INTRODUCTION

During the Civil Rights movement, racial inequality was popular, albeit contentious, social and political discourse in America. Although the topic of racial inequality does not dominate national headlines today, the consequences of these inequalities still affect large portions of American institutions. Racial inequities in the institution of education should be of special concern due to the potential impact it has at perpetuating and deepening societal disparities before and after graduation. In a meritocratic society, addressing racial inequality in the institution of education could help resolve many of the racial disparities seen in other societal structures. This possibility is due to the role that education plays in achieving upward mobility, success, and wealth acquisition in this society. Attempting to create a singular, all-encompassing social policy focused at diminishing inequality in the institution of education as a whole is a nearly impossible undertaking. It would be important then to target potential sources perpetuating inequality in education. One of the main social actors and influential pieces in the institution of education are teachers. Focusing on teachers is vital to understanding race-based differences because teachers are the primary institutional agents with whom students interact. When speaking of the institution of education, it must not be confused with some ambiguous otherworldly combination of rules and regulations, but must be understood as a unit consisting of real social agents that can impact casual relationships of all parties involved. Teachers are surely impacted by their school surroundings and the characteristics of the district organizations in which they and their schools are embedded. However, teachers are also individuals with personal worldviews and biases who impact the students they teach. Similarly, students bring with them family histories, social characteristics, and individual personalities which contribute to a complex teacherstudent relationship. Much research has been done on this multifarious relationship (Brown et al. 2003; Casteel 1998; Dee 2004; Downey and Pribesh 2004; Ehrenberg, Goldhaber and Brewer 1995; Farkas et al. 1990; Frankenberg 2006; Hallinan 2008; McGrady and Reynolds 2013; Zimmerman et al. 1995), while

other studies have focused on the equally elaborate teacher-school relationship (Fairchild et al. 2012; Morris 2005; Mueller et al. 1999; Renzulli, Parrott and Beattie 2011) or student-school relationship (Crosnoe 2009). Few studies though have concentrated on how school context effects teachers' perceptions and attitudes towards students (Morris 2005). The analysis presented here attempts to fill this research void.

More poignantly, the research questions answered through the analysis here is: How do school demographics, specifically racial composition, effect teachers' perceptions of students within that structure over and above teacher characteristics? Also, does the effect of school context differ for teachers of different racial groups concerning their perceptions of the student body? Like any social structure, the relationship between the institution of education and teachers is varied and elaborate. Theories in organizational and relational demography together with past findings on the effect of race on teacher-student/school relationships can help build hypotheses in pursuing the answer to these questions. To begin examining this research question it would be important to first document previous research on the effect of race on teacher-student relationships and the effect of school racial composition on teachers' behavior. By understanding the role that race plays in teacher-student relationships and teacher-school relationships, more astute hypotheses can be formulated concerning the role that school racial composition plays in teachers' perceptions of students.

RESEARCH ON THE ROLE OF RACE IN TEACHER-STUDENT RELATIONSHIPS

Teachers contribute to a child's educational experience both directly and indirectly as students' thoughts and feelings towards school are influenced largely in part by teacher attitudes and support (Ferguson 1998; Hallinan 2008). For example, students who like school are less likely than students who do not like school to have problems with absenteeism, dropping out, discipline, and have more positive outcomes in achievement and behavior (Hallinan 2008). Research has found that students who

are more inclined to like school perceive their teachers as being supportive, encouraging, and fair (Hallinan 2008). The key is how students interpret teachers' intent. This becomes especially important if teachers' treatment of students varies by the student's race, the teachers' race or some match or mismatch of the two.

Research investigating the saliency of racial disparities as it relates to teacher-student interactions is important for many reasons. First of all, teachers serve as the gatekeepers (Farkas et al. 1990; Zimmerman et al. 1995) to students' education and knowledge acquisition. Teachers also serve as significant others in influencing students' status aspirations, which are correlated with educational attainment (Bozick et al. 2010; Haller and Portes 1973). Research has found that the role of the significant other in students' lives is stronger in determining their aspirations than either family educational or occupational attainment (Haller and Portes 1973). Research has also found that a teacher's judgment of students' non-cognitive characteristics like their work habits, behavior, appearance, and dress effect the subjective grades given to the student (Farkas et al. 1990). Because teachers are vital to children's educational attainment and their desire to remain in school, it is important to inspect any differences that lead to varying educational outcomes.

Researchers have demonstrated that there is support for effects of racial differences on how teachers evaluate students (Downey and Pribesh 2004; Ehrenberg, Goldhaber and Brewer 1995; McGrady and Reynolds 2013; Zimmerman et al. 1995), the expectations that teachers have of students (Brown et al. 2003), the treatment of students (Casteel 1998; Dee 2004; Ferguson 1998; Morris 2005) and the commitment teachers have toward students as displayed by teacher turnover and satisfaction (Fairchild et al. 2012; Renzulli, Parrott and Beattie 2011). These racial differences can either have positive or negative effects for the student based on their race and the race of the teacher (Brown et al. 2003; Dee 2004; Farkas et al. 1990; Frankenberg 2006; McGrady and Reynolds 2013). Research findings support the notion that white students have an advantage. They are usually rated higher on teacher

evaluations (Downey and Pribesh 2004; Ehrenberg, Goldhaber and Brewer 1995; McGrady and Reynolds 2013) treated better (Casteel 1998), and have higher expectations of what they can achieve (Brown et al. 2003). Non-white students benefit from racial differences when they are matched with a teacher of their own race or cultural background (Dee 2004; Ehrenberg, Goldhaber and Brewer 1995; Farkas et al. 1990; McGrady and Reynolds 2013; Zimmerman et al. 1995).

Not all research is conclusive in finding differences in outcomes based on race. In some cases, what appears to be discriminatory behavior based on race could be explained by one or more intervening variables (Ehrenberg, Goldhaber and Brewer 1995; Ferguson 1998; Mueller et al. 1999).

Ferguson (1998) notes that previous findings of effects of racial mismatch (teacher being a different race than the student) could be attributed to other variables not included in studies. Teacher perceptions could be linked to school characteristics. For example, teachers may think more negatively when in the context of under-resourced schools. Since minorities attend these schools more often, it leads to an appearance of race based discrimination when in fact it is not.

