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THE SOCIAL CONTEXT OF ASSIMILATION: TESTING IMPLICATIONS OF SEGMENTED ASSIMILATION THEORY*

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Abstract

Segmented assimilation theory has been a popular explanation for the diverse experiences of assimilation among new waves of immigrants and their children. While the theory has been interpreted in many different ways, we emphasize its implications for the important role of social context: both processes and consequences of assimilation should depend on the local social context in which immigrants are embedded. We derive empirically falsifiable hypotheses about the interaction effects between social context and assimilation on immigrant children's well-being. We then test the hypotheses using data from the National Longitudinal Study of Adolescent Health. Our empirical analyses yield two main findings. First, for immigrant adolescents living in non-poverty neighborhoods, we find assimilation to be positively associated with educational achievement and psychological well-being but also positively associated with at-risk behavior. Second, there is little empirical evidence supporting our hypotheses derived from segmented assimilation theory. We interpret these results to mean that future research would be more fruitful focusing on differential processes of assimilation rather than differential consequences of assimilation.

Keywords

Assimilation; Immigrant Children; Neighborhood Effects; School Effects; Segmented Assimilation

In the past decade, there has been considerable debate in the sociological literature concerning the well-being of immigrant children (Hernadez 1999; Hirschman, Kasinitz, and DeWind 1999; Gans 1992; Harker 2001; Harris 1999; Harris, Harker, and Guo 2003; Jasso and Rosenzweig 1990; Perlmann and Waldinger 1997; Portes and Rumbaut 1996, 2001; Zhou and Bankston 1998; Tilman, Guo, and Harris. 2006). While some scholars argue that new immigrant children of Latin American and Asian descent face unique challenges and difficulties that set them apart from earlier generations of European immigrants, other scholars are more optimistic about the new immigrants' prospects for gradual assimilation

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into the American mainstream. One prominent theory that has emerged from the debate is segmented assimilation theory, originally proposed by Portes and Zhou (1993).

Segmented assimilation theory is based on the recognition that American society is extremely diverse and segmented, with an underclass residing in central cities where many new immigrant families first settle. Thus, it is argued that new immigrants may assimilate with different groups, and consequently may take divergent assimilation paths. These paths include conventional upward, or "straight-line," assimilation, downward assimilation, and "selective acculturation." While the theory has been interpreted in many different ways, we focus on one of its central insights: that both processes and consequences of assimilation should depend on the local social context in which immigrants are embedded. After exploring the theoretical implications of this insight, we derive empirically falsifiable hypotheses concerning the interaction effects between social context and assimilation on immigrant children's well-being. Finally, we test these hypotheses by examining a variety of measures of child well-being, using data from the National Longitudinal Survey of Adolescent Health (Add Health).

Segmented Assimilation Theory

Motivations: The Historical Background of Immigration—Segmented assimilation theory, originally proposed by Portes and Zhou (1993), was developed as a theoretical response to the changes in American immigration that have occurred in recent decades. We therefore begin our discussion of segmented assimilation theory with a brief outline of the historical context that has motivated it. From the mid 1920s until around 1965, the flow of immigrants into the United States slowed to a trickle. However, since the passage of the landmark 1965 Immigration Act, the country has once again experienced a period of mass immigration. Whereas earlier immigrants were mainly European, today's immigrants are primarily from Asia and Latin America. It remains an open question whether or not the experiences of these new immigrants and their children will resemble those of earlier European immigrants and their descendants. If the experience of earlier waves can be characterized as successful assimilation into the American mainstream, should we expect similar paths of assimilation among new immigrants and their children (Alba and Nee 1997, 2003)?

A large body of scholarly research has been devoted to understanding the adaptation and assimilation processes of the new immigrants and their children (e.g., Alba and Nee 1997, 2003; Bankston and Zhou 1997; Farley and Alba 2002; Hernadez 1999; Hirschman, Kasinitz, and DeWind 1999; Kasinitz et al. 2008; Gans 1992; Harris 1999; Harris, Harker, and Guo 2003; Harris, Jamison, and Trujillo. 2008; Jasso and Rosenzweig 1990; Perlmann and Waldinger 1997; Perreira, Harris, and Lee 2006; Portes and Fernández-Kelly 2008; Pong and Hao 2007; Portes and Rumbaut 1996, 2001; Tilman, Guo, and Harris. 2006; Waldinger and Feliciano 2004; Waters 1994, 1999; Zhou and Bankston 1998; Zhou, Lee, Vallejo, Tafoya-Estrada, and Xiong 2008; Zhou and Xiong 2005). This scholarship has debated the adequacy of theories of assimilation developed in response to earlier waves of immigration in the late nineteenth/early twentieth century for understanding the experiences of the new immigrants.[1] At the risk of oversimplification, let us characterize classical assimilation theory as essentially equating assimilation with the process of upward mobility for immigrants and their offspring. Each subsequent generation was believed to achieve higher social and economic status as it became more culturally and linguistically similar to the American middle class (Greenman and Xie 2008; Rumbaut 1997; Zhou 1997a). Thus,

[1]It is even debatable whether classic assimilation theory was ever applicable to the earlier wave of immigrants in the early 20th century (Sassler 2006).

assimilation and upward mobility were thought to go hand in hand. Scholarly work on newer immigrants, however, suggests that assimilation may no longer have such a straightforward relationship with upward mobility (Rumbaut 1997).

It is a truism that the new immigrants *are* different from the old immigrants. Scholarly disagreement thus necessarily centers on the extent, as well as the significance, of their differences. These can be conceptualized in two important dimensions: changes in the immigrants themselves and changes in America as a host society. In terms of the first dimension, some scholars emphasize that the new immigrants from Latin America and Asia are considered racial/ethnic minorities in America, and their minority status may hinder their full integration into the white middle class (Gans 1992; Portes and Rumbaut 1996, 2001; Portes and Zhou 1993; Zhou 1997b, 1997a). However, the very notion of race is socially constructed in a historical context, and some groups of European immigrants (such as the Irish, Jews, and Italians) were perceived as racially distinct when they first arrived in the United States (Alba and Nee 1997, 2003; DeWind and Kasinitz 1997). The real question is whether or not the racial/ethnic barriers to assimilation for the new immigrants are now much higher than or qualitatively distinct from earlier barriers. In addition, many scholars (Alba and Nee 1997, 2003; Portes and Rumbaut 1996; Suarez-Orozco and Suarez-Orozco 2001; Waldinger 2001; Zhou 1997b) have noted that contemporary immigrants come from a much wider variety of socioeconomic backgrounds than those in the previous wave, suggesting that different groups will start out on different “rungs” of the American class system. This makes any single, uniform model of immigrant incorporation into the United States inherently less appropriate than it may have been for earlier, more homogeneous groups.

In terms of changes in America as a host society, the new immigrants have been entering the United States during a period when demand for semi-skilled and skilled labor has been substantially reduced by changes in the economy. Several scholars have argued that the assimilation and upward mobility of the 1890–1920 wave of immigrants were facilitated by the manufacturing-based economic expansion of that time period, while today's service-based postindustrial economy, in which hourly service jobs pay much less than those in manufacturing, is less favorable for the incorporation of new low-skill workers (Suarez-Orozco and Suarez-Orozco 2001; Zhou 1997a; Massey 1995; Fernandez-Kelly and Schauffler 1994; Portes and Zhou 1993; Gans 1992). This new economy is sometimes referred to in the literature as the “hourglass” economy, consisting of a relatively large demand for both college-educated professional workers at the top and low-paid, low-skilled service workers at the bottom, but not much in between. The fact that the present wave of immigration shows no sign of stopping – as immigrant communities are continually replenished with new, unassimilated first-generation members -- may also negatively affect immigrant adaptation (Massey 1995). This may make complete cultural assimilation less likely for contemporary immigrant groups than it was for earlier groups.

However, not all scholars agree that these circumstances are sufficiently unique or significant to render classical assimilation theory inapplicable. Some contend that the distinctiveness of contemporary immigrants from earlier groups has been overstated (Alba and Nee 1997, 2003; Perlmann and Waldinger 1997). For example, it has been argued that the offspring of earlier European immigrant groups often did not fully assimilate until the third or fourth generation (Alba and Nee 1997, 2003; Sassler 2006). Thus, observations of limited assimilation on the part of today's second generation youth should not be surprising. Others contend that changes in the American receiving context have not all been negative. Alba and Nee (2003) argue that the incorporation of new immigrants has been facilitated by civil rights legislation and widespread acceptance of the ideals of multiculturalism. Kasinitz et al. (2008) find considerable support for this idea in their study of the second generation in

New York City, as second-generation children in their study feel little conflict between their parents' culture and "American" culture, but instead free to mix and match different pieces of each cultural repertoire. Whether either contemporary immigrants or the context of reception have changed sufficiently to warrant a rethinking of classical assimilation theory thus remains open to debate.

Differential Pathways of Assimilation—Developed from Gans's (1992) suggestion that the children of the new immigrants may follow different trajectories, Portes and Zhou's (1993) theory of "segmented assimilation" asserts that the United States is a stratified and unequal society, and that therefore different "segments" of society are available to which immigrants may assimilate. Portes and Zhou delineate three possible paths of assimilation: (1) increasing acculturation and integration into the American middle class (Path 1, or straight-line assimilation); (2) acculturation and assimilation into the urban underclass (Path 2, or downward assimilation); and (3) the deliberate preservation of the immigrant community's culture and values, accompanied by economic integration (Path 3, or "selective acculturation") (Rumbaut 1994; Portes and Zhou 1993; Zhou 1997a).

Segmented assimilation theory emphasizes that there is more than one way of "becoming American," and that Americanization is not necessarily beneficial (Bankston and Zhou 1997; Zhou 1997a). Portes and Rumbaut (2001) further expand segmented assimilation theory by specifying social factors, such as human capital, modes of incorporation into the host society, and family structure, that influence these disparate outcomes.[2] Furthermore, these factors affect the relationship between the type of acculturation experienced by immigrant parents and the type experienced by their children. For example, when children acculturate faster or more completely than parents ("dissonant acculturation"), the result is parent-child conflict and a breakdown in communication between the generations, putting children at risk of downward assimilation.

