This study used data from the Children of Immigrants Longitudinal Study, which consists of a two-wave panel of approximately 2,500 second generation students in Florida's Dade County public schools, to investigate the impact of non-immigrant/involuntary minority enrollment in second generation Hispanic students' academic achievement. Students completed the survey in eighth and ninth grade, then again in their senior year of high school. The survey collected data on students' age, sex, place of birth, and parent nationality, education, and occupation. Students' grade point averages and standardized math scores were also obtained, as well as data on the school's racial composition, size of enrollment, and proportion of students on government-subsidized lunch. Data analysis indicated that oppositional effects that operated through involuntary minority concentration in the school had negative consequences for immigrant male achievement. The grade point averages and math performance of Nicaraguan and Cuban males suffered in the company of involuntary minorities, net of other school and individual level differences. Cuban and Nicaraguan girls, however, receive community and parental supervision that may serve as a buffer to the incorporation of oppositional attitudes along with their negative consequences on academic achievement. (Contains 25 references.) (SM)
ASSESSING THE IMPACT OF INVOLUNTARY-
MINORITY ENROLLMENT ON GENDER
DIFFERENCES IN ACADEMIC PERFORMANCE
AMONG HISPANIC SECOND-GENERATION
IMMIGRANTS IN SOUTH FLORIDA

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Assessing the Impact of Involuntary-Minority Enrollment on Gender Differences in Academic Performance among Hispanic Second-Generation Immigrants in South Florida

For many immigrant parents and their children in the U.S., school preferences are often based more on the school's ethnic makeup than they are on its resources or academic prestige. They often perceive schools with large minority enrollments as places for delinquency and drugs, where teachers and curriculum are thought to be inferior and where confrontationally-oriented youths hold attitudes counter to immigrant values of academic success.

Presently, little is known about the scholastic implications for immigrant children and children of immigrant parentage of different amounts of contact with non-immigrant minorities in the school. Yet, as immigrant youths spend most of their day in the school, it is conceivable that along with family and community attributes, the school ethnic makeup and its values system may also be important in shaping attitudes and behaviors toward

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1 From personal interviews, Children of Immigrants Longitudinal Study (CILS), Alejandro Portes and Ruben Rumbaut, P.I. The CILS is discussed below.
achievement and success in and through the school. As case studies around the world\(^2\) point to negative attitudinal and behavioral responses towards schooling by non-immigrant/involuntary minority youths, the academic performance of immigrant youngsters in schools with large proportions of non-immigrant minorities gains importance. This may be especially true for males, as other international case studies have documented a higher tendency for boys from stigmatized backgrounds to adopt oppositionally-oriented attitude and behavior.\(^3\) The literature on oppositional culture, gender differences among immigrant youths, and school "normative climate" influence on student learning frame my analysis of involuntary-minority concentration effects on scholastic performance among second-generation Cuban and Nicaraguan immigrant boys (and girls) in South Florida.

\(^2\) Case studies in Gibson & Ogbu (1991) on Blacks and Mexicans in the U.S., Maoris in New Zealand, Burakumin in Japan, and Crusians in the Virgin Islands.

\(^3\) Case studies in Gibson (1997) on Caribbean-origin boys in Britain, Canada, and the U.S., North African males in Belgium, and Moroccan and Algerian boys in France.
Oppositional Culture, School Normative Climate, Gender, and Academic Performance

Origins and Consequences of Oppositional Culture

Psychological anthropologists concerned with immigrant academic performance have suggested that the minority status of students affects their achievement in school (Gibson and Ogbu 1991). According to this argument, minority status may be of two types: voluntary or involuntary. In the U.S., voluntary minorities include groups which have willingly chosen to migrate to and become part of American society. On the other hand, involuntary minorities have become part of American society by virtue of forced migration, as happened with African-Americans, or through territorial conquest as occurred with Native-Americans, and early Mexican-Americans in the southwest. By definition, then, involuntary minorities can be of any race or ethnicity; it is the manner in which they are incorporated into the dominant society (forced or voluntary) which determines their status as involuntary minorities.

