

# Does Student–Teacher Racial/Ethnic Match Impact Black Students’ Discipline Risk? A Test of the Cultural Synchrony Hypothesis

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## INTRODUCTION

Black students comprise 16% of the US public school population, but represent 32–42% of students’ exclusionary discipline sanctions, and 27–31% of law enforcement referrals and school-based arrests (U.S. Department of Education, 2014). These statistics mirror 40 years of overrepresentation of Black students in the school discipline system (Children’s Defense Fund, 1975; Skiba, Michael, Nardo, & Peterson, 2002; Wallace, Goodkind, Wallace, & Bachman, 2008).

While a number of explanations have been offered to explain racial/ethnic disparities in school discipline, the cultural synchrony hypothesis provides a unique theoretical framework to explain how student–teacher

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racial/ethnic incongruence might affect the allocation of school discipline sanctions to Black students (Blake, Butler, Lewis, & Darenbourg, 2011; Irvine, 1990; Monroe & Obidah, 2004). By considering how the incongruence between the racial/ethnic diversity of the teaching workforce and US student population contribute to cultural misunderstandings in the classroom, the cultural synchrony hypothesis asserts that a cultural divide exists between students and teachers (Aud et al., 2013; Goldring, Gray, & Bitterman, 2013; Irvine, 1990; Kena et al., 2014). This divide, which is rooted in a lack of shared cultural understanding between teachers and students of differing race/ethnicities, may explain Black students' elevated discipline rates. The purpose of this chapter is to determine whether the cultural synchrony hypothesis can serve as a theoretical framework for explaining Black students' elevated risk for exclusionary discipline, using a statewide dataset of secondary school students' discipline records.

### CULTURAL SYNCHRONY HYPOTHESIS

Research suggests that school personnel perceive and evaluate Black students more negatively than students of other races across academic and behavioral domains (Downey & Pribesh, 2004; Tenenbaum & Ruck, 2007). Academically, teachers perceive Black students' performance as lower than that of White students, making Black students less likely to be recommended for honors courses and more likely to be placed in special education than students from other racial/ethnic groups (Francis, 2012; Oates, 2009; Skiba, Poloni-Staudinger, Gallini, Simmons, & Feggins-Aziz, 2006). Behaviorally, Black students are frequently rated as having more overt externalizing behaviors (e.g., physical aggression, destruction of property), being more disruptive to the classroom environment, and having more emotional problems than their White peers (Bates & Glick, 2013; Cullinan & Kauffman, 2005; Francis, 2012). The cultural synchrony hypothesis asserts that educators' negative evaluations of Black students are fueled by stereotypes of Black adults, who are depicted in the media as violent, threatening, hypersexualized, and in need of socialization (Blake et al., 2011; Blake, Butler, & Smith, 2015; Rome, 2004; West, 1995). These negative evaluations have been shown to intensify when teachers do not share the racial/ethnic background of their students (Bates & Glick, 2013; Dee, 2005; Downey & Pribesh, 2004; Takei & Shouse, 2008).

Taking into consideration the lack of racial/ethnic diversity within the teaching workforce, the cultural synchrony hypothesis asserts that many educators may be unfamiliar with the culture and learning styles of their

racially and ethnically diverse students, particularly their Black students (Goldring et al., 2013; Irvine, 1990; Landsman & Lewis, 2011). By extension, the social and behavioral norms that Black students experience and translate to their classroom behaviors may be unfamiliar to their teachers (Goldring et al., 2013; Graves & Howes, 2011). As a result, teachers may unknowingly apply media-driven stereotypes about Black culture to understand the ambiguous actions of Black students that are distinct from White, middle-class culture (e.g., use of slang, questioning of authority rather than assuming legitimacy based on position/title).

Teachers' subconscious application of stereotypes may influence the administration of school discipline to Black youth for behaviors that are considered benign among White students, yet perceived as more threatening and potentially harmful when committed by Black students (Blake et al., 2015; Francis, 2012; Neal, McCray, Webb-Johnson, & Bridgest, 2003). Further, behaviors that are acceptable and normative in Black students' homes and communities may be pathologized by teachers who lack training in cultural competence or familiarity with Black culture (Graves & Howes, 2011; Irvine, 1990; Monroe & Obidah, 2004). Within the context of school discipline, this lack of cultural synchrony between students and teachers may result in more harsh and reactive punishments than are required to manage Black students' behavior (Downey & Pribesh, 2004; Ho, Gol-Guven, & Bagnato, 2012; Takei & Shouse, 2008).