In the relatively short time since Portes and Zhou's (1993) seminal paper, segmented assimilation theory has attracted much attention. Central to segmented assimilation is the idea that assimilation has varying consequences for immigrants. So far, the existing literature has considered this variability under three main approaches: (1) by immigrant group (Farley and Alba 2002; Hirschman 2001; Nagasawa, Qian, and Wong 2001; Portes and Rumbaut 2001; Rong and Brown 2001; St-Hilaire 2002; Waldinger and Feliciano 2004), (2) by native group to whom immigrants assimilate (Gans 1992; Rumbaut 1994, 1997; Bankston and Zhou 1997),[3] and (3) by individual variation among immigrants (Bankston and Zhou 1995; Portes and Rumbaut 2001; Portes and Schauffler 1996; Zhou 2001). In this paper, we take the third approach, focusing on individual variation among immigrants. This approach capitalizes on the variation within immigrant groups in the pace and level of assimilation, while acknowledging group differences by generation and/or ethnicity. Group-level analyses, by necessity, ignore such within-group variability. The individual-level approach also allows us to explore aspects of assimilation that are potentially under control of immigrants themselves, such as whether native languages are retained and the extent to which social relationships are maintained inside the ethnic community. However, we acknowledge that this approach does not address all aspects of segmented assimilation theory, especially those concerned with differences between immigrant groups.

In brief, segmented assimilation theory is a broad perspective, encompassing many interrelated components pertaining to the experiences and outcomes of the new immigrants and their children. Because the theory has been subject to so many varied interpretations, it

[2]For a more recent overview, see Portes and Fernandez-Kelly (2008).
[3]By "natives," we refer in this paper to U.S.-born persons with parents who were also born in the U.S.

has been difficult to subject it to empirical tests. In this paper, we therefore focus on one of the critical insights from the theory: the social consequences of assimilation for immigrant children should depend on local social context. Not only is this insight about the interaction between assimilation and social context a crucial element of segmented assimilation theory, it also renders the theory relatively easy to test empirically.

Assimilation Outcomes and Social Context—One of major factors emphasized by segmented assimilation theory is "the social context in which [immigrants] are received in America" (Portes and Fernandez-Kelly 2008, p.13). Many immigrant families today still settle in poor, inner-city neighborhoods where their children frequently must attend poorly performing, underfunded, and highly segregated inner-city schools (Suarez-Orozco and Suarez-Orozco 2001; Waldinger 2001). The environment they encounter in such schools is thought to put adolescents at higher risk of acculturating into the "oppositional youth culture" or "adversarial outlooks" found among their native minority peers (Hirschman 2001; Portes and Rumbaut 2001; Portes and Zhou 1993; Waters 1994; Zhou 1997a).[4] In the words of Portes and Rumbaut (2001, p.59):

> [A major] challenge confronting children of immigrants is that the social context they encounter in American schools and neighborhoods may promote a set of undesirable outcomes such as dropping out of school, joining youth gangs, or participating in the drug subculture. This alternative path has been labeled *downward assimilation* because the learning of new cultural patterns and entry into American social circles does not lead in these cases to upward mobility but to exactly the opposite.

Under these circumstances, the segmented assimilation framework asserts that maintaining the culture of origin can have a protective effect for immigrant children. The immigrant community, even when it is poor, may be able to reinforce the achievement-related and behavioral norms that parents try to teach their children and thus help adolescents avoid the pitfalls of poor neighborhoods. If adolescents assimilate too fully into the surrounding social environment, however, they may experience dissonant acculturation and lose access to the social and cultural resources of the ethnic community.

However, critics have questioned this causal link in segmented assimilation theory between assimilation into the underclass and development of "oppositional cultures" among immigrant children. For example, Perlmann and Waldinger (1997) suggest that if today's second generation does develop an "oppositional culture," it is no more likely to result from the process of assimilation into the American underclass than to arise spontaneously out of the immigrant working class experience. Alba (2005) also presents evidence that Maghrebin immigrants in France experience a trajectory of disengagement from school, troubles with police, and unemployment that is very similar to the type of "downward assimilation" posited by segmented assimilation theory, despite the fact that they do not acculturate into a native urban underclass.

There is already a sizable literature recognizing the central role of social context in segmented assimilation theory, with social context operationalized in terms of either a residential neighborhood or a school. In this literature, researchers have asked (1) whether or not immigrant children are indeed situated in unfavorable social contexts; and (2) whether immigrant children are more or less strongly affected by social contexts than their native-born counterparts. For example, Pong and Hao (2007) report that academic performance of immigrant children is more responsive to neighborhood conditions than that of native-born

[4]However, it remains an open question whether an "oppositional culture" actually exists among poor, inner-city black youth (Downey and Ainsworth-Darnell 2002).

children. Hao and Pong (2008) further demonstrate the importance of school characteristics for immigrant children's social mobility. Similarly, Ryabov and Van Hook (2007) also show the effect of the socioeconomic composition of the school on academic performance and cognitive development of Hispanic children. Furthermore, Schnittker's (2002) study reveals the interaction effects between assimilation measures (i.e., English language use and Chinese cultural participation) and neighborhood co-ethnic composition on the self-esteem of Chinese immigrants. Finally, in more direct support of segmented assimilation theory, researchers have found evidence that a concentration of recent immigrants in a neighborhood provides protective effects against substance abuse (Kulis, Marsiglia, Sicotte, and Nieri 2007; Martinez, Lee, and Nielsen 2004).

Hypotheses—In this study, we focus on the theoretical prediction that the effects of assimilation on immigrant children's well-being should depend on social context (see Zhou 1997a; Kroneberg 2008). We address measurement issues in the next section. For the sake of simplicity, we develop our theoretical proposition with two types of communities, low SES and high SES, although we recognize in reality that there is a continuous gradation in community SES. We specify a dichotomous measure of community SES to capture the basic idea that contemporary America is a segmented society. Given immigrants' own diverse socioeconomic backgrounds, some immigrants settle in high-SES communities, while others live in low-SES communities.

In this study, we bracket out assimilation as an exogenous process and thus do not study the causal factors that influence assimilation behavior.[5] Rather, we examine the causal influence of assimilation on immigrant adolescents' well-being *conditional* on social context. This is illustrated by in the following discussion of Table 1, which categorizes four groups of immigrant children, differentiated by assimilation experience and community context.

Groups A and B: Immigrant children are only partially assimilated into the community. They still retain certain aspects of the culture of origin but have learned what is necessary to do well in school. This path of assimilation is called “selective acculturation,” or Path 3. The difference between Group A and Group B lies in community context: while children in Group A live in a high SES community, children in Group B live in a low SES community. In Portes and Zhou's original formulation (1993), segmented assimilation theory emphasizes the value of retaining the culture of origin for immigrants who live in low SES communities. However, there is no *a priori* reason (nor was any given by Portes and Zhou) why selective acculturation cannot occur for immigrants who live in high SES communities.

Group C: Immigrant children who live in a high SES community are fully assimilated into the community. Group C follows the assimilation path described by classical assimilation theory (Path 1). Although Portes and Zhou (1993, p.82) emphasize the greater difficulty following this path for today's immigrants because of their racial minority status, their original formulation of segmented assimilation theory clearly points to this as one possible assimilation path for many of today's immigrants.

Group D: Immigrant children who live in a low SES community are fully assimilated into the community. However, because low SES inner-city communities offer “oppositional” cultural models, in addition to other possible cultural models, acculturation in this context could lead to “downward assimilation” (Path 2). The divergent outcomes of full assimilation

[5]For a discussion of the processes by which immigrant parents and their children may choose whether and how to assimilate on the basis of the anticipated consequences of their assimilation behavior, we refer the reader to a companion paper (identifying reference).

between Groups C and D constitute the core argument of our interpretation of segmented assimilation theory.

With the above setup established, we can now discuss the impact of the different assimilation paths on immigrant children's outcomes. Let Y denote a positive outcome for an immigrant child. For example, Y could be a measure of academic performance. There is an average of Y for immigrant children in each of the cells of Table 1. Based on our interpretation of segmented assimilation theory, we can now make some predictions *a priori* about the average of Y for the four groups. All of our statements are predicated on the assumption that the groups are otherwise identical in other relevant attributes. In the actual analyses, we control statistically for differences in other attributes, so these are expectations conditional on values of covariates. For simplicity, we omit the notation for covariates in our discussion.

The first hypothesis is that immigrant children should have better outcomes living in high-SES communities than in low-SES communities. That is, we expect $E(Y_a) > E(Y_b)$, and $E(Y_c) > E(Y_d)$. We derive this hypothesis from a very large literature that documents neighborhood effects on children's outcomes (see Brooks-Gunn et al. 1993; Duncan and Raudenbush 1999; Sampson, Morenoff, and Gannon-Rowley 2002).

Our main theoretical interest pertains to potential interaction effects between assimilation and social context. According to segmented assimilation theory, retaining the culture of origin protects immigrant children from the influences of the community context so that outcome differences attributable to community SES are smaller for immigrant children who are partially assimilated than for those who are fully assimilated. This prediction reflects an interaction effect in the direction that the harmful effects of living in low-SES community should be *more pronounced* for fully assimilated immigrant children than for partially assimilated immigrant children. More specifically, conditional on all covariates, we hypothesize:

$$E(Y_c) - E(Y_d) > E(Y_a) - E(Y_b) \quad (1)$$

Data and Research Methods

Data—Our empirical work draws upon data from the National Longitudinal Survey of Adolescent Health (Add Health). Add Health is a school-based survey of adolescents in grades 7–12 at the baseline in 1994–1995. At the school level, 80 high schools (defined as any school containing the 11^{th} grade) were selected from a list of 26,666, with probability of selection weighted in proportion to enrollment. These schools are representative of U.S. high schools with respect to size, school type, region, and ethnic makeup. After the selection of the high schools, a feeder school (usually a middle school) that contributed students to each high school was identified and included in the study for all schools not containing 7^{th} and 8^{th} grades. The total sample of schools includes 52 such feeder schools in addition to the 80 high schools (Bearman, Jones, and Udry 1997).

