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New faces in the classroom:

Teachers' perceptions of students' academic behaviors by nativity and ethnoracial origin

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by

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Dedication

To all of the brilliant teachers in my own life, and especially my own mother, Alicia, from whom I've learned the most.

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Abstract

New faces in the classroom:

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A substantial literature has drawn inconsistent conclusions about bias in teachers' perceptions of minority students and girls. Although the number of immigrant students in U.S. schools is increasing rapidly, research on teachers' perceptions of foreign-born students is lacking. Using a nationally representative sample of U.S. high school students from the Educational Longitudinal Study of 2002, this work evaluates teachers' perceptions of academic behavior by student nativity and ethnoracial identity. Net of objective criteria, teachers disproportionally perceive students as hardworking or passive in ways conforming to ethnic and immigrant stereotypes. These appraisals are highly subject-specific, racialized, and gendered. This work has important implications for the assimilation of immigrant students into the U.S. educational system.

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Chapter 1: Introduction

Foreign-born students comprise a rapidly growing segment of the U.S. education system and bring with them a large degree of geographic, cultural, and racial diversity. Although immigrant students have more ambitious educational goals and optimism about the future than their native-born peers, many struggle according to a variety of academic indicators such as achievement, college enrollment, and high school dropout (Suárez-Orozco *et al.* 2009:153; see also Bohon *et al.* 2006; Kao and Tienda 1995;). Navigating the U.S. educational system presents additional challenges to students in a new and distinct context of social stratification. Because the vast majority of immigrant students were born in Latin America, Asia, and the Afro-Carribean basin, they are vulnerable to racialized stereotyping and discrimination as "new students" (Portes and Zhou 1993). The schools attended by students from immigrant families and the social environments that they experience have been found to have a greater impact on the social mobility of immigrant students than on their native-born counterparts (Hao and Pong 2008; Portes and MacLeod 1996).

Immigrant students' experiences within the U.S. education system often result in stratified outcomes. The segmented assimilation hypothesis has become one of the major frameworks for understanding how some children of immigrant families are able to flourish and achieve upward mobility while others struggle and ultimately, join the bottom rungs of the American class system (Portes and Zhou 1993). One particular component of a positive assimilation process for students is the successful integration into the U.S. educational system, facilitated by supportive relationships with teachers (Hao and Pong 2008; Suárez-Orozco *et al.* 2009). While a small body of research focuses

on students' own perceptions of their teachers and of their experiences of discrimination, little is known about the perceptions held by teachers of foreign-born students.

However, it is well established that teacher perceptions of students' academic merit and behavior do matter. As a key relational aspect of the educational experience of students, teachers' attitudes towards students both mirror and exacerbate inequality. More specifically, studies of native born students in the U.S. have found that teacher attitudes both reflect and contribute to student academic achievement in ways that reflect stereotypes and also social distance between the teacher and student (Alexander *et al.* 1987; Ferguson 2003; Jones and Myhill 2004; Jussim and Eccles 1992; Jussim 1989; McKown and Weinstein 2002; Oats 2003). As Hao and Pong (2009) describe, examining the "black box of intergenerational mobility," requires considering various facets of the structural and relational attributes of the educational process for immigrant students. Thus, researchers should critically and empirically investigate the assumptions or predispositions – positive or negative – that teachers bring to their evaluations of the academic merit of many of the new students in their classrooms.

This work examines one aspect of the relational attributes within a school which may impact student educational and mobility outcomes. Drawing on two pervasive perceptions of immigrant students identified within qualitative sociological research, it asks whether – net of other factors such as academic performance and family background – teachers are more likely to perceive their foreign-born students as (1) more hardworking and (2) more passive when compared to native-born, white students and if teachers' appraisals of immigrant students are consistent with ethnoracial and gender stereotypes. In doing so, this paper takes an important first step in empirically assessing how teachers' attitudes towards students' academic behaviors are associated with a

complex set of demographic characteristics including student nativity, ethnic or racial background, and gender.

Chapter 2: Empirical and Theoretical Background

For immigrant students, schools have both structural and relational attributes which affect their incorporation into U.S. society. Structural factors that impact the mobility of foreign-born students include school sector, curriculum, programming, and enrollment composition (Hao and Pong 2008; Portes and MacLeod 1996). These stand in contrast to relational attributes such as commitment to academic standards, a sense of collective responsibility, and bonds between student and educators (Hao and Pong 2008). Some have argued that the relational engagement between students and teachers in the school environment is important for all students but vital to marginalized students generally and immigrant students in particular (Suárez-Orozco *et al.* 2009).

Ample research has established the importance of teachers' perceptions of students as one type of relational attribute; however, interpreting the causes and repercussions of variation in these perceptions is widely debated, particularly when they deviate from other performance indicators (for discussions see: Baron *et al.* 1985; Brophy 1983; Dusek and Joseph 1983). In such cases, teachers' appraisals of students may create self-fulfilling prophecies which shape later student academic outcomes, perceptual biases reflecting larger cultural stereotypes, and/or accurate measurements of students' ability and potential. In a comprehensive examination of these three competing explanations, Jussim (1989) concludes that teachers' perceptions of student performance are largely accurate but points out that more subjective attributes such as student attitudes and personality dispositions may be perceived less accurately and that these "measurement errors" by teachers may result in large differences over time. In a subsequent analysis, Jussim and Eccles (1992:954) establish that teachers' perceptions of hard work were highly subject to bias and that "[these] were minimally related to students' global self-

perceptions of effort, how much time they spent on homework, or their self-perceptions of [ability]". Thus, while teacher perceptions of student attributes that are more closely related to academic performance are mostly consistent with other ability indicators, perceptions relating to more subjective, behavioral criteria are less dependable to accurately depict the reality that they help to influence. In these cases, perceptions of students by teachers may reflect existing cultural stereotypes and may be divorced from other relevant measures of student behavior.

Several studies have shown the divergent impacts of teacher perceptions for minority, low socioeconomic status (SES), and other stigmatized groups compared with other, advantaged groups. Matching between students' and teachers' ethnoracial and class background was found to affect teachers' perceptions of student maturity and potential so that in first-grade classrooms with high-SES teachers, low-SES and minority students received lower final grades and exam scores (Alexander et al. 1987). McKown and Weinstein (2002:174) found an effect that increased with grade-level whereby "children who are members of academically stigmatized groups (African-American children, and girls with respect to math) are more likely than children who are members of nonstigmatized groups (Caucasian children and boys) to confirm teacher underestimates of ability and less likely to benefit from teacher overestimates of ability" (2002). Similarly, racial congruence was found to shape teachers' perceptions of diligence among high school students and also the impact of these perceptions on performance (Oats 2003). Generally, the extent to which teacher perceptions vary across groups from other measurable performance or behavioral indicators is interpreted as bias (Alvidrez and Weinstein 1999; Downey and Pribesh 2004; Ehrenberg et al 1995; Ferguson 2003; Tiedemann 2002).