### *Evidence Supporting the Cultural Synchrony Hypothesis*

*Ratings of academic success.* There is some evidence to support the cultural synchrony hypothesis in terms of the academic perceptions of students of color when considering student-teacher race/ethnicity congruence (Bates & Glick, 2013; Downey & Pribesh, 2004; Driessen, 2015; Ho et al., 2012; McGrady & Reynolds, 2013; Saft & Pianta, 2001). Students of color tend to receive more negative academic ratings with White teachers than with teachers of the same race/ethnicity (Dee, 2005; Downey & Pribesh, 2004). Academically, Black students show the least benefit when they have a White teacher as compared to students of other races/ethnicities (McGrady & Reynolds, 2013), but show increases in reading and math achievement when they have Black teachers (Dee, 2004; Egalite, Kisida, & Winters, 2015). Importantly, the positive effects of having same-race teachers are especially prominent among low-performing students (Egalite et al., 2015).

*Behavior ratings.* Similar patterns are observed when considering teacher ratings of student behavior by race/ethnicity. Black students receive more

negative ratings of externalizing behaviors from White teachers than Black teachers (Bates & Glick, 2013), even when controlling for various individual and school-level characteristics associated with externalizing behavior problems. Additionally, White English and social studies teachers tend to rate their Black students lower than their White students on measures of citizenship, participation, and engagement within school and classwork activities (Takei & Shouse, 2008). Interestingly, differences in student ratings by race/ethnicity are not evident in vignette-based studies, perhaps due to the analogue nature of the design (Noltemeyer, Kunesh, Hostutler, Frato, & Sarr-Kerman, 2012). Together, most research suggests there are fewer perceptions of behavioral and social problems and perceptions of higher academic achievement when Black students are taught by Black instructors.

White teachers' negative evaluations of Black students may be rooted in the quality of student–teacher relationships. Teachers rate their relationships with students more positively when they are of the same race (Saft & Pianta, 2001). Same-race teacher–child interactions tend to be warmer than racially incongruent teacher–child interactions, which are characterized by more conflict (Ho et al., 2012). Similarly, when Black students have supportive teacher relationships, they have been reported to be less aggressive (Meehan, Hughes, & Cavell, 2003).

### *Purpose*

Collectively, these results suggest student–teacher racial/ethnic congruence may play a significant role in the educational outcomes of Black students, providing some support for the cultural synchrony hypothesis. However, only two studies have examined the effect of racial/ethnic congruence on students' discipline risk directly. Bradshaw, Mitchell, O'Brennan, and Leaf (2010) investigated whether student–teacher racial/ethnic congruence influenced Black students' risk for Office Discipline Referrals (ODRs) after controlling for students' classroom behavior and school demographic characteristics. Interestingly, they found no empirical support for the cultural synchrony hypothesis, in that Black students were as likely as White students to receive an ODR from a White or a Black teacher. In contrast, Roch, Pitts, and Navarro (2010) reported that greater student–teacher racial/ethnic congruence was associated with lower risk for in- and out-of-school suspension in public schools in Georgia. Given these contradictory findings, additional research is needed to determine the extent student–teacher racial/ethnic congruence influences disproportionate discipline practices.

The current study examines whether student–teacher racial/ethnic congruence can account for secondary students' risk for exclusionary discipline sanctions when controlling for demographic and school contextual characteristics. Expanding this work into the secondary school years is important since all students, especially Black students, are at elevated risk for discipline in these years (Losen & Skiba, 2010). This study also extends the literature in two important ways. First, we investigate disproportionality beyond urban school settings by using a statewide dataset to examine discipline risk, providing a more robust test of factors contributing to discipline risk in secondary schools. Second, we assess the effect of student–teacher racial/ethnic congruence on school discipline risk after controlling for other potentially influential factors.