The in-school portion of the survey was administered to all students in the sampled schools who were present on the day of the survey. The in-school questionnaire covered topics such as demographic characteristics, parental education and occupation, health status, academic grades, and friendships, and was completed by more than 90,000 adolescents. Each student was asked to name up to 10 close friends in the same school in this portion of the survey, making it possible to map friendship networks within a school.

A smaller "core" sample was selected to complete more in-depth interviews at home, yielding a total of 20,745 in-home respondents. Because this portion of the survey over-sampled Chinese (334), Cubans (450), and Puerto Ricans (437), it contains adequate sample sizes of both Asian and Hispanic first- and second-generation adolescents.[6] Additional topics covered by this portion of the survey included national origins of students and of their parents, language spoken in the home, and many detailed measures of health risk behaviors, family dynamics, and psycho-social adjustment. Four waves of the in-home surveys have now been conducted. This study uses data from Wave 1 (collected between April and December of 1995) and Wave 3 (collected between August 2001 and April 2002). The cumulative attrition rate between Wave 1 and Wave 3 was approximately 27%, yielding 15,197 completed interviews in Wave 3. Of these, we use only first- and second-generation Asian (Wave 1 N=993, Wave 3 N=713) and Hispanic (Wave 1 N=1,661, Wave 3 N=1,204) immigrant youth.

Add Health contains valuable data on the characteristics of respondents' communities (either linked from external sources, such as the Census bureau, or created from aggregating respondent reports) and unique school-level data on friendship networks. One limitation of the data is that social context and friendship networks were measured only at the baseline survey (Wave 1). For this reason, we can only capitalize on inter-person variation in the degree of assimilation at the baseline but do not have information pertaining to temporal changes in assimilation within persons.[7]

Operationalization of Assimilation—Following Alba and Nee (1997, p.863), we refer to assimilation as the closing of cultural and social distances that separate immigrants and their children from mainstream American society. When we refer below to "American" culture, we recognize that this culture is constantly in flux, varying across locations and influenced over time by many immigrant groups (Alba and Nee 2003). Thus, we intend the term to refer to the broader (i.e., non-coethnic) cultural context that immigrants encounter as they venture away from ethnic enclaves, but recognize that the specific form of "American" culture encountered is not the same for all immigrants and is potentially multi-ethnic in nature. Below, we discuss various ways to operationalize assimilation (given the constraints of Add Health data). Note that our focus is on the assimilation experience of immigrant children. When we say a measure is "exogenous," it means that it is something that is not affected by an immigrant child's behavior.

We use multiple measures of assimilation, categorizing them under three headings: the exposure approach, the spatial approach, and the behavioral approach. The three approaches vary in the extent to which assimilation measures are exogenous, with exposure measures most exogenous, behavioral measures least exogenous, and spatial measures in between. We present a detailed discussion of the approaches below.

Exposure Approach: The exposure approach is based on the insight that the longer the time spent in the U.S., the more exposure to the host society and the more potential for assimilation. Two such measures have been extensively used in the literature, and we also adopt them here. One is generation, and the other is length of stay in the U.S. for first-generation immigrants. The generational measure assumes that the second generation of immigrants is necessarily more assimilated than the first generation. These measures have

[6]Unfortunately, we do not have an adequate sample size for other groups, such as Caribbean or African-origin adolescents. Therefore, we limit our analysis to Asians and Hispanics, who make up more than 75% of current immigrants to the United States (Malone et al. 2003).

[7]We recognize that there should be an increase in the degree of assimilation within persons over time. Thus, we include age in Wave I to capture the age effect on the assimilation measure.

two advantages. First, because they are among the most commonly used measures of assimilation in the literature (e.g., Rong and Brown 2001; Hirschman 2001), they facilitate comparison of our results with those of previous studies. Second, exposure measures of assimilation are free from the influences of family and individual behaviors and as such are exogenous. Thus, results using exposure measures will not be subject to the criticism that assimilation is an effect, rather than a cause, of an outcome variable.

Immigration generation is binary, denoting whether or not a respondent is a second-generation (as opposed to first generation) immigrant (yes=1). (Models do not include third-and-higher-generation individuals). We further differentiate first-generation immigrants by length of stay (in years). Statistical models using length of stay as the measure of assimilation contain only first-generation immigrants. Statistical models with the other assimilation measures include a control for both generation and length of stay, which we combine into a single categorical variable (first generation with length of stay less than or equal to 5 years, first generation with length of stay greater than 5 years, and second generation). See Appendix B for descriptive statistics of the variables by race.

While exposure measures of assimilation have the advantage of being relatively exogenous, this virtue is also precisely their drawback: they impose an implausible homogeneity assumption that individuals of the same generation and length of stay have exactly the same level of assimilation. This approach ignores the heterogeneity in how exposure – i.e., *potential* for assimilation – translates to *actual* assimilation. In fact, there is a great deal of spatial heterogeneity in terms of exposure to non-coethnic, "mainstream" American culture given the same generation and length of stay: some immigrants have lived exclusively in immigrant communities and are thus less assimilated, while others have lived in middle-class suburbs and are thus more assimilated.

Spatial Approach: Differing from the exposure approach, the spatial approach differentiates the *intensity* with which immigrant children are exposed to American culture in the local context. For example, immigrant children living in neighborhoods with a heavy concentration of other immigrants have less intense exposure to American culture than immigrant children living in neighborhoods populated mostly by native-born Americans. In other words, the spatial approach capitalizes on the spatial variation in exposure to American culture and thus potential for assimilation.[8]

We emphasize that where to live is a decision made at the family level and is thus endogenous in the sense that it reflects the level of assimilation and other family-level attributes. For example, a less-assimilated immigrant family may prefer to live in a neighborhood with many other coethnic immigrant families. Note that the decision about where to live is made not by immigrant children but by their parents. Although children's previous or anticipated outcomes may occasionally affect a family's residential decision, for most families, residential decisions precede and determine children's outcomes rather than the other way around. In this sense, the spatial approach yields measures that are relatively exogenous (but less exogenous than exposure measures).

In our study, we use two spatial measures of assimilation: (1) percentage of native-born persons in a neighborhood, and (2) percentage of non-coethnics in a neighborhood. The

[8]The idea of using information about residential location as a measure of assimilation is not new. A long tradition in sociology treats residential location as an indicator of social status for minorities (e.g., Massey and Denton 1993). In the location attainment model for immigrants, residence in desirable neighborhoods has long been viewed as "spatial assimilation" or "residential assimilation" (Alba, Logan, Stults, Marzan, and Zhang 1999; Alba, Logan, and Stults 2000; Alba and Nee 2003; White, Biddlecom, and Guo 1999).

percentages were computed from the 1990 U.S. Census at the level of a census tract. See Appendix B for a description of the variables and the descriptive statistics by race.

Given the same generation and the same length of stay in the U.S., persons of the same ethnicity living in the same neighborhood can and do have different levels of assimilation. One limitation of the AddHealth data is that they contain no direct measurements of retention of native culture among immigrant children. Still, we make use of to two behavioral measures available in the data to capture the individual-level differences in assimilation.

Behavioral Approach: Among immigrant children, native language use is commonly viewed as a form of cultural resistance to full assimilation. Because immigrant children attend American schools, lack of English proficiency is very rare among all but very recently arrived immigrant children (Alba and Nee 2003; Portes and Schauffler 1996; Mouw and Xie 1999; Portes and Rumbaut 2001). Non-English language use is associated with partial assimilation in the segmented assimilation literature (e.g., Bankston and Zhou 1995, 1997; Mouw and Xie 1999; Portes and Hao 2002; Portes and Rumbaut 2001; Portes and Schauffler 1996). In this study, we use a dichotomous variable to measure non-English language usage at home at Wave 1 (no=1).

Our final measure of assimilation is inter-ethnic friendship. More assimilated children are likely to have friends outside their own ethnic group (who are often, but not always, native-born Americans), while less assimilated children are likely to have friends within their same ethnic/immigrant groups Assimilation measures based on this idea can be found in studies by Bankston and Zhou (1997), Fernandez-Kelly and Schauffler (1994), Harris, Harker, and Guo (2003), Portes and Rumbaut (2001), Portes and Zhou (1993), and Zhou and Bankston (1994).

The opportunity structure for intergroup interactions is strongly affected by relative group sizes (Zeng and Xie 2008). That is, the fewer coethnics available, the lower the likelihood of having coethnic friends. Therefore, in measuring intergroup friendship it is necessary to make a distinction between absolute measures and relative measures: A relative measure of intergroup friendship removes (or purges) the part of intergroup friendship due to opportunity structure and therefore better represents the actual behavior of an individual. In contrast, an absolute measure is a result of both opportunity structure and individual preference. Because absolute measures confound the influences of opportunity structure, which is outside an individual's control, and an individual's choice, we prefer relative measures of intergroup friendship. We use an index of preference for inter-ethnic friendship, R, which is purged of the effects of both school ethnic composition and friendship group size. See appendix A for a technical definition of the R index.

In summary, we proposed six concrete measures of assimilation, two under each of the three approaches: the exposure approach, the spatial approach, and the behavioral approach. To facilitate the interpretation of the results, all measures are coded so that a higher value (or in the case of a binary measure, a one) always means *more* assimilation. For the four continuous measures of assimilation – length of stay, percent native-born in census tract, percent coethnic in census tract, propensity for inter-ethnic friends, -- we alternately use the original measures and dichotomous versions.[9] Definitions and descriptive statistics for the measures are given in the top panel of the Appendix B. We use the measures alternately in the statistical analyses reported below.

[9]We also experimented with different versions of dichotomous forms. The results are similar and available from the authors upon request.

Characterizing Community Contexts—The Add Health study is rich not only in providing multiple measures of assimilation,but also in its measurements of community characteristics. We use two definitions of community context in this paper: characteristics of the neighborhoods in which Add Health respondents live and the schools that they attend. Our emphasis is on the aggregate socioeconomic condition (not the immigrant composition) of community contexts. We briefly discuss these measures below.