To be sure, both types of minorities experience discrimination, but the two vary in how they perceive and react to it. In the case of involuntary minorities, prolonged exploitation and
disparagement have lead to resistance and opposition against the institutions, norms, and representatives of the dominant group (ibid.). Among the young, this so-called “oppositional culture” translates into an attitudinal and behavioral system that devalues achievement in and through the school. The resulting poor performance of many involuntary minorities, therefore, does not result from some inherent lack of motivation, pathological cultural values, or deficient cognitive styles; instead, such an adversarial stance is rooted in historical and structural conditions in the U.S. where groups have been brought involuntarily into subordination, discrimination and exclusion from educational and economic opportunities (ibid).

Such involuntary incorporation and subsequent denigration drive the subordinate group into a confrontational stance which engenders distrust for and anger against the dominant group and the institutions they control (Ogbu 1991). Distrust and resentment is often reinforced by media reports about minority school failure and unemployment, leading many adolescent minorities to doubts about the value of “playing by the rules” and about the possibility of achieving success through schooling. These ideas internalized, many adjust school behavior to fit the perceived realities of their
situations. In doing so, discouraged youngsters are perceived as acting bored, indifferent, or engaging in what De Vos (1982) calls “defensive non-learning,” wherein youngsters actively reject the rules and values of the system that will likely prove them a failure. At an even more confrontational level, the whole business of schooling is perceived by many as yet another instrument used by “the system” to keep them down instead of as a means for upward mobility (Ogbu and Matute-Bianchi 1986). Such oppositional orientation and resulting cynicism and pessimism is contrasted in the literature with the hopes, efforts and gains of voluntary immigrant minorities.

First of all, whereas non-immigrant minorities were initially incorporated into American society against their will and later relegated to a life of exploitation and exclusion, immigrant minorities choose to leave their country in hopes of a better life. This differential mode of incorporation plays a key psychological role for parents and children in that it affects how each perceives, interprets and responds to the hardships of their new society. In such instances, there develops a collective orientation towards sacrifice, hard work and achievement which characterizes the newcomer and has positive consequences for schooling. Suarez-Orozco
(1989) attributes the emergence of such behavior as flowing from what he calls a “dual frame of reference,” wherein immigrants compare the reality in the U.S. with that of their war-torn, economically deprived countries to find that, no matter how bad things are here, they are still better off then in their country. The anthropologist contrasts this with the frame of reference of many non-immigrant minority students who see their current reality as a continuing history of subordination vis-à-vis the majority population, where blocked opportunity, exploitation and inequality over generations will likely lead to failure in their own life (ibid, 47; Ogbu 1978).

The most troubling outcome of this phenomenon has to do with the effect that oppositionally oriented peer pressure has in inhibiting school success among immigrant children (Gibson and Ogbu 1991). Attitudes, ambitions and values that may serve as capital in the careers of immigrant children may be sacrificed by those who cannot resist rejection from their peers. Such oppositional practices as rejecting school learning and disobeying orders from teachers may lead the immigrant youths towards the ranks of those who have already been marginalized by the system. As some studies suggest, West Indian blacks in U.S. schools who
accept school authority may be accused of betraying “the cause” and of obeying the white man (Ogbu 1991; Gibson 1991). Likewise, Mexican-descent students in the U.S. who conform to school expectations are pejoratively called “wannabes” by their Chicano peers who accuse and ridicule them of “wanting to be white” (Matute-Bianchi 1991). Barrington (1991) also notes how Maori students in New Zealand who are placed in upper-level tracks request to be demoted to lower ones lest they be teased or ostracized by their own peers. In these instances, playing by the rules of the dominant class results in teasing and ostracism, while resisting them leads to acceptance and respect from those who espouse an oppositional stance. It is at least possible, then, that this dynamic may have a leveling effect on the efforts and ambitions of many immigrant youths, thereby creating and fostering a “normative climate” of cynicism and failure which inhibits school performance and future prospects among their ranks.

School Normative Climate Classical studies of school contextual effects on student achievement have stressed the link between peer-group composition, “normative climate” and student academic attitudes and behaviors in schools (Coleman 1961; Gordon 1957). Of key importance is the notion that a critical mass
of peers with strongly shared beliefs and behaviors will set the tone for the kind of norms, values and standards that become salient in the school. In the long run, these norms and values become normative patterns that characterize the school culture by setting into place a set of collective orientations which either advance or frustrate academic achievement.