Racial mismatch theory has been used to explain differential outcomes based on race as seen in the teacher-student relationship. Racial mismatch theory bases its argument on communicative misunderstandings between different racial groups (Downey and Pribesh 2004; Ferguson 1998; Frankenberg 2006). These misinterpretations of different cultural styles can be attributed to a lack of exposure by either whites or minorities of the other. Judgments of the other are then made based on ethnocentric viewpoints or stereotypes (McGrady and Reynolds 2013). In the classroom, racial mismatch could introduce bias into teachers' perceptions of students. For example, minority students' behavior may be seen as deviant to white teachers, but seen as normal or even something to be emulated among minority students' peer groups and families (Downey and Pribesh 2004). This can then lead to differing outcomes based on race considering how essential teachers' encouragement and evaluations are to students' achievement in and commitment to school (Farkas et al. 1990; Hallinan

2008). If teachers misinterpret student behavior out of a lack of understanding of how the student communicates or how the student displays their value for education, then the teacher may think more negatively of this student. The student perceiving this negative assessment may react in a negative way to it and create an oppositional stance towards the institute of education (Downey and Pribesh 2004; Ogbu 1991) – although not all research finds evidence for this process (McGrady and Reynolds 2013).

The term 'self-fulfilling prophesy' is used to describe the process of negatively reacting to perceptions based on stereotypes, which in turn ends up fulfilling those stereotypes in some way (Farkas et al. 1990; Lopez 2003; Zimmerman et al. 1995). Associated with the concept of self-fulfilling prophesy is stereotype threat which is, "the risk [or fear] of conforming to negative stereotypes about one's group" (Steele and Aronson 1995). Minority group members can also respond to stereotype threat with an active resistance toward the stereotypes as they become aware of them (Dee 2004; Ferguson 1998).

The previous section highlighted research investigating the role of race in the teacher-student relationship and racial mismatch as a theory explaining these findings. The next section will summarize research on the role of race in teacher-school relationships and research on the role of race in organizational contexts more broadly.

RESEARCH ON THE ROLE OF RACE IN TEACHER-SCHOOL RELATIONSHIPS & ORGANIZATIONAL CONTEXTS

Research has focused on the effects of school context on teacher satisfaction. These studies provide evidence that white teachers are more satisfied with their jobs when teaching in schools where the student body is predominately white (Fairchild et al. 2012; Renzulli, Parrott and Beattie 2011). Similarly, Fairchild et al. (2012) find that teachers are less satisfied with their jobs when working in a school where there are more minority teachers. Not all research supports these claims as Mueller et al. (1999) find limited support that teachers are less satisfied with their jobs when teaching in schools

where a majority of students are not of their own racial background. They find that when controlling for school attributes like resource availability, the effects of race lose their statistical significance.

Morris's (2005) ethnographic study, highlights the role that school context plays in teachers' perceptions of students. Morris (2005) finds that in a predominately minority school white students are viewed in a positive light by black teachers, but negatively by white teachers. Although the study focuses on how the concept of whiteness varies depending on the context that the definition is formed, it evidences the importance of organizational demography in forming teachers' attitudes towards students. The next section explains the theory of organizational and relational demography more explicitly.

Other research has focused on the role of race in organizational contexts outside of the institution of education (Maume and Sebastian 2007; Sacco and Schmitt 2005; Stainback and Irvin 2012). Analyzing the effects of workplace racial composition on reports of racial discrimination, Stainback and Irvin (2012) find that working with same-race coworkers lessens the perception of racial discrimination. Speaking of job satisfaction, Maume and Sebastian (2007) argue that whites working in predominately minority jobs are not necessarily prejudiced because they are less satisfied in these jobs. It is argued that race-based differences are more a function of how these jobs are perceptively devalued, causing white workers to worry about their future occupational prospects which then leads to less satisfaction.

Organizational and Relational Demography

The theory of organizational demography postulates that there are separate effects for the composition of an organization beyond the aggregate of effects of individual-level demographic variables (Pfeffer 1983). Research has explained race-based differences of contextual effects using this theoretical lens (Fairchild et al. 2012; Maume and Sebastian 2007; Renzulli, Parrott and Beattie 2011; Stainback and Irvin 2012). Similar to organizational demography, theories in relational demography

specify how organizational contexts will affect how individuals react to others depending on the demographic composition of the organization. The concept of similarity attraction in relational demography states that individuals will gravitate towards others who share similar demographic attributes as themselves like gender and race (Maume and Sebastian 2007; Mueller et al. 1999; Renzulli, Parrott and Beattie 2011; Sacco and Schmitt 2005; Stainback and Irvin 2012). The effect of similarity-attraction is strongest when individuals are in new situations and do not know much about others around them (Sacco and Schmitt 2005). This initial attraction will deepen as in-groups and out-groups form and treatment of individuals in these respective groups vary.

It could be hypothesized that teachers will undergo a similar process when teaching in a school where they do not share similar demographic characteristics as a majority of the students in the school (e.g. gender and/or race). Teachers may judge the student body based on stereotypes of the majority demographic group – this is especially true if teachers have had little interaction with the majority group in other social settings (Casteel 1998; Frankenberg 2006; Renzulli, Parrott and Beattie 2011). Considering the numeric disparity in the United States of whites versus other racial groups along with contemporary and historic residential segregation, it is logical to believe that, on average, whites have had less interaction with minorities than minorities have had with whites. The consequence of this situation is summarized in the concept of nonsymmetry hypothesis (Mueller et al. 1999; Stainback and Irvin 2012) which claims that members of the dominant group will respond differently than minority group members when in settings where they are not the majority. This stems from the idea that minorities are accustomed to being a part of the subordinate group and have developed coping mechanisms for dealing with this social setting. Conversely, whites have not developed the same mechanisms considering, the strong possibility, they have had limited interactions with people from the minority group (Mueller et al. 1999; Renzulli et al. 2011). When examining cross-racial interactions in the institution of education, organizational and relational demography theory can inform the discussion

with the inclusion of school demographic compositions as a way of investigating the reasons why research has found race-based differences in the teacher-student (Brown et al. 2003; Casteel 1998; Dee 2004; Downey and Pribesh 2004; Ehrenberg, Goldhaber and Brewer 1995; Farkas et al. 1990; Frankenberg 2006; Hallinan 2008; McGrady and Reynolds 2013; Zimmerman et al. 1995) and teacher-school relationship (Fairchild et al. 2012; Morris 2005; Renzulli, Parrott and Beattie 2011). The following section develops hypotheses based on previous findings of the role of race in teacher-student and teacher-school relationships as well as theories in organizational and relational demography.