Neighborhood context: As in most other studies of neighborhood effects (i.e., Brooks-Gunn et al. 1993), we use the census tract as the operational definition of a neighborhood. The Add Health respondents who were interviewed at home at Wave 1 lived in 2,449 census tracts.[10] While the Add Health study provides a large array of measurements of local contexts, we know from previous studies (e.g., Crane 1991; Brooks-Gunn et al. 1993; Duncan and Raudenbush 1999) that neighborhood characteristics are so correlated, and the variation in social outcomes by neighborhood net of individual-level effects is so tenuous, that we cannot include too many neighborhood measures in the same statistical model. Thus, we chose to use a simple measure of the poverty rate in the census tract.[11]

School context: We note that children spend most of their daylight hours in school. If immigrant children are assimilated, it is plausible that they are assimilated more into the school context than into the neighborhood context. We measure the overall socioeconomic background of the students attending the school with a simple variable -- the proportion of the students' mothers who have not completed high school. The information comes from students' own reports of their mothers' education in the in-school questionnaire at Wave 1.

In earlier rounds of the analyses, we used the two contextual measures both as continuous variables and as dichotomous variables. The dichotomized forms allow us to focus on the contrast between low-SES contexts and high-SES contexts. Although the substantive results are very similar, we chose to present the results using dichotomized forms of the contextual measures to better capture the idea, prominent in segmented assimilation theory, that immigrant children may assimilate to the urban underclass. We set the neighborhood poverty rate threshold at 30% for Hispanics and at 15% for Asians.[12] For the school contextual measure -- the percentage of mothers with less than a high school education-- we set the threshold at 20%. Sample statistics for both measures of community context are given in the second panel of Appendix B. A higher value means a *less* favorable community context.

Outcomes—As outcomes of interest, we focus on three domains: educational outcomes, psychological well-being, and at-risk behaviors. While measures of assimilation and community context are based on data from Wave 1, outcome measures are based on cumulative data from Waves 1 through 3. One major advantage of using multiple measures in multiple domains is that they provide a triangulation of results. If they yield results that consistently reject or confirm hypotheses derived from our interpretation of segmented assimilation theory, we are more confident in drawing either affirmative or negative

[10]Note that the number of neighborhoods is very large compared to the number of adolescents we actually analyze. This suggests that it would not be advisable to conduct multi-level models with “fixed-effects.” Instead, we chose to model variability across neighborhoods through the influence of the characteristics of neighborhoods discussed below. We use robust standard errors to account for clustering.

[11]We also experimented with alternative measures available in the data. The results are similar to those using the poverty rate but tend to be less statistically significant. Results are available upon request.

[12]The lower threshold for Asians is necessary because most of them live in low-poverty neighborhoods. Setting a higher threshold would result in very few Asians living in low-SES neighborhoods. Results using the continuous forms of the contextual variables and different thresholds are available upon request.

conclusions. If the results differ, they push us to look for explanations for the divergence. Below, we discuss outcome measures in the three domains in turn.

For some outcomes, such as educational attainment and sexual behavior, we constructed composite variables utilizing longitudinal information from multiple waves of AddHealth. For others, such as psychological wellbeing, delinquency, violence, and use of controlled substances, parallel measures are available in different waves of the AddHealth. For the latter, we chose the assessments in Wave 1 for two reasons. First, because these outcomes are often thought in the literature to be affected by the assimilation process in the short term, we wish to match the timing of the assessments with the timing of measuring assimilation as closely as possible. Second, this decision allows us to retain as many subjects from the original sample as possible, thus minimizing the risk for selection biases due to attrition.

Educational outcomes have been frequently studied in research on immigrant children. See, for example, Bankston and Zhou (1995, 2002), Mouw and Xie (1999), Portes and Rumbaut (1996 and 2001), Portes and Schauffler (1996), Zhou (2001), and Zhou and Bankston (1994). In this research, we use three measures of academic achievement: high school completion, college enrollment, and self-reported grades.

Our first measure is graduation from high school. By Wave 3, even the youngest cohort of Add Health respondents should have graduated from high school. (In fact, this cohort should have been 2 years past graduation following the normal progression schedule.) We construct a variable indicating high school graduation from responses to the Wave 3 survey (yes=1, no=0).

Our second measure is college enrollment. We construct a variable indicating whether or not respondents have ever attended a postsecondary education within 2 years of the date they either graduated from or should have graduated from high school (yes=1, no=0). We use “ever attendance” because the Add Health study contains multiple school cohorts that are at different educational points at a given time. “Ever attendance” within 2 years of high school graduation is a meaningful measure that is applicable to all the school cohorts in Add Health.

Third, we construct a measure of academic performance based on self-reported grades in Wave 1.[13] The in-school questionnaire asked the respondents to report their grades “at the most recent grading period” in four subjects: English/Language Arts, Mathematics, History/ Social Studies, and Science. One shortcoming of grades as an outcome measure is that they are not comparable across schools. That is, an A student in a school with students who all perform poorly may not have learned as much as a B student in a better school. To “normalize” grades across schools, we use data from the Peabody Picture Vocabulary Test administered to Add Health respondents at home in Wave 1.[14] Please see Appendix A for further details.[15]

[13]We also experimented extensively with an alternative measure of GPA based on the high school transcript data that has been linked with Add Health by the Adolescent Health and Academic Achievement (AHAA) study. We found that the two GPA measures are highly correlated, yielding very similar results. Because the transcript data are linked only to Wave 3 Add Health respondents and were missing for some students, their use would lead to a considerably smaller sample size than the Wave 1 data. We therefore chose to use the Wave 1 self-reported measure.

[14]While standardized scores of Peabody Picture Vocabulary Test are useful to adjust for between-school differences, we do not think that they constitute a good outcome measure for our research, because English proficiency is a major component of the assimilation process for most immigrant children.

[15]A small number of students did not have grades in all four subjects. For them, the average was computed from grades in all available subjects.

Psychological well-being is another outcome that has been studied extensively in the literature. See, for example, studies by Bankston and Zhou (2002), Espiritu and Wolf (2001), Harker (2001), Kao (1999), Portes and Rumbaut (2001), and Zhou (2001). This emphasis is justified because immigrant children are specifically characterized by what Thomas and Znaniecki (1974) termed "marginality," the experience of living in two worlds and not fully belonging to either. Marginality refers to a painful split, with accompanying feelings of insecurity, alienation, and ambivalence toward both the ethnic subculture and the dominant society.

We measure depression, the most common mental health problem among adolescents, with a 19-item Epidemiological Studies Depression (CES-D) scale. We use the same set of self-esteem indicators as Bankston and Zhou (2002). For both depression and self-esteem, we combine the items, after reverse-coding certain items, to form composite scales. A higher value means greater depression or higher self-esteem. Variable definitions and sample statistics for all the outcome variables are given by race in the third panel of Appendix B.

At-risk behaviors are important outcomes in studies of immigrant children (e.g., Harris 1999; Harris, Harker, and Guo 2003). If immigrant children follow Path 3 of downward mobility by assimilating to "oppositional youth culture," there should be observable behavioral manifestations. For this study, we use four measures of at-risk behaviors: (1) delinquency, (2) violence, (3) use of controlled substances, and (4) age at first sexual intercourse.

Our delinquency and violence measures are based on series of questions that measure the frequency of various delinquent or violent behaviors. We use 10 items on delinquent behavior and 9 items on violent behavior to construct composite measures of each. We create the composite scales by summing the self-reported occurrences in the past 12 months on all relevant items. For example, the delinquency scale potentially ranges from 0 (for a respondent who reported no delinquent behaviors) to 10 (for a respondent who engaged in every behavior at least once).

We derive our measure of controlled substance use from the self-reported use of tobacco, alcohol, and marijuana. Smoking and marijuana usage were measured by the number of days used in the past month. Alcohol consumption was measured by the frequency of use over the past 12 months. As expected, use of controlled substances varies highly by age and substance. Therefore, we standardize the three items on smoking, drinking, and marijuana use by age. Starting with the age-specific distributions of use for each substance, we first determine respondent's age-specific percentile scores along each of the distributions. We then combine the information from the three items into a single scale by taking the average percentile score across all three.

Finally, we model age at first sexual intercourse. Adolescents who have sex at young ages are at greater risk of pregnancy and sexually transmitted diseases than those who delay the onset of sexual intercourse. Sexual intercourse is not an easy outcome to examine, for two reasons. First, the crucial information is about the timing of initiation of sex. Second, this outcome variable may be censored for some respondents who had not experienced sex by the time they were last interviewed. For these two reasons, it is necessary to construct event-history records concerning the timing of sex initiation. We model the hazard rate of sex initiation given that one has not initiated sex. We estimate Cox proportional hazard models to study the effect of assimilation and context on the hazard of experiencing first sexual intercourse.

Statistical Analysis—Our analytical strategy for examining the empirical relationship between social context and assimilation consequences is to estimate regression models. Specific forms of actual regressions differ depending on the nature of the dependent (i.e., outcome) variable. For continuous outcome variables (academic performance, self-esteem, depression, delinquency, violence, and controlled substance use), we use ordinary least squares (OLS) linear regressions. For the dichotomous outcome variables (high school graduation and college enrollment), we estimate logit regression models. For the hazard of sex initiation, we use the Cox proportional hazards event history model. Throughout the analyses, we apply appropriate sampling and panel weights to account for stratified disproportionate sampling and differential rates of non-response and attrition over time.[16] For ease of illustration, we present our statistical analytical strategy below in terms of OLS regressions.

We know that there are substantial differences in immigration experiences across racial/ethnic groups and wish to allow for such differences in our analyses. However, the data are of a limited sample size and do not allow us to estimate too many interaction parameters. Thus, we make the following compromise: we estimate all the statistical models separately for Hispanics and for Asians but assume ethnic differences to be additive (i.e., affecting only the intercept) within each race. The structural portion of the regression models takes the following form (omitting subscript i for the ith individual):

$$\mu(\mathrm{Y}) = \tau' \mathrm{X} + \beta'_{\mathrm{A}} \mathrm{A} + \beta'_{\mathrm{C}} \mathrm{C} + \beta'_{\mathrm{I}} \mathbf{I} \tag{2}$$

Let us define notations in equation (5):

$\mu(Y)$ = the expected value of Y.