These collectively-created settings may work in three ways in promoting or thwarting academic endeavor: first, they define which norms, values and standards are acceptable; second, they provide role models; and, third, they serve to monitor norms, as students adjust their behavior to what is expected by the setting. So, through the first mechanism, students learn what are the expectations; through the second, they see how to achieve them; and through the third, they learn how to self-adjust in order to meet them (Kemper 1968).

Despite the potentially unfavorable influence that an oppositionally-oriented school context may have on its students' academic performance (Rodríguez, in press), Cuban and Nicaraguan girls and boys may differ on the degree to which they are affected by it. There is reason to think that the girls' more sheltered upbringing in these immigrant communities may serve as
a buffer to assimilation of such attitudes and behaviors and their negative consequences on academic progress.

**Immigrant Gender Socialization and Oppositional Identity**

The different roles that boys and girls assume during adolescence and the different ways in which they are socialized in South Florida's Cuban and Nicaraguan communities may render girls less vulnerable to assimilation of the adversarial identity and behavior ethnographers often find among many involuntary minority youths. The many centuries of Muslim influence on Spanish and, consequently, Latin-American cultures continue to mark family socialization practices vis-à-vis boys and girls. Though increasingly less rigid, it continues to be a culture where girls receive more family supervision and protection through childhood and adolescence than boys. This is especially true within immigrant communities in the U.S., where parents tend to be even more concerned about the negative influence of American street culture (Portes and Rumbaut, 2001; Suarez-Orozco and Suarez-Orozco, 2001).

Partly out of a sense that a girl's chastity and reputation must be protected and preserved, and partly because girls are perceived as more physically and emotionally dependent, girls tend
to be raised with a much shorter and tighter rein than boys who, in many instances, are encouraged and expected to venture out into the world of work, romance, politics, etc. (Gibson, 1989; Suarez-Orozco and Suarez-Orozco, 2001). A telling example of this relates to dating practices. While girls are often forced to take a chaperon on dates, boys are not only free to go unsupervised but are actually celebrated for their romantic exploits. In many cases, these restrictions may extend to such time-honored, peer-culture traditions as attending a slumber party. The idea of sleeping over at a friend’s house, while discouraged for boys, would be unthinkable for girls.

Parents often enforce these restrictions on girls in order to avoid rumors and informal sanctions from community members who view these kinds of Americanized practices with mistrust at best. Parents who choose not to rigidly enforce these rules are often perceived as unable to control their children on matters of dating, dress style, and peer relations (ibid.). Even among less traditional families, those that have been in the U.S. longer and thus have acculturated more, girls are more likely to adhere to parental rules and expectations (Hondagneu-Sotelo, 1994; Kibria, 1994).

\[ \textit{From personal interviews, CILS.} \]
This trend is supported by children of immigrant research which suggests that girls tend to remain more culturally ensconced in their native culture as evidenced by their much higher levels of home-language fluency (Portes and Rumbaut, 2001). This may partly result from the fact that girls spend more time with parents as they have more responsibilities at home than do their brothers (Valenzuela, 1999).

The kind of home cultural retention that results from higher rates of exposure to the messages and expectations of parental, old-world views may help in keeping girls from assimilating oppositional views and behaviors at variance with that of their parent’s and home-culture. This, combined with messages and role models of dedication and effort serve the girls well as they resolve the tension between following the street culture or the road to success in and through the school. If nothing else, the relative restriction imposed on girls in Hispanic communities serves to protect them more from engaging in the kind of criminal and gang-related activities that boys are more free to engage in (Smith, 1999).

Drawing insight from the previous discussion on oppositional culture, school normative climate, and gender
socialization, a set of premises and hypotheses are advanced: Following the premise that an "oppositional culture" exists among many involuntary-minority youths, the higher the share of that population in a given school, the higher the probability that the school's social climate will be oriented in that direction. However, given the differential modes of gender socialization experiences in Latino families, boys and girls will be differently affected by such climate. Specifically, increasing concentrations of involuntary-minority enrollments, will lower GPA/Math score among immigrant boys relative to girls, net of school average SES and individual sex, SES and prior GPA/math scoring. This happens as boys are less prepared than girls to resist oppositionally-oriented peer pressure against the educational system and academic work.