Researchers have measured not only the way that teachers' perceptions vary with respect to teacher-student congruence but also the way in which patterns of variation conform to ethnoracial or gender stereotypes. Tiedemann (2002) found that for low- and moderately- achieving students, stereotypes held by teachers regarding gender differences in math ability affected the teachers' perceptions of ability and effort. Other studies have revealed how teachers' perceptions of student effort and performance conform to stereotyped expectations that girls sought to be high achieving through effort and boys through natural ability, particularly in math (Fennema et al. 1990; Jones and Myhill 2004). Alternatively, in interviews with teachers, researchers found strong, positive stereotypes of Chinese boys as good and serious students while Chinese girls were seen as "repressed" and "passive" by the teachers (Archer and Francis 2005). Although the study took place within a British context, the content of the racialized and gendered assumptions regarding Chinese immigrants are in-line with what has been termed the "model minority" stereotype in the U.S. This refers to the idea that, "Asian Americans are successful in school because they work hard and come from cultures that believe in the value of education" (Lee 1994:413). In these studies, behavior that deviated from the teachers' stereotypes was interpreted by the teachers as an unusual departure from the rule, but not as disruptive or undermining to their stereotyped expectations.

Research has shown that teachers' stereotyped perceptions greatly impact students' educational behavior, performance, and attitudes. Urban education research has revealed substantial hostility between Latino/as, African-American students, and Asian immigrants based on perceived differential treatment and expectations from teachers and other adults (Katz 1999; Rosenbloom and Way 2004). Specifically students' beliefs that teachers prefer Asian students and see Latino/a students as delinquent, passive, and lazy has been identified as a contributing factor to Latino boys' disengagement from school

(Katz 1999). Generally, "immigrant boys tend to have fewer meaningful relationships with their teachers and perceive their school environments to be less supportive than their sisters" (Suárez-Orozco *et al.* 2009:155). In fact, for Latino boys, experiences of discrimination reduced academic motivation and resulted in lower academic performance both concurrently and over time (Alfaro *et al.* 2009). By contrast, interviews with Asian students regarding their teachers' stereotyped perceptions of them revealed both a widespread awareness of the stereotype and substantial variation in attitudes toward being perceived as "model minorities" (Lee 1994). While some students felt pride and motivation, others expressed frustration, anxiety, fear of failure, and academic disengagement (Lee 1994). Thus, two of the principal cultural stereotypes emerging from qualitative work surrounding teachers' perceptions of minority and foreign-born students are the themes of the hardworking, Asian immigrants juxtaposed with passive, Latino/a students.

In sum, numerous studies have examined how teachers' gender and racial stereotypes affect their interpretations of students' classroom behavior and performance and further, how these perceptions affect student outcomes. However, while these studies are helpful for understanding how teacher perceptions of diverse groups of students vary, no nationally-representative studies could be found which considered ethnoracial identity as a moderating factor in assessing divergent teacher perceptions of the academic behaviors of foreign-born students. As a fundamental relational attribute of schools that impacts the incorporation of immigrants into the educational system and U.S. society as a whole, it is imperative to identify the degree to which teachers may maintain perceptions of immigrant students which are more reflective of the cultural stereotypes and less attributable to objective, performance related measures and self-reported learning behaviors.

Chapter 3: Research Objectives

The purpose of this thesis is to assess variation in teachers' perceptions of students' academic behavior by immigrant status and ways that their attitudes may conform to ethnic or racial stereotypes and /or vary by student gender. Simply put, net of a students' previous academic performance and self-reported behaviors, is there evidence that high school English and math teachers perceive immigrant students as more hardworking or passive than U.S.-born students? If so, do the odds of an educator identifying a immigrant student as hardworking vary based on (a) ethnoracial identity and (b) student gender?

Four considerations from social science research in this area affect the expected findings. First, some evidence suggests that teachers have a tendency to maintain a "positive bias" for students who they perceive as working and succeeding against the odds. Researchers have shown that limited English proficiency (LEP) teachers may overstate the ability of their students, net of other factors (Marks and Heffernan-Cabrera 1977) and that math and science teachers give higher evaluations of student effort to female students relative to their male peers with respect to measured performance (Ehrenberg *et al.* 1995; Fennema *et al.* 1990). Second, evidence for the Asian "model minority" stereotype and for varied attitudes towards Latino/a students is pervasive in qualitative research in this area (Ford 1984; Katz 1999; Rosenbloom 2004). Additionally, teachers' perceptions of students have been shown to be highly gendered (Archer and Francis 2005; Ehrenberg *et al.* 1995; Jones and Myhill 2004; Jussim 1989; McKown and Weinstein 2002; Tiedemann 2002), with a general tendency to view immigrant girls as more hardworking in school than immigrant boys (Qin-Hilliard 2003). Finally, researchers have shown that teachers' perceptions of students in more objective

disciplines like math are generally more based on past academic performance and that perceptual bias is more likely in a more subjective context – in this case, perceived hard work or passivity in English (Jussim and Eccles 1989; Jussim 1992).

Taken cumulatively, I expect that net of other factors, teachers perceive their foreign-born students to be more hardworking in ways which conform to the Asian "model minority" stereotype. Further, I expect female immigrants to be seen as more hardworking than their brothers but that Asian girls and Latino boys may be perceived as particularly passive. Finally, I expect that these variations in teachers' perceptions of hard work and passivity will be more pronounced in a more subjective context like English than in the math classroom.

Chapter 4: Data and Methods

DATASET AND SAMPLE SELECTION

The Educational Longitudinal Study of 2002 (ELS:2002) is an ideal dataset for answering the questions driving this work. ELS:2002 is a nationally representative, longitudinal survey which followed a cohort of over 15,000 students at both public and private U.S. high schools biannually. The base year interviews were conducted in the spring of 2002, at which point the students were high school sophomores. In the base-year sample, the study includes data from 15,244 students nested in 750 schools. In addition to the comprehensive student surveys, ELS:2002 includes questionnaires completed by one of the student's parents or guardians, his or her math and English teachers, and school administrators. Transcript data for all academic courses and a standardized cognitive test with both reading and mathematics components were included for each student as well. Further, there is an oversample of Asian students which facilitates more robust modeling and comparisons across ethnoracial groups.

Because the study at hand is concerned with teachers' perceptions of students by nativity and ethnoracial origin, students were excluded from analysis if their place of birth was unknown. Student nativity was obtained from the parental surveys in the base year which asked the parent completing the questionnaire to report if his or her son or daughter had been born in the U.S., Puerto Rico, or another country. Excluding students with unknown nativity reduced the sample to 12,810 eligible students from the 14,664 full-survey, base year respondents. The majority (n= 1,801) of the 1,854 students removed from the ELS:2002 sample had parents who did not complete the questionnaire, making it impossible to determine their nativity. Similarly, students who did not have at least one teacher completing a questionnaire on their behalf or whose teacher responses

were missing on all outcomes under study were also excluded, reducing the final sample to 11,804 students.

A selectivity analysis was done to evaluate the effect of eliminating students lacking sufficient teacher responses on the distribution of a few key student characteristics across the ELS:2002 sample. Students missing a teacher report are disproportionately non-white, low scoring on standardized exams, and from families with lower levels of parental education (p < 0.0001). Additionally, while approximately 10% of students in ELS:2002 with teacher reports were born outside the United States, approximately 15% of those lacking a teacher report were foreign born (p < 0.0001). Thus, students traditionally privileged by social class within the educational system – non-immigrant, white, and high-achieving students from families with substantial human capital – are overrepresented among students with teacher reports in ELS:2002.

