Published in final edited form as:

Appl Dev Sci. 2015 ; 19(3): 127–138. doi:10.1080/10888691.2014.983028.

Classroom Race/Ethnic Composition, Family-School Connections, and the Transition to School

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Abstract

Using data from the Early Childhood Longitudinal Study–Kindergarten Cohort ($N = 13,970$), we examined whether two aspects of school-family connections—parental involvement and communication quality—accounted for the association between classroom composition and children's academic and socioemotional functioning following the transition to elementary school. For students with more same-race/ethnic representation in their classrooms, greater classroom race/ethnic diversity promoted more parental involvement, which in turn promoted children's interpersonal skills and reading achievement. Classroom diversity made little difference on parental involvement when students had fewer same-race/ethnic peers in the classroom. Teacher-parent communication quality did not emerge as an explanatory mechanism, and findings did not vary by the race/ethnic match between students and their teachers.

Keywords

classroom race/ethnic diversity; parental involvement; achievement; socioemotional well-being; school transitions

The U.S. population has shifted dramatically in the past 50 years, driven by both immigration and fertility trends. In 2010, White youth (i.e., those under age 18) held a slim numerical majority (54%), with growing representation observed for Latino youth (23%), and relatively stable representation of African American (14%), Asian American (5%), and multiethnic youth (5%); in 10 years, White youth are projected to be in the numeric minority (Federal Interagency Forum on Child and Family Statistics, 2012). These shifting demographics are reflected in the changing face of American schools (Orfield & Lee, 2007). How classrooms' race/ethnic composition (i.e., composition of students from different races and ethnicities, including race/ethnic diversity and same-race/ethnic representation) influences parents' involvement in and communication with the classroom (termed home-school connections) and the implications of these connections for children's transition to formal schooling (i.e., socioemotional well-being, academic performance) are the primary focus of this study. We situate our study in the tenets of biocological theory (Bronfenbrenner

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& Morris, 1998), which suggests that the more distal structural characteristics of educational contexts influence development indirectly via the interactions and processes that are fostered therein (see Benner, Graham, & Mistry, 2008).

Race/ethnic Diversity and Children's Development

The existing work on the benefits of race/ethnic diversity for students has focused predominantly on the postsecondary level and suggests that interactions in diverse classroom environments promote students' academic outcomes, critical thinking skills, and cross-race/ethnic connections (Gurin, Dey, Gurin, & Hurtado, 2003; Gurin, Dey, Hurtado, & Gurin, 2002). The positive influence of race/ethnic diversity for educational success is observed as early as elementary school, and this work early in the life course highlights diversity benefits for both children's academic performance and their socioemotional well-being (Benner & Crosnoe, 2011; Borman & Eitle, 2004). In contrast, mathematics and reading achievement, mental health, and interpersonal functioning is poorer when children attend segregated schools with a high percentage of race/ethnic minority youth (typically operationalized as the percentage of African American and Latino students in the school; Benson & Borman, 2010; Crosnoe, 2005). The limited work to date on the influence of school composition for the K-12 system's youngest students has focused on school rather than classroom level race/ethnic diversity. This is likely because classroom composition tends to mirror the larger school demographics. In contrast, a large literature exists around individual race/ethnicity and interpersonal processes at the classroom level, including work on interracial friendships (Hallinan & Smith, 1988) and race/ethnic match between students and their teachers (Saft & Pianta, 2001). Thus, there is a foundation of understanding how race/ethnicity plays out at the classroom level. Moreover, given that young children spend the substantial part of their school day in their classroom with their classroom peers and the fact that our focus is on the classroom-level mechanisms (e.g., parent educational involvement, parent-teacher communication quality) by which diversity exerts its influence, the current study focuses specific attention on classroom rather than schoolwide race/ethnic diversity and its implications for children's well-being.

To date, research has not explored the mechanisms by which diversity promotes positive outcomes for children. Two such mechanisms may be at work here. The first is internal to the child. When children encounter differences in their social environments due to exposure to more racially/ethnically diverse peers, the resulting disequilibria could push children's thinking forward and promote cognitive growth (Piaget, 1983). Typically, childhood is a time when children's cultural cognitions and competencies begin to develop (Spencer, 1985), particularly as they are better able to use race/ethnic classifications, which typically develop by age six (Brown & Bigler, 2005). Although the academic benefits of diversity are likely at least partially attributable to internal mechanisms, when considering young children entering formal K-12 schooling, it is quite likely that other external factors are equally, if not more, responsible for such benefits. We focus on one set of external contextual processes—home school connections—as an alternate potential mechanism of influence.