Of importance in this formulation is the sociocultural and ideational climate that high concentrations of a given group is able to create and foment in given settings. In this case, the scholastic performance of children of immigrants attending schools with high percentages of involuntary-minority youths may decline in settings where members think and behave collectively in ways that undermine the school's agenda. In such schools, children may see
few role models who offer an alternative to permanent academic failure.

Finally, in terms of this analysis and consistent with the previous discussion, proportion involuntary-minority is indexed by the percentage of African-American students in the school, as Mexican- and Native-Americans are not represented in South Florida schools. As stated earlier, it is important to keep in mind that what defines a minority group as “involuntary” is not its race (black/white) or ethnicity (Hispanic/Asian). Rather, it is the forced or voluntary manner in which the group is incorporated into the dominant society that determines its status.

METHODOLOGY

Sample, Data and Analytic Strategy

The present study uses Children of Immigrants Longitudinal Study (CILS) data which consists of a two-wave (T1 and T2) panel of approximately 2500 second-generation students in South Florida’s Dade-County public schools, the nation’s fourth-largest public school district. The schools targeted represented varying socioeconomic levels and ethnic compositions, ranging from inner-city schools with predominantly African-
American enrollments, to schools in areas of immigrant concentration, to suburban schools where white youths are the majority. This sampling produced significant variation in student socio-economic status (SES) and national origin, and school SES and ethnic composition, allowing for the analysis of variation in a number of adaptation outcomes.

Students were eligible for participation in the CILS if they had at least one foreign-born parent or had been born abroad but came to the U.S. before their tenth birthday. The final sample was evenly balanced by sex and nativity (foreign vs. U.S.-born), with median ages 14 at T1 and 17 at T2, and contained immigrant nationalities proportional to their size in the target school grade. Qualifying students were administered the survey questionnaire in 1992 while in the eighth and ninth grade (T1) and then again three years later during their senior year in high school (T2). The original survey yielded a sample of 2,500 students of which 80% were retrieved in the follow-up, with insignificant bias due to selective attrition. On both occasions, information about the youngster's age, sex, place of birth, and parental nationality, education and occupation was obtained. Additionally, student grade point average (GPA) and standardized Stanford Math test
scores were obtained from school records, along with information on the school’s racial composition (percent black/Hispanic), size of enrollment and proportion of students on government-subsidized lunch.

Hierarchical linear models (HLM) are used to analyze involuntary-minority enrollment effects on the academic performance of second-generation boys relative to girls, net of individual- and school-level differences. In terms of this analysis, the HLM method is superior to ordinary least-squares (OLS) analysis in that the former takes into account the clustered nature of the sample by obeying the statistical assumption of independence among cases drawn from the same school. With HLM, school variables, such as involuntary-minority concentration levels, can assume different values for different schools allowing for a more precise estimation of how this school characteristic affect students. Then, while holding constant student-level variables for all sampled students in the sample of schools, the model reflects how GPA and math scores vary for boys and girls depending on what school the youngster attends. The HLM framework is described next in setting up the analysis.
RESULTS

**Contextual Analysis of Minority Enrollment Effects on the Gender Achievement Gap**

Using HLM we model how oppositional attitudes that may operate through the relative proportion of *involuntary-minority* students in the school affect GPA and Math scores for second-generation *boys* relative to girls, net of individual *and* school SES (see Tables 1 and 2). These models consist of *intra-group* analyses in that the academic performance of a given nationality is compared *across schools* in terms of how it is affected by percent of involuntary-minority enrollment. We present two *separate* models (one respectively for each nationality). In each model, percentage *involuntary-minority* is the proportion of *African-Americans* in the school per records supplied by the school system. The sample consists of all schools in the CILS with sufficient number of students of the respective nationality. The number of sampled students *and* schools at T1 and T2 for each nationality is in parenthesis in the subheadings of each panel.

In analyzing contextual effects on immigrant GPA, the two-level *slopes-as-outcomes* analysis in Table 1 begins with the
formulation of a level-1 equation that corresponds to the student-
level model as follows:

\[ y_{ij} = \beta_0 + \beta_1 (Sex_{ij}) + \beta_2 (SES_{ij}) + \beta_3 (GPA_{iTi}) + r_{ij}, \]

where

- \( y_{ij} \) is the predicted GPA score of student \( i \) in school \( j \);
- \( \beta_{0j} \) is the average GPA score in school \( j \);
- \( \beta_{nj} \) are level-1 regression coefficients for each school \( j \);
- \( Sex_{ij}, SES_{ij} \) and \( GPA_{iTi} \) are level-1 predictors for student \( i \) in school \( j \); and;
- \( r_{ij} \) is a level-1 residual term, normally distributed with mean 0 and variance \( \sigma^2 \).