HYPOTHESES

The research question proposed earlier sets out to answer if school demography, specifically school racial composition, effects teachers' perceptions of students while accounting for teacher demographic characteristics. Furthermore, are these effects different for teachers of different racial groups? Teachers' perceptions of student behavior will be used as the variable of analysis because it captures a subjective perception rather than an objective measure like standardized grading. Using past research and theories from organizational and relational demography, the following hypothesis are formed:

- 1. Overall, school racial composition will have an effect on teachers' perceptions of student behavior as the proportion of minority students increases, teachers' will think more negatively of students in these schools.
- 2. Whites will differ from other racial groups in their perceptions of student behavior when they do not share the same racial background as a majority of students in the school. In this setting they will tend to evaluate minority racial groups as worse behaved compared to how minority teachers evaluate minority racial groups.
- 3. Minority teachers will not differ from white teachers in their perceptions of student behavior when they do not share the same racial background as a majority of students in the school they are teaching. This hypothesis is based off of non-symmetry theory.
- 4. If a teacher is teaching in a new context i.e. school environment, they will resort to similarity-attraction and stereotyping in forming their perceptions of students.

- a. New teachers teaching in schools where they share the same racial background as a majority of the students at the school, will think students are better behaved compared to teachers of other racial groups.
- b. This effect will only last the first few years that a teacher is introduced into the context, but will wear off and regress to the mean the longer a teacher is exposed to the context.

DATA AND METHODS

Data are from the 2003-2004 Schools and Staffing Survey restricted-use data and are made available by the National Center for Education Statistics. The Schools and Staffing Survey is conducted by the National Center for Education Statistics and has four components which includes the School Questionnaire, the Teacher Questionnaire, the Principal Questionnaire, and the School District Questionnaire. The questionnaires are sent to a sample of respondents in public, public charter, private, and Bureau of Indian Education/tribal schools with questions about school demographics and teacher and principal perceptions of school problems, school attributes, and characteristics of the student population included in the various surveys. The sample of schools is based on a stratified probability sample design with public and private schools oversampled based on certain characteristics. Once the school sample is obtained, teachers within the schools are stratified and sampled based on their attributes. These data contain both school level and teacher level variables. The sample consists of 52,478 teachers with a weighted sample of 84.8%. The data set allows for stratification on race and ethnicity of teachers and includes the necessary student racial composition variables. The data also contain school level characteristics such as proxies for poverty, school location, and school urbanicity, which allow for a proper investigation of the research question. (Tourkin et al. 2007)

Dependent Variable

The dependent variable is a scale created using responses from the teacher survey concerning problems with students including: student absenteeism, property crimes, pregnancy, drug use,

possession of weapons, disrespect of teachers, and student drop-outs. Teachers were asked, "To what extent is each of the following a problem in this school? Indicate whether it is a serious problem, a moderate problem, a minor problem, or not a problem at all at this school." The Likert scale was coded from 0-4, reversing when necessary, so that larger numbers indicate more perceived student behavior problems. Altogether seven items were used for the scale which has a standardized alpha score of 0.8687.

Independent Variables – Teacher Level

Basic teacher demographic variables were included in the analysis as controls including sex, age, income, level of education and teaching experience. For a complete list of teacher level independent variables and their means refer to Table 1. Since most teachers are female (Frankenberg 2006; Institue of Education Sciences; Renzulli, Parrott and Beattie 2011), it was important to control for sex in this model to see if there are gendered biases in perceiving student behavior. The age variable is a continuous variable and the income variable is a continuous variable which has been divided by \$1,000 for analytical purposes. The level of education variable is a dummy variable with teachers with a master's degree being the reference category. To control for teaching experience, three variables were used in the model including total years of teaching experience, total years of teaching experience at the school being surveyed, and total number of hours a teacher reported working during the most recent full week of teaching.

[Table 1 about here]

It is known that violent acts directed at teachers will have a negative effect on their teaching impact and emotional wellbeing (Wilson, Douglas and Lyon 2011) and may consequentially cause them to view students in a more negative light. Therefore, a dummy variable was included for teachers who have ever been physically attacked by a student (1=Yes). Research also shows that dissatisfaction

among teachers is associated with teachers' attitude towards students and student outcomes including an increase in disciplinary problems (Louis, Marks and Kruse 1996; Ostroff 1992). Considering this association, controls for teacher satisfaction were included. First, teacher satisfaction is measured with a question asking how satisfied the teacher is working at their current school. Another measure of teacher satisfaction is measured by a scale of a teacher's perception of school management. The scale was created using answers to five questions about the principal and school administration with higher scores indicating that the teacher feels more positively about school management. Lastly, another scale was included to measure how autonomous a teacher feels in their classroom. The scale was created using a combination of six responses to how much control a teacher feels they have in their classroom in terms of instructional materials, content being taught, teaching techniques, evaluation of students, discipline of students, and the homework assigned. Since the main focus of this study revolves around the race of the teacher and their varying perceptions of student behavior at different schools, a set of dummy variables controlling for teacher race was included in the models with categories being white non-Hispanic, Hispanic, black non-Hispanic, Asian non-Hispanic, and other non-Hispanic.

Independent Variables – School Level

There are nine school level variables used throughout this analysis. A series of dummy variables was included to control for the community setting of the school where urban (large or mid-sized central city) and suburban (urban fringe of large or mid-size city) schools are compared to rural (small town or rural community) schools (Lankford, Loeb and Wyckoff 2002). A set of dummy region variables are included to control for any lasting historical effects between schools in the South and the rest of the country (Plank 1990). Two dummy variables capturing school type are included in the model where high

¹ Henceforth the term 'black', 'Asian' and 'other' will be used to describe teachers in these categories. It should be understood that teachers in these categories are not Hispanic.

schools are compared to middle schools and public charter schools are compared to non-charter schools. The student/teacher ratio of the school is included in the model to control for the effect higher ratios may have on teachers' perceptions of student behavior. The student/teacher ratio is a continuous variable calculated by the number of students in the school per full-time equivalent teacher. Since area poverty statistics were not readily available for the schools in this dataset, a continuous variable measuring the percentage of the student body approved for the National School Lunch Program (free/reduced lunch services) is included as a proxy for schools dealing with economic disadvantage (Dee 2004; Downey and Pribesh 2004; Farkas et al. 1990; Frankenberg 2006; Renzulli, Parrott and Beattie 2011). Student racial composition variables are included in various models throughout the analysis. Proportion Hispanic students, proportion white students, and proportion black students are all continuous variables accounting for the proportion of a given race in the survey school. Table 2 below displays the means, minimums, and maximums of the school level variables in the sample.