In the transition to elementary school, students and parents are exposed to a new learning environment. Approximately 70% of U.S. children enroll in preschool programs in the year

prior to school entry (OECD, 2012), but the transition to formal K-12 schools generally necessitates entry into a new school with new educators and peers. School transitions such as these are particularly critical for children's development. According to bioecological theory, transitions involve shifting contexts and opportunities for new interactions that foster the proximal processes that drive children's growth and development (Bronfenbrenner, 1979). In essence, these new school contexts provide children with opportunities to interact with same-age peers as well as with the educators that lead instruction and classroom activities, and it is through these interactions that children build their knowledge and skills.

Yet the transition to formal schooling initiates the forging of new relationships not just for children but for their parents as well. Parents have the primary role of preparing their children for elementary school (Reynolds, Magnuson, & Ou, 2010), but the educational socialization processes that parents use to prepare their children for this transition vary, particularly by race/ethnicity and socioeconomic status (Alexander, Entwisle, Blyth, & McAdoo, 1988). Parents must also negotiate school expectations for participation and determine the extent to which they feel comfortable and confident in engaging the educators at their children's schools (Anderson & Minke, 2007). These home-school relationships are the central focus of the current study.

We view these relationships through the lens of the bioecological perspective (Bronfenbrenner & Morris, 1998), which suggests that human development is driven by increasingly complex interactions between individuals in their proximal and distal environments. Bioecological theory places particular attention on how connections and exchanges across proximal contexts—such as those between home and school (termed mesosystems)—influence individuals' development across domains. We focus specifically on home and school because these are the primary contexts of development for young children (Alexander et al., 1988).

Home-School Connections as a Critical Link

The connections that parents and educators form (i.e., home-school connections) can be critical for both easing the transition to elementary school and ensuring early educational success (Entwisle & Alexander, 1993). For example, when parents of elementary-aged children are actively involved in their children's education both through home- and school-based activities (e.g., volunteering at school, discussing educational topics), children benefit academically in the short term in relation to teacher ratings of academic abilities and in the long term in relation to ultimate educational attainment (Barnard, 2004; Lee & Bowen, 2006). Similarly, parent involvement and home-school connections also have been found to promote more positive socioemotional well-being (Domina, 2005; Izzo, Weissberg, Kaspro, & Fendrich, 1999) and social skills (McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004). In the current study, we focus specifically on aspects of parent involvement that capture mesosystemic influences—specifically, parents' educational involvement at school and the quality of home-school communication. Prior research suggests these are key components that promote elementary school children's well-being (El Nokali, Bachman, & Votruba-Drzal, 2010; Englund, Luckner, Whaley, & Egeland, 2004). Although prior research has found that school characteristics such as poverty status and parent

characteristics such as race/ethnicity and socioeconomic status (SES) influence such home-school connections (Griffith, 1998; Lee & Bowen, 2006; Turney & Kao, 2009), how classroom composition influences home-school connections has yet to be determined.

In their integrative model of minority child development, Garcia Coll and colleagues (1996) identify segregation (particularly high concentrations of African American and Latino individuals) as strongly linked to inhibiting educational environments that, in turn, foster adaptive cultures that may differ from mainstream culture. In inhibiting contexts, the interactions and proximal processes that occur therein hinder optimal growth and development (e.g., poorer teacher expectations for students, greater use of practices that make ability differences between students more salient; Farkas, 2003). The integrative model would suggest that diversity, in contrast, would support more promotive educational settings and greater uptake of the larger norms around involvement and engagement in school. When teachers oversee classrooms with more diverse student populations, they may become more open and accepting of difference and more sensitive to the needs of diverse families (Allison & Rehm, 2006; Frankenberg, & Siegel-Hawley, 2008). Thus, teachers may foster classroom cultures that are more inviting and better promote active connections with parents. Similarly, when parents feel accepted and invited into the classroom, this should promote greater involvement and increase the likelihood that parents will reciprocate active efforts to forge home-school connections

