000 children)	1.57**	1.70
1996 Teenage Fertility Rate (per 1,000 girls aged 14-17)	25.10**	23.29
Mean Percentage: In Schools with Below Grade Level Math (1995-1996)	40.97**	39.62
Persons Receiving AFDC (1996)	13.25**	12.11
N	2096	2123

\*\*p<0.01; \*p<0.05; †p<0.10 -- indicates difference between foreign and native born is significant.

<sup>1</sup>This measure includes minors in detention who were arrested and charged with felonies, misdemeanors, violations, and for other reasons, and who were served with warrants.

Table 2. Neighborhood Characteristics of Foreign- and Native-Born Children in NYC by Race and Ethnicity (Weighted)

Characteristic	Native born			Foreign born		
	Whites <sup>1</sup>	Blacks <sup>1</sup>	Hispanics	Whites <sup>1</sup>	Blacks <sup>1</sup>	Hispanics
1998 Juvenile Detention Rate <sup>a</sup> (per 1,000 children)	0.92	2.29**	1.82**	0.81*	1.87**	1.73**
1996 Teenage Fertility Rate (per 1,000 teenage girls)	13.48	29.89**	27.20**	14.04	25.06**	29.81**
Mean Percentage: In Schools with Below Grade Level Math (1995-1996)	30.28	46.29**	42.47**	31.29†	42.59**	44.14**
Persons Receiving AFDC (1996)	5.81	16.30**	14.76**	7.28**	12.10**	16.45**
N	803	897	423	442	569	1085

\*\*p<0.01; \*p<0.05; †p<0.10 – indicates difference between the group indicated and native-born whites is significant.

<sup>1</sup>This group does not include Hispanics.

<sup>2</sup>This measure includes minors in detention who were arrested and charged with felonies, misdemeanors, violations, and for other reasons, and who were served with warrants.

Table 3. Child- and Household-Level Characteristics of Foreign- and Native-Born Children in NYC by Race and Ethnicity (Weighted)

Characteristic	Native born			Foreign born		
	Whites <sup>1</sup>	Black <sup>1</sup>	Hispanics	Whites <sup>1</sup>	Blacks <sup>1</sup>	Hispanics
<b>Child-Level Characteristics</b>						
Age (mean)	8.11	8.66*	7.34**	8.36	8.65†	8.54†
Sex (ref. females)	51.24	51.14	50.79	55.96	50.70	51.83
Relation of child to householder:						
Child of householder	95.09	79.76**	91.56*	92.94	82.50**	85.37**
Relative of householder	4.76	19.25**	7.94*	6.40	17.19**	13.35**
Unrelated to the householder	0.15	0.99*	0.50	0.67	0.30	1.27**
<b>Household-Level Characteristics</b>						
Age (mean)	40.40	38.75**	34.30**	40.49	40.03	39.36*
Couple headed household	81.24	24.15**	39.56**	81.53	52.11**	40.19**
Presence of:						
Others in the household beyond the nuclear family	22.63	34.92**	26.63	30.44**	42.47**	42.82**
Housing tenure (ref. owner)	45.44	85.93**	84.78**	66.28**	70.42**	90.45**
Education						
Less than high school	6.76	25.60**	31.21**	20.25**	22.98**	49.77**
High school	26.98	33.56**	30.90	28.11	31.46†	28.66
College and more	66.26	40.85**	37.89**	50.94**	45.57**	21.57**
Total household income (median) <sup>2</sup>	56,050	18,300	21,116	35,000	30,408	17,990
Receiving public assistance	7.59	47.49**	43.36**	22.32**	18.07**	46.20**
N	803	897	423	442	569	1085

\*\*p<0.01; \*p<0.05; †p<0.10 – indicates difference between the group indicated and native-born whites is significant.

<sup>1</sup>This group does not include Hispanics.

<sup>2</sup>Significance test not conducted for this variable.

Table 4. Results of Feasible Generalized Least Squares Models Predicting Neighborhood Conditions in New York City Subareas, 1996 (unstandardized coefficients; standard errors in parentheses)