[Table 2 about here]

Analytic Strategy

Given that the research question is about the context of the school in which a teacher works, multilevel OLS regression analysis were used to analyze the dependent variable. First a set of models controlling for teacher characteristics are analyzed followed by a set of models adding school level attributes. This is done in order to analyze the effects of school racial composition on teacher characteristics testing for possible school-level mediating or moderating variables. Next, to test hypothesis 2, 3, and 4, models are stratified with respect to majority student racial composition with a sub-sample of teachers being analyzed for schools with 70% white, 70% non-white, 70% black, and 70% Hispanic student composition². Past research investigating the effects of racial composition on teachers' behavior have used different cutoff points ranging from 40% to 70% to determine when a particular

² Due to small sample sizes, schools with majority Asian and 'other' racial compositions are not analyzed.

racial group should be considered the majority (Fairchild et al. 2012; Mueller et al. 1999; Renzulli, Parrott and Beattie 2011). A supplemental analysis is included to investigate when specific ethnic groups comprise a majority of the population. Due to socially constructed power relations, racial groups may respond distinctly to varying organizational racial compositions which is an idea similar to non-symmetry theory. For this study I consider a racial group to be the majority when they comprise at least 70% of the population. This is done in light of previous research as well as this composition's relation to the concept of tokenism (Pfeffer 1983; Stainback and Irvin 2012) where racial groups composing the residual 30% of the school composition may be tokenized.

For the purposes of this study, only schools considered regular secondary schools are analyzed which excludes special emphasis schools, vocational or technical schools, and alternative schools (Hallinan 2008). Furthermore, only regular full-time and regular part-time teachers were left in the sample. These teachers have the best gauge of student behavioral problems at the school in comparison to substitute or temporary teachers who are more likely to have limited interaction with the student body in question. After the data were made to fit these methodological attributes, 3,255 schools and 21,026 teachers were left for the analysis. Weights are scaled using Method A scaling, which scales weights so that they sum to the cluster sample size (Carle 2009) and adjust standard errors making it less likely for Type I errors to occur.

RESULTS

Table 3 displays models using the entire sample of all 21,026 teachers. Model #1 in Table 3 shows results of the effects of teacher demographics on teachers' perceptions of student behavior. All variables show a significant relationship except age and some of the dummy race variables. According to this model, black teachers think more positively of student behavior compared to white teachers.

Teachers from other racial groups think no differently compared to white teachers in terms of student

behavior. Model #2 in Table 3 adds the school demographic characteristics described earlier to the teacher demographic model. These added school demographic variables moderate the effect of age on teachers' perceptions of student behavior with increases in age leading to less negative perceptions. Also by adding school level variables, the effect of race gains significance. Hispanics, blacks, Asians, and teachers from other/mixed racial categories think more positively of student behavior compared to white teachers. Examining Hypothesis 1, as the proportion of white students increases in the school, the less negative perceptions of student behavior teachers have on average. This gives evidence in support for Hypothesis 1 as the inverse of this relationship would be that as the proportion of minorities (non-whites) increases in a school, teachers think more negatively of student behavior. Model #3 in Table 3 partially tests for Hypothesis 4a. As seen in all three models, as years teaching in the school increases, teachers, on average, think more negatively of student behavior. Model #3 adds a curvilinear effect for this variable which has a statistical significance and shows that the longer a teacher teaches in a school the more negatively they perceive student behavior up to a certain point where this relationship changes direction. After this point, more years spent in the school lead to less negative perceptions of student behavior. Next Hypotheses 2 and 3 are examined.

[Table 3 about here]

Table 4 displays two stratified models by composition of white students in a school. Model #1 shows results for teachers teaching in schools with 70% or greater white student population while Model #2 shows results for teachers teaching in schools with a racial composition of less than 70% white students. Focusing on the racial variables in Model #1, it can be seen that Hispanic, black, Asian, and Other teachers do not think any differently compared to white teachers in terms of their perception of student behavior. Conversely, Model #2 shows the opposite racial effect where all minority racial groups think more positively of student behavior than white teachers. These two models provide evidence in support of both Hypothesis #2 and Hypothesis #3. Here we see that minorities do not think

any differently than whites when they are not the majority. We also see that white teachers think more negatively of student behavior, on average, when they do not share the same race as a majority of students. It could be argued that stratifying in terms of white/non-white creates a false homogeneity of non-white racial groups. Racial patterns seen in Model #2 may be different if Hispanic or black students comprised the majority of the student body. To test the premise of this argument and Hypothesis #4, Table 5 provides results from two models where Hispanic students and black students are considered a majority of the student population.

[Table 4 about here]

In schools with 70% or more Hispanic students, only white teachers think differently than Hispanic teachers as they perceive more problems with student behavior than Hispanic teachers do. This finding provides mixed results for similarity-attraction thesis as one would expect that Hispanic teachers teaching in schools where a majority of the student body is also Hispanic would think more positively of student behavior compared to all other racial groups - not just white teachers as was found. It is important to note that separate analysis was performed comparing Hispanic teachers versus non-Hispanic teachers (Hispanic=1) and a significant difference was found where Hispanic teachers thought more positively of student behavior than non-Hispanic teachers. Since the data allow for a more nuanced analysis of non-Hispanic teachers, one can see that white teachers were driving this statistical difference. Considering these results, other research investigating racial differences should consider an examination of race beyond simple dichotomistic divides. Considering only white teachers thought differently than Hispanic teachers, this finding also provides evidence for non-symmetry hypothesis.

[Table 5 about here]

In schools with a majority of black students (70% or more), white teachers think more negatively of student behavior compared to black teachers. Also, the difference between Hispanic teachers and

black teachers was marginally significant at the p<0.10 level with Hispanic teachers also thinking more negatively of student behavior compared to black teachers. Similarly to the previous analysis, black teachers were compared to all non-black teachers (as one homogenous group) and a significant difference was found in support of similarity attraction thesis. When using the more detailed racial categories as shown in Table 5, support is mixed for similarity attraction thesis.

Model #1 in Table 4 and Models #1 and #2 in Table 5 all test for similarity attraction thesis.