X = other covariates, beyond ethnicity, that are controlled: age, gender, and parental background (Appendix B, bottom panel).

A = assimilation measure (higher value means more assimilation).

C = community context measure (1 = low community SES; 0=high community SES).

I = interaction between A and C.

The interaction effect in equation (2), $\beta_{I,}$, is our key parameter testing segmented assimilation. This is the coefficient that corresponds to the inequality relationship expressed by equation (1). For a positive outcome, we expect $\beta_I < 0$. This is true because, according to the theory, contextual disadvantage should impact immigrant children who are partially assimilated less than their peers who are fully assimilated. Note that, in the presence of interactions, it is usually not advisable to discuss the coefficients of the "main effects," since interaction means that the effect of one variable depends on the value of another. That is, the so-called "main effects" do not exist in the presence of interactions. If there is no interaction term in the model, we expect $\beta_c < 0$ because low community SES should have a negative influence on children's outcomes. According to our interpretation of segmented assimilation theory, the negative effect of living in a low SES neighborhood strengthens as an immigrant is more assimilated.

Let us now highlight additional features of equation (2):

1. There are six measures of A (for assimilation). Each A yields a separate model specification.

[16]We also appropriately correct for standard errors in regression analyses due to clustering, stratification, and using weights.

2. We include country of origin, or ethnicity, as one of the key covariates in X.
3. We apply the model to all of the nine outcome variables, separately for Asians and Hispanics. Altogether, we estimate a total of 360 regressions with interactions (as in equation 2) due to the combination of the dimensions 10(A)×9(Y)×2 (race) ×2(C).

Results

Descriptive Results

We present in Table 2 (top panel) group averages of the nine outcome measures by neighborhood SES. Statistical significance is given for the comparison between respondents living in low-SES neighborhoods and those living in high-SES neighborhoods within each demographic group. For comparative purposes, we show figures for two groups of immigrant children as well as for three groups of natives - all natives, native whites, and native blacks. Previous literature has shown that children and adolescents who live in low-SES neighborhoods tend to have poorer outcomes, on average, across a wide variety of domains (see Leventhal and Brooks-Gunn (2000) for a comprehensive review). This disparity by neighborhood SES holds true in our sample with respect to educational outcomes. Across all five groups, adolescents living in high-SES neighborhoods are significantly more likely than those in low-SES neighborhoods to graduate from high school and attend college. For all groups except Asian immigrants, they also have higher academic achievement. Differences in depression also tend to run in the expected direction: For Hispanic immigrants, all natives, and native whites, adolescents living in high-SES neighborhoods have lower depression levels, while there is no significant difference (at the . 05 level) for Asians or native blacks.

Neighborhood differences in at-risk behaviors are much less consistent. For Asian immigrants, levels of delinquency, violence, and substance use are all higher in high-SES neighborhoods. Substance use is also higher in high-SES neighborhoods for Hispanic immigrants. We explore these counterintuitive patterns among immigrant children and interpret them in terms of assimilation *behaviors* (in contrast to outcomes) in a separate companion paper (identifying reference). Similar contrarian patterns are found for substance use and delinquency among “all natives,” and delinquency among native blacks. Native whites are the only group for whom living in living in a high-SES neighborhood is uniformly associated with better outcomes. For them, there is no significant difference in delinquency, while levels of violence and substance use are lower in high-SES neighborhoods.

In the lower panel of Table 2, we present the means of our assimilation measures by neighborhood SES for the two immigrant groups. Overall, living in high-SES neighborhoods is associated with a greater degree of assimilation according to the majority of our measures for Hispanics, while this association is less consistent for Asians.

Effects of Assimilation in a High-SES Context—Before turning to our main theoretical interest, the interaction between assimilation and community context, it is helpful to first understand the relationship between assimilation and our nine outcome variables. We focus on the estimated effect of assimilation (A in equation 2) given social context (C in equation 2). Given the dummy variable coding of the variables measuring social context, the coefficient of A reveals the estimated effect of assimilation on the outcomes of adolescents living in a “high”-SES community context. The word “high” should not be taken literally; it merely means a community that does not have a high concentration of persons living under the official poverty line. The estimated assimilation effects for adolescents living in high-

SES neighborhood contexts are reported in Table 3, separately for Hispanics (upper panel) and Asians (lower panel).[17] We choose to focus on the effects of assimilation specifically in "high" –SES contexts because the majority of immigrant Add Health respondents live in such contexts; thus, these assimilation effects more accurately reflect the "typical" effect of assimilation. Our later models, which test interactions between assimilation and context, will yield information on the effects of assimilation in low-SES contexts and the extent to which they differ from those in high-SES contexts.

High school graduation, college enrollment, academic achievement, and self-esteem are positive outcomes because a higher value indicates greater educational success or self-esteem. We consider depression and at-risk behaviors negative outcomes because a higher value indicates more depression or higher-risk behavior. The implications of regression coefficients for well-being therefore vary by outcome, making it ambiguous to use the terms "positive effect" or "negative effect." For convenience, we below adopt the terms "beneficial effect" and "detrimental effect" in order to clarify the meaning of assimilation coefficients for different outcomes. For positive outcomes, a positive coefficient indicates a beneficial effect, while a negative coefficient represents a detrimental effect; for negative outcomes, it is exactly the opposite.

Despite the use of a variety of measures of assimilation and outcomes, the results in Table 3 show a surprisingly consistent pattern. Let us divide the table into two segments: (1) the first five columns--from "High School Graduation" to "Depression"; and (2) the last four columns--from "Delinquency" to "Sexual Intercourse." In the first segment, assimilation either has beneficial effects or, in the majority of cases, coefficients that are statistically insignificant from zero, with only one exception. Statistically significant assimilation effects in this segment are not the same between Hispanics and Asians. For example, speaking English at home is significantly associated with (88%) higher odds of attending college and a (1.66 points) lower depression level among Hispanics, but not among Asians. Having interethnic friends is associated with a higher level of academic achievement among Asians, but not among Hispanics.

In the second segment, assimilation has either "detrimental" effects or statistically insignificant effects, the latter being more common, again with only one exception. For example, speaking English at home is associated with a significant increase in controlled substance use, by 3.27 percentile points among Hispanics and 7.52 percentile points among Asians. This pattern of detrimental effects is quite consistent among the statistically significant results. These detrimental effects of assimilation in segment 2 seem to contradict the beneficial effects in the first segment. The apparent contradiction can be understood in terms of classical formulations of assimilation theory (e.g., Gordon 1964): assimilation is a process by which immigrants gradually become more similar to natives. Given that first-generation immigrant youth start with lower rates of violence, lower rates of substance use, and later ages of sexual initiation than natives (Harris 1999), "assimilation" for these outcomes means that immigrant adolescents increase their participation in such activities and thus approach their native-born peers in these risk behaviors. If we accept assimilation as a description of a process, the observed "detrimental effects" in the second segment are thus interpretable.[18]

In summary, among Hispanics living in high-SES neighborhoods, we find some evidence that assimilation is positively associated with college enrollment, academic achievement, and self-esteem, and negatively associated with depression. There is also evidence that for

[17]Results for respondents in high-SES school contexts are similar and available upon request.
[18]We explore this theme in depth in a companion paper (identifying reference).

these same adolescents assimilation is positively associated with delinquency, violence, use of controlled substance, and early sex initiation. Out of a total of 90 coefficients, 18 are statistically significant from zero at the 0.05 level, and all but one of them fit the above generalization.

For Asians, we find 21estimated coefficients that are statistically significant from zero. Of these, all but three (pertaining to delinquency) fit the same generalization that we just drew for Hispanics: assimilation is positively associated with educational outcomes and psychological well-being but also positively associated with at-risk behaviors. Thus, overall, the evidence is more consistent with classic assimilation theory than against it.

Overall, our results in Table 3 show that effects of assimilation on immigrant children in high-SES communities depend on the particular outcome and assimilation measure. In a majority of cases, there is no significant difference by assimilation. For educational outcomes and psychological well-being, if there is a difference, assimilation seems to benefit immigrants. For at-risk behaviors, assimilation seems to be associated with a higher likelihood of engaging in such behaviors.

Testing Segmented Assimilation Theory with Interaction Parameters—To test a key idea of segmented assimilation theory, we now turn to the interaction parameter, β_I in equation (2). As we discussed earlier, according to segmented assimilation theory, immigrant children living in low-SES communities are worse off if they assimilate fully than if they do not. According to this reasoning, for a positive outcome (say academic achievement), the estimated coefficient for the interaction between assimilation (denoted as A) and community outcome (denote as C) should be negative -- the negative effect of a low-SES community should be more pronounced with full assimilation than with partial assimilation. For a negative outcome (say delinquency), we expect a positive interaction coefficient.

We present the estimated coefficients for Hispanics in Table 4. Each coefficient we report was extracted from a different model, as specified in equation (2), using a combination of measures for assimilation, community context, and outcomes. We focus on estimated interaction coefficients that attain the 5% statistical significance level. In the first panel, we present results using a poverty rate measure in the residential neighborhood as the community context. Among a total of 90 coefficients, only ten attain statistical significance. Of them, six are in the direction that support segmented assimilation theory. For example, consistent with the prediction in equation (1), neighborhood poverty has greater negative effects on high school graduation and college enrollment among residentially more assimilated Hispanic immigrants (i.e., those living with a higher concentration of native-born or non-co-ethnic neighbors) than their residentially less assimilated peers (first two columns). We also find that neighborhood poverty has a greater effect on controlled substance use for Hispanic immigrants with more inter-ethnic friends than those with fewer (eighth column).

