HBCU Teacher Preparation and African American Students' Perceptions of Algebra I Classroom Learning Environments: A National Study

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Abstract
Historically Black Colleges and Universities (HBCUs) have long contributed to the preparation of Black educators, yet comparatively little national evidence examines how the institutional background of teachers relates to Black students' experiences in mathematics classrooms. This study uses the base-year High School Longitudinal Study of 2009 (HSLS:09) to examine African American students' perceptions of Algebra I classrooms taught by early-career, certified mathematics teachers whose undergraduate institutions were classified as HBCUs or non-HBCUs. The reported weighted analytic sample was 8,799 students. Twelve student-perception items were organized into four domains: overall perception of the class, clear and engaging teaching, positive and effective learning environment, and teacher-student interaction. Descriptive comparisons showed that students in classrooms taught by HBCU-educated teachers reported more favorable perceptions on enjoyment of mathematics, low boredom, instructional interest, ease of understanding, fairness, and gender equity. Students in non-HBCU teacher classrooms reported higher favorable percentages on respect and the belief that all students could be successful. Domain-specific logistic models further identified significant associations for enjoyment (OR = 2.73), low boredom (OR = 4.35), ease of understanding (OR = 1.63), valuing students' ideas (OR = 3.49), fairness (OR = 5.52), and gender equity (OR = 1.78), while the item concerning learning from mistakes was negatively associated with HBCU teacher status (OR = 0.69). Findings are interpreted as associations rather than causal effects and suggest that HBCU teacher-preparation pathways warrant closer attention in research on equitable and engaging Algebra I instruction.
Keywords: Historically Black Colleges and Universities; Algebra I; Black students; teacher preparation; student perceptions; HSLS:09; culturally responsive mathematics teaching

Introduction

Historically Black Colleges and Universities (HBCUs) occupy a distinctive place in the preparation of Black educators in the United States. From their nineteenth-century origins, many HBCUs developed as normal schools and teacher-training institutions at a time when Black students were systematically excluded from most White colleges and universities. Teacher preparation consequently became intertwined with broader institutional commitments to educational access, community service, and the development of Black professional leadership (Anderson, 1988). That historical mission remains relevant to current concerns about the recruitment and preparation of teachers for diverse and high-need schools (Dilworth, 2012; Irvine & Fenwick, 2011).

The contemporary significance of HBCU teacher preparation is not limited to the number of teachers produced. Prior research has identified differences in teacher-preparation experiences among HBCU and non-HBCU graduates and has argued that HBCU educator-preparation programs often place particular emphasis on cultural competence, community responsiveness, and service to historically underserved students (Collins et al., 2013; Myrie et al., 2026). These features are especially important in mathematics, where students' experiences of relevance, clarity, fairness, and belonging can shape their willingness to persist in advanced coursework.

Algebra I is a particularly consequential context in which to examine these relationships. Ninth-grade algebra often serves as an entry point to the secondary mathematics sequence and influences access to later college-preparatory coursework. Research on algebra course-taking has demonstrated that simply expanding access does not guarantee positive academic outcomes; the quality of the classroom experience and instructional supports also matter (Allensworth et al., 2009). For Black students, those classroom experiences unfold within a broader history of unequal access to rigorous mathematics instruction and persistent racialized assumptions about mathematical ability.

Student perceptions provide one window into these classroom processes. Students observe day-to-day instruction, teacher expectations, classroom relationships, and patterns of fairness in ways that brief external observations cannot fully capture. Research on student surveys indicates that carefully constructed student-perception measures can provide meaningful information about instructional quality and classroom climate (Ferguson, 2012). In mathematics, such information is particularly useful because engagement and confidence are shaped not only by content difficulty but also by whether students experience instruction as understandable, respectful, and responsive to their ideas.

The present study focuses exclusively on Algebra I. It examines African American students' perceptions of Algebra I classrooms according to whether their teachers earned undergraduate degrees from HBCUs or non-HBCU institutions. By isolating mathematics, the study provides a more coherent test of the relationship between teacher institutional background and students' experiences in a foundational mathematics course.

Literature Review

HBCUs and the Preparation of Black Teachers

The historic role of HBCUs in teacher education reflects both necessity and institutional mission. During segregation, HBCUs were among the few institutions in which Black students could obtain professional preparation for teaching. Their colleges and departments of education developed strong ties to Black schools and communities and became central to the supply of Black educators across the South (Anderson, 1988). Although the policy environment surrounding teacher education has changed substantially, HBCUs continue to be viewed as important institutions for recruiting and preparing teachers who serve racially and economically diverse schools (Irvine & Fenwick, 2011).