Findings are mixed as Model #1 from Table 4 did not find any evidence for this theory, but this non-finding can be explained by non-symmetry theory. Findings in Models #1 and #2 in Table 5 show mixed results in support of similarity attraction theory as only white teachers perceive student behavior differently than Hispanic teachers and only white and Hispanic teachers perceive student behavior differently compared to black teachers. In analyses not reported here, when using a dichotomous Hispanic/non-Hispanic or black/non-black variable in the respective models, support for similarity attraction was found. A key component to similarity attraction theory is that time plays a role in the strength of the effect. In this case, teachers who are new to the school context will rely on similarity attraction more than teachers who have taught in the school longer. To account for this a test for the effect of time on teachers' perceptions of student behavior was completed. Interaction effects of years teaching in the school by race were added to each of the models in Table 5 and Model #1 in Table 4.

None of the interactions were found to be statistically significant giving evidence for the rejection of Hypothesis 4a and 4b.

The previous analysis considered a racial group to be in the majority if it comprised 70% or more of the student population. An analytical question arises concerning this cut point. Would results be different if different percentage compositions were used to signify a racial majority? Furthermore, given varying power relations between racial groups, how would different racial groups respond to varying racial compositions? Table 6 gives results of separate analysis for the effect of racial composition on

teachers' perceptions of student behavior. Each teacher racial group (black, Hispanic, and white)³ is subsampled from the overall sample and analyzed separately for the effect of proportion black students, proportion Hispanic students, and proportion white students on their perceptions of student behavior. All models include all previous independent variables that have been used throughout this paper. Also included in each model is a curvilinear effect for student racial composition. This is done to test the point where the slope of teachers' perceptions change which can be used to determine when a given racial group is considered to have majority status. Results are displayed in tabular form in Table 6 and graphically in Figures 1, 2, and 3.

[Table 6 about here]

Black Teacher Sub-Sample

For the black teacher sub-sample, Model #1 shows that as the proportion black student increases, the more negative black teachers think of student behavior until the composition reaches 69.9% at which point the slope changes. Model #2 shows that as the proportion of Hispanic students increase, the more negative black teachers perceive student behavior until this composition reaches 44.5%. The results from Model #3 indicate that the proportion white has no effect on how black teachers think of student behavior. Figure 1 shows the linear effects of racial composition on black teachers' perceptions of student behavior. Of note is that the slope for Hispanic student composition changes earlier than the slope of black student composition and decreases at a more rapid rate than the slope of black student composition after this change. Given similarity attraction thesis, one would expect that the slope for black student composition would decrease more rapidly than any other racial composition and remain lower throughout the proportion increase.

³ Given small sample sizes of Asian teachers and teachers of other racial backgrounds, they were excluded from this analysis.

[Figure 1 about here]

Hispanic Teacher Sub-Sample

Examining the Hispanic teacher sub-sample, Model #1 shows no significant effect for proportion of black students in the school, but does show a significant linear relationship. As the proportion of black students increase, Hispanic teachers report more negative perceptions of student behavior.

Looking at Hispanic student composition, on average, Hispanic teachers will shift their perceptions of student behavior in a school once the proportion of Hispanic students reaches 48.6%. At this point they begin to think more positively of students in the school. In Figure 2, one sees that as the proportion of white students increase Hispanic teachers think more positively of students' behavior. When compared to the slope of Hispanic students, the slope for white student composition decrease at a greater rate resulting in lower behavior scale scores beyond 50% student composition. When examining only Hispanic teachers, one can see that when teaching in schools where a large proportion of students are of one race (50% or greater), Hispanic teachers will think more positively of students when this proportion is white compared to Hispanic or black. This finding may shed light on future research examining racial mismatch effects, frog pond theories, and/or tokenism.

[Figure 2 about here]

White Teacher Sub-Sample

Model #1 in the white teacher sub-sample shows the effects of black student composition on teacher perceptions of student behavior. As the proportion of black students increases, white teachers think more negatively of students in these schools until the composition of black students reaches 81.4%. At this point the slope changes direction and white teachers begin to think more positively of student behavior. This change should not be overstated though. White teachers in schools with 70% or fewer black students think more positively about students' behavior in these schools compared to white

teachers teaching in schools with 80% black student composition. In other words, the directional change is not pragmatically different from other white teachers teaching in schools with high proportions of black students. A similar story is found with the proportion Hispanic students in the school and white teachers' perceptions of student behavior. Figure 3 shows that as the proportion of white students increases, white teachers think more positively of students' behavior.

[Figure 3 about here]

DISCUSSION

In the beginning, the analysis set out to answer what the effects of school racial composition was on teachers' perceptions of student behavior and if these effects differed by teachers' race. The preceding findings give much support for an affirmative response to both questions. Generally speaking (Table 1), racial composition effects teachers even when controlling for an array of teacher and school level characteristics. Upon further investigation, it was found that white teachers teaching in schools where they are not the majority will, on average, think more negatively of student behavior in those schools than other racial groups. The findings presented here demonstrate the importance of race in teachers' evaluations of students on a contextual basis. Past research has found that teacher-student racial mismatch will affect how teachers view students (Dee 2004; Downey and Pribesh 2004; Ehrenberg, Goldhaber and Brewer 1995; McGrady and Reynolds 2013; Renzulli, Parrott and Beattie 2011), but the research presented here further emphasizes the role of race and school context on these evaluations. It was found that students, regardless of their individual racial background will partially be evaluated based on the racial composition of the school they attend. It is not known though, exactly what this means for students of different racial backgrounds. Would minority students in predominately white schools be evaluated better than minority students in predominately minority schools? How would white students be evaluated when they are in majority or minority contexts? Further research would be needed to establish these relationships. Current research suggests possible negative effects

for minority students in terms of stress and stereotype threat when they are in these situations (Crosnoe 2009; Morris 2005).

The findings presented here found limited support for similarity attraction thesis including no evidence that novelty of a situation has any influence on the racial effect of teachers' perceptions of student behavior. In this analysis time did not have a significant relationship to teachers' perceptions of student behavior as was hypothesized. In the very general case curvilinear effects for years teaching in the school were found to be statistically significant, but once this was further investigated in the more nuanced models, the effect of time disappeared. When racial dichotomies were used for comparison purposes (i.e. white/non-white, black/non-black, etc.) support was found for similarity attraction where teachers sharing the same race as a majority of students in the school would think more positively of their behavior than teachers who did not share this distinction. Once the comparison groups were further separated, this relationship held up only in certain cases. This finding has implications for future research investigating race as a control variable. If simple dichotomistic categorizations are used as opposed to more nuanced analyses, false notions of homogeneity may arise from the conclusions of these analyses. It is thus recommended to use more detailed racial categories whenever possible.