## METHODS

### *Data*

The data for this study was drawn from a statewide dataset consisting of annual information for all students in the state of Texas in three 7th grade public school cohorts from the 2000–2001, 2001–2002, and 2002–2003 school years, each tracked for five years, beginning in the 7th grade (Fabelo et al., 2011). Because the data was available each of the five years the students were in secondary school, the panel dataset tracked 928,940 individual students from 7th grade through at least their expected graduation date. As such, students appeared in our dataset up to eight years (7th through 12th grade plus two years of follow-up for the 2000–2001 cohort and one year of follow-up for the 2001–2002 cohort for those who were held back in grade during their academic career). We analyzed the data for each child every year they were represented in the dataset (student-years), providing over 5.1 million student-year records. For example, a student who is in the dataset for 7th through 9th grades would have three student-years in the dataset.

The database contained an extensive set of variables<sup>1</sup> concerning students' academic performance, demographics, and information on each reported discipline event (including in-school suspensions, out-of-school suspensions, placement in disciplinary alternative education campuses, assignment to juvenile justice alternative education campuses, and/or expulsion). The overall sample was roughly equal in regard to gender (51% male), with 39% identified as Hispanic, 14% as Black, 43% White, and the remaining 4% representing students from multi-racial/ethnic, Asian, or Native American backgrounds.

## *Variables*

### *Dependent Variable*

Whether a student was disciplined at least once during his/her secondary school career served as the dependent variable. A student was considered disciplined if s/he received any type of school sanction, in- or out-of-school suspension, disciplinary alternative education placement, juvenile justice alternative education placement, or expulsion.

### *Independent Variables*

The congruence between the racial/ethnic composition of the faculty and students, a school-level measure, served as the key independent variable. We modified slightly the student–teacher racial/ethnic congruence index developed by Fabelo et al. (2011) as a measure of the similarity of the racial compositions of the faculty and student bodies:

$$\left[ \begin{aligned} & (\% \text{ Faculty}_{\text{Black}} - \% \text{ Students}_{\text{Black}})^2 + (\% \text{ Faculty}_{\text{Hispanic}} - \% \text{ Students}_{\text{Hispanic}})^2 + \\ & (\% \text{ Faculty}_{\text{White}} - \% \text{ Students}_{\text{White}})^2 + (\% \text{ Faculty}_{\text{Other Race}} - \% \text{ Students}_{\text{Other Race}})^2 \end{aligned} \right] \quad (1)$$

In order to ensure a more normal distribution, we utilized a square root transformation (Osborne, 2010). After the square root transformation, a campus with a perfect congruence between its student and faculty racial/ethnic makeup resulted in a value of 0. With perfect incongruence (e.g., 100% White faculty teaching a student body that was 100% Hispanic), the maximum value was 141.4, a value which was in fact observed in the data. To facilitate a more intuitive interpretation, this value was standardized to have a mean of zero and standard deviation one. With this approach, a school with an average level of congruence has a value of zero, while a high-congruence school that is one standard deviation below the mean would have a value of negative one and a low-congruence school that is one standard deviation above the mean would have a value of one.

Other individual-level independent variables included in the model were student race/ethnicity (individual-level); student gender (individual-level); an interaction effect measuring student race/ethnicity by gender; an interaction of the congruence index with race/ethnicity and with gender; and a three-way interaction of the congruence index, race/ethnicity, and gender.

At the school level, we included a measure of the campus diversity using the Greenberg diversity measure:

$$\left[ \begin{array}{l} 1 - (\% \text{Students}_{\text{Black}} / 100)^2 - (\% \text{Students}_{\text{Hispanic}} / 100)^2 \\ - (\text{Students}_{\text{White}} / 100)^2 - (\% \text{Students}_{\text{Other Race}} / 100)^2 \end{array} \right] \quad (2)$$

A perfectly homogenous school (e.g., 100% White) would result in a score of 0 and a perfectly diverse school (i.e., 25% of each race/ethnicity including other) would score 0.75 (maximum diversity in our dataset was 0.749, and perfect homogeneity was observed in other cases).

### *Control Variables*

As a control for academic performance, we accounted for whether the student had been retained the previous school year (individual-level). To control for student maturation, we also included a variable representing the number of years the student had been in the data (individual-level). Additionally, we controlled for individual-level poverty by including the student's free- or reduced-price lunch status.