Independent Variables	Indicator of Neighborhood Conditions			
	Higher Juvenile Detention Rates (1)	Higher Teenage Fertility Rates (2)	Higher Percentages with Below Grade Level Math Scores (3)	Higher Percentages Receiving AFDC (4)
<b>Race / Nativity Status</b>				
Native born				
White, non-Hispanic	ref.	ref.	ref.	ref.
Black, non-Hispanic	0.9033** (0.0337)	11.4720** (0.4594)	10.8556** (0.3652)	6.2419** (0.3001)
Hispanic	0.6949** (0.0387)	10.2378** (0.5684)	7.8602** (0.4184)	5.1517** (0.3589)
Foreign born				
White, non-Hispanic	-0.0999** (0.0383)	-0.2620 (0.5746)	-0.5930 (0.4274)	0.2302 (0.3095)
Black, non-Hispanic	0.7916** (0.0342)	9.6194** (0.4616)	9.4270** (0.3630)	3.8569** (0.3045)
Hispanic	0.5996** (0.0330)	11.0109** (0.4689)	8.3465** (0.3553)	6.1341** (0.2920)
<b>Child-Level Characteristics</b>				
Age	-0.0002 (0.0021)	-0.0027 (0.0268)	0.0099 (0.0207)	0.0153 (0.0184)
Male	0.0386* (0.0190)	0.4313† (0.2455)	0.4446* (0.1927)	0.1718 (0.1692)
Relation of child to householder:				
Child of householder	ref.	ref.	ref.	ref.
Relative of the householder	0.0507 (0.0343)	0.8211† (0.4233)	0.7362* (0.3290)	0.4920 (0.3067)
Unrelated to the householder	0.1305 (0.1256)	1.4777 (1.3393)	0.2656 (1.1443)	0.3269 (0.9677)
<b>Household-Level Characteristics</b>				
Age	0.0014 (0.0011)	0.0140 (0.0142)	-0.0044 (0.0111)	0.0170† (0.0099)
Couple headed household	-0.0682** (0.0237)	-0.4926 (0.3018)	-0.6928** (0.2361)	-0.6104** (0.2115)
Presence of:				
Others in the household beyond the nuclear family	0.0039 (0.0223)	-0.1868 (0.2862)	0.0750 (0.2224)	-0.2786 (0.1999)
Renter	0.0272 (0.0254)	1.5032** (0.3363)	1.1858** (0.2729)	1.7556** (0.2247)
Education				
Less than high school	0.0792** (0.0270)	0.7628* (0.3378)	0.9450** (0.2611)	0.7129** (0.2320)
High school degree	0.0472* (0.0235)	0.1848 (0.3002)	0.5435* (0.2370)	0.2415 (0.2053)
College and more	ref.	ref.	ref.	ref.
Total household income (logged)	-0.0199** (0.0062)	-0.1212 (0.0754)	-0.1377* (0.0579)	-0.1756** (0.0508)
Receiving public assistance	0.1313** (0.0248)	1.2493** (0.3069)	1.1202** (0.2411)	1.5027** (0.2166)
Intercept	1.0655** (0.0836)	15.7914** (1.0643)	34.8782** (0.8211)	7.0678** (0.7090)
Adjusted R <sup>2</sup>	0.2809	0.2764	0.3957	0.3194
N			4219	

\*\*p<0.01; \*p<0.05; †p<0.10

Table 5. Comparison of the Race and Nativity Coefficients from the Feasible Generalized Least Square Models

Panel A.	Reference Group in Models Predicting High Juvenile Detention Rates					
	White NB	Black NB	Hispanic NB	White FB	Black FB	Hispanic FB
White NB	-----	(-)	(-)	(+)	(-)	(-)
Black NB	(+)	-----	(+)	(+)	(+)	(+)
Hispanic NB	(+)	(-)	-----	(+)	(-)	(+)
White FB	(-)	(-)	(-)	-----	(-)	(-)
Black FB	(+)	(-)	(+)	(+)	-----	(+)
Hispanic FB	(+)	(-)	(-)	(+)	(-)	-----

Note: NB=Native born; FB=Foreign born; White=White, non-Hispanic; Black=Black, non-Hispanic  
 ( ) denotes significance at the p<.10 level or lower.

Panel B.	Reference Group in Models Predicting High Teenage Fertility Rates					
	White NB	Black NB	Hispanic NB	White FB	Black FB	Hispanic FB
White NB	-----	(-)	(-)	+	(-)	(-)
Black NB	(+)	-----	(+)	(+)	(+)	+
Hispanic NB	(+)	(-)	-----	(+)	+	-
White FB	-	(-)	(-)	-----	(-)	(-)
Black FB	(+)	(-)	-	(+)	-----	(-)
Hispanic FB	(+)	-	(+)	(+)	(+)	-----

Note: NB=Native born; FB=Foreign born; White=White, non-Hispanic; Black=Black, non-Hispanic  
 ( ) denotes significance at the p<.10 level or lower.

Table 5 (cont'd). Comparison of the Race and Nativity Coefficients from the Feasible Generalized Least Square Models

Panel C.	Reference Group in Models Predicting High Percentages with Below Grade Level Math Scores					
	White NB	Black NB	Hispanic NB	White FB	Black FB	Hispanic FB
White NB	-----	(-)	(-)	+	(-)	(-)
Black NB	(+)	-----	(+)	(+)	(+)	(+)
Hispanic NB	(+)	(-)	-----	(+)	(-)	-
White FB	-	(-)	(-)	-----	(-)	(-)
Black FB	(+)	(-)	(+)	(+)	-----	(+)
Hispanic FB	(+)	(-)	+	(+)	(-)	-----

Note: NB=Native born; FB=Foreign born; White=White, non-Hispanic; Black=Black, non-Hispanic  
 ( ) denotes significance at the p<.10 level or lower.

Panel D.	Reference Group in Models Predicting High Percentages Receiving AFDC					
	White NB	Black NB	Hispanic NB	White FB	Black FB	Hispanic FB
White NB	-----	(-)	(-)	-	(-)	(-)
Black NB	(+)	-----	(+)	(+)	(+)	+
Hispanic NB	(+)	(-)	-----	(+)	(+)	(-)
White FB	+	(-)	(-)	-----	(-)	(-)
Black FB	(+)	(-)	(-)	(+)	-----	(-)
Hispanic FB	(+)	-	(-)	(+)	(+)	-----

Note: NB=Native born; FB=Foreign born; White=White, non-Hispanic; Black=Black, non-Hispanic  
 ( ) denotes significance at the p<.10 level or lower.