We then proceed to build a level-2 model, where the "gender coefficient" in the level-1 model (\( \beta_{ij} \)) becomes the outcome variable to be predicted by "percent involuntary-minority" and "school SES" in the level-2 model. Specifically,

\[
\begin{align*}
\beta_{0j} & = \gamma_{00} \\
\beta_{1j} & = \gamma_{10} + \gamma_{11} \times (\text{Involuntary-Minority}_j) + \gamma_{12} \times (\text{SchoolSES}_j) + u_{1j} \\
\beta_{2j} & = \gamma_{20} \\
\beta_{3j} & = \gamma_{30}
\end{align*}
\]

In the level-2 model, \( \beta_{0j} \) is the intercept for school \( j \) and \( \beta_{nj} \) is the \( n \) slope for each school \( j \). Only the sex slope from the level-1 model, \( \beta_{1j} \), varies across schools in the level-2 model as a function of school-level grand mean intercept (\( \gamma_{10} \)) for each school \( j \), school-level coefficients (\( \gamma_{nm} \)) and predictors (\( w_j \)) for each school \( j \), and random effects or residual between-school variances (\( u_{1ij} \)).

---

5 The T2-models in Tables 1 and 2 include the T1 measure analogous to the dependent variable as a student-level predictor. In the model, \( \beta_{ij} \) captures the effect of GPA at T1 on change in GPA at T2.
For our purposes, we rely on the level-2 gamma coefficient $\gamma_{11}$ of the level-1 slope $\beta_{ij}$ to tell us the predicted math score of Cuban and/or Nicaraguan males relative to females$^6$ for various percentages of involuntary-minority enrollment. In doing this, $\gamma_{11}$ captures the "gender gap" in GPA/Math score (i.e., the mean difference in GPA/Math achievement between boys and girls) that results from varying percentages of involuntary-minorities at each school $j$, net of school mean SES and individual sex, SES and prior GPA/math scoring. This two-level model gets nicely at the central question in the analysis which is to ascertain the effect of differing levels of involuntary-minority concentration upon the predicted GPA and Math performance of second-generation boys relative to girls.

The statistical significance and magnitude of $\gamma_{11}$ in the lower panel of Table 1 indicate that involuntary-minority concentration lowers GPA among Nicaraguan males at both time points. Both gamma coefficients are statistically significant ($p<.05$), and have moderately strong effects as they more than double their standard errors. Consistent with the hypothesis, $\gamma_{11T1} = -0.014$ and $\gamma_{11T2} = -0.024$ in the Nicaraguan model indicates that,

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$^6$ Sex is coded 1=male, 0=female.
relative to girls, the predicted GPA of Nicaraguans boys decline by 1/70 of a point at T1 and 1/40 of a point at T2 with every additional percent of involuntary minorities in the school, net of school-mean SES and individual family SES and prior GPA score. Here, a 30% increase in involuntary-minority enrollment in the school at T2, decreases the predicted GPA score of the school’s Nicaraguan males by almost 3/4 of a GPA point (i.e., -0.024 * 30 = -0.72). In comparative terms, such an increase in involuntary-minority enrollment, widens the gender gap in GPA by almost 3/4 of a GPA point, with girls at the top end of that range. There is no minority-enrollment impact on Cuban-male GPA. GPA outcomes are discussed further after considering math test results in Table 2.
Table 1
Unstandardized HLM Estimates of the Effects of Percent Involuntary-Minority Enrollment on Gender Differential GPA Score among Cuban and Nicaraguan Second-Generation Youth:
CILS '92(T1) / '95(T2)