In terms of the campus environment, we included the school's Title I status, student/teacher ratio, and school size as campus-level control variables. To account for county-level characteristics, we controlled for the county urbanicity and income per-capita.

### *Analytic Approach*

Data was available on an annual basis; as such, the student-year served as the unit of analysis. Once a student was disciplined in a given year, he/she was ineligible to have a first discipline sanction in following years. Thus, students were only included in the model in a year if they had not been disciplined in previous years. For instance, a student disciplined in 2003 was included in the dataset from 2001 to 2003, but not in following years. In all, 2,915,617 student-years were modeled utilizing binary logistic regression.

Given the nested structure of the data (e.g., students nested within schools), it is likely that the probability of student discipline risk is partially attributed to variation in school-level discipline policies as well as students' movement between school campuses, due either to academic progression or a physical move. Failure to account for data dependency resultant of

nested data tends to produce artificially small standard errors, leading to an increased probability of a Type I error (Primo, Jacobsmeier, & Milyo, 2007). To correct for this, we utilized binomial logistic regression with standard errors clustered by students and campus year for data analyses as computational constraints, as our sample size prevented us from implementing multilevel modeling (Bryk & Raudenbush, 1992). Robust clustered standard errors allow for the variance to differ by the clustering variable and performs similarly to mixed-level modeling in estimation of standard errors, but takes less time to converge (Franzese, 2005; Kam & Franzese, 2007; Primo et al., 2007). We utilized clustered standard errors to account for the variance related to clustering by students and by campus year in our logistic regression analyses. Table 5.1 reflects the relationship between each independent/control variable and the probability of discipline within a student-year.

## RESULTS

### *Student-Teacher Racial/Ethnic Congruence*

Overall, 59.6% of the sample had been disciplined between 7th and 12th grades. Table 5.1 details the results from the binary logistic regression analyses. The key variable of interest, student-teacher racial/ethnic congruence, showed that as a school's faculty and students became less similar in terms of their race/ethnicity, the likelihood of discipline increased. While significant, the base effect was small. A standard deviation decrease in student-teacher racial/ethnic congruence leads to a 3% increase in the odds of being disciplined. However, the effect of this congruence varied greatly by race and gender. For females, the odds of discipline increased by an additional 5% when in less congruent schools (for a total 8% increase after adding the 3% main effect and 5% female-specific effect). Black students saw an additional 10% increase in the odds of discipline when educated in a less congruent school relative to a more congruent school (for a total of 13% [10% Black plus 3% main effect]), while Hispanic students saw an additional 8% increase in the same situation (for a total of 12%, [8% Hispanics plus 3% main effect plus rounding differences]). For Black girls, the effect was less pronounced, with a 6% reduction in the odds of discipline relative to Black males (for a total of 12% [3% main effect plus 10% Black effect plus 5% female effect minus 6% Black female effect]) when moving to a school with less congruence. The interaction



**Table 5.1** Predictors of first time school discipline within a year

	<i>Coefficient<sup>a</sup></i>	<i>Std. error</i>	<i>Odds ratio</i>
Congruence			
Student/teacher congruence	0.003**	0.011	1.03
Congruence × Black	0.093***	0.018	1.10
Congruence × Hispanic	0.081***	0.011	1.08
Congruence × other race	0.077***	0.023	1.08
Congruence × female	0.048***	0.009	1.05
Congruence × Black female	-0.062***	0.015	0.94
Congruence × Hispanic female	-0.020	0.011	0.98
Congruence × other race female	0.001	0.032	1.00
Individual level			
Black	0.498***	0.016	1.64
Hispanic	0.192***	0.010	1.21
Other race	-0.492***	0.021	0.61
Female	-0.524***	0.008	0.59
Black female	0.149***	0.014	1.16
Hispanic female	0.162***	0.010	1.18
Other race female	-0.073*	0.029	0.93
Years in cohort	-0.147***	0.004	0.86
Free/reduced-price lunch	0.488***	0.007	1.63
Retained last year	0.936***	0.016	2.55
School level			
Title I school	-0.046**	0.016	0.96
Campus size	-0.000***	0.000	1.00
Student teacher ratio	0.010***	0.003	1.01
Greenberg student diversity measure	0.444***	0.045	1.56
Campus size	-0.000***	0.000	1.00
Title I school	-0.046**	0.016	0.96
Student teacher ratio	0.010***	0.003	1.01
Greenberg student diversity measure	0.444***	0.045	1.56
County-level			
County income per-capita income	-0.000***	0.000	1.00
Campus in suburban county	-0.041*	0.016	0.96
Campus in non-metro adjacent county	-0.010	0.020	0.99
Campus in rural county	-0.253***	0.037	0.78
Constant	-1.764***	0.055	-
			n = 2,915,618