We provide a more nuanced view by also taking into account same-race/ethnic representation in the classroom; whereas race/ethnic diversity is a classroom-level variable, capturing the number of race/ethnic groups represented in the classroom and the relative proportion of each, same-race/ethnic representation is an individual (i.e., child) level construct that captures the percentage of same-race/ethnic peers in the classroom. Prior work has found that having more same-race/ethnic peers can promote positive socioemotional outcomes in youth, moreso that being in diverse classroom climates (Benner & Crosnoe, 2011; Eitle & Eitle, 2004; Goldsmith, 2004). Thus, although segregation can foster inhibiting contexts according to the integrative model, more recent empirical work suggests that at least some representation of same-race/ethnic peers (termed critical mass) promotes more belonging and less mistreatment (Linn & Welner, 2007). Extrapolating from this research, even if parents feel the classroom climate is generally open and inviting, if they feel that they and their children are not well-represented racially/ethnically, then their feelings of belonging may be compromised, and they may be less likely to forge and maintain home-school connections. Similarly, teachers with less exposure to certain groups may feel less efficacious in facilitating these partnerships or less open to certain groups (Farkas, 2003). In the current study, we specifically investigate how classroom diversity and same-race/ethnic representation come together to influence home-school connections, and how these home school connections, in turn, promote more positive academic and socioemotional outcomes for children following the transition to elementary school.

Finally, informed by the bioecological perspective, we also place attention on the race/ethnic matches between teachers and families, as person–context interactions and the matches between individuals and their environments are posited to promote development (Bronfenbrenner & Morris, 1998). Indeed, teachers tend to provide more positive ratings of

student-teacher relationship quality when they share the same-race/ethnicity as the target student (Murray, Murray, & Waas, 2008; Saft & Pianta, 2001), although more recent work suggests that teacher-student race/ethnic match has little influence on the relationship between classroom characteristics and preschool children's socioemotional well-being (Howes et al., 2011).

Current Study

The current study uses data from the Early Childhood Longitudinal Study–Kindergarten Cohort (ECLS-K) to address two primary research aims. First, is classroom race/ethnic composition associated with children's academic performance and socioemotional well-being, in part, via its relation to home-school connections. Here, we were particularly interested in the interaction between two aspects of the classroom race/ethnic composition—diversity and same-race/ethnic representation—and we hypothesized that when students were in more diverse classrooms, home school connections (i.e., parent educational involvement, parent-teacher communication quality) would be strongest when students also had greater representation of same-race/ethnic peers. We offered no hypotheses regarding potential differential effects of home-school connections on children's academic versus socioemotional outcomes due to the limited extant literature on this relationship for children at this developmental period. Second, do the relationships among classroom race/ethnic composition, home-school connections, and children's outcomes vary as a function of students' race/ethnicity or whether students and teachers share the same race/ethnicity? We offered no hypotheses for our second research aim given the inconsistent nature of the prior literature.

Method

Sample

Participants in the study were drawn from ECLS-K, a longitudinal study conducted by National Center for Education Statistics (NCES) that collected information from a random sample of 22,782 children enrolled in kindergarten during the 1998–1999 school year. Among the 100 initially selected primary sampling units across the U.S., 1,000 schools with kindergartens were selected. From each school, approximately 23 kindergarteners were randomly sampled. Data from children, parents, and teachers were collected from kindergarten through eighth grade. Given our interest in the transition to school, we analyzed data collected in the fall and spring of kindergarten. The analysis sample was identified based on two criteria. First, we excluded students who had different teachers in the fall and spring semester ($n = 3,450$). Second, we excluded children in private schools from our sample ($n = 4,600$), as private school enrollment is linked to selection issues and is unaffected by larger federal and state educational policies that govern school assignments. This resulted in a final sample of 13,970 public school students. Note that throughout the manuscript, N 's are rounded to the nearest 10 students per NCES requirements for ECLS-K restricted-use data.

Measures

Classroom race/ethnic composition—Three classroom race/ethnic composition indicators were included in the study: classroom race/ethnic diversity of students, same-race/ethnic representation (i.e., the proportion of same-race/ethnic peers in the classroom), and the race/ethnic match between the teacher and student. All measures were based on teachers' reports of the number of students in the classroom who were Asian American, Black/African American (not of Hispanic origin), White (not of Hispanic origin), Latino (regardless of race), or another race/ethnicity in the fall of the kindergarten. Following Simpson's (1949) index of diversity, the race/ethnic diversity of students in the classroom was computed:

$$D_c = 1 - \sum_{i=1}^g p_i^2$$

In the equation, D_c represents the race/ethnic diversity in the classroom. The proportion (p) of each race/ethnic group in each classroom (i) was squared, summed, and subtracted from one. The classroom diversity index, which ranges from 0 to approximately 1, represents the probability that two randomly selected students in the classroom will be of different races/ethnicities. The diversity index is the preferred method for comprehensively capturing both the number of groups represented and the relative proportion of each group in a robust and easily interpretable manner (see Budescu & Budescu, 2012 for a discussion; see Benner & Crosnoe, 2011; Juvonen, Nishina, & Graham, 2006; Seaton & Yip, 2009 for examples). Same-race/ethnic representation was determined by identifying the proportion of students in the classroom that shared the target student's identified race/ethnicity. The race/ethnic match between the student and teacher was coded as 1 if the target student's race/ethnicity matched the teacher's race/ethnicity.