<table>
<thead>
<tr>
<th>Effects of % Involuntary-Minority on Cuban Subsample</th>
<th>Coefficients T1</th>
<th>Coefficients T2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(1155 students, 14 schools)</td>
<td>(882 students, 18 schools)</td>
</tr>
<tr>
<td>Model for Level-1 intercept, $\beta_{0j}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{00}$</td>
<td>2.334 (0.103) ***</td>
<td>2.227 (0.056) ***</td>
</tr>
<tr>
<td>Model for Sex* slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{10}$</td>
<td>-0.171 (0.092) ~</td>
<td>0.017 (0.076)</td>
</tr>
<tr>
<td>%Invol-Minor, $\gamma_{11}$</td>
<td>-0.010 (0.006)</td>
<td>-0.005 (0.006)</td>
</tr>
<tr>
<td>SchSES, $\gamma_{12}$</td>
<td>0.010 (0.002) ***</td>
<td>0.029 (0.012) *</td>
</tr>
<tr>
<td>Model for SES slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{20}$</td>
<td>0.237 (0.056) ***</td>
<td>0.046 (0.028) ~</td>
</tr>
<tr>
<td>Model for GPA-T1 slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{30}$</td>
<td></td>
<td>0.830 (0.031) ***</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effects of % Involuntary-Minority on Nicaraguan Subsample</th>
<th>Coefficients T1</th>
<th>Coefficients T2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(339 students, 14 schools)</td>
<td>(260 students, 16 schools)</td>
</tr>
<tr>
<td>Model for Level-1 intercept, $\beta_{0j}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{00}$</td>
<td>2.425 (0.080) ***</td>
<td>2.306 (0.066) ***</td>
</tr>
<tr>
<td>Model for Sex* slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{10}$</td>
<td>-0.159 (0.116)</td>
<td>-0.030 (0.110)</td>
</tr>
<tr>
<td>%Invol-Minor, $\gamma_{11}$</td>
<td>-0.014 (0.007) *</td>
<td>-0.024 (0.009) *</td>
</tr>
<tr>
<td>SchSES, $\gamma_{12}$</td>
<td>0.006 (0.003) ~</td>
<td>0.016 (0.016)</td>
</tr>
<tr>
<td>Model for SES slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{20}$</td>
<td>0.265 (0.091) **</td>
<td>0.055 (0.091)</td>
</tr>
<tr>
<td>Model for GPA-T1 slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{30}$</td>
<td>0.804 (0.031) ***</td>
<td></td>
</tr>
</tbody>
</table>

Notes: The GPA scale ranges from 0 to 4.5 points. Standard errors in parentheses. *1's male, 0's female; p<.10, *p<.05, **p<.01, ***p<.001

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The analysis of contextual effects on immigrant math performance in Table 2 are identical to those in Table 1 (discussed above), except that the outcome is math test performance instead of GPA. Again, the significance and magnitude of $\gamma_{11}$ in both panels of Table 2 indicate that involuntary-minority concentration lowers Math performance among Cuban and Nicaraguan males relative to their co-ethnic female counterparts. These statistically significant coefficients have strong effects, as they triple and quadruple their standard errors in most cases.

Consistent with the hypothesis, $\gamma_{11|T1} = -0.516$ and $\gamma_{11|T2} = -0.553$ in the Cuban model indicates that, relative to girls, the predicted Math score of Cuban boys decline by more than half a point at both time points with every additional percent of involuntary minorities in the school, net of school-mean SES and individual family SES and prior Math score. Here, a 10% increase in involuntary-minority enrollment in the school at either time point, decreases the predicted Math score of the school’s Cuban males by more than 5 points at either time. In comparative terms, such an increase in involuntary-minority enrollment, widens the “gender gap” in Math performance by more than 5 points, with girls at the top end of that range.
These math results for Cubans also show interesting changes in gender performance over time. The statistical insignificance of $\gamma_{10}$ indicates that the gender gap at T1 is insignificant when there are no involuntary-minorities in the school. Not so at T2 where a significant coefficient ($\gamma_{10}$) suggests that Cuban boys score, on average, 6 points more than girls in schools without minorities. However, as $\gamma_{11}$ indicates, that advantage is lost at a rate of more than half a point per additional percentage increase in minority enrollment.