<sup>a</sup>Coefficients reflect the results of a binary logistic regression

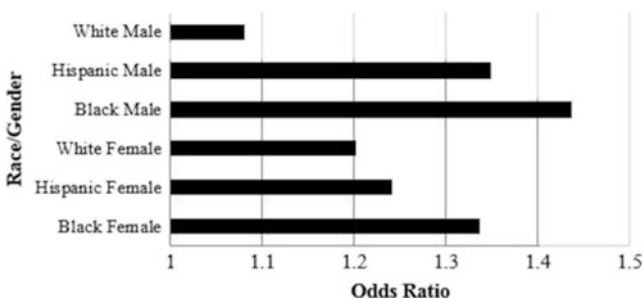
\*\*\* $p < 0.001$ , \*\* $p < 0.01$ , \* $p < 0.05$

for Hispanic girls was not significant, indicating that the effect of being female did not differ for Hispanic students relative to White students.

Figure 5.1 depicts the effect of congruence after accounting for the accumulating effect of aggregating across the six years of 7th to 12th grades. As illustrated, the effect of attending a high-congruence (one standard deviation below the mean) campus relative to a low-congruence (one standard deviation above the mean) campus on students' discipline risk was substantial for females and students of color.<sup>2</sup> As the figure shows, the effect of being in a high-congruence school was especially pronounced for students of color, with an odds ratio of 1.44 for Black males. In other words, Black males who attended a low student–teacher racial/ethnic congruence school had 44% higher odds of being disciplined between 7th and 12th grade than similar students who attended a high-congruence school.

### *Demographic, Academic, and School-Level Predictors*

In regard to other independent variables, the racial/ethnic diversity of students at schools (measured by the Greenberg diversity index) was a strong predictor of discipline risk. Attending a perfectly diverse school rather than a perfectly racially/ethnically homogenous school, leads to a 40% increase in the likelihood of discipline in a given year.<sup>3</sup> This finding warrants further investigation to examine the root cause of such a result.



**Fig. 5.1** Odds ratio of discipline when moving from a high- to low-congruence school over a six-year secondary school career

While not the theoretical thrust of this chapter, even after controlling for a myriad of factors, race/ethnicity and gender both remained strong predictors of discipline involvement.<sup>4</sup> After accounting for student and campus characteristics, Black male students had discipline odds 1.64 times higher than that of White male students, the base category (the odds ratio associated with Black students yields appropriate results for Black males). Hispanic male students had a smaller, but substantial, 1.21 times increase in the odds of being disciplined relative to White males (for the males, the odds ratio associated with Hispanics yields appropriate results for Hispanic males).

Additionally, being female appeared to be a significant protective factor, with White females having an odds ratio of 0.59 relative to White males (for White students, the female odds ratio provides appropriate results for White females). However, the protective nature of being female was not as strong for Hispanic or Black girls; their female-specific odds ratios were 0.69 and 0.70, respectively.<sup>5</sup> Relative to White males, the net result of being a Hispanic female was 16% lower odds of being disciplined in a given year. For Black females, the net result was actually 13% higher odds of discipline in a year than for White males.<sup>6</sup>

In regard to the control variables, the analyses showed that academic failure (i.e., a history of grade retention) was the strongest predictor of discipline risk. Those students who were retained the previous year had odds of current year discipline that were 2.55 times higher than students who were not retained. Further, individual-level poverty (i.e., free- or reduced-price lunch status) was associated with 63% higher odds of discipline in a year than for students who did not qualify for these programs. Even after controlling for congruence, the racial-ethnic composition of the student body, race/ethnicity and gender, academic performance, and socioeconomic status remained powerful predictors of school discipline involvement.