Family-school connections—Teacher-reported parental involvement and parent-reported communication quality were collected in the spring of kindergarten. For *parent involvement*, teachers reported whether the target student's parent participated in four school activities: attend regularly scheduled conferences at school, attend parent-teacher informal meetings about the child's progress, return teacher's calls, and volunteer to help in the classroom/school. Each item was dichotomously coded as 1 (*participated*) or 0 (*did not participate*). A total count value represented parents' active involvement in school activities. For *communication quality*, parents reported on how well the school communicated useful information to facilitate children's school adjustment. Using a Likert scale (1 = *does not do this at all*; 3 = *does this very well*), parents reported on five domains of school communication quality: lets them know how their child is doing between report cards; helps parents understand what children are like at the child's age; makes parents aware of volunteer opportunities; provides workshops, materials, or advice about promoting learning at home; and provides information on community services to help child. Higher mean scores indicated better communication quality (Cronbach's $\alpha = .71$).

Student outcomes—To capture changes in children's academic and socioemotional outcomes during the transition to school, we used measures conducted in the fall and spring

of kindergarten. Two domains of child *academic achievement* were measured through direct assessments: reading skills (e.g., letter recognition) and mathematic skills (e.g., shapes). Both assessments were administered in an untimed manner and included two-stage adaptive tests. The first routing stage included items with a broad range of difficulty, which then determined the difficulty level of the second stage test. Item Response Theory (IRT) scale scores were created to represent students' reading and mathematics achievement. By incorporating the difficulty of the test for each individual student in scaling test scores, scores are comparable across time.

Two areas of child *socioemotional adjustment* were examined: externalizing behaviors and interpersonal skills. Subscales of externalizing behaviors and interpersonal skills were drawn from the Social Ratings Scale (SRS). Using a scale from 1 (*never*) to 4 (*always*), teachers rated five items on student's externalizing behaviors (i.e., child argues, fights, gets angry, acts impulsively, disturbs ongoing activities) and five items on interpersonal skills (i.e., forms and maintains friendships; gets along with people who are different; comforts or helps other children; expresses feelings, ideas and opinions in positive ways; shows sensitivity to the feelings of others). Higher mean scores indicated more externalizing behaviors ($\alpha = .90$) and better interpersonal skills ($\alpha = .78$).

Control variables—To account for confounding variables, we included a series of controls at the child, family, classroom, and school level. Child-level covariates included child gender, age, race/ethnicity (White, African American, Latino, Asian American, other), and whether the child was a first-time kindergartener. Four family-level factors were controlled: family SES (i.e., an NCES-created mean score of standardized measures of parents' educational attainment, occupational prestige, and family income), family structure (two-parent biological family versus other family structure), region of residence (south, midwest, west, northeast), and urbanicity (small town/rural area, city fringe, large town). At the classroom level, we included teachers' education (dichotomous variable capturing whether the teacher had a master's degree or higher) and teachers' total years at their current school. At the school level, we controlled for school size (1 = *less than 150*, 5 = *750 or more*), the diversity of the teaching staff, and whether the school qualified for Title I status. Additionally, because of the focus on children's transition experiences, we controlled for the availability of transition programming activities at the school. We summed seven transition activities (e.g., whether schools conducted home visits, whether preschoolers visited kindergarten classroom prior to school entry) and divided the sum by the total number of non-missing responses; the resulting proportion captures the extent of transition activities offered at each school based on only activities endorsed as present/absent.

Analysis Plan

First, we conducted path analysis in a structural equation modeling (SEM) framework to test our hypothesized model examining whether parental involvement and communication quality mediated the association between classroom race/ethnic composition and student outcomes following the transition to elementary school. Both classroom race/ethnic diversity and same race/ethnic representation were included in the model as classroom composition predictors; their interaction (labeled diversity-by-representation interaction) was also

included given that the relation between school race/ethnic diversity and student outcomes has previously been found to depend on the proportion of same race/ethnic peers (Benner & Crosnoe, 2011). We included autoregressive paths for each student outcome (i.e., regress the spring score on the fall score) to parse out intraindividual differences, resulting in more conservative estimates. Student outcomes in spring of kindergarten were allowed to correlate with each other. All inferences for the indirect effects were based on the Mplus estimation of indirect effects, which estimates indirect effects with delta method standard errors (Muthen & Muthen, 1998-2012), as recommended by MacKinnon and colleagues (2002). Second, we conducted multiple group analyses to determine whether the hypothesized model functioned differently depending on student race/ethnicity or the race/ethnic match between the teacher and target student. All analyses included the extensive set of control variables.