STUDENT CHARACTERISTICS

The weighted descriptive statistics for the final sample are included in Table 1, which reports frequencies separately by student nativity. Nearly 10% of the 11,804 students are foreign-born. Given the shared experience of immigration, students born outside of the U.S. and in Puerto Rico are considered foreign-born, immigrant students. Of the foreign-born students, 13% are white compared with 65% of the native-born students. Black students make up less than 6% of the foreign-born population, but 13% of the native-born student population. Reflecting the tremendous diversity of foreign-born students in the U.S., 36% and 40% of the immigrant students are Latino/a and Asian, respectively. The comparable percentages among native-born students are 11% and 5%, respectively. Note that Latino/as in this analysis may be of any race, and all other

categories exclude Latino/as (e.g., white, non-Hispanic). Approximately 5% immigrant and native-born students are of another race. This group includes both multi-racial students as well as students who are Native American or Alaska Native.

One would anticipate that academic performance and family socioeconomic characteristics would account for substantial proportions in the variation of teacher perceptions across these nativity groups. Foreign-born students on average score 48.38 (SD = 10.64) on the composite standardized math and reading exam as opposed to an average of 51.77 (SD = 9.82) among native-born students. The exam administered by ELS:2002 maintains a national mean of 50.0 and a standard deviation of 10; thus, foreign-born students have a tendency to score a bit lower overall but with more variability than their native-born peers. Fourteen percent of foreign-born students, compared with 9% of native-born students, were missing transcript data for GPA. In these cases, the mean GPA of 2.61 was imputed. In contrast to standardized exams, immigrant students had slightly higher GPAs from their 9th grade courses – the year prior to the ELS:2002 interviews – when compared with native-born peers (M = 2.69 and M =2.66, respectively). A slightly smaller proportion of immigrant students have at least one college educated parent (41%) than students born in the U.S. (42%). Socioeconomic status as measured in ELS:2002 captures aspects of parental occupational prestige, education, and income about both of the students' parents and ranges from -2 to approximately 2 with an average score of 0. Foreign born students generally have lower and more varied socioeconomic statuses (M = -0.020, SD = 0.87) compared with native born peers (M = 0.110, SD = 0.73). Finally, 91% of native-born students and only 25% of foreign-born students are native English speakers.

SCHOOL CHARACTERISTICS

Teachers' perceptions of students' academic behaviors may be affected by the school context in which they are situated. To account for school to school variation in diversity, academic rigor, and socioeconomic status, models will include the percentage of students who are foreign-born and minority, as well as the proportion of graduates who typically enroll in four year colleges. Non-immigrant students on average attend schools with 6% foreign-born student enrollment and schools in which 29% of students are nonwhite. By contrast, immigrant students' schools are characterized by higher proportions of both foreign-born students (21%) and minority students (49%). The student sampling weight was used to aggregate student-level data into school-level measures of the proportion of students who were foreign born within each school. For the 2% of nativeborn students and 1% of foreign-born students missing data on school-level minority enrollment, the mean percentage (33.74%) was imputed. Finally, just over 25% and 30% of native- and foreign-born students were missing data for the proportion of graduates who attended four year colleges, a useful proxy for academic rigor and school-level socioeconomic status. In these cases, the modal interval of 4 (25-49%) was imputed. Less than 1% of the schools in ELS:2002 had none of their graduates attend four year colleges, 3% sent 1-10% to four year colleges, and 9% sent 11-24%. The remaining 60% of ELS:2002 schools were divided fairly evenly between the 25-49%, 50-74%, and 75-100% intervals. In sum, these descriptive statistics show that the schools attended by immigrant students are characterized by larger degrees of ethnoracial and immigrant diversity but with levels of academic rigor and school-level socioeconomic status that are similar to those of native-born students.

STUDENT SELF-REPORTS OF WORK ETHIC

Students in ELS:2002 responded to a number of attitudinal measures regarding hard work, persistence, and confidence in their ability to perform well academically. Several of these measures lend themselves particularly well to creating an index of student work ethic. Such a measure is desirable for two reasons: first, to evaluate the degree to which teachers and students simply 'agree' on students' learning behaviors and second, to identify if variation in teachers' perceptions of hard work or passivity can be accounted for by student perceptions.

The particular items included in the measures are detailed in Table 2, which also reports the Cronbach's alphas for the subject-specific indices. Both scales include a core series of five items to which the student responded "almost never," "sometimes," "often," or "almost always." The English-specific scale includes two additional measures to tap into subject-specific attitudes: "I'm certain I can understand the most difficult material presented in English texts," and "I'm confident I can do an excellent job on my English tests." Similarly, the math-specific scale includes additional math measures identical to those for English. Both indices were created on a 0-3 scale based on the arithmetic mean of each sequence of seven items. These indices have very strong Cronbach's alphas of 0.863 for English and 0.852 for math. Due to the positive skew of this distribution, students missing four or more per scale were assigned the modal score of 1. Referring back to Table 1, one can see that foreign- and native-born students have identical measures of work ethic in English (M = 1.59, SD = 0.66) and that in math, immigrant students report slightly more positive academic behaviors (M = 1.56, SD = 0.64) than their native-born peers (M = 1.53, SD = 0.64). Thus, students appear to have very similar distributions of self-reported work ethic with respect to math, regardless of nativity.

TEACHER PERCEPTIONS

The teacher questionnaires in ELS:2002 include a series of questions about his or her student's academic behavior and potential, relationships with peers within school, familial and social context, and well-being. The outcome variables for the subsequent modeling will be dichotomous variables taken from both math teachers and English teachers in the base year. Teachers were asked, "does this student usually work hard for good grades in your class?" and, "is this student exceptionally passive or withdrawn in your class?". Teachers were allowed to report "yes," "no," or "I don't know." For the purposes of this study, the categories of "no" and "I don't know" will be collapsed to compare the odds of a teacher reporting that the student is hardworking or passive in comparison to the other two potential responses. From a survey design perspective, these measures represent two of the very first substantive questions asked of teachers about their students after the teachers reported when he or she taught the student, and how well they remember the student. Thus, there was very limited priming of the teacher in terms of having already thought about more specific aspects of the student. As shown in Table 1, English teachers reported that 69% of their U.S. born students and 74% of their foreign-born students were hardworking, but perceived 12% of U.S.-born and 19% of immigrant students as exceptionally passive. In comparison to English teachers, math teachers report native and foreign-born students as hardworking at more similar rates, 68% and 71% respectively. The same pattern was observed with regard to passivity among native-born (12%) and foreign-born students (18%).

While all models will compare the tendency for teachers to perceive students as hardworking or passive, some interesting patterns reveal themselves in the teachers' patterns of responding, "I don't know," to the question on hard work or passivity. English teachers were more uncertain of the hard work of their U.S.-born students and also their

students from less educated families (p < 0.0001). By contrast, math teachers were less likely to report if females were hardworking (p < 0.01). Specifically, while 50% of students whose teacher provided a yes/no response were female, 60% of students whose math teachers responded, "I don't know if this student works hard for good grades," were girls. English teachers showed no differences in reports of not knowing if the student was exceptionally passive by parental education, race, gender, immigrant status, or standardized exam performance. However, math teachers were less likely to report not knowing about the passivity of non-white students such that 60% of students with a "yes" or "no" response but only 37% of students with a "don't know" response were white (p < 0.0001).