The findings presented in this paper suggest that race still maters in the institution of education even when controlling for a wide array of school and teacher characteristics. It is important to put any discussion of racial differences/identity in historical and social context. Understanding that race is a social construction with no biological basis, the racial differences found in this study should not be explained by innate characteristics in those identifying as white, black, Hispanic, Asian, or other (for a detailed discussion on the social construction of race see Zuberi and Bonilla-Silva (2008)). Instead, they should be explained by the context in which these teachers are socialized and trained. Also, it is important to understand the social context in which they teach. How are teachers perceived by students, what stereotypes do teachers bring into their classroom and school, and what expectations do

teachers have of their students? The answer to these questions can help explain the racial differences found in this study better than sweeping generalizations like: "White teachers think more negatively of minority students".

Considering that neighborhoods in most major American cities are still segregated by race (Kozol 2005), white, black, and Hispanic teachers may have had different socialization experiences. Thinking about the differences in socialization based on race, it is possible that white teachers have had limited interactions throughout their lives with minorities and experience some type of culture shock during their first couple of years teaching at minority schools. As the years of teaching at these schools increase, white teachers may become more accustomed to and familiar with the behavioral patterns. This is not to say that minorities exhibit more negative behavior, but the way this behavior is perceived changes as familiarity of distinct cultural styles are understood. The findings do not find evidence for this hypothesis though. This could be due to improperly quantifying 'newness'. One way to better test this culture shock theory is to find when teachers completed the survey during their first year of teaching. If the survey was conducted earlier in their first year, then more negative views of student behavior would be expected compared to surveys conducted later. Unfortunately, the data are limited in this regard so this test of the culture shock theory cannot be tested.

Limitations

The study has some important limitations worth mentioning. First of all, without knowing more about the teachers besides basic demographic information, it is difficult to say why they perceive the students the way they do. As Renzulli et al. (2011) theorize, there may be a difference between teachers who actively choose to teach in predominately minority schools and teachers who were forced into the situation. Teachers may be forced into the situation through a lack of other opportunities or the shifting demographics around them. Teachers who choose to teach in these schools may do so as

part of programs like Teach for America and have a completely different lens on their entering posture. If there are differences among teachers who actively choose to teach in these schools compared with those who are forced into the situation, it may shine light on why teachers perceive students the way they do.

Another factor which is closely associated with race that may explain the differences seen in teachers' perceptions, treatments, and expectations of students is socio-economic status. There may not be race-based discrimination, but rather status-based discrimination occurring when teachers teach in low income schools (Farkas et al. 1990; Zimmerman et al. 1995). Since socio-economic status and race are highly associated (Conneely 2008), it may be difficult to separate the effects of one from the other when studying differences in teacher perceptions.

CONCLUSION

There are many unresolved and contentious issues in American education like funding, busing, and curriculum all of which make teaching and learning difficult. Issues of racial differences have been revealed through research, but outside of this research little has occurred in the way of public discourse. It appears that the discussion surrounding racial inequalities has died down in the public arena after being at the forefront of public thought and opinion during the 1950's and 60's. This may be due to the fact that race-based discrimination and race-based differences today are not as overt as they have been throughout American history. Regardless of the overtness of racial differences in education today, I would argue that they are just as important due to their effects on children's educational outcomes.

As discussed throughout this paper, race still plays an important part in predicting educational outcomes for students. Teachers are in a unique position in our society to affect monumental change in individual lives through their roles as mentors, encouragers, and instructors. What happens, though, when these teachers treat students differently? A deeper problem arises beyond just individual

discrimination against a handful of students as observable systemic discrimination is seen. It is not difficult to imagine how this systemic discrimination occurs when examining the demographics of the teaching occupation compared to the student population. As much as 80% of the teaching workforce is white, while less than 60% of the students they teach are white (Frankenberg 2006; Renzulli, Parrott and Beattie 2011). If it is true that white teachers teaching in minority schools will treat and view non-white students more negatively than non-white teachers teaching in white schools, then this raises more concern (Casteel 1998; Dee 2004; Downey and Pribesh, 2004; Renzulli et al., 2011).

To help curtail some of the differences discussed in this paper, teacher trainings may need to be adapted to allow exposure to and understanding of different racial and cultural groups. Regardless of race, this would help teachers become more impartial in terms of superficial qualities of students and allow for more accurate assessments of these students. Increasing the number of minority teachers in the teaching profession could provide role models to an increasingly minority student population. Also, having more non-white teachers in classrooms can help white students by exposing them to professional minorities challenging ingrained racial stereotypes these students may have (Frankenberg, 2006). Race still matters in discussions of student achievement, but ignoring the problem is hardly a way to remedy it. Instead, public discourse informed by active and relevant research can go a long way in continuing the process of racial reconciliation which began with fervor and sacrifice by many who dreamed of a day when race would no longer be a relevant factor in determining the outcomes of any citizen or student.

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Table 1 - Means and Variable Definitions for Dependent Variable and Teacher Level Variables