Analyses were conducted using *Mplus* 7.1 (Muthen & Muthen, 1998-2012). Full information maximum likelihood (FIML) estimation was used to handle missing data. Given the clustered structure of the data, we used the CLUSTER procedure to account for students nested in classrooms in combination with the robust maximum likelihood (MLR) estimation was used to handle potential violations of the independence assumption, thereby achieving more robust standard errors. All models were weighted using an NCES-created weight to address representativeness of the sample concurrently and over time. In multiple group analyses, we used the Satorra-Bentler scaled chi-square difference test (Satorra, 2000) for model comparisons.

Results

Table 1 presents descriptive statistics for all study variables. Bivariate correlations are summarized in Table 2.

Classroom Race/Ethnic Composition, Family-school Connections, and Student Outcomes

Our proposed model examined whether the association between classroom race/ethnic composition and children's adjustment were mediated by family-school connections following the transition to school (see Figure 1). Data are modeled at the child level but account for students clustered in schools, and the model fit the data well: comparative fit index (CFI) = .93, root mean square error of approximation (RMSEA) = .05, χ^2 ($df = 105$) = 2821.44, $p < .001$. The standardized coefficients and *R*-square values are displayed in Figure 1. Parent-reported communication quality was not related to classroom diversity, same-race/ethnic representation, or the interaction between the two. In contrast, parental involvement was significantly associated with same-race/ethnic representation ($\beta = .05$, $p < .01$) and the diversity-by-representation interaction ($\beta = .03$, $p < .05$). This interaction, although small, is of similar magnitude to some of our race/ethnic covariate effects on parent involvement (e.g., Latino, African American, and Asian American vs White $\beta_{\text{range}} = .07$ to $-.13$, $p < .001$).

To unpack the interaction effect between classroom diversity and same-race/ethnic representation, simple slope analyses were conducted (see Figure 2). For students with more same-race/ethnic peers in their classrooms (1 or more *SD* above mean), greater classroom

race/ethnic diversity was linked to greater parental involvement at school ($\beta = .05, p = .06$). In contrast, classroom diversity was unrelated to parental involvement at school when students were in classrooms with fewer same-race/ethnic peers (1 *SD* below mean; $\beta = -.02, p = .37$). Both parental involvement and communication quality, in turn, were associated with better reading achievement, stronger interpersonal skills, and fewer externalizing behaviors at the end of kindergarten. Mathematics achievement was unrelated to parental involvement or communication quality.

Two significant indirect pathways were observed. Parental involvement at school mediated the relationship between the diversity-by-representation interaction and both students' interpersonal skills ($\beta_{\text{ind}} = .002, p < .05$) and reading achievement ($\beta_{\text{ind}} = .001, p < .05$). These indirect effects point to parent involvement at school as a mechanism by which school diversity is linked to children's socioemotional and academic outcomes.

Variation by Student Race/ethnicity and Student-Teacher Race/ethnic Match

Our final set of analyses examined whether the relationships under study varied by child race/ethnicity or by the race/ethnic match between children and their teachers. First, multiple group comparisons were conducted to examine potential model paths differences by student race/ethnicity. An unconstrained model that allowed all parameters to be freely estimated across the four groups (i.e., White, African America, Latino, Asian American) was compared to constrained model where the central parameters of interest were constrained to be equal across groups. Although we observed a significant difference between the free and constrained models using the Satorra-Bentler scaled chi-square difference test ($X^2_{\text{diff}}(42, 11,150) = 123.96, p < .001$), follow-up probes of constraints on individual paths yielded no significant differences across race/ethnic groups.

Second, multiple group comparisons were conducted to examine whether the model paths varied based on the student-teacher race/ethnic match. Following the same model comparison procedures described above, we first compared with model fit between the unconstrained and fully constrained model. These models included two groups of students—those who shared the same race/ethnicity as their teachers ($n = 11,300$) and those who differed in race/ethnicity from their teachers ($n = 4,390$). Satorra-Bentler scaled chi-square difference tests showed that constraining the central parameters to be the same across groups did not lead to a significant decrease in overall model fit, $X^2_{\text{diff}}(26, 10,820) = 34.12, p = .13$. Thus, whether students and teachers shared the same race/ethnicity (or not) did not affect the association between classroom race/ethnic composition, home-school connections, and students' well-being.