Research has also suggested that HBCU preparation may differ in emphasis from preparation at other institutions. Dilworth (2012) argued that HBCUs bring distinctive historical and institutional perspectives to teacher-education reform. Using national Baccalaureate and Beyond data, Collins et al. (2013) found differences in indicators of teaching preparation between Black HBCU and non-HBCU graduates. More recent scholarship continues to emphasize culturally inclusive preparation, community engagement, and program structures designed to help preservice teachers work effectively in diverse urban contexts (Myrie et al., 2026). These findings do not imply that all HBCU programs share a single model; rather, they support examining institutional background as a meaningful context for teacher preparation.

Culturally Responsive Mathematics Teaching

Culturally relevant and culturally responsive pedagogies provide a useful framework for considering why institutional preparation might be associated with students' classroom perceptions. Ladson-Billings (1995) conceptualized culturally relevant pedagogy around academic success, cultural competence, and critical consciousness. Gay (2018) similarly emphasized the deliberate use of students' cultural knowledge and experiences to make learning more meaningful and effective. In mathematics, these principles call for more than adding culturally familiar examples; they require attention to students' reasoning, participation, identity, and access to intellectually rigorous work.

A synthesis of culturally responsive mathematics teaching research found that culturally responsive approaches can support more equitable and inclusive mathematics learning environments for culturally and linguistically diverse students (Abdulrahim & Orosco, 2020). The practices most relevant to the present study include making mathematics understandable and engaging, listening to students' ideas, communicating high expectations, treating students fairly, and building a classroom climate in which mistakes are part of learning. These are also the kinds of behaviors students are well positioned to observe and report.

Teacher Representation, Relationships, and Mathematics

A related body of scholarship demonstrates that teacher representation and teacher-student racial matching can matter for student outcomes. Dee (2004), using randomized assignment data, found positive mathematics and reading achievement effects when students were assigned to same-race teachers. Egalite et al. (2015) likewise reported small but statistically significant benefits of

race-congruent teacher assignment, including positive mathematics effects for Black students. These studies focus on teacher race rather than institutional background, but they underscore the importance of relational and representational dimensions of teaching for Black students.

Teacher institutional background should not be treated as equivalent to teacher race, culturally responsive practice, or instructional quality. HBCU attendance is instead a broad educational-context variable that may reflect exposure to particular institutional missions, mentoring traditions, peer networks, and preparation experiences. The empirical question is therefore whether student-reported classroom experiences differ in systematic ways across HBCU and non-HBCU teacher-education pathways.

Algebra I as a Gateway Mathematics Course

Algebra I frequently marks a critical transition in the secondary mathematics sequence. Policies designed to increase access to algebra have demonstrated the importance of pairing access with strong instructional support; requiring students to take college-preparatory algebra does not by itself ensure stronger achievement or later college outcomes (Allensworth et al., 2009). The quality of classroom interaction is therefore central to the role of Algebra I as a gateway course.

From a teacher-preparation perspective, effective Algebra I instruction requires both mathematical knowledge for teaching and the ability to make abstract ideas accessible to learners. Ball et al. (2008) distinguished the specialized content knowledge needed for teaching from ordinary subject-matter knowledge, highlighting the importance of understanding how students think about mathematical ideas, where misconceptions arise, and how explanations can support conceptual understanding. When combined with culturally responsive and relational practices, such pedagogical content knowledge may help create classrooms in which Black students experience mathematics as understandable, worthwhile, and fair.

Purpose of the Study and Research Questions

The purpose of this study was to examine African American students' perceptions of their Algebra I classroom learning environments and to determine how those perceptions were associated with whether the students' teachers earned undergraduate degrees from HBCUs or non-HBCU institutions. The study addressed three research questions:

1. What are African American students' overall perceptions of the Algebra I classroom learning environment across the four domains of class perception, teaching style, learning environment, and teacher-student interaction?
2. How do favorable student perceptions differ descriptively between Algebra I classrooms taught by HBCU-educated and non-HBCU-educated teachers?
3. Which student-perception items are independently associated with the teacher's undergraduate institutional classification (HBCU vs. non-HBCU) within each classroom-perception domain?