## DISCUSSION

Racial/ethnic disparities in school discipline have been identified as a national crisis (Losen & Gillespie, 2012). The cultural synchrony hypothesis suggests that these educational disparities among others are associated with a lack of cultural synchrony between Black students and their teachers, who do not share their same cultural and racial/ethnic background (Irvine, 1990). This chapter contributes to the school discipline

literature by using the cultural synchrony hypothesis as a theoretical framework to understand how the racial/ethnic congruence between students and teachers affects students of colors' discipline risk.

We found that student–teacher racial/ethnic congruence was a significant predictor of discipline risk. Attending a school where the faculty mirrors the student body appears beneficial for all students, but especially students of color, who have repeatedly been shown to be overrepresented in the school discipline system (Fabelo et al., 2011). It is both interesting and troubling that the difference in discipline risk changes based on the level of student–teacher racial/ethnic congruence in a given school, with less discipline risk associated with higher representation of teachers that match the race/ethnicity of the student body. For Black students, the odds of being suspended during 7th through 12th grade are nearly 44% higher for Black males, and 34% for Black females, than students of other races/ethnicities when which the teaching faculty is less representative of its student body's racial/ethnic background. A similar, but less elevated, pattern of risk is found for Hispanic students, with higher odds of being suspended in their secondary career for males (34%) and females (24%) than like peers when they attend a school where the teaching faculty's race/ethnicity differs from their own.

Drawing from a large statewide dataset of secondary school students, we found evidence for the disparate impact of school discipline on Black and Hispanic students and partial support for the cultural synchrony hypothesis. Consistent with prior research, students' individual-level SES, history of academic failure, and the racial composition of the student body, as represented by the Greenberg diversity measure, emerged as highly significant predictors of discipline risk (Gregory, Skiba, & Noguera, 2010; Hoffman, Erickson, & Spence, 2013; Welch & Payne, 2011). However, when accounting for these and other factors, Black and Hispanic students remained at significant risk for being suspended compared to White students. That is, racial/ethnic differences in school discipline sanctions persisted even when controlling for individual- and school-level poverty and academic failure, three important contributors to discipline risk. This finding was also true of gender: when controlling for a number of individual and school-level variables, Black males and Hispanic males were at the greatest risk of school suspension, followed by Black females.

### *Limitations*

Collectively, these findings suggest partial support for the cultural synchrony hypothesis. However, this study tested only the degree of cultural incongruence between students and teachers in a school, that is, the extent to which the makeup of a school's faculty is representative of the diversity of the student body. The data did not allow us to examine the daily teacher interactions that are the foundation of the theory of cultural synchrony in American schools. In order to fully understand the impact of student–teacher relationships on behavioral outcomes and racial/ethnic differences on student–teacher relationship quality, more nuanced tests of the cultural synchrony hypothesis are necessary. Such tests will allow us to understand exactly how cultural missteps and misunderstandings in classrooms might fuel inequitable discipline practices. To that end, future studies testing this hypothesis should employ mixed-method techniques, drawing from qualitative, observational, and advanced statistical methodology traditions to provide a more complete picture of the interactive effect of student–teacher racial/ethnic congruence on students' discipline risk. Future research should also investigate the role student racial composition plays in moderating the relationship between student–teacher racial/ethnic congruence and student discipline risk.

### *Policy Implications*

In light of our findings, we recommend the following:

- Higher education institutions with teacher preparation programs should increase the diversity of students majoring in education, and should receive funding for recruitment services dedicated to this purpose. For decades, educational scholars have called for the diversification of the teaching workforce (Villegas & Irvine, 2010). The recognition that efforts should be made to ensure that teacher composition reflects student composition in terms of their racial/ethnic background is rooted in part in cultural synchrony theory (Rosenberg, 1979) and consistent with findings from the literature on representative bureaucracy, which states that social groups benefit when leadership is demographically similar to the body it represents or serves (Meier, Wrinkle, & Polinard, 1999). Racially/ethnically diverse students have been found to benefit behaviorally and

academically when the race/ethnicity of the teaching and administration workforces are similar to the student body (Grissom, Kern, & Rodriguez, 2015; Roch et al., 2010; Rocha & Hawes, 2009). The argument for diversifying the teaching workforce is based on the notion that teachers who share the cultural and racial/ethnic heritage of their students have the background and experiences needed to understand culturally centered and ambiguous behaviors, reducing the likelihood of misunderstanding and mislabeling these behaviors as “deviant” (Blake et al., 2011; Blake et al., 2015). As the demographics of the USA continue to evolve, the need to diversify the teaching staff becomes more pressing. By 2024, students who have been racial/ethnic minorities will comprise the numerical majority in American schools (Kena et al., 2014). Because students of color may face educational adversity by attending schools where the teaching staff does not share their racial/ethnic background, our findings provide additional justification for universities to make concerted efforts to diversify the teaching workforce.