Variables	Variable Description	Means	Std Err	Min	Max
Dependent Variable					
Student Behavior Scale	Scale: Standardized alpha = 0.8687				
	Combination of 7 questions: Student problem in 1) tardiness, 2) absenteeism,				
	3) cutting class, 4) pregnancy, 5) drop outs, 6) apathy, 7) unprepared to learn	10.54	0.06	0.00	21.00
Level 1 Variables					
Sex	Dummy variable = 1 if male	0.60	0.00	0.00	1.00
Age	Continuous Variable for teacher's age	42.86	0.08	21.00	93.00
Income	Continuous variable for teacher's income divided by \$1,000	43.72	0.12	0.00	175.06
Masters	Dummy variable = 1 if teacher has Masters	0.48	0.00	0.00	1.00
Total Hours Worked	Continuous variable of total hours teacher worked in most recent full week of teaching	52.90	0.08	4.00	80.00
Years Teaching - Total	Continuous variable of total years teaching	14.86	0.07	1.00	54.00
Years Teaching - School	Continuous variable of total years teaching at surveyed school	9.42	0.07	0.00	48.00
Teacher Autonomy	Scale: Standardized alpha = 0.7782				
	Combination of six questions whether teacher has control over the following in their classroom: 1) instructional materials, 2) content/skills taught, 3) teaching techniques, 4) evaluation of students, 5) discipline of students, 6) homework assigned	21.07	0.02	6.00	24.00
View of Administration	Scale: Standardized alpha = 0.8606				
	Combination of 5 questions whether teacher agrees that 1) principal lets staff members know what is expected, 2) administration's behavior is supportive & encouraging, 3) Principal enforces school rules for student conduct and backs up teacher when needed, 4) Principal knows what kind of school is desired and communicates this, 5) Staff members are recognized for a job well done.	11.32	0.03	0.00	15.00
Attacked by Student	Dummy variable = 1 if teacher has ever been attacked by a student	0.06	0.00	0.00	1.00
Satisfied with Job	Question asking if teacher is generally satisfied being a teacher at school	2.43	0.01	0.00	3.00
White not Hispanic	Dummy race variable (1=WNH)	0.04	0.00	0.00	1.00
Hispanic	Dummy race variable (1=Hispanic)	0.87	0.00	0.00	1.00
Black not Hispanic	Dummy race variable (1=BNH)	0.06	0.00	0.00	1.00
Asian not Hispanic	Dummy race variable (1=ANH)	0.01	0.00	0.00	1.00
Other not Hispanic	Dummy race variable (1=ONH)	0.02	0.00	0.00	1.00

Data Source: 2003-2004 Schools and Staffing Survey (Restricted-Use Data); Weighted using Method A Weighting

Table 2 - Means and Variable Defintiions for School Level Variables

Variables	Variable Description	Means	Std Err	Min	Max
Urban Area	Dummy variable = 1 if in large city or mid-size central city	0.23	0.01	0.00	1.00
Rural Area	Dummy variable = 1 if school in small town or rural area	0.30	0.01	0.00	1.00
Suburban Area	Dummy variable = 1 if in urban fringe of large or mid-size city	0.47	0.01	0.00	1.00
Northeast	Dummy variable = 1 if school in Northeast	0.16	0.00	0.00	1.00
West	Dummy variable = 1 if school in West	0.23	0.00	0.00	1.00
Midwest	Dummy variable = 1 if school in Midwest	0.24	0.00	0.00	1.00
South	Dummy variable = 1 if school in South	0.37	0.00	0.00	1.00
Student/Teacher Ratio	Continuous variable of number of students per full-time equivalent teacher	15.74	0.08	3.17	110.19
Lunch	Continuous variable measuring the percentage of student body approved for National School Lunch Program	33.08	0.40	0.00	100.00
Charter	Dummy variable = 1 if school is a public charter school	0.01	0.00	0.00	1.00
High School	Dummy variable = 1 if school is a high school	0.77	0.01	0.00	1.00
Proportion Hispanic Student	Continuous variable of number of Hispanic students in school	0.10	0.00	0.00	1.00
Proportion White Student	Continuous variable of number of white students in school	0.71	0.00	0.00	1.00
Proportion Black Student	Continuous variable of number of black students in school	0.13	0.00	0.00	1.00
School N	N 3,255				
Teacher N	N 21,026				

Data Source: 2003-2004 Schools and Staffing Survey (Restricted-Use Data); Weighted using Method A Weighting

Table 3 - Multilevel OLS of Teachers' Perceptions of Student Behavior on Teacher and School Characteristics

	Model #1		Model	#2	Model #3		
Variables	β	S.E.	β	S.E.	β	S.E.	
Intercept	15.05	0.27	13.08	0.39	13.06	0.39	
Level I Variables							
Sex (Female=1)	0.525***	0.05	0.567***	0.05	0.555***	0.05	
Age	-0.005	0.00	-0.008*	0.00	-0.009**	0.00	
Income	-0.005*	0.00	-0.008**	0.00	-0.009***	0.00	
Masters (Yes=1)	0.094^	0.05	0.125*	0.05	0.12*	0.05	
Total Hours Worked	0.02***	0.00	0.019***	0.00	0.02***	0.00	
Years Teaching - Total	-0.014**	0.00	-0.01*	0.00	-0.01*	0.00	
Years Teaching - School	0.021***	0.00	0.022***	0.00	0.058***	0.01	
Years Teaching – School ²					-0.001***	0.00	
Teacher Perceptions							
Teacher Autonomy	-0.079***	0.01	-0.075***	0.01	-0.077***	0.01	
View of Administration	-0.214***	0.01	-0.215***	0.01	-0.212***	0.01	
Attacked by Student (Yes=1)	0.394***	0.10	0.399***	0.10	0.387***	0.10	
Satisfied with Job	-0.686***	0.04	-0.665***	0.04	-0.667***	0.04	
Race Variables ^a							
Hispanic	-0.144	0.14	-0.583***	0.13	-0.589***	0.13	
Black not Hispanic	-0.392***	0.12	-0.931***	0.11	-0.921***	0.11	
Asian not Hispanic	-0.19	0.23	-0.589**	0.23	-0.588**	0.23	
Other not Hispanic	-0.232	0.17	-0.448**	0.17	-0.447**	0.17	
Level II Variables							
Urban ^b			0.644***	0.13	0.651***	0.13	
Suburban ^b			-0.093	0.10	-0.081	0.10	
Northeast ^c			0.315*	0.13	0.345*	0.13	
West ^c			0.084	0.11	0.087	0.11	
Midwest ^c			-0.323**	0.12	-0.313**	0.12	
Student-Teacher Ratio			0.058***	0.01	0.058***	0.01	
Free/Reduced Lunch			0.029***	0.00	0.029***	0.00	
Charter School (Yes=1)			-2.74***	0.53	-2.711***	0.53	
High School (Yes=1)			3.841***	0.09	3.844***	0.09	
Proportion White Students			-3.668***	0.20	-3.698***	0.20	
AIC	113,982		111,789		111,787		
σ^2 μ	8.83		3.69		3.69		
σ^2 8	9.65		9.62		9.61		
School N	3,255		3,255		3,255		
Teacher N	21,026		21,026		21,026		

Data Source: 2003-2004 Schools and Staffing Survey (Restricted-Use Data); a - Reference category is 'White not Hispanic'; b - Reference category is 'Small Town or Rural Area'; c - Reference category is 'South'; Weighted using Method A Weighting; ^P<0.1 *P<.05, **P<.01, ***P<.001