Testing an Alternative Model

Although our proposed model was informed by both theory and the extant empirical research base, the possibility of alternative specifications exist. For example, it may be that the rather than mediate the link between classroom composition and children's outcomes across the transition to school, home-school connections are actually a byproduct of this relationship. In this alternative model, classroom race/ethnic composition would be directly linked to more positive child outcomes, and in turn, better child outcomes would be

associated with more home-school connections. Our test of this alternative model revealed a poorer model fit (CFI = .89, RMSEA = .06, χ^2 ($df = 110$) = 4531.99, $p < .001$). An examination of the AIC (alternative model: 621798 vs. proposed model: 618016) and BIC (alternative model: 625827 vs. proposed model: 622082) levels provided similar evidence that the proposed model best fit the data.

Discussion

This study sought to identify possible mechanisms by which classroom race/ethnic composition might influence young children's development following the transition to school. Our focus on home-school connections was purposeful and was both theoretically and empirically motivated. Schools and families represent the primary proximal developmental contexts of young children, and both play critical roles in children's development. Unlike previous work (Benner & Crosnoe, 2011; Johnson, Crosnoe, & Elder, 2001), this study considered the race/ethnic composition of *classrooms* rather than larger *school* demographics. Classrooms are more proximate to children and their families; they are where daily interactions occur, and they are the most likely places where parents come into direct contact with educators. Moreover, classroom-level variables tend to exhibit stronger links to students' well-being than similar variables aggregated to the school level (Dar & Resh, 1986; Koth, Bradshaw, & Leaf, 2008).

Classroom Composition and Home-School Connections

We found that classroom race/ethnic composition mattered for parent involvement but not parent-school communication quality. Specifically, when students were in classrooms with higher same-race/ethnic representation, greater classroom diversity was linked to more parent involvement. In contrast, diversity effects were not observed when students were in classrooms with fewer same-ethnicity peers. This suggests that diversity benefits are maximized when children have a critical mass of same-ethnic peers. At the educator level, although teachers may initially lack confidence in their ability to promote students' learning when serving more diverse student populations (Guskey, 1995), teacher preparation programs have increasingly focused on building novice teachers skills in this area (Ladson-Billings, 1999; Melnick, & Zeichner, 1996), and teachers may place greater attention on diversity when there are multiple, more equally-represented race/ethnic groups in their classrooms. At the parent level, prior scholarship shows that parents who are more satisfied with their contacts with the school and who feel their children's schools empower them to participate are more likely to be actively involved in their children's education (Griffith, 1996; McWayne, Campos, & Owsianik, 2008), and these feelings may be promoted when parents see their child's race/ethnic group is more equally represented (and respected) in the classroom. Future research using more comprehensive measures of parent involvement, such as the Family Involvement Scale (Fantuzzo, Tighe, & Childs, 2000) that assesses school-based and home-based involvement and home-school conferencing, may also provide greater insights into exactly how classroom race/ethnic composition influences families' educational involvement. Attention to parent demographics will also be important in future work, as there is some evidence that the nature and consequences of parent involvement

vary by characteristics such as parent race/ethnicity, immigration status, and SES (Hill et al., 2004; McWayne & Melzi, 2014).

Given that White parents are more likely to be involved in their children's schooling, particularly in regard to maintaining a physical presence at the school via volunteering or other means (Eccles & Harold, 1996; Nzinga-Johnson, Baker, & Aupperlee, 2009), educators clearly must remain focused on methods for promoting inviting classrooms and encouraging parent involvement, particularly for race/ethnic minority families and families in race/ethnic groups that are the numeric minority in their classrooms; mentoring support is one intervention strategy that has proven particularly effective in promoting classroom teachers' efficacy in instructing diverse youth (Achinstein & Barrett, 2004). Training in teacher preparation programs and professional development opportunities in K-12 schools should be particularly mindful of ways to encourage race/ethnic minority families' classroom involvement, as they are more likely to cite barriers and cultural challenges to their educational involvement at school (Carreon, Drake, & Barton, 2005; Turney & Kao, 2009). At the school level, ensuring classrooms have a balanced representation of race/ethnic groups in the classroom (to the extent this is possible given the larger demographics of the school) may further maximize the likelihood that parents will be actively involved in their children's education in the school setting.