- Given the difficulty in achieving a representative faculty in the near term, efforts to improve the cultural competency of current teachers should be an immediate priority. A call has been issued for schools to integrate implicit racial bias training into their professional development programs (Rudd, 2014), in order to support teachers who struggle with equitably disciplining their students.
- Increased funding for teachers’ professional development based on a tiered-support model to address inequitable school discipline should be made available to public schools. This model for professional development would involve providing all teachers with classroom behavior management and implicit bias training as part of their regular professional development activities. For teachers who exceed discipline thresholds for the number of discipline referrals or racial/ethnic disparities in discipline referrals made, focused support services would be made available. These support services may take the form of teachers being paired with more experienced peers who are successful at managing their classroom to serve as coaches. Coaching might include modeling and mentoring teachers who over-refer students in the delivery of effective classroom management practices. Additionally, teachers could complete in-depth training covering implicit bias and cultural competency (see e.g., *My Teaching Partner*; Center for Advanced Study of Teaching and Learning, 2015; see also

Gregory, Bell & Pollock, this volume). For teachers who are unsuccessful with these added support services, individual assistance may be provided, such as participation in culturally informed behavioral consultation with school psychologists (Ingraham, 2008; Newell, 2010; Newell, in 2016).

- Each of these recommendations is not without its own costs. However, to achieve the goals set out by various levels of government, such as the Supportive School Discipline Initiative of the US Departments of Education and Justice (2014), steps such as these are likely necessary.

## CONCLUSION

Using a panel dataset of more than 900,000 students across several years, we have found that the extent to which the racial/ethnic diversity of a school's student population matches its faculty, the less likely students are to experience discipline. These findings are most robust for students of color—the individuals who are most plagued by disproportionate discipline. Given these findings, the creation of programs to recruit faculty of color in K-12 settings have promise. While such recruitment is taking place, we recommend that professional development programs be implemented to ensure that teachers are fully prepared to deal with classroom behavior in a culturally competent manner.

## NOTES

1. See Appendix A of Fabelo et al. (2011) for a more detailed list of variables within the dataset and the main text for various demographics of the study cohort.
2. Because of the complicated and interactive nature of the graphic, the overall probabilities for each scenario were calculated and the odds ratios calculated from these probabilities. Both procedures follow Long (1997, 79–81). In particular, for each bar, the coefficient for grade, race, gender, congruence, race  $\times$  congruence, gender  $\times$  congruence, and race  $\times$  gender  $\times$  congruence were accounted for while leaving other values at their means, and follows a student from 7th to 12th grade calculating the overall odds of discipline over a six-year academic career.

3. Because odds ratios are non-linear, simply adding together the separate odds ratios or multiplying an odds ratio by a factor will often yield improper values. When properly interpreting logistic regression, odds ratios are calculated by  $e^{(x)}$  where  $x$  is equal to the coefficient in question, the total value of combined coefficients, or the appropriate value of the independent variable multiplied by the corresponding coefficient (Long, 1997). In this case, with a maximum change in diversity of 0.75, the resulting odds ratio is calculated by  $e^{(0.75 \times 0.444)}$ .
4. When discussing race/ethnicity, gender, and the interactions of the two, an average congruence campus is assumed to eliminate any compounding effects from the student–teacher racial/ethnic congruence interactions.
5. Interactive odds ratio calculated as  $e^{(0.162-0.524)}$  for Hispanics and  $e^{(0.149-0.524)}$  for Black girls.
6. When compared to White males, the odds ratios are calculated as  $e^{(0.162-0.524+0.192)}$  for Hispanic females and  $e^{(0.149-0.524+0.0498)}$  for Black girls.

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