Table 4 - Multi-Level OLS of Teachers' Perceptions of Student Behavior on Teacher and School Characteristics Testing for Non-Symmetry Hypothesis

	Model #1		Model #2		
	70% or Grea	ter White	Less Than 70% White		
Variables	β	S.E.	β	S.E.	
Intercept	9.19	0.43	11.26	0.55	
Level I Variables					
Sex (Female=1)	0.535***	0.06	0.613***	0.08	
Age	-0.002	0.00	-0.017**	0.01	
Income	-0.005	0.00	-0.009^	0.00	
Masters (Yes=1)	0.086	0.06	0.139	0.09	
Total Hours Worked	0.021***	0.00	0.016***	0.00	
Years Teaching - Total	-0.015**	0.01	-0.005	0.01	
Years Teaching - School	0.019***	0.00	0.026***	0.01	
Teacher Perceptions					
Teacher Autonomy	-0.081***	0.01	-0.07***	0.01	
View of Administration	-0.206***	0.01	-0.233***	0.01	
Attacked by Student (Yes=1)	0.312*	0.13	0.521***	0.16	
Satisfied with Job	-0.611***	0.05	-0.743***	0.06	
Race Variables ^a					
Hispanic	-0.086	0.25	-0.621***	0.17	
Black not Hispanic	-0.281	0.26	-0.779***	0.13	
Asian not Hispanic	0.014	0.41	-0.658*	0.28	
Other not Hispanic	-0.07	0.27	-0.565*	0.22	
Level II Variables					
Urban ^b	0.496**	0.17	1.299***	0.19	
Suburban ^b	-0.154	0.12	0.454*	0.19	
Northeast ^c	0.09	0.16	0.753**	0.28	
West ^c	-0.101	0.15	0.583**	0.18	
Midwest ^c	-0.686***	0.14	0.919***	0.27	
Student-Teacher Ratio	0.078***	0.01	0.036*	0.01	
Free/Reduced Lunch	0.039***	0.00	0.037***	0.00	
Charter School (Yes=1)	-0.483	1.35	-2.515***	0.61	
High School (Yes=1)	3.5***	0.12	4.463***	0.16	
AIC	70,162		41,659		
σ^2 f	3.53		4.07		
σ^2 8	9.11		10.49		
School N	2,070		1,185		
Teacher N	13,361		7,665		

Data Source: 2003-2004 Schools and Staffing Survey (Restricted-Use Data); a - Reference category is 'white not Hispanic'; b - Reference category is 'Small Town or Rural Area'; c - Reference category is 'South'; Weighted using Method A Weighting; $^P<0.1 *P<.05, **P<.01, ***P<.001$

Table 5 - Multilevel OLS of Teachers' Perceptions of Student Behavior on Teacher and School Characteristics for Schools with 70% or Greater Minority Student Body

	70% Hispanic		70% Black		
Variables	β	S.E.	β	S.E.	
Intercept	17.00	2.47	11.25	1.69	
Level I Variables					
Sex (Female=1)	0.312	0.32	0.574*	0.24	
Age	-0.019	0.02	0.001	0.01	
Income	-0.019	0.02	-0.018	0.01	
Masters (Yes=1)	0.061	0.36	0.402	0.25	
Total Hours Worked	0.002	0.02	0.013	0.01	
Years Teaching - Total	-0.012	0.03	0.004	0.02	
Years Teaching - School	0.028	0.03	-0.009	0.02	
Teacher Perceptions					
Teacher Autonomy	-0.15**	0.05	-0.009	0.04	
View of Administration	-0.198***	0.06	-0.305***	0.04	
Attacked by Student (Yes=1)	1.393*	0.65	0.448	0.36	
Satisfied with Job	-0.841***	0.23	-0.768***	0.15	
Race Variables ^a					
Hispanic	-	-	1.592^	0.86	
White not Hispanic	1.558***	0.37	1.211***	0.26	
Black not Hispanic	-1.248	1.17	-	-	
Asian not Hispanic	0.162	0.81	-0.025	1.48	
Other not Hispanic	-0.089	1.29	0.759	0.89	
Level II Variables					
Urban ^b	0.994	0.88	1.814***	0.48	
Suburban ^b	-0.005	0.88	0.801	0.52	
Northeast ^c	0.327	1.13 1.962**		0.73	
West ^c	0.497	0.62	0.329	1.45	
Midwest ^c	-1.515	1.81	1.686**	0.60	
Student-Teacher Ratio	-0.027	0.06	0.147*	0.06	
Free/Reduced Lunch	0.004	0.01	-0.003	0.01	
Charter School (Yes=1)	-5.388***	1.54	-4.454***	1.32	
High School (Yes=1)	4.999***	0.60	4.127***	0.41	
AIC	3,131		5,342		
$\sigma^2 \beta$			3.20		
σ^2 8			10.94		
School N			166		
Teacher N			978		

Data Source: 2003-2004 Schools and Staffing Survey (Restricted-Use Data); a - Reference category is the omitted category; b - Reference category is 'Small Town or Rural Area'; c - Reference category is 'South'; Weighted using Method A Weighting: ^P<0.1 *P<.05. **P<.01. ***P<.001

Table 6 - Effects of Student Racial Composition on Teachers' Perception of Student Behavior By Teacher Race

	Black Teachers			Hispanic Teachers			White Teachers		
	Model #1	Model #2	Model #3	Model #1	Model #2	Model #3	Model #1	Model #2	Model #3
Proportion Black	7.368***			5.827*			6.489***		
Proportion Black ²	-5.264**			-2.802			-3.986***		
Proportion Hispanic		6.101*			10.633***			5.667***	
Proportion Hispanic ²		-6.86^			-10.943***			-4.366***	
Proportion White			-1.265			1.324			-3.34***
Proportion White ²			-1.674			-5.942**			-0.549
Inflection Point	0.699	0.445	-	-	0.486	0.111	0.814	0.649	-
Intercept	8.59	9.93	12.24	10.85	10.15	14.08	8.59	9.19	12.98
School N	595			468			3,194		
Teacher N	1,202			707			18,160		

Data Source: 2003-2004 Schools and Staffing Survey (Restricted-Use Data); All models contain all control variables used throughout the analysis (full models available upon request); Weighted using Method A Weighting; ^P<0.1 *P<.05, **P<.01, ***P<.001