ANALYTICAL APPROACH AND MODEL BUILDING STRATEGY

Weighted logistic regression will be used to separately evaluate for English and math teachers, how the different student and school characteristics described above affect the odds of a teacher perceiving his or her students as (a) hardworking or (b) passive. To obtain the most accurate estimates and facilitate interpretation of results, all continuous and ordinal variables will be centered around the grand mean. The baseline model will simply include nativity status, gender, and ethnoracial group. Subsequent models identify the extent to which academic performance and SES related indicators account for teacher perceptions. To gauge the effect of students' self-report of work ethic on teachers' perceptions, model three includes the appropriate student-reported index. Model four incorporates school-level predictors which may account for the contexts in which students experience increased or decreased odds of being perceived as hardworking or passive. Finally, model five includes interaction effects for ethnoracial group and nativity to see if attitudes towards immigrants are dependent on the race or ethnicity of the

student. The first series of models will include both males and females, but models six and seven will be sex-specific to male and female students, respectively. Finally, the extent to which the models account for variation in teachers' perceptions, or the goodness of fit, will be considered.

Teacher bias becomes a strong possibility where other factors including test-score and previous performance differences, family socioeconomic status, and school context are unable to account for variation in teachers' perceptions of students. Ultimately, this paper will consider whether teacher perceptions are affected by student nativity and ethnoracial identity and whether these perceptions are consistent with larger cultural stereotypes toward immigrant students. Put simply, inequitable odds of a teacher identifying a student as hardworking or passive – net of other factors – lends support to the existence of bias toward students based on their nativity and/or ethnoracial background.

Chapter 5: Results

TEACHERS' PERCEPTIONS OF HARD WORK

Tables 3a and 3b report the odds ratios for English and math teachers, respectively, agreeing that the student usually works hard for good grades. In the baseline model, the odds that an English teacher perceived a student as hardworking were approximately 30% greater for foreign-born students. No effect was observed in the baseline model of math teachers' perceptions of immigrant students. The odds of a female student being seen as hardworking were twice that of boys in both classroom contexts (ORE = 2.182, p < 0.001; ORM = 2.043, p < 0.001). With regard to overall perceptions of black and Latino/a students, the odds that their English and math teachers reported them as hardworking were nearly 45% and 35% less than their white peers, respectively. The odds for students of other races – i.e. multi-racial and Native American or Alaska Native students – were lower than their white peers in both teacher reports but an additional 10% lower than whites in English (ORE = 0.588, p < 0.001; ORM = 0.679, p < 0.001). By contrast, English teachers had 37% greater odds of reporting Asian students as hardworking compared with whites. Asian students were no more likely than white students to be perceived as hardworking by math teachers. Thus, the baseline model showed that English and math teachers' perceptions of hard work varied substantially by nativity, ethnoracial identity, and gender.

Model 2 incorporates measures of academic experiences and family background, factors that one would expect to be strongly associated with teachers' evaluations of student hard work. Not surprisingly, test scores were strongly associated with the perception of hard work such that for the average student, a ten unit increase in standardized test score (or one standard deviation) enhanced their odds of a positive

report of hard work from their teacher by approximately 15% in English and 20% in math. Similarly, a one unit increase in 9th grade academic GPA was associated with over a 200% increase in the odds of an English teacher reporting the student as hardworking and a 180% boost in the odds among math teachers. Neither parental education levels nor family socioeconomic status predicted perceptions of hard work in English. Contrastingly, having a college-educated parent was associated with a 16% increase in the odds that a math teacher perceived a student as hardworking. Non-native English speakers had odds that were approximately 20% greater than native English speakers that they would be perceived by their teachers as hardworking in English class.

Most important in model 2 is the reduction or elimination of some of the ethnoracial effects seen in model 1. Specifically, net of academic indicators, Latino/a and Asian students had odds that were no different from their white peers of being seen by English teachers as hardworking. However, other things being equal in model 2, English teachers actually had higher odds of reporting that black students were hardworking (OR = 1.818, p < 0.001). The positive effect of being a non-native English speaker eliminated the previously observed effect for foreign-born students in English. Further, including these measures reduced the enhanced odds of girls but did little to account for the reduced odds experienced by "other race" students in these classrooms. In math, however, considering academic performance eliminated all disparities in teacher perceptions of minority students and decreased the odds of teachers' perceiving hard work among girls by 40%.

As one would expect, the students' self-reported work ethic index was strongly predictive of teachers' perceptions of hard work in both English and math ($OR_E = 1.69$, p < 0.001; $OR_M = 1.80$, p < 0.001). However, including the highly predictive students' self-report scale did little to reduce the effects of academic and family indicators in both

contexts. However, while black students were no longer more likely to be perceived as hardworking net of student self-report in English, the effect for students of the "other race" group persisted. Thus with a few exceptions, accounting for previous academic performance and student self-reports of work ethic eliminated differences in teachers' perceptions of hard work with respect to student nativity and ethnoracial group in math and English.

Finally, model 4 incorporates school level predictors into the models. The percentage of minority students enrolled in a school was associated with more positive perceptions of students as hardworking by English teachers, net of other academic indicators. Incorporating these school –level effects did little to affect the parameter estimates for the effects of other measures; however, it eliminated the effect of being a native English speaker in English. School level measures were not predictive of teacher perceptions in math. Finally, in model 5, no interaction effects were found for immigrant students by ethnoracial origin with respect to the odds of being perceived as hardworking by English and math teachers.

GENDERED PERCEPTIONS OF HARD WORK

Because of the extremely disproportionate odds that girls will be seen as hardworking with respect to their male peers in both English and math, it is worthwhile to reproduce both sets of final models to estimate the foreign-born and ethnoracial effects separately by gender. Model 6 and 7 in Table 3A depict the results for boys and girls separately. In English, teachers' perceptions revealed themselves to be highly gendered. Foreign-born boys who are white, Asian, or black had odds of being perceived as hardworking that were twice as high as white, native-born boys. By contrast, foreign-

born Latino boys had odds that were 10% lower than white immigrants (p < 0.05), and boys of other races were 40% less likely to be perceived as hardworking than whites. When considering boys alone, only 9^{th} grade academic GPA and student self-reports of work ethic predicted teacher perceptions; test scores and percent minority enrollment were not associated with teachers' attitudes toward students' hard work.

English teachers perceptions of girls are presented in Table 3a, model 7. White, foreign-born girls and immigrant girls of other races had odds of being perceived by their English teacher as hardworking that are 55% lower than white, non-immigrant girls (p < 0.05). Net of other factors including previous academic performance, self-reported work ethic, and family background, U.S.-born Latina girls were 40% less likely than nativeborn white girls to be perceived as hardworking (p < 0.001). Latina immigrants, by contrast, had odds that were 22% lower than native-born white girls of being perceived as hardworking¹. Black, female immigrants had a 43% odds increase and foreign-born Asian girls had 91% higher odds above that of white, U.S.-born girls (p < 0.05). As in the overall model, student self-reports, 9th grade academic GPA, standardized test scores, and percent minority enrollment all were predictive of teachers' perceptions. Additionally, across models, the significant effects of GPA and student self-report were similar for boys and girls. It is worth noting that despite these strong, racialized effects for girls, being a native English speaker is not predictive of teachers' perceptions of hard work in English. Figure 1 shows these ethnoracial and nativity patterns of English teachers' perceptions of hard work.