Method

Data Source and Design

This study is a secondary analysis of the base-year High School Longitudinal Study of 2009 (HSLS:09), sponsored by the National Center for Education Statistics (NCES). HSLS:09 used a nationally representative sample of ninth-grade students enrolled in public and private schools in the United States. In the base year, 21,444 eligible students completed the student questionnaire across 944 participating schools (Ingels et al., 2011). Mathematics teachers of sampled students were also invited to complete a teacher questionnaire, allowing teacher characteristics to be linked to students as contextual information.

The mathematics-only analysis used the linked student-teacher records for African American students enrolled in Algebra I. Teacher undergraduate institutions were classified as Historically Black Colleges and Universities or non-HBCU institutions using the postsecondary institutional classification available in the study's working data. The source manuscript reported that institutional identification was linked to Integrated Postsecondary Education Data System (IPEDS) information. The analysis retained only students who could be linked directly to the teacher responsible for the Algebra I course.

Analytic Sample

Teacher-level restrictions were used to create a more comparable early-career sample. Teachers were required to be teaching Algebra I at the time of the base-year survey, to have five or fewer years of teaching experience, to hold a bachelor's degree as their highest credential, and to be certified to teach mathematics in grades 9-12. After the student and teacher restrictions and weighting described in the source analysis were applied, the reported weighted analytic N for Algebra I was 8,799 students. Because the analysis is student-level, teacher information is treated as classroom context rather than as a representative sample of U.S. teachers, consistent with NCES guidance for HSLS:09 teacher data (Ingels et al., 2011).

Measures

Student perceptions were represented by 12 HSLS:09 questionnaire items organized into four conceptual domains. The domains and items were as follows:

Overall perception of the class: I enjoy this math course very much. This math course is a waste of time. This math course is boring.

Clear and engaging teaching style: My math teacher makes math interesting. My math teacher makes math easy to understand.

Positive and effective learning environment: My teacher thinks mistakes are okay if students learn from them. My teacher values and listens to students' ideas. My teacher believes all students can be successful.

Teacher-student interaction: My teacher treats students with respect. My teacher treats every student fairly. My teacher treats some students better than others. My teacher treats males and females differently.

Items were originally rated on a four-point Likert scale ranging from strongly agree to strongly disagree. In the source analysis, strongly agree and agree were collapsed, and strongly disagree and disagree were collapsed, producing binary responses. Negatively worded items were directionally recoded so that higher or favorable responses consistently represented a more positive perception of the classroom. Thus, a favorable response meant agreement for positively worded items and disagreement for negatively worded items such as “This math course is boring” or “My teacher treats males and females differently.”

Analysis

The analysis proceeded in three stages. First, weighted descriptive percentages summarized favorable and unfavorable responses for all 12 Algebra I perception items. Second, favorable percentages were compared descriptively for students whose teachers graduated from HBCUs and students whose teachers graduated from non-HBCU institutions. Third, four domain-specific binary logistic regression models were estimated, one for each perception domain.

In the logistic models, the dependent variable was the teacher’s undergraduate institutional classification, coded HBCU versus non-HBCU, with non-HBCU as the reference category. The student-perception items within each domain served as binary predictors. Accordingly, an odds ratio greater than 1 indicates that a favorable response on an item was associated with higher odds that the student’s Algebra I teacher was an HBCU graduate, conditional on the other items in that domain. An odds ratio below 1 indicates an association with lower odds of HBCU teacher status. This model specification tests association; it does not establish that HBCU attendance caused the observed student perceptions (Hosmer et al., 2013).

Model fit was summarized with Nagelkerke R^2, a pseudo-R^2 measure that rescales the Cox and Snell statistic to the 0-to-1 range (Nagelkerke, 1991). Because the source output provided regression coefficients, odds ratios, and significance indicators but not full confidence intervals or exact p values, the present manuscript reports the available statistics without inventing additional precision.

Results

Overall Algebra I Classroom Perceptions

Table 1 summarizes students’ overall Algebra I perceptions. The results indicate a generally positive classroom climate. Nearly four-fifths of students reported enjoying mathematics (78.8%), and 87.1% rejected the statement that the course was a waste of time. Approximately 68.5% rejected the statement that mathematics was boring.