The Nicaraguan model in the lower panel shows a similar story as well. The $\gamma_{11}$ coefficient for T1 and T2 indicate that, relative to girls, the predicted Math score of Nicaraguans boys decline by more than a quarter of a point at T1 and by more than a third of a point at T2 with every additional percent of involuntary minorities in the school, net of school-mean SES and individual family SES and prior Math score. In this case, a 10% increase in minority enrollment in the school, widens the gender Math achievement gap in detriment of Nicaraguan males by 2.6 points at T1 and by 3.6 points at T2, net of other individual and school factors in the model.
### Table 2
Unstandardized HLM Estimates of the Effects of Percent Involuntary-Minority Enrollment on Gender Differential Math Test Score among Cuban and Nicaraguan Second-Generation Youth: CILS ’92(T1) / ’95(T2)

<table>
<thead>
<tr>
<th>Effects of % Involuntary-Minority on Cuban Subsample</th>
<th>Coefficients T1 (1155 students, 14 schools)</th>
<th>Coefficients T2 (882 students, 18 schools)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model for Level-1 intercept, $\beta_{0j}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{00}$</td>
<td>57.773 (2.458) ***</td>
<td>47.801 (2.334) ***</td>
</tr>
<tr>
<td>Model for Sex* slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{10}$</td>
<td>-3.114 (2.878)</td>
<td>6.017 (2.630) *</td>
</tr>
<tr>
<td>$%$Invol-Minor, $\gamma_{11}$</td>
<td>-0.516 (0.128) ***</td>
<td>-0.553 (0.186) **</td>
</tr>
<tr>
<td>SchSES, $\gamma_{12}$</td>
<td>0.441 (0.048) ***</td>
<td>0.371 (0.260)</td>
</tr>
<tr>
<td>Model for SES slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{20}$</td>
<td>4.149 (1.260) ***</td>
<td>1.522 (1.069)</td>
</tr>
<tr>
<td>Model for Math-T1 slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{30}$</td>
<td>0.325 (0.048) ***</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effects of % Involuntary-Minority on Nicaraguan Subsample</th>
<th>Coefficients T1 (339 students, 14 schools)</th>
<th>Coefficients T2 (260 students, 16 schools)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model for Level-1 intercept, $\beta_{0j}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{00}$</td>
<td>57.111 (2.312) ***</td>
<td>46.977 (2.337) ***</td>
</tr>
<tr>
<td>Model for Sex* slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{10}$</td>
<td>-2.369 (2.763)</td>
<td>0.389 (2.276)</td>
</tr>
<tr>
<td>$%$Invol-Minor, $\gamma_{11}$</td>
<td>-0.266 (0.118) *</td>
<td>-0.360 (0.095) ***</td>
</tr>
<tr>
<td>SchSES, $\gamma_{12}$</td>
<td>0.163 (0.089) ~</td>
<td>0.475 (0.197) *</td>
</tr>
<tr>
<td>Model for SES slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{20}$</td>
<td>3.777 (1.889) *</td>
<td>0.324 (1.653)</td>
</tr>
<tr>
<td>Model for Math-T1 slope, $\beta_{ij}$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept, $\gamma_{30}$</td>
<td>0.268 (0.098) **</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Math Test score scale ranges from 0 to 99 points. Standard errors in parentheses. *'male, 0'female; *'p<.10, *'p<.05, **'p<.01, ***'p<.001
In terms of the hypothesis, the results suggest that there is no significant difference in GPA or math performance between immigrant boys and girls in schools without involuntary minorities. We see this in the statistical insignificance of $\gamma_{10}$ of each model respectively, except for that of Cuban math at T2 which is significant. Yet, the significance of $\gamma_{11}$ obtained in most cases, indicate that as involuntary-minority enrollment goes up, the gender achievement gap widens disfavoring immigrant boys.

DISCUSSION

Drawing insight from classical studies of school contextual effects on student achievement (Coleman, 1961), a basic premise in the analysis is that peer-group composition helps create a certain "normative climate" that affect student academic attitudes and behaviors in schools. These normative patterns influence the school culture by setting into place a set of collective orientations which either advance or frustrate academic achievement. Yet, despite the potentially unfavorable influence that an oppositionally-oriented school context may have on its students’ academic performance (Rodríguez, in press), Cuban and Nicaraguan boys and girls may differ in the extent to which they
are affected by that context, as Hispanic girls receive the kind of community and parental supervision and guidance that may serve as a buffer to assimilation of such influences and their negative consequences on academic progress.