However, four significant interaction effects contradict our prediction based on segmented assimilation theory. For example, the negative influence of neighborhood poverty on high school graduation is reduced rather than enhanced by Hispanic immigrants' propensity to make inter-ethnic friends (first column). Similar, the negative influence of neighborhood poverty on self-esteem is reduced by a longer-than-five-year stay in the U.S. (fourth column), whereas the positive influence of neighborhood poverty on delinquency is weakened by a longer stay in the U.S. (sixth column).

In the second panel, we measure community context at the school level; a school wherein the high school completion rate among students' mothers is less than 80% is considered a low-SES school. After this change in context, we only find two statistically significant interaction coefficients, and both are inconsistent with segmented assimilation theory. First, low-SES school context has less negative impact on high school graduation among U.S.-born children of Hispanic immigrants than among foreign-born Hispanic immigrants (first column). Second, similar to the result for neighborhood poverty, low-SES school context has a smaller negative effect on delinquency for foreign-born Hispanic children with longer-than-five-year stays in the U.S. (sixth column).

We now turn to similar results for Asians in Table 5. In the first panel, we present the estimated interaction effects between assimilation measures and neighborhood context. Among a total of 90 interaction coefficients, we find only nine of them to be statistically significant from zero. Of the nine significant coefficients, only two of them support segmented assimilation theory. The positive results both pertain to delinquency as a social outcome. We find that, as predicted by segmented assimilation theory, the effects of neighborhood poverty on delinquency are significantly increased for residentially more assimilated Asian American children than those residentially less assimilated, as measured by a high percentage of non-ethnic neighbors (see sixth column). However, the other seven statistically significant results, concerning a variety of outcomes, such as high school graduation, college enrollment, academic achievement, self-esteem, and depression, yield results that contradict the prediction of segmented assimilation theory as stated in equation (2).

In the second panel, where we use the school-level measure of community context, there are eight significant interaction parameters, five of which are consistent with segmented assimilation theory. Of the five coefficients consistent with the theory, two of them suggest the protective effects, for academic achievement, of having coethnic neighbors and speaking native languages for Asian American children attending low-SES schools (third column). The other three coefficients suggest that, for sex initiation, the accelerating effect of attending a low-SES school is significantly enhanced for Asian American immigrants who are more residentially assimilated than those less assimilated, measured by either the nativity or the ethnicity composition of neighborhoods (last column). The three statistically significant results that contradict our interpretation of segmented assimilation theory all pertain to college enrollment, as more assimilation as measured by residence and language use is found to be associated with overcoming, rather than exacerbating, a disadvantage of attending a low-SES school for college attendance.

On the whole, there is some empirical evidence that supports segmented simulation theory in terms of interaction effects between assimilation and social context. However, the evidence is very weak. We conducted a total of 360 tests and found 13 of them favoring this prediction of the theory, for some domains of social outcomes and some measures of assimilation. However, since we conducted so many tests, we should find some tests to be significant and in support of the theory simply by chance. Further, what is surprising and troublesome is that our study yields an even larger number (16) of statistically significant coefficients in the direction contradicting the theory.

Conclusion

In this paper, we have tested a critical implication of segmented assimilation theory: the interaction between macro-level conditions and individual-level assimilation behaviors or experiences. According to the theory, immigrant children living in poor social contexts are better off not fully assimilating to American culture, as assimilation is “downward” in this

situation and would have negative causal consequences. Conversely, immigrant children living in non-poor social contexts either should do well assimilating to natives or at least should not suffer as much from full assimilation.

Our study tested these theoretical propositions empirically with longitudinal data from a nationally representative survey of youth. We devised a large number of assimilation measures and constructed nine outcome measures covering the domains of educational outcomes, psychological well-being, and at-risk behaviors. The analyses made use of two alternative measures of community context – one based on the socioeconomic characteristics of neighbors and one based on the socioeconomic characteristics of schoolmates' parents. Finally, our statistical models allowed for overall differences by ethnicity, age, gender, and family socioeconomic status, but we conducted the statistical tests separately for Hispanics and Asians.

Our empirical analyses yield two main findings. First, for immigrant adolescents living in non-poor neighborhoods, we find assimilation to be positively associated with educational outcomes and psychological well-being but also with at-risk behavior. The beneficial effects of assimilation lend direct support to classical assimilation theory. However, the "detrimental" effects of assimilation on at-risk behaviors can also be interpreted within the classical formulation of assimilation theory, which predicted the gradual disappearance of differences between immigrants and native-born Americans. Immigrants are more likely to exhibit at-risk behaviors if they are "assimilated" because immigrant groups in general start off less likely than native-born Americans to engage in such behaviors.

Second, there is little empirical evidence supporting segmented assimilation's prediction concerning the interaction between assimilation and context. For most of the combinations of context and assimilation in our research design (in fact, 331 out of 360), we do not find statistically significant results and thus cannot reach a firm conclusion about their implications for segmented assimilation theory. The 29 interactive coefficients that are statistically significant are slightly more likely to be in the opposite direction from that predicted by segmented assimilation theory. Thus in only a small fraction of instances do we find support for the theory, and we cannot rule out the possibility that we obtained these supportive results by chance.

These empirical results force us to think harder about the real differences in assimilation experiences between the new immigrants and the old immigrants. America today is very diverse, and arguably more diverse than America a century ago. If the divergent experiences of today's immigrants really reflect the divergent social conditions of Americans in general, segmented assimilation theory can be viewed more as an extension, rather than a revision, of classical assimilation theory, which predicts that immigrants come to resemble native-born Americans over time.

One difficulty with the original statement of segmented assimilation theory (Portes and Zhou 1993) is that it confounds the processes of assimilation with the consequences of assimilation. In this paper, we focus on the insight that the consequences of assimilation depend on social context. In doing so, we assume that assimilation is exogenous. Of course, this assumption is questionable, as assimilation behavior and assimilation outcomes may be simultaneously determined. This classic endogeneity problem presents a serious methodological challenge for the analyses presented in this paper. For example, immigrants living in poor neighborhoods may be aware of the danger of "downward assimilation" and may respond by withholding their children from full assimilation into their neighborhood peer group, or by soon moving to better neighborhoods. In other words, immigrant parents are likely to be much better informed about their surrounding context than we are able to

capture with simple measures of contextual SES, and their responses likely depend on their perceptions of potential neighborhood effects on their children's outcomes. As a result, if we observe assimilation occurring in low-SES contexts, it may be the case that these are relatively less "risky" low-SES contexts, giving immigrant parents less incentive to withhold their children's assimilation. Thus, we may not observe the negative consequences of "downward assimilation" because immigrant families have found various ways to avoid, or at least minimize, its effects. If this is the case, the observed effects of assimilation may be mostly neutral, even in socioeconomically poor contexts.

We propose an alternative interpretation of segmented assimilation theory more explicitly concerned with the process of assimilation than with the outcomes of assimilation: immigrants may adjust their assimilation behaviors in response to local contexts. The main idea is that dire economic and social conditions in poor inner city neighborhoods pose the realistic *threat* of "downward assimilation" to immigrant families who reside in close physical proximity to them. A keen awareness of this threat molds immigrant families' assimilation decisions, resulting in adaptation strategies that in the aggregate enable most (but not all) of their children to avoid actually falling into the trajectory of downward assimilation. Chief among their effective adaptation strategies may indeed be "selective acculturation" (Portes and Rumbaut, 2001) and reliance on ethnic communities as forms of social capital -- factors that are emphasized by proponents of segmented assimilation theory. Thus, this interpretation views assimilation behaviors as more or less rational responses to external situations (Esser 2004). If the *anticipated* consequences of assimilation indeed vary by the local context, immigrants would then adjust their assimilation behaviors accordingly. The end result is that, with observational data, we as researchers may not find differential consequences of assimilation according to the local context. We welcome future research that evaluates this alternative interpretation empirically.

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Appendix A: Some Methodological Details

Index Measuring Inter-ethnic Friendship

We construct an index, called the *R* index, to measure inter-ethnic friendship, based on Zeng and Xie's (2008) argument that inter-group friendship is subject to influences of both structural opportunity and personal preference. The *R* index captures personal preference for intergroup friendship while controlling for structural opportunities for it at the school level.

Specifically, we use as our index a measure that compares the predicted against the observed number of co-ethnic friends, where the predicted number is determined by a) the proportion of co-ethnics in the school and b) the total number of friends nominated. We observe that the *i*th respondent chooses F_i friends ($F_i \leq 10$), of which F_{1i} belongs to the same ethnicity as *i*.[19] Let J_i denote the number of potential friends for the *i*th respondent, so that J_i is the size of the school that the *i*th respondent attends. Let us further divide J_i into J_{1i} and the balance of J_i (i.e., $J_{1i} \leq J_i$), with J_{1i} denoting the number of potential friends of the same ethnicity. Thus, for most immigrant children, J_{1i} is much smaller than J_i. Our first proposed relative measure is simply:

[19]Here, the same ethnicity refers to specific ethnic groups (such as Chinese and Mexicans). We also call individuals of the same ethnicity "coethnics." We experimented with measures based on pan-Hispanic and pan-Asian affinity, and the results were similar.

$$R_{1i}=\frac{J_{1i}}{J_i}(F_i)-F_{1i} \tag{A1}$$

We derive the predicted number of co-ethnic friends from two quantities: the proportion of co-ethnics in the school $\frac{J_{1i}}{J_i}$, and the total number of friends nominated F_i . R_1 is then simply the difference between the predicted and observed number of co-ethnic friends.

R_1 is a relative measure because it takes into account the opportunity structure for co-ethnic friendship in the school. It is, however, closely related to an individual's total number of friends (F_i). Because F_{1i} ranges from 0 to F_i, R_{1i} ranges from $\left(\frac{J_{1i}}{J_i}-1\right)(F_i)$ (when all friends are co-ethnic) to $\frac{J_{1i}}{J_i}(F_i)$ (when no friends are co-ethnic). Thus, R_{1i} is sensitive to F_i, the total number of friends. We further standardize the measure to purge the influence of F_i:

$$R_i=\frac{\frac{J_{1i}}{J_i}(F_i)-F_{1i}}{F_i}=\frac{J_{1i}}{J_i}-\frac{F_{1i}}{F_i} \tag{A2}$$

This new measure is interpretable as the difference between the proportion of co-ethnics in the school and the proportion of co-ethnics among *i*'s friends. Unlike R_1 , R is invariant with respect to the total number of friends and constitutes our preferred measure of cross-ethnic friendship.