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 $^{^1}$ Odds ratios for a combination of coefficients from Tables 3a and 3b were obtained by multiplication. For example, the odds that an English teacher reported a female Latina immigrant as hardworking were obtained from the estimates from Table 3a, model 7: OR(Immigrant)= 0.428, OR(Latino/a) = 0.593, OR (Immigrant x Latina) = 3.072. Thus, the combined odds for a female Latina immigrant are 0.428 x 0.593 x 3.072 = 0.780 (ref: white non-immigrant females). This technique was used to produce Figure 1 (p. 25).

The perceptions of math teachers were far simpler. Models 6 and 7 in Table 3b show no differences in teachers' odds of reporting students as hardworking by ethnoracial group or immigrant status. However, a few results are worth noting. First, 9th grade GPA and student self-report had a larger effect on teachers' perceptions of girls than boys. For a boy with the mean GPA, a one unit increase in grade point average was associated with a 135% increase in odds; the respective increase for a girl was 290%. Similarly, a one unit increase in math self-reported work ethic enhanced teachers' odds of perceiving a student as hardworking by 60% for boys but 114% for girls. Second, percent immigrant students in a school had no effect on the odds of a boy being seen as hardworking but a 10% increase in foreign-born student enrollment was associated with a nearly 10% reduction in the odds of a girl being perceived as hardworking by her math teacher. Additionally, for boys only, having a college educated parent boosted the odds of being perceived as hardworking by 30% compared with boys with no college educated parent. Finally, while models 6 and 7 accounted for similar proportions in the variation of teacher reports for boys and girls (26% and 29%, respectively), in English, the mathspecific models accounted for only 22% of the variation in teachers perceptions of boys but 29% of the variation in perceptions of girls.

TEACHERS' PERCEPTIONS OF PASSIVITY

Tables 4a and 4b replicate the previous models used to predict teachers' perceptions of student hard work for teachers' perceptions of student passivity. Whereas model 1 in Table 3a and 3b and showed that foreign born students had greater odds of being seen as hardworking by English teachers, model 1 in Table 4a and 4b shows that foreign-born students had odds of being seen as passive that were 26% and 28% greater than non-immigrant peers in English and math, respectively (p < 0.05). Females in both

contexts had lower odds of being perceived as passive or withdrawn compared with males ($OR_E = 0.844$, p < 0.01; $OR_M = 0.717$, p < 0.001). In the baseline model, non-white students had higher odds of English teachers perceiving them as passive. For blacks and Latino/a students, the respective odds that they will be perceived as passive were 19% and 27% greater compared with whites in English; by contrast the odds were 69% and 63% greater for Asian students and students of other races compared to white students, respectively. In math, only Latino/a students had greater odds of being perceived as passive compared to whites. Specifically, the odds were 47% greater for Latino students in the baseline model.

Model 2 in Tables 4a and 4b incorporated indicators of student academic performance and family background. As I expected, students who were high-achievers were less likely to be appraised as passive by their teachers. A student with a test score ten points above the mean had odds 14% lower than a student with the mean score of being perceived as passive by both English and math teachers. A one unit increase in GPA above the average GPA of 2.66 resulted in a 29% reduction in odds in English and 35% reduction in Math that the student was seen as passive by his or her teacher. Finally, only in English was a higher family socioeconomic status associated with a decrease in odds of being perceived as passive (OR = 0.837, p < 0.01). Neither parental education level nor native language resulted in differences in teacher perceptions in this model.

Net of these factors, foreign-born students were no more likely than their native-born peers to be seen as passive. While girls still had odds of being perceived as passive in math that were 18% lower than boys, there was no difference in odds associated with gender for English teachers' perceptions. Taking previous academic performance and family SES into account eliminated the effect associated with being Latino/a in both English and math. Further, with these factors considered, the trend reversed for black

students so that a black student with an average GPA and standardized exam score had odds about 25% less than those of white students of being perceived as passive compared in both English and math. English teachers maintained variation in perceptions based on ethnoracial identity and family background. Specifically, the odds were 72% greater for Asian students and 36% greater for students of other races that they will be perceived as passive.

Incorporating the student report of work ethic reduced some of the variation in teacher perceptions across student groups and further reduced the impact of GPA, standardized test scores, and SES. Recall that the self-reported index includes measures of study habits, subject-specific confidence and effort. Thus, a one unit increase in the student reported work ethic index was associated with a 23% reduction in English and a 35% reduction in math of being perceived as passive or withdrawn in class. Non-native English speakers had odds of being perceived as passive that were 20% greater than native English speakers net of performance, family background, and self-reported work ethic. Note that student nativity still had no impact on teachers' appraisals of passivity in either model; however, the vast majority of non-native English speakers are foreign-born students. Beyond this provocative exception, including students' measures of work ethic in model 3 does little to alter the effect of the other factors in the model.

Finally, models four and five included school-level predictors and interaction effects for students by nativity and ethnoracial group. Including the percentage of students who attend four year colleges in the model decreased the reduction in odds of being perceived as passive in math experienced by black students and those with lower 9th grade GPAs, net of other factors. In schools where more students attend college, teachers had greater odds of perceiving students as passive (OR = 1.091, p < 0.05). Further, including school-level predictors in model 4 eliminated the increased odds of

being perceived as passive experienced by non-native English speakers in math. Interaction effects between ethnoracial identity and nativity were not significant in model 5 for math or English. Ultimately, English teachers odds of perceiving students' as passive decreased 22% for students who were black compared with whites and 14% for students who were of high familial socioeconomic status compared with the mean. High achieving students – as measured by test scores and 9th grade academic GPA – and those who self-reported a high degree of work ethic were also less likely to be seen as passive by English teachers. English teachers had higher odds of perceiving Asian students (71%) and students of other races (42%) as passive. By contrast, math teachers had 36% lower odds of perceiving female students as passive and 22% lower odds of seeing black students as passive, compared with males and whites, respectively. As in English, high-achieving students and those who reported higher degrees of work ethic were less likely to be perceived as passive by math teachers, net of other factors. Finally, in schools where more students attend four year colleges, math teachers had higher odds of reporting students as passive (OR = 1.092, p < 0.05).

GENDERED PERCEPTIONS OF PASSIVITY

Comparing models 6 and 7 across table 4a and 5b reveals that net of other factors, there were no differences for foreign-born students, regardless of race, in the odds of being perceived as passive compared to their native-born peers. However, there were significant, gendered patterns in terms of teachers' perceptions of passivity for minority students in English. In this context, Asian boys had odds double those of white boys for being perceived as passive. Boys of other races had odds 50% greater than white boys. For girls, there were no effects for Asians, Latinas, or girls of other races. However, net

of other factors, black females had odds of being perceived as passive by English teachers that were 30% less than white females. Ninth grade GPA and standardized test scores similarly predicted teacher perceptions for boys compared with girls. However, higher values of student self-report showed a larger reduction in teacher perceptions of passivity in the boys-only model (OR = 0.272, p < 0.001) than in the girls-only model, where the effect was weaker (OR = 0.820, p < 0.05).