Perceptions of teaching clarity were also favorable: 78.7% reported that their teacher made mathematics interesting, and 78.2% reported that the teacher made mathematics easy to understand. The learning-environment items were especially positive. More than 85% reported that mistakes were acceptable when students learned from them and that the teacher valued students’ ideas; 93.7% perceived that the teacher believed all students could be successful.

Teacher-student interaction was similarly positive overall. More than 93% reported respectful treatment, 85.6% reported fair treatment, 85.0% rejected the idea that some students were treated better than others, and 87.2% rejected differential treatment of males and females.

Table 1

Overall Favorable and Unfavorable Perceptions of the Algebra I Learning Environment

Domain	Item	Favorable %	Unfavorable %
Overall perception of the class	Enjoy math course very much	78.8	21.2
	Math course is a waste of time	87.1	12.9
	Math course is boring	68.5	31.5
Clear and engaging teaching style	Teacher makes math interesting	78.7	21.3
	Teacher makes math easy to understand	78.2	21.8
Positive and effective learning environment	Mistakes are OK if students learn	86.2	13.8
	Teacher values/listens to students' ideas	85.2	14.8
	Teacher believes all students can be successful	93.7	6.3
Teacher-student interaction	Teacher treats students with respect	93.4	6.6
	Teacher treats every student fairly	85.6	14.4
	Teacher does not treat some students better than others	85.0	15.0
	Teacher does not treat males/females differently	87.2	12.8

Note. Weighted analytic N = 8,799. "Favorable" denotes agreement with positively worded items and disagreement with negatively worded items. Percentages are reproduced from the mathematics section of the source analysis.

HBCU and Non-HBCU Descriptive Comparisons

Table 2 presents favorable-response percentages by teacher institutional background. The largest descriptive differences favored HBCU-educated teachers on several affective and instructional items. Students in HBCU teacher classrooms more often reported enjoying mathematics (88.3% vs. 74.5%), rejected the characterization of mathematics as boring (91.4% vs. 58.2%), reported that the teacher made mathematics interesting (89.7% vs. 73.7%), and reported that mathematics was easy to understand (91.4% vs. 72.2%).

The pattern for the positive learning environment was more mixed. HBCU teacher classrooms showed modestly higher favorable percentages for learning from mistakes (88.7% vs. 85.1%) and having teachers who valued and listened to students' ideas (87.8% vs. 84.1%). By contrast, non-HBCU teacher classrooms showed a higher favorable percentage for the belief that all students could be successful (94.7% vs. 91.4%).

Teacher-student interaction also showed a mixed pattern. HBCU teacher classrooms had higher favorable percentages for fair treatment (91.8% vs. 82.8%), no preferential treatment (89.7% vs. 82.8%), and gender equity (91.8% vs. 85.1%). Non-HBCU teacher classrooms had the higher percentage for respectful treatment (95.8% vs. 88.3%). These results indicate meaningful

advantages for HBCU classrooms on several dimensions while cautioning against a claim that every item favored HBCU-trained teachers.

Table 2

Favorable Algebra I Perceptions by Teacher Undergraduate Institutional Background

Domain	Favorable item	HBCU %	Non-HBCU %
Overall perception of the class	Enjoy math course very much	88.3	74.5
	Math course is not a waste of time	91.4	85.1
	Math course is not boring	91.4	58.2
Clear and engaging teaching style	Teacher makes math interesting	89.7	73.7
	Teacher makes math easy to understand	91.4	72.2
Positive and effective learning environment	Mistakes are OK if students learn	88.7	85.1
	Teacher values/listens to students' ideas	87.8	84.1
	Teacher believes all students can be successful	91.4	94.7
Teacher-student interaction	Teacher treats students with respect	88.3	95.8
	Teacher treats every student fairly	91.8	82.8
	Teacher does not treat some students better than others	89.7	82.8
	Teacher does not treat males/females differently	91.8	85.1

Note. Weighted analytic N = 8,799. Group-specific counts are not reproduced because the source table contained a one-case inconsistency between the stated total and the two subgroup counts. Percentages are retained exactly from the source mathematics output.

Logistic Regression Models

Table 3 reports the four domain-specific logistic models. In Model 1, overall class perception explained 12% of the variation in teacher institutional classification according to Nagelkerke R^2. Favorable responses for enjoying mathematics (OR = 2.73) and not finding the course boring (OR = 4.35) were reported as statistically significant and were associated with higher odds that the teacher was an HBCU graduate. The "waste of time" item was not reported as significant.