Consistent with this view, the contextual analyses indicate that the predicted GPA and math achievement of Nicaraguan males decline with higher enrollments of involuntary minorities, equalizing for other school and individual variables. This outcome is in agreement with Fernandez-Kelly and Schauffler’s (1994) ideas about how the unfavorable immigrant status of Nicaraguans in the U.S. as well as perceptions of discrimination from the Cuban community in South Florida is channeling second-generation Nicaraguans into a path of downward mobility and to adoption of oppositional attitudes (674, 678).

Fernandez-Kelly and Schauffler (1994) propose that “in the absence of U.S. governmental support to normalize their resident status and hence be able to find gainful employment, Nicaraguans are experiencing a rapid process of downward mobility even though many have middle-class backgrounds.” (674). This loss of status has lead many to feel inferior and “experience a strong dissociational push away from their own national group” (685).
Accordingly, many second-generation Nicaraguans eschew the national identity in favor of the pan-ethnic identity: Hispanic. Bereft of a strong sense of ethnicity and pride of community, Nicaraguan youngsters may be more susceptible to assimilating the adversarial values and attitudes of American marginalized groups. Absorption of these ideas is further facilitated by an intense dislike and distrust for a system that has kept them and their parents from realizing the “American Dream” by frustrating their immigrant status. Fernandez-Kelly and Schauffler (1994) are silent on how this proposition may affect male and female Nicaraguans differently. However, there is reason to think that given community-informed gender socialization differences, boys would be more prone to succumb to such adversarial views as peer pressure increases and parental influence and supervision decreases.

Also in accord with expectations, higher levels of involuntary minority concentration lowers Math achievement among Cuban boys relative to their co-ethnic sisters, adjusting for other school and individual factors. However, unlike Nicaraguans, who are hindered by visa constraints and who are, consequently, economically frustrated with all the ramifications that has for
ethnic pride and group identity, only post-1980 Cuban immigrants come close to sharing that experience. Portes and Rumbaut (2001, p. 261-7) suggest that the relatively harsh government and community reception of Cubans after 1980, as well as the entrants’ lower levels of human capital may render post-1980 Cubans less prepared to face today’s challenges to adaptation. Simply put, the offsprings of that post-1980 wave of Cubans have not had access to the kind of community and family resources that their predecessors had. With parental and community controls no longer as firm as before, the children of more recent arrivals are more open to oppositionally-oriented peer influence.

This is compounded by the fact that Cubans in schools with high concentration of involuntary minorities (which are usually located in the inner-city), apart from being poorer, also do not have as strong connections to the Cuban community as do their cousins who live in the suburbs. Hence, the same type of social capital flowing to Cuban youngsters from tight-knit immigrant communities, where adults may monitor and sanction behavior, may not be as readily accessible in less ethnically concentrated neighborhoods. This suggestion is partly supported by Portes and MacLeod (1996) who, using the same CILS data, found that the
mean math score of immigrant students in South Florida suffers significantly in inner-city schools where minority youth are concentrated (266-267). Unlike the present analysis, however, that study does not consider minority context effect, as it only considers math achievement as a dichotomous effect of attending suburban vs. inner-city school.

CONCLUSION, ANALYTICAL CONCERNS, AND FUTURE RESEARCH

The analyses suggest that oppositional effects that may operate through involuntary-minority concentration in the school have negative consequences for immigrant male achievement. As expected, the GPA and math performance of Nicaraguan and Cuban males suffers in the company of involuntary minorities, net of other school and individual level differences. However, some words on these findings and on key analytical concerns regarding measures of oppositional effects are in order.

These results relate percent involuntary-minority onto outcomes, with only a bare handful of statistical adjustments for possible confounds at both individual and school levels. In doing so, it is assumes that the adversarial values ethnographers attribute
to many involuntary minorities, increasingly dominate school
culture as percent involuntary-minority goes up and that other
school features that might covary with percent involuntary-
minority (e.g., faculty ethnic composition, attitude, training;
conditions of the physical plant and other school resources) do not
account for the relationships documented in the analysis. In sum, it
is well to acknowledge that there is potential slippage between
such ideas at the conceptual level and their accurate
implementation at the level of operations. For a more complete
analysis future research would require that these other contextual
factors be taken into account to observe their interacting influence.
REFERENCES


Rodríguez, Tomás D. (Forthcoming). “Oppositional Culture and Academic Performance Among Children of Immigrants.” *Race, Ethnicity and Education*.


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