Gender-specific models 6 and 7 in table 4b showed no variation across immigrant status or ethnoracial identity groups for students in the odds of their math teachers perceiving them as passive. In this context, teachers' perceptions were associated with academic performance, student self-reports, and in some cases, school level predictors. A few gendered patterns are worth noting. First, test scores showed no association with teacher perceptions net of other factors for boys. For girls however, a 10% increase in standardized test score from the mean resulted in a 20% reduction in the odds of being perceived as passive by her math teacher. GPA and student self-reported work ethic were associated with a larger reduction in odds for boys ($OR_{GPA} = 0.692$, p < 0.001; $OR_{WorkEthic} = 0.587$, p < 0.001) than for girls ($OR_{GPA} = 0.757$, p < 0.001; $OR_{WorkEthic} = 0.712$, p < 0.001). Finally, while larger proportions of school-level foreign-born student enrollment increased the odds that a boy was seen as passive in math; increasing the number of students from a school who attended four-year colleges increased the odds that a girl will be seen as passive by her math teacher.

Chapter 6: Discussion and Conclusion

This thesis set out to assess the degree to which teachers' perceptions of students' academic behaviors showed variation based on nativity and if so, how educators' opinions of their students vary based on student ethnoracial group and gender. Further, it asked, do variations in teachers' reports of students hard work and passivity reflect existing cultural stereotypes regarding immigrants, racial and ethnic minorities, and girls? Finally, the analysis done here was also particularly concerned with how teachers' perceptions reflect different classroom contexts in English and math teachers' appraisals of students.

Findings show that teachers show variation in their appraisals of students associated with nativity, ethnoracial identity, and gender. Foreign-born tenth graders are more likely than native-born students to be perceived as hardworking by their English teachers and as passive by both their English and math teachers. However, when one takes into consideration previous academic performance as measured by 9th grade academic GPA and standardized exam scores, as well as family socioeconomic background and native language, the variation attributable to student nativity is effectively explained away. In all cases, a student's self-reported work ethic is highly predictive of teachers' appraisals, suggesting that teachers are largely accurate in their perceptions of student effort (hard work) and engagement (passivity). With all students taken together and net of academic performance, family background, self-reported work ethic, and school-level indicators of academic rigor and SES, no evidence was found that teachers' perceptions of foreign-born students are systematically different from those of non-immigrant students.

However, all things considered, teachers' perceptions of students do vary with regard to student demographics. Black students are less likely to be seen as passive by their English and math teachers. Asian students and multiracial or Native American students are more likely to be seen as passive by their English teachers. Additionally, teachers' appraisals of students are highly gendered. While academic, SES, and school-level controls diminish some of the initial tendencies of teachers to perceive girls as more hardworking and less passive, strong effects remain in three of four measures of teachers' perceptions. Female students have odds 80% greater than male students of being perceived as hardworking in both math and English and odds 20% less than males of being perceived as passive by math teachers. Thus, it appears that among the salient student characteristics that may help to form teachers' perceptions, student gender is far more influential than student nativity, overall.

When one probes deeper into the gendered tendencies of teachers' to perceive girls as more hardworking or more passive (except in math), one finds a complexity of nativity and ethnoracial effects in terms of students' odds of being perceived as hardworking or passive by their English teachers. Among boys, immigrants have more than double the odds of being perceived as hardworking compared with non-immigrants, other things considered. However, while Latino non-immigrant boys have the same odds as white non-immigrant boys of being perceived as hardworking, the odds for Latino immigrants are 10% less compared with their native-born peers. Further, boys of other races have odds 40% less than other boys of being perceived as hardworking. Additionally, while English teachers show no differences in the odds of perceiving immigrant boys as passive compared with non-immigrant boys overall, Asian boys and boys of other races have odds that are 100% and 56% those of white boys, respectively.

English teachers perceive immigrant girls in ways which are highly dependent on ethnoracial identity. Specifically, while white, immigrant girls have odds nearly 60% less than their non-immigrant counterparts, Asian girls and black girls who are foreign-born have odds 91% and 43% higher, respectively than non-immigrant whites. For Latina girls, native-born students have odds 40% less than native-born whites of being perceived as hard-working net of other factors. The odds for Latina immigrants are only slightly better; other things considered, foreign-born Latinas have odds 22% less than native-born whites of being perceived as hardworking. In terms of passivity, black girls regardless of nativity status have odds which are 30% lower than whites of being perceived as passive. Thus the pervasive within-gender effects for teachers' odds of appraising students positively (as hardworking) or negatively (as passive) are highly dependent on an intersectionality of nativity, ethnoracial identity, and gender.

Further, this analysis highlights the ways in which teachers form perceptions of students differently across contexts. In a more subjective context like English, one can observe the complex relationships between nativity, ethnoracial identity, and gender described above. However, with one exception – reduced odds for black students of being seen as passive – none of the teacher appraisals analyzed here varied for math teachers based on student identity. These findings support the conclusions of other work that while teachers' perceptions can be expected to be more variable in a subjective context, math teachers largely base their evaluations of student behaviors on objective criteria like grades and test scores (Jussim and Eccles 1992).

Still unanswered is how to interpret the variation in teachers' perceptions across student groups based student demographics. A few competing explanations arise. First, in an arguably more subjective discipline like English, persistence against adversity is seen as a sign of hard work granting immigrants a "positive-bias" in the eyes of teachers when

they perform on par with native born peers. Similarly, the decreased likelihood that black students will be seen as passive net of other factors in math and English reveals that teachers may in fact recognize students who are able to succeed "against the odds." However, no differences in teachers' perceptions were found for non-native English speakers, as we might expect if variation was attributable solely to teachers reporting on unmeasured dimensions of hard work or additional challenges to success (Ehrenberg *et al.* 1995; Marks and Heffernan-Cabrera 1977). Further, the divergent outcomes for immigrant students by race and ethnicity undermine this argument of immigrant egalitarianism by suggesting that not all immigrant 'successes' are seen as equally indicative of hard work across groups.

Rather, teacher perceptions of hard work and passivity conform to many of the stereotypes discussed earlier that surround minority and immigrant youth. The work at hand shows English teachers as characterizing Latina girls, and native-born Latinas in particular, as less hardworking than their peers. By contrast, Asian and black foreign-born girls are generally perceived as more hardworking than native-born whites. While foreign-born boys are typically seen as more hardworking than native-born boys, foreign-born Latino boys stand as an exception and are perceived as much less hardworking than other migrants and less hardworking than native-born whites. These patterns conform to both stereotyped ideas of Latino/as as "lazy" and also to the contrasting narrative of hardworking immigrants (Katz 1999; Qin-Hilliard 2003; Rosenbloom and Way 2004).

There are several indications within these findings that suggest that the Asian, "model minority" stereotype may be operable in high school teachers' perceptions of their students (Kao 1995; Lee 1994). Taking all students together, net of other factors, Asians have odds 70% greater than white students of being seen as passive. Among girls, Asians immigrants are perceived as the most hardworking among all girls by their

teachers, net of other factors. On the flip-side of this stereotype, Asian males have twice the odds of being seen as passive net of other factors compared to other boys. This finding is an interesting flip on previous gendered work which found that teachers often perceived their Asian boys as hardworking and their Asian girls as passive (Archer and Francis 2005). However, it is in these instance where teachers' perceptions persist net of other objective measures and also adhere to larger cultural stereotypes that one finds the strongest evidence for the presence of bias in teachers' appraisals of students as hardworking and/or passive.