Normalization of grades using PPVT scores

To normalize grade point averages across schools, we first run a fixed-effects model in which we regress the Peabody Picture Vocabulary (PPVT) test score for the *i*th respondent in the *h*th school as a function of school dummies so that we obtain the average differences across schools and the proportion of the total variance that is between schools (R^2). We then compute his/her normalized grade (t_{ih}) by summing the standardized school component from the test scores (δ_h) and the standardized within-school component from self-reported grades (G_{ih}), weighted by a factor (λ). We set $\lambda^2 = R^2/(1- R^2)$, under the assumption that the proportion of between-school variation is the same for normalized grades as for the Peabody Picture Vocabulary Test scores. For our data, λ is .513.

$$t_{ih}=\lambda\delta_h+G_{ih}+\varepsilon_{ih},$$

where ε_{ih} is the residual term. We then further standardize t_{ih} so that it has a standard deviation of one. The normalized grade is comparable across schools. Here, we see that $\lambda\delta_h$ gives the adjustment for between-school differences. We average the standardized grade across the four subjects to obtain an overall measure of academic achievement.[20]

[20]A small number of students did not have grades in all four subjects. For them, the average was computed from grades in all available subjects.

Appendix B: Variable Descriptions and Means

Variable	Variable Description	Mean for Hispanics	Mean for Asians
Assimilation Measure			
Length of Stay	Years since arrival in U.S., for first-generation immigrants	8.46	8.38
Length of Stay > 5 years	Binary: 1= Length of stay > 5 years, 0= Length of stay <=5 years	0.74	0.75
U.S.- Born	Binary: 1=second generation, 0=first generation	0.62	0.41
% U.S.-Born in Neighborhood	% of U.S-born persons in respondent's neighborhood (higher=fewer co-ethnics)	73.7	78.2
% U.S.-Born > 70%	Binary: 1 neighborhood population more than 70% U.S. born	0.66	0.65
% Non-Co-Ethnics in Neighborhood	% of non-Hispanics (non-Asians) in neighborhood, for Hispanic (Asian) respondents	62.6	80.2
% Non-Co-Ethnics> 75% (Asians), >60% (Hispanics)	Binary: 1=% Co-ethnics in neighborhood less than approximate race-specific median	0.61	0.68
English language use in home	Uses English language at home	0.35	0.54
Propensity for inter-ethnic friends (R)	Difference between proportion co-ethnics in school and proportion among friends	−0.24	−0.30
Propensity (R) > 0	Binary: Has more inter-ethnic friends than predicted by chance	0.36	0.42
Context Measures			
Poor Neighborhood	Neighborhood context: Neighborhood poverty rate > 15% (Asians), or 30% (Hispanics)	0.25	0.20
Low SES School	School context: More than 20% of students' mothers in R's school have less than a high school education	0.60	0.42
Outcome Measure			
High School Graduation[a]	Binary: 1 respondent graduated from high school by Wave 3	0.73	0.91
College Enrollment[a]	Binary: 1=respondent enrolled in college by Wave 3	0.55	0.84
Academic Achievement	Average grades in Wave 1, standardized and adjusted for achievement differences across schools	−0.43	0.29
Self-Esteem	Score on self-esteem scale (higher=more self esteem)	3.02	2.98
Depression	Score on depression scale	12.61	12.21
Delinquency	Frequency of delinquent acts in last year	1.22	1.06
Violence	Frequency of violent acts in last year	1.37	0.96
Controlled Substance Use	Age-specific percentile score in combined use of alcohol, tobacco, and marijuana	45.97	43.11
Initiation of Sex	Age of first sexual intercourse	17	19
Control Variables			

Variable	Variable Description	Mean for Hispanics	Mean for Asians
Age	Respondent's age at Wave 1 interview	16.05	16.13
Gender	Binary: 1=Female	0.51	0.47
Parent interview missing	No parent interview (hence no family income information)	0.17	0.32
Family Income	Log of family income, imputed for those with missing parent interview	9.75	10.40
Average parental education	Average of parental education in 2-parent family, parent's education in single-parent family	10.98	13.65
Single parent family	Binary: 1=single parent family, 0 otherwise	0.28	0.17
Stepparent family	Binary: 1=stepparent family, 0 otherwise	0.15	0.09

Notes:

b) All other measures came from Wave 1 data. N = 993 for Asians; N = 1.661 for Hispanics

a) Wave 3 data. N = 713 for Asians; N = 1,204 for Hispanics

Biographies

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Table 1

Average of Y by Community Context and Assimilation Behavior

Assimilation Experience	Community Context	
	High SES	Low SES
Partial Assimilation	$E(Y_a)$ (Path 3 – Group A)	$E(Y_b)$ (Path 3 - Group B)
Full Assimilation	$E(Y_c)$ (Path 1 - Group C)	$E(Y_d)$ (Path 2 - Group D)

Table 2

Neighborhood SES Differences in Outcomes and Assimilation

	Hispanic Immigrants		Asian Immigrants		Natives (All Races)		Native Whites		Native Blacks	
	Low SES	**High SES**	**Low SES**	**High SES**	**Low SES**	**High SES**	**Low SES**	**High SES**	**Low SES**	**High SES**
Outcome										
High School Graduation	0.64	0.76***	0.79	0.94***	0.77	0.86 ***	0.77	0.86 ***	0.77	0.86 ***
College Enrollment	0.47	0.58***	0.73	0.87***	0.53	0.68***	0.52	0.69***	0.55	0.63***
Academic Achievement	−0.62	−0.37***	0.29	0.29	−0.29	0.21***	−0.09	0.29***	−0.50	−0.28***
Self-Esteem	3.02	3.02	2.95	2.99	3.15	3.14	3.08	3.13***	3.23	3.23
Depression	13.59	12.28***	11.38	12.41*	11.57	10.12***	11.31	9.83***	11.81	11.94
Delinquency	1.11	1.25	0.82	1.12**	0.94	1.02 **	0.96	1.00	0.83	0.96**
Violence	1.37	1.36	0.73	1.02**	1.47	1.13***	1.27	1.05***	1.63	1.59
Substance Use	44.47	46.46**	39.54	43.93***	50.04	50.94**	53.20	51.46***	45.91	44.88*
Assimilation Measure										
Length of Stay	9.66	8.04***	9.13	8.17**						
U.S.- Born	0.60	0.63	0.27	0.44***						
% U.S.-Born in Neighborhood, /10	6.28	7.73***	7.70	7.85						
% Non-Co-Ethnics in Neighborhood, /10	4.17	6.95***	8.62	7.88***						
English language use in home	0.23	0.39***	0.40	0.57***						
Propensity for inter-ethnic friends	−0.30	−0.22***	−0.32	−0.29						

Note: Values shown are weighted means Statistical Significance is calculated using one-way ANOVA:

* p<.10

** p< .05

*** p<.01

Table 3

Effects of Assimilation, High SES Community

	High School Graduation[a] (logit coef)	College Enrollment[a] (logit coef)	Academic Achievement[b] (OLS coef)	Self-Esteem[b] (OLS coef)	Depression[b] (OLS coef)	Delinquency[b] (OLS coef)	Violence[b] (OLS coef)	Controlled Substance Use[b] (OLS coef)	Sexual Intercourse[b] (Hazard ratio)
Hispanic:									
Assimilation Measure									
Length of Stay[c]	−0.031	0.064	−0.032 ***	−0.005	0.008	0.082 ***	0.042	0.672 ***	1.037*
Length of Stay > 5 years[c]	−0.385	0.532	−0.164	−0.045	1.785	0.320	0.140	3.238*	1.338
U.S.- Born	−0.247	−0.118	−0.055	0.004	−0.480	0.579 ***	0.392 ***	5.561 ***	1.336 ***
% U.S.-Born in Neighborhood	−0.031	−0.036	0.086***	0.031**	−0.235	0.031	0.023	0.102	1.055 **
% U.S.-Born > 70%	0.075	−0.059	0.231***	0.051	−0.745	0.261*	0.106	1.308	1.194*
% Non-Co-Ethnics in Neighborhood	−0.047	0.008	0.068***	0.009	−0.099	0.031	0.028	0.321	1.056 ***
% Non-Co-Ethnics>60%	−0.263	0.067	0.299***	0.048	−0.391	0.068	0.195	2.536*	1.279 **
English language use in home	0.365	0.630**	0.119	0.058	−1.657**	0.223	−0.171	3.265 **	1.166
Propensity for inter-ethnic friends	−0.184	0.390	0.022	0.013	−0.534	0.278	−0.138	−2.475	1.169
Propensity > 0	−0.389	0.320	0.050	0.035	−1.577*	0.202	−0.059	1.675	1.212
Asian:									
Assimilation Measure									
Length of Stay[c]	0.324*	0.034	0.002	0.014	−0.272*	0.055 **	0.004	0.883 ***	1.058 ***
Length of Stay > 5 years[c]	3.787***	2.082***	0.052	0.161	−2.218	0.486 **	0.216	5.226 ***	1.193
U.S.- Born	0.113	0.051	−0.062	0.059	−1.691*	0.135	0.048	3.457*	1.284
% U.S.-Born in Neighborhood	0.051	−0.187	0.051	0.036	−0.816***	−0.132*	−0.083	0.428	1.184 ***
% U.S.-Born > 70%	0.095	−0.004	0.070	0.137*	−2.864***	−0.535***	−0.235	0.812	1.889 ***
% Non-Co-Ethnics in Neighborhood	−0.043	−0.043	0.017	0.024	−0.579***	−0.151***	−0.085*	−0.701	1.020
% Non-Co-Ethnics> 75%	−0.907	−0.141	−0.051	0.126	−2.656***	−0.583***	−0.414*	−2.986	1.413*

	High School Graduation[a]	College Enrollment[a]	Academic Achievement[b]	Self-Esteem[b]	Depression[b]	Delinquency[b]	Violence[b]	Controlled Substance Use[b]	Sexual Intercourse[b]
	(logit coef)	(logit coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(Hazard ratio)
English language use in home	−0.687	−0.643	−0.168 *	−0.030	−0.183	0.579 ***	−0.005	7.519 ***	1.948 ***
Propensity for inter-ethnic friends	−1.459	−0.336	0.377***	0.012	−0.230	−0.202	−0.136	1.801	0.901
Propensity > 0	−0.967	−0.182	0.211**	0.016	−0.137	−0.171	−0.042	1.887	0.917

Notes:

All models control for specific ethnicity, age, sex, family income, parental education, and family structure.