We were surprised that classroom composition did not similarly influence parents' ratings of the quality of communication. The scale for our communication quality measure was limited, and the mean suggested that most parents felt the schools communicated more than adequately, with little variation in responses ($M = 2.27$, $SD = .38$); thus, the null findings may be more due to measurement than an underlying lack of a relationship. Future research with measures of communication quality that assess more communication domains with a more extensive scale are needed before any firm conclusions can be drawn on the links between classroom demographics and communication quality. In addition to measurement issues, it also may be that rather than affecting communication quality, classroom demographics may exert a stronger influence on communication quantity (i.e., the amount of contact between teachers and parents). For example, Pianta and colleagues (1999) observed less educator-parent contact in schools serving more minority students. Whether classroom teachers with more diverse student populations might engage in more methods to contact and connect parents is an area ripe for inquiry.

Home-School Connections and Children's Well-being

Both communication quality and parent involvement were associated with higher academic achievement and more positive socioemotional well-being. This is consistent with prior research that shows clear advantages of parental involvement for elementary students' development across domains (Englund, Luckner, Whaley, & Egeland, 2004; Izzo et al., 1999). In the academic domain, Jimerson and colleagues (1999) similarly observed links between parental involvement and reading/verbal but not mathematics achievement, and our findings echo these earlier results; however, other research has identified significant positive effects of parental involvement on children's mathematics achievement (see Ginsburg-Block, Manz, & McWayne, 2010 for a review), either as a main effect or conditional on

other aspects of the parenting system (e.g., maternal warmth; see Dearing, Kreider, Simkims, & Weiss, 2006). These disparate findings suggest greater attention to developmental timing and the potential differential effects of the various components of parental involvement is warranted.

To that end, it is also possible that other aspects of parents' educational involvement, not measured here, might also serve as possible mechanisms for the relationship between classroom race/ethnic composition and children's outcomes. For example, in a study of preschool children, Fantuzzo and colleagues (2004) found that parents' educational involvement at home was particularly influential for young children's social skills and academic readiness, and home educational involvement actually conditioned the positive effects of parents' school involvement on children's behavior. To the extent that more diverse classroom settings might make parents more comfortable in and committed to classrooms and schools, we might observe school composition effects on an educational involvement process that is unfolding in the home setting. Whether this link exists and whether classroom race/ethnic composition influences the processes by which this unfolds is another area for future inquiry. Regardless, our findings suggest that interventions targeting young children's achievement and socioemotional well-being may be more effective when combined with explicit strategies that strengthen home-school connections.

Variations by Student Race/ethnicity and Student-Teacher Race/ethnic Match

The match between students and teachers' race/ethnicity did not appear to affect the association between classroom race/ethnic composition, home-school connections, and students' outcomes. This is consistent with recent findings of the equivalent effects of classroom characteristics on children's outcomes regardless of teacher-student race/ethnic match (Burchinal & Cryer, 2003; Howes et al., 2011). It is possible that the advantageous effects of having a teacher of the same race/ethnicity may be limited to the teacher-student relationship and the emotional or instrumental support such matches may offer (Howes, & Shivers, 2006).

As a final note, the race/ethnic composition of classrooms and schools represent only one aspect of school demographics that might impact children's experiences in the transition to school. For example, prior research suggests that affluent families are more likely to be actively involved in their children's education, engaging in concerted cultivation efforts that promote children's academic and socioemotional development (Lareau, 2003). This, combined with recent evidence that suggest achievement gaps tied to socioeconomic status may be more persistent than those tied to race/ethnicity (Reardon, 2011), suggests that investigating demographics tied to student SES is an area for future research. Such work should determine whether the interplay between school SES diversity and children's same-SES representation exerts similar effects on children's outcomes via similar pathways.

Caveats and Conclusions

Although we believe the current study contributes to our understanding of young children's experiences in their transition to formal school, limitations must also be addressed. First, it is possible that the observed relationship between family-school connections and children's

outcomes could arise due to issues of selection, such that parents who are most likely to forge home-school connections are also those whose children will look best both academically and socioemotionally. Issues of selection are a continual challenge for observational research, and following prior conventions, we included a host of child, family, teacher, and school characteristics that have previously been identified as important for parent involvement and children's adjustment across the transition to elementary school (Hill et al., 2004; Lee & Bowen, 2006; Leithwood & Jantzi, 2009; Rothstein, 2004).