Model 2 explained 8% of the variation. Reporting that the teacher made mathematics easy to understand was significantly associated with HBCU teacher status (OR = 1.63). The "makes math interesting" item, despite a sizable descriptive difference, was not independently significant in the two-item domain model.

Model 3 explained 10% of the variation. Reporting that the teacher valued and listened to students' ideas was positively associated with HBCU teacher status (OR = 3.49). In contrast, the favorable response to the mistakes-as-learning item was negatively associated with HBCU teacher status (OR = 0.69). The item indicating that all students could be successful was not reported as significant.

Model 4 produced the largest pseudo-R^2 (.20). Favorable perceptions of fair treatment were strongly associated with HBCU teacher status (OR = 5.52), as was the perception that males and

females were not treated differently (OR = 1.78). Respect and the item concerning preferential treatment of some students were not independently significant in the model.

Table 3

Logistic Regression Associations Between Favorable Student Perceptions and HBCU Teacher Status

Domain	Favorable item	B	OR	Reported significant
Overall perception	Enjoy math course very much	1.01	2.73	Yes
	Math course is not a waste of time	0.26	1.30	No
	Math course is not boring	1.47	4.35	Yes
Clear/engaging teaching	Teacher makes math interesting	0.31	1.36	No
	Teacher makes math easy to understand	0.49	1.63	Yes
Positive/effective environment	Mistakes are OK if students learn	-0.36	0.69	Yes
	Teacher values/listens to students' ideas	1.25	3.49	Yes
	Teacher believes all students can be successful	0.26	1.30	No
Teacher-student interaction	Teacher treats students with respect	-0.11	0.89	No
	Teacher treats every student fairly	1.70	5.52	Yes
	Teacher does not treat some students better than others	0.16	1.17	No
	Teacher does not treat males/females differently	0.58	1.78	Yes

Note. Outcome = teacher undergraduate institutional classification (HBCU vs. non-HBCU), with non-HBCU as the reference category. OR = Exp(B). For negatively worded source items, predictors are expressed here in the favorable direction for interpretability. "Reported significant" reproduces the significance designation in the source output; exact p values and confidence intervals were not available in the manuscript provided for revision. Nagelkerke R^2 values were .12, .08, .10, and .20 for the four domains, respectively.

Discussion

This mathematics-only analysis reveals a clear but nuanced relationship between teacher institutional background and Black students' experiences in Algebra I. The descriptive results show especially large favorable differences in HBCU teacher classrooms for enjoyment, low boredom, making mathematics interesting, making mathematics easy to understand, fair treatment, and gender equity. These dimensions are educationally meaningful because they connect affective engagement, instructional clarity, and relational fairness—three conditions that can influence whether students view mathematics as a domain in which they can participate successfully.

The strongest descriptive patterns are consistent with scholarship that has emphasized the historical and contemporary role of HBCUs in preparing educators for diverse and high-need schools (Dilworth, 2012; Irvine & Fenwick, 2011). They are also compatible with culturally responsive mathematics teaching, which emphasizes rigorous learning while attending to students' identities, ideas, participation, and classroom belonging (Abdulrahim & Orosco, 2020; Gay, 2018; Ladson-Billings, 1995). In particular, the high percentages for mathematics enjoyment, clarity, listening to student ideas, fairness, and gender equity suggest classroom practices that may help students experience Algebra I as more accessible and relationally supportive.

At the same time, the findings do not support an unqualified conclusion that HBCU-trained teachers were rated more positively on every dimension. Students in non-HBCU teacher classrooms

reported higher favorable percentages for respectful treatment and for the belief that all students could be successful. In addition, the logistic model for the learning-environment domain produced an odds ratio below 1 for the item concerning learning from mistakes. These countervailing findings strengthen the manuscript because they show that the HBCU/non-HBCU distinction is not functioning as a simple proxy for overall teacher quality.

The regression results also help distinguish large descriptive differences from associations that remain after other items in the same domain are considered. For example, making mathematics interesting showed a substantial descriptive difference but was not independently significant when modeled alongside making mathematics easy to understand. By contrast, ease of understanding remained significant. Similarly, respectful treatment favored non-HBCU classrooms descriptively but was not independently significant in the teacher-student interaction model, whereas fairness and gender equity were. The most defensible interpretation is therefore that HBCU teacher status was associated with a particular pattern of student perceptions centered on enjoyment, clarity, listening, fairness, and equity rather than a universal advantage across all measured classroom experiences.