This work goes a long way in identifying preliminary inequities in teacher perception, and in doing so addresses a major literature gap between theories of teacher perception and bias and the relational attributes of schools which affect the segmented assimilation of immigrant students. However, in many ways it raises more questions than it answers. The operationalized definition of teacher bias used here, specifically inequitable distributions of teacher attitudes by demographic characteristics, (net of academic, SES, and school level indicators), leaves much theoretical ground to be covered.

First, the question remains of how these teacher attitudes affect student trajectories and outcomes. Rather, the analysis and findings presented here suggest that given these distinct teacher proclivities toward assessing students in certain ways, these "biases" may factor into patterns of segmented assimilation to the U.S. educational system for immigrant students through their relationships with educators. Further research should investigate how these potential biases result in different educational aspirations, intellectual self perception, or divergent long term educational outcomes. For example, it may be the case that teachers acknowledge the challenges faced by immigrant students and identify them as hardworking, but do not give them the same dividends to

this evaluation as their native born peers when assigning grades. Alternatively, perhaps despite student hard work or academic engagement, teachers are still less likely to recommend students for advanced placement or higher level academic courses to enhance their odds of success in college. Finally, it could also be the case that positive teacher perceptions encourage the formation of a positive intellectual identity which pushes students to greater educational goals or expectations than they may have otherwise pursued. Future work should strive to engage the effect of teacher perceptions on immigrant students themselves.

Also, it is important that future work addresses how these teachers' attitudes are formed and what particular educational contexts mediate their formation. Specifically, what teacher characteristics affect the inequitable formation of teacher attitudes? Factors such as teacher gender, ethnoracial identity, and SES or more detailed measures of changing school composition have important implications for addressing variation in teacher perceptions of students. Particularly in new immigrant destination areas, it may be important to identify ways in which teachers come to perceive the new faces in their classrooms. Finally, the differing perceptions for math teachers as opposed to English teachers raise questions regarding the content and consequences of these appraisals across disciplines. In light of the underrepresentation of minorities in math and science fields, teacher acknowledgement of student hard work may serve a gate-keeping function in ways that have been understudied.

Incorporating the ever increasing numbers of immigrant students into U.S. schools requires that talented, persistent, and hardworking students be acknowledged and rewarded for their efforts. The work done here suggests that English teachers in particular positively perceive the majority of immigrant students but still hold negative attitudes toward particular groups of minority students. This work establishes that teachers

inequitably evaluate student hard work across demographic characteristics in ways which conform to larger stereotypes but the more precise causes and consequences for these differences remain unknown.

Tables and Figures

Table 1: Descriptive Statistics of ELS:2002 Base-Year Sample by Nativity

	Native-Born Students			Foreign-Born Students		
			%			%
	Mean	SD	Missing	Mean	SD	Missing
Student Characteristics						
Student is female (%)	50.32	0.50		52.16	0.50	
White (%)	65.00	0.48		13.15	0.34	
Black (%)	12.66	0.33		6.40	0.24	
Latino (%)	11.48	0.32		35.55	0.48	
Asian (%)	5.30	0.22		40.31	0.49	
Other race (%)	5.57	0.23		4.58	0.21	1
Standardized test score	51.77	9.82		48.38	10.64	
GPA for all academic 9th grade courses	2.66	0.85	8.75	2.69	0.83	14.45
Parental education - College degree (%)	42.31	0.49		40.92	0.49	
Socioeconomic status	0.11	0.73		-0.20	0.87	
Native English speaker (%)	91.09	0.28		25.17	0.43	1
School Characteristics						
Foreign-born student enrollment (%)	6.08	9.20		21.41	17.12	
Minority student enrollment, 2004 (%)	29.43	28.56	1.76	49.46	30.06	0.87
Percent graduates enrolling in 4 year colleges ¹	4	1.04	25.34	4	0.93	31.66
Student Self-Report						
Student report: Work ethic in English (0-3 scale)	1.59	0.66	21.71	1.59	0.66	29.50
Student report: Work ethic in math (0-3 scale)	1.53	0.64	21.32	1.56	0.64	28.63
Outcome Variables: Teacher Appraisal						
"Student works hard for good grades" (English) (%)	69.06	0.46	13.04	74.34	0.44	15.40
"Student works hard for good grades" (Math) (%)	68.07	0.47	9.07	71.40	0.45	12.89
"Student is exceptionally passive" (English) (%)	12.49	0.33	13.86	18.71	0.39	15.40
"Student is exceptionally passive" (Math) (%)	12.04	0.33	9.61	18.40	0.39	13.49
N Students (Total)	10,648			1,156		

¹ Interval variable, table reports modal category

Table 2: Student-reported work ethic indices

Cronbach's alphas for student reports of work ethic Correlation with total: Variable deleted English Math Studies to get a good grade 0.850 0.839 Can learn something really hard 0.847 0.832 0.834 Works as hard as possible when studies 0.841 Keeps studying even when material is difficult 0.836 0.818 Does best to learn what studies 0.818 0.835 Can understand difficult English texts 0.857 Can do an excellent job on English tests 0.841 0.837 Can do an excellent job on math tests Can understand difficult math texts 0.841 0.863 Cronbach Coefficient Alpha 0.852

Table 3A: Odds ratios for teachers reporting, "Student usually works hard for good grades"

English								
<u> </u>	All Students					Boys	Girls	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	
Predictors								
Immigrant	1.288 **	1.189	1.127	1.13	1.103	2.034 *	0.428 *	
Female	2.182 ***	1.818 ***	1.811 ***	1.836 ***	1.837 ***			
Black	0.574 ***	1.183 *	1.036	0.898	0.889	0.906	0.869	
Latino/a	0.628 ***	1.004	0.945	0.84	0.855	1.164	0.593 ***	
Asian	1.377 *	1.151	1.156	1.055	0.977	1.063	0.885	
Other race	0.588 ***	0.76 **	0.745 **	0.717 **	0.708 **	0.61 ***	0.882	
SES		1.011	0.997	0.979	0.978	0.971	0.997	
Test scores		1.014 ***	1.009 **	1.008 **	1.008 **	1.001	1.021 ***	
Parent Ed (coll	lege)	1.087	1.081	1.095	1.095	1.05	1.164	
9th Grade GPA		3.076 ***	2.937 ***	2.807 ***	2.807 ***	2.771 ***	2.891 ***	
Native English	Speaker	0.808 *	0.817 *	0.85	0.84	0.807	0.881	
Student Self-R	leport		1.69 ***	1.674 ***	1.675 ***	1.637 ***	1.722 ***	
School Level Pre	edictors							
Percent Immig	rant			1	1	0.997	1.003	
Percent Minor	ity			1.004 ***	1.004 ***	1.003	1.006 ***	
Percent Gradu	ates attending 4	year colleges		0.997	0.997	0.983	1.011	
Interaction Effect	ts							
Latino x Immig	rant				0.931	0.441 *	3.072 **	
Asian x Immig	rant				1.202	0.542	4.467 *	
Black x Immigr	ant				1.181	0.646	3.331 *	
Other race x In	nmigrant				1.32	0.712	3.865	
Intercept	0.4981	0.8406	0.811	0.9129	0.9247	0.9398	1.5648	
Pseudo - R ²	0.0624	0.2744	0.2897	0.2983	0.2985	0.2631	0.2887	
N	10237					5067	5170	