Models using assimilation measures other than length of stay and generation also control for length of stay and generation using a 3-category variable: First generation with length of stay <=5 years, first generation with length of stay > 5 years, and second generation.

Statistical Significance:

Highlighting indicates a beneficial effect of assimilation that is statistically significant at the .05 level

Underlining indicates a detrimental effect of assimilation that is statistically significant at the .05 level

a) Wave 3 data. N = 713 for Asians; N = 1,204 for Hispanics

b) Wave 1 data. N = 993 for Asians; N = 1.661 for Hispanics

c) Models of length of stay include only first-generation immigrants

* p<.10

** p< .05

*** p<.01

Table 4

Interaction between Disadvantaged Context and Assimilation: Hispanics

	High School Graduation[a] (logit coef)	College Enrollment[a] (logit coef)	Academic Achievement[b] (OLS coef)	Self-Esteem[b] (OLS coef)	Depression[b] (OLS coef)	Delinquency[b] (OLS coef)	Violence[b] (OLS coef)	Controlled Substance Use[b] (OLS coef)	Sexual Intercourse[b] (Hazard ratio)
Neighborhood Disadvantage:									
Assimilation Measure									
Length of Stay[c]	−0.110	0.055	−0.006	0.033	−0.186	−0.114 ***	0.013	−0.508	0.995
Length of Stay > 5 years[c]	2.473	2.352 *	0.280	0.451 **	−5.341 *	−0.956 *	−0.766	−7.741 *	0.683
U.S.- Born	−0.042	−0.457	0.145	0.062	1.603	0.150	0.030	−1.149	1.058
% U.S.-Born in Neighborhood, /10	−0.346 ***	−0.234 **	−0.041 *	0.004	−0.068	−0.102 *	0.034	0.060	1.022
% U.S.-Born > 70%	−1.335 **	−0.891 *	−0.095	0.124	−0.653	−0.215	0.215	−1.100	1.287
% Non-Co-Ethnics in Neighborhood, /10	−0.087	−0.179 **	−0.040 *	−0.004	0.044	−0.051	−0.001	0.065	1.015
% Non-Co-Ethnics > 60%	−0.397	−1.112 **	−0.272 *	−0.107	1.042	−0.226	−0.142	−1.037	1.150
English language use in home	−0.406	−0.821	0.003	0.042	−0.042	−0.602 *	−0.191	0.928	0.876
Propensity for inter-ethnic friends	2.352 ***	1.564 *	−0.269	0.129	2.447	0.735	0.506	8.092 ***	1.310
Propensity > 0	2.649 ***	0.947	−0.105	−0.025	2.967	0.189	0.063	1.531	0.975
School Disadvantage:									
Assimilation Measure									
Length of Stay[c]	−0.127	0.068	−0.021	0.001	0.170	−0.034	0.013	0.498	0.879
Length of Stay > 5 years[c]	−1.139	0.273	0.346 *	0.066	0.608	−0.887 ***	−0.236	−4.371	0.090
U.S.- Born	1.746 ***	0.693	0.216 *	0.188 *	−1.548	−0.012	−0.181	−1.645	0.372
% U.S.-Born in Neighborhood, /10	−0.044	0.149	0.013	−0.028	0.147	0.035	−0.026	−0.069	1.490
% U.S.-Born > 70%	−0.561	0.226	0.006	−0.022	−0.880	0.051	−0.089	−2.071	3.244
% Non-Co-Ethnics in Neighborhood, /10	−0.159	−0.033	0.037	−0.035	0.157	−0.009	0.011	−0.124	1.222
% Non-Co-Ethnics> 60%	−0.822	−0.233	0.342 *	−0.083	−1.032	−0.171	−0.084	−0.589	3.087
English language use in home	−0.650	−0.685	−0.019	0.119	−1.319	−0.231	0.147	−2.322	1.179

	High School Graduation[a]	College Enrollment[a]	Academic Achievement[b]	Self-Esteem[b]	Depression[b]	Delinquency[b]	Violence[b]	Controlled Substance Use[b]	Sexual Intercourse[b]
	(logit coef)	(logit coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(Hazard ratio)
Propensity for inter-ethnic friends	0.497	−0.496	−0.071	0.223	−1.058	−0.513	−0.452	−5.646	0.346
Propensity > 0	0.973	0.004	0.131	0.172	−0.535	−0.192	−0.052	−4.389*	1.199

Notes:

Models control for specific ethnicity, age, sex, family income, parental education, neighborhood poverty rate, and family structure.

Models using assimilation measures other than length of stay and generation also control for length of stay and generation using a 3-category variable: First generation with length of stay <=5 years, first generation with length of stay > 5 years, and second generation.

Statistical Significance:

Highlighting indicates a significant effect consistent with segmented assimilation theory

Underlining indicates a a significant effect consistent contradictory to segmented assimilation theory

a) Wave 3 data. N = 718 for Asians; N = 1,204 for Hispanics

b) Wave 1 data. N = 995 for Asians; N = 1.661 for Hispanics

c) Models of length of stay include only first-generation immigrants

* p<.10

** p< .05

*** p<.01

Table 5

Interaction between Disadvantaged Context and Assimilation: Asians

	High School Graduation[a] (logit coef)	College Enrollment[a] (logit coef)	Academic Achievement[b] (OLS coef)	Self-Esteem[b] (OLS coef)	Depression[b] (OLS coef)	Delinquency[b] (OLS coef)	Violence[b] (OLS coef)	Controlled Substance Use[b] (OLS coef)	Sexual Intercourse[b] (Hazard ratio)
Neighborhood Disadvantage:									
Assimilation Measure									
Length of Stay[c]	−0.069	−0.218	0.045	−0.057*	0.266	−0.028	−0.049	−0.503	0.974
Length of Stay > 5 years[c]	−2.688*	−1.879	0.539**	−0.457*	1.908	−0.654	−0.376	−5.707*	0.693
U.S.- Born	−0.436	−0.723	0.235	0.031	0.623	0.071	−0.201	−1.608	0.915
% U.S.-Born in Neighborhood, /10	0.334	0.862***	−0.005	0.073*	0.217	0.143	−0.009	0.157	0.915
% U.S.-Born > 70%	2.531*	5.952***	0.163	0.239	0.201	0.630	−0.485	1.510	0.608
% Non-Co-Ethnics in Neighborhood, /10	0.131	0.223	−0.055	0.093***	0.194	0.272***	0.098	1.216*	1.055
% Non-Co-Ethnics > 75%	−0.946	−2.058	−0.424*	0.383*	2.412	1.545***	0.707	7.031*	1.110
English language use in home	2.963*	2.480*	−0.051	0.397*	−1.240	−0.413	0.070	−5.769*	0.552
Propensity for inter-ethnic friends	5.187*	3.457	0.132	0.242	−6.239***	−0.657	−0.784	−5.807	0.612
Propensity > 0	4.956***	3.512*	0.330	0.142	−5.218***	−1.000*	−0.977*	−7.008*	0.574
School Disadvantage									
Assimilation Measure									
Length of Stay[c]	0.050	0.213	−0.024	0.016	0.235	−0.048	0.014	−0.239	1.243
Length of Stay > 5 years[c]	−0.718	0.737	−0.094	−0.105	2.818	−0.054	−0.055	−2.427	18.371
U.S.- Born	0.815	1.569*	−0.312*	−0.190	−1.014	−0.206	−0.154	3.968	29.101
% U.S.-Born in Neighborhood, /10	−0.019	0.756**	−0.073	0.041	−0.198	0.030	0.052	1.187	3.420**
% U.S.-Born > 70%	0.612	3.346***	−0.163	0.133	−0.770	−0.284	−0.450	2.413	15.567
% Non-Co-Ethnics in Neighborhood, /10	−0.243	0.323*	−0.106***	0.047	−0.113	0.111	0.051	1.077*	2.872***
% Non-Co-Ethnics> 75%	−0.816	0.264	−0.203	−0.134	1.652	0.072	−0.118	1.896	138.745**
English language use in home	2.154	1.766*	−0.400***	−0.113	1.547	0.237	0.465	−1.189	0.346

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	High School Graduation[a]	College Enrollment[a]	Academic Achievement[b]	Self-Esteem[b]	Depression[b]	Delinquency[b]	Violence[b]	Controlled Substance Use[b]	Sexual Intercourse[b]
	(logit coef)	(logit coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(OLS coef)	(Hazard ratio)
Propensity for inter-ethnic friends	−1.031	3.323*	−0.142	0.029	−1.459	−0.663	−0.350	2.641	9.840
Propensity > 0	0.393	5.903***	0.009	−0.044	−1.928	−0.088	−0.077	5.570*	1.288

Notes:

Models control for specific ethnicity, age, sex, family income, parental education, neighborhood poverty rate, and family structure.

Models using assimilation measures other than length of stay and generation also control for length of stay and generation using a 3-category variable: First generation with length of stay <=5 years, first generation with length of stay > 5 years, and second generation.

Statistical Significance:

Highlighting indicates a significant effect consistent with segmented assimilation theory

Underlining indicates a a significant effect consistent contradictory to segmented assimilation theory

a) Wave 3 data. N = 710 for Asians; N = 1,204 for Hispanics

b) Wave 1 data. N = 995 for Asians; N = 1.661 for Hispanics

c) Models of length of stay include only first-generation immigrants

* p<.10

** p< .05

*** p<.01