These findings are also consistent with research showing that relational and representational dimensions of teaching matter for Black students. Studies of same-race teacher assignment have found positive academic effects, including in mathematics (Dee, 2004; Egalite et al., 2015). The present study does not test same-race matching and should not be interpreted as doing so. Instead, it extends the broader conversation by asking whether the institutional setting in which teachers completed undergraduate education is associated with the classroom experiences reported by Black students.

Implications for Teacher Preparation and Practice

First, HBCU mathematics teacher-preparation programs should identify and make explicit the practices that may contribute to the favorable student perceptions observed in this study. If program experiences emphasize relational teaching, culturally responsive practice, high expectations, student voice, and equitable participation, those features should be documented systematically and integrated into clinical supervision, methods courses, and program evaluation. The goal is not to assume that institutional mission automatically produces effective practice, but to identify the specific preparation experiences that are transferable and measurable.

Second, non-HBCU and HBCU programs alike can use student-perception data as one source of evidence about mathematics teaching. Measures of enjoyment, clarity, voice, fairness, and respect capture dimensions of instruction that may not be visible in test scores alone. Student feedback should not function as a stand-alone high-stakes evaluation, but it can inform coaching, clinical practice, and continuous program improvement (Ferguson, 2012).

Third, school districts seeking to strengthen Algebra I instruction should attend to the interaction between mathematical pedagogical content knowledge and culturally responsive practice. Algebra teachers need the specialized knowledge required to represent mathematical ideas, interpret student thinking, and address misconceptions (Ball et al., 2008), but those competencies operate within a social classroom environment. Professional learning that combines mathematical

content, student reasoning, and equitable relational practice may be especially valuable in schools serving large populations of Black students.

Finally, the findings support continued policy attention to HBCUs as part of the mathematics teacher pipeline. HBCUs' historical role in preparing Black educators remains relevant to current efforts to diversify the profession and improve educational experiences in high-need schools (Irvine & Fenwick, 2011). Investments in HBCU teacher preparation should be paired with research that identifies which program components are associated with strong classroom outcomes.

Limitations and Directions for Future Research

Several limitations should guide interpretation. First, the study is observational. Teacher institutional background was not randomly assigned, and the analyses do not control for all student, teacher, school, or community characteristics that could influence classroom perceptions. The results therefore identify associations rather than causal effects of HBCU attendance.

Second, HBCU status is an institutional classification, not a direct measure of the content or quality of a teacher-preparation program. Teachers may have completed different majors, certification pathways, clinical experiences, and mathematics methods sequences within the same institutional category. Future studies should incorporate direct measures of preparation experiences and, where possible, distinguish institution type from teacher race and other background characteristics.

Third, the analytic restrictions narrow generalizability. The study focused on African American students enrolled in Algebra I and on teachers with five or fewer years of experience, a bachelor's degree as the highest credential, and secondary mathematics certification. The findings should not automatically be extended to veteran teachers, teachers with graduate credentials, other racial/ethnic student groups, or other mathematics courses.

Fourth, collapsing four response categories into a binary favorable/unfavorable measure improves interpretability but reduces response variability. Future analyses could retain the ordinal structure of the original items and use multilevel or ordinal models that account explicitly for students nested within teachers and schools. Finally, replication with the full HSLS:09 complex-survey variance estimation procedures and reporting of standard errors, confidence intervals, and exact p values would strengthen inferential precision.

Conclusion

This study refocuses the original national analysis on mathematics alone and shows that teacher institutional background is meaningfully associated with African American students' perceptions of Algebra I classrooms. Students taught by HBCU-educated teachers reported particularly strong favorable perceptions of mathematics enjoyment, low boredom, instructional clarity, listening to student ideas, fair treatment, and gender equity. At the same time, some perceptions favored non-HBCU classrooms, underscoring the importance of a balanced interpretation.

The central contribution is not a claim that one institutional sector produces universally better teachers. Rather, the results identify a distinctive pattern of Algebra I classroom experiences associated with HBCU teacher preparation and establish a basis for more targeted research on the specific features of HBCU mathematics teacher education that may support engaging, understandable, and equitable instruction for Black students.

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