It also must be noted that although we observed significant links between the diversity-representation interaction and parental involvement as well as parental involvement and young children's outcomes, the effect sizes were not particularly large. In general, interaction effects are more difficult to detect due to issues of power (Edwards & Lambert, 2007), and given that the interaction effects emerged despite the large number of controls included in the model, this lends additional support for the significance of our findings. Future studies should examine whether this diversity-representation interaction effect is of similar size across K-12. Longitudinal research suggests that school-based parental involvement decreases from elementary to secondary school (Green, Walker, Hoover-Dempsey, & Sandler, 2007), yet the benefits of parents' educational involvement are persistent across K-12 (Hill & Tyson, 2009; Jeynes, 2007). If future research documents a persistent (or increasing) effect of school or classroom race/ethnic diversity or the diversity-representation interaction on parent involvement, this might suggest attention to school and classroom race/ethnic composition as a means of promoting greater parent involvement. This is complicated by the fact that schools are reaching segregation levels similar to those during the Civil Rights Era (Orfield & Lee, 2007), and school districts' ability to use race/ethnicity in school assignments to maintain school diversity have been compromised by recent Supreme Court decisions (Wells & Frankenberg, 2008).

Taken as a whole, the current study suggests that when there is a critical mass of same-ethnic others, classroom diversity can support home-school connections in meaningful ways that translate into learning and emotional gains for young students. At a time in America when our schools are becoming increasingly diverse, the findings here suggest that schools and educator preparation programs must continue to ensure that teachers have the knowledge and skills to promote home-school connections and serve the needs of diverse student populations.

Acknowledgments

Funding: The authors acknowledge the support of funding from the National Academy of Education, the Spencer Foundation, and the William T. Grant Foundation to Aprile Benner and from the National Institute of Child Health and Human Development to the Population Research Center, University of Texas at Austin (R24 HD42849). Opinions reflect those of the authors and not necessarily those of the granting agencies.

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Figure 1.

Estimated Standardized Coefficients from Path Analysis Examining the Links among Classroom Race/ethnic Composition, Home-school Connections, and Student Outcomes. *Notes:* Solid lines denote significant paths; dashed lines denote nonsignificant paths. The paths from classroom composition to student outcomes were tested but were not depicted because they were non-significant. Same-race/ethnic representation indicates the proportion of same race/ethnic peers in the classroom. * $p < .05$, ** $p < .01$, *** $p < .001$. $R\text{-squared}$ = .63 for reading achievement, .65 for mathematics achievement, .38 for interpersonal skills, .51 for externalizing behaviors, .13 for parental involvement, and .02 for communication quality.

Figure 2.
Relation between classroom diversity and parental involvement by same-race/ethnic representation.

Table 1
Descriptive Statistics for Study Variables

Variable	<i>n</i>	%	<i>M</i>	<i>SD</i>
Classroom Race/ethnic Composition				
Same-race/ethnic representation	11860		.66	.34
Teacher-child match	12200	69.0		
Classroom diversity	11890		.29	.23
Family-school connections				
Communication quality	12760		2.27	.38
Parental involvement	12760		2.62	1.20
Child outcomes				
Reading achievement	12940		31.39	10.09
Mathematics achievement	13520		26.78	8.66
Externalizing behaviors	13340		1.67	.65
Interpersonal skills	13260		3.10	.64
Child control variables				
White	8460	63.7		
African American	2130	16.0		
Latino	1300	9.8		
Asian American	1060	8.0		
Other	330	2.5		
Gender (female)	13960	48.5		
Age (in months)	13540		68.47	4.38
Repeated kindergarten	13970	3.9		
Family control variables				
Two-parent biological family	12760	64.3		
Family SES composite	12370		.003	.67
Residence in South	13970	33.8		
Residence in Midwest	13970	23.8		
Residence in West	13970	24.7		
Residence in small town or rural area	13970	37.7		
Residence in city fringe or large town	13970	22.6		
Classroom control variables				
Teacher has master's degree	12690	33.2		
Teacher years at current school	13350		9.42	8.10
School control variables				
School size	13950		3.55	1.05
Teaching staff diversity	10670		.16	.19
Title I status	11840	65.0		

Table 2
Bivariate Correlations among Primary Study Constructs

	1	2	3	4	5	6	7	8
1. Same-race/ethnic representation	--							
2. Classroom diversity	-.65**	--						
3. Communication quality	.01	-.01	--					
4. Parent involvement	.08**	-.03**	.08**	--				
5. Reading scores	-.01	.02*	.03**	.19**	--			
6. Mathematics scores	.03**	-.02	.01	.20**	.72**	--		
7. Interpersonal skills	.02	-.07	.06**	.16**	.26**	.27**	--	
8. Externalizing behaviors	-.01	.02*	-.04**	-.06**	-.19**	-.18**	-.62**	--

Notes:

* $p < .05$,

** $p < .01$,

*** $p < .001$.