^{*} p < 0.05

^{**} p < 0.01

^{***} p< 0.001

Table 3B: Odds ratios for teachers reporting, "Student usually works hard for good grades"

Math							
			All Students			Boys	Girls
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Predictors							
Immigrant	1.121	1.08	1.018	1.03	1.052	0.984	1.158
Female	2.043 ***	1.697 ***	1.79 ***	1.8 ***	1.801 ***		
Black	0.56 ***	1.148	0.995	1.007	0.989	1.092	0.891
Latino/a	0.662 ***	1.024	0.975	0.998	1.007	1.033	0.966
Asian	1.223	1.018	0.999	1.023	0.99	0.956	1.077
Other race	0.679 ***	0.902	0.892	0.909	0.951	0.808	1.219
SES		0.978	0.973	0.967	0.968	0.978	0.95
Test scores		1.019 ***	1.013 ***	1.013 ***	1.013 ***	1.009 *	1.019 ***
Parent Ed (col	lege)	1.159 *	1.147 *	1.158 *	1.155 *	1.296 **	0.981
9th Grade GPA	\	2.794 ***	2.646 ***	2.563 ***	2.563 ***	2.353 ***	2.907 ***
Native English	Speaker	0.864	0.893	0.885	0.887	0.929	0.853
Student Self-R	leport		1.8 ***	1.8 ***	1.799 ***	1.603 ***	2.139 ***
School Level Pre	edictors						
Percent Immig	rant			0.998	0.998	1.002	0.992 *
Percent Minor	ity			1	1	1.001	0.998
Percent Gradu	ates attending 4	year colleges		0.969	0.97	1.012	0.924
Interaction Effec	ts						
Latino x Immig	rant				0.949	1.002	0.997
Asian x Immig	rant				1.056	1.302	0.802
Black x Immigr	ant				1.485	1.151	2.403
Other race x In	nmigrant				0.457	0.495	0.453
Intercept	0.4893	0.7305	0.6402	0.6961	0.6965	0.5902	1.426
Pseudo - R ²	0.0535	0.252	0.2725	0.2759	0.2764	0.2235	0.2915
N	10689					5298	5391

^{*} p < 0.05

^{**} p < 0.01

^{***} p< 0.001

Table 4A: Odds ratios for teachers reporting, "Student is exceptionally passive"

English						-	
			All Students			Boys	Girls
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Predictors							
Immigrant	1.264 *	1.17	1.194	1.167	1.448	1.447	1.512
Female	0.844 **	0.923	0.938	0.935	0.935		
Black	1.192 *	0.754 **	0.791 *	0.768 *	0.778 *	0.857	0.696 *
Latino/a	1.271 **	0.877	0.898	0.867	0.865	1.057	0.74
Asian	1.694 ***	1.724 ***	1.716 ***	1.665 **	1.705 **	2.007 **	1.475
Other race	1.628 ***	1.364 *	1.36 *	1.336 *	1.423 **	1.556 *	1.275
SES		0.837 **	0.848 *	0.855 *	0.858 *	0.855	0.872
Test scores		0.985 ***	0.988 **	0.989 **	0.989 **	0.996	0.979 ***
Parent Ed (co	llege)	1.088	1.092	1.08	1.079	1.126	1.017
9th Grade GP	A	0.708 ***	0.729 ***	0.759 ***	0.758 ***	0.781 ***	0.728 ***
Native Englis	h Speaker	0.992	0.985	0.996	1.013	0.93	1.161
Student Self-l	Report		0.768 ***	0.768 ***	0.765 ***	0.727 ***	0.82 *
School Level Pr	edictors						
Percent Immig	grant			1.002	1.003	1.001	1.006
Percent Mino	rity			1	1	0.998	1.002
Percent Gradu	ates attending 4	year colleges		1.035	1.035	0.989	1.088
Interaction Effec	cts						
Latino x Immi	grant				0.855	0.74	0.881
Asian x Immig	grant				0.793	0.6	1.034
Black x Immig	rant				0.733	0.435	1.151
Other race x I	mmigrant				0.097	0.028	0.225
Intercept	-1.917	-2.011	-2.031	-2.091	-2.112	-2.157	-2.195
Pseudo - R ²	0.0097	0.0508	0.0555	0.0593	0.0605	0.0644	0.0713
N	10150					5026	5124

^{*} p < 0.05

^{**} p < 0.01

^{***} p< 0.001

Table 4B: Odds ratios for teachers reporting, "Student is exceptionally passive"

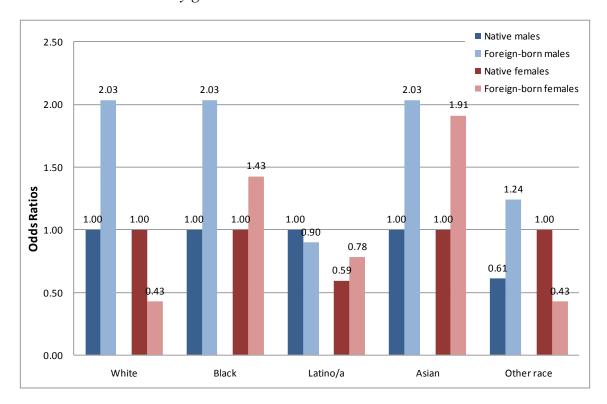
Math							
		All Students				Boys	Girls
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Predictors							
Immigrant	1.28 *	1.129	1.164	1.119	1.284	1.083	1.478
Female	0.717 ***	0.815 ***	0.801 ***	0.799 ***	0.798 ***		
Black	1.097	0.744 **	0.812 *	0.755 *	0.782 *	0.768	0.761
Latino/a	1.473 ***	1.012	1.043	0.952	0.948	0.914	0.99
Asian	1.181	1.145	1.159	1.067	1.039	0.958	1.198
Other race	1.157	0.962	0.962	0.923	0.927	0.749	1.176
SES		0.943	0.957	0.956	0.954	1.041	0.866
Test scores		0.985 ***	0.99 **	0.99 **	0.99 **	0.997	0.979 **
Parent Ed (co	llege)	1.013	1.017	1	1.004	0.931	1.084
9th Grade GPA	A	0.648 ***	0.681 ***	0.711 ***	0.712 ***	0.692 ***	0.757 **
Native English	h Speaker	0.82	0.796 *	0.826	0.831	0.783	0.857
Student Self-I	Report		0.643 ***	0.642 ***	0.641 ***	0.587 ***	0.712 **
School Level Pr	redictors						
Percent Immig	grant			1.005	1.005	1.012 **	0.995
Percent Mino	rity			1.001	1.001	1.001	1.002
Percent Gradu	ates attending 4	year colleges		1.091 *	1.092 *	1.054	1.143 *
Interaction Effec	cts						
Latino x Immig	grant				0.905	0.87	0.973
Asian x Immig	grant				0.93	0.862	0.993
Black x Immig	rant				0.424	0.511	0.387
Other race x Is	mmigrant				0.864	1.38	0.468
Intercept	-1.849	-1.746	-1.726	-1.792	-1.804	-1.715	-2.129
Pseudo - R ²	0.0122	0.0563	0.067	0.0728	0.0734	0.0798	0.0659
N	10625					5257	5368

^{*} p < 0.05

^{**} p < 0.01

^{***} p< 0.001

Figure 1: Ethnoracial and nativity effects for English teachers' perceptions of student hard work by gender



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