

### The Relationship between Racial and Ethnic Diversity in a Class and Students' Perceptions of Having Learned From Others

Research has established that within higher education, institutional differences in racial-ethnic diversity are positively associated with educational benefits, including students' capacity to learn from others who are different from themselves.<sup>1(a-g)</sup> However, this literature does not address the issues of whether all institutions can benefit from increasing their level of diversity regardless of their current level, whether an institution needs to obtain a critical level of diversity in order to derive benefits, or whether a level of diversity has been achieved beyond which no further benefits can be expected (i.e., thresholds).

These issues are important given legal requirements for higher education institutions, including medical schools, to have admissions policies withstand judicial scrutiny if these policies take race into account. Schools must be prepared to justify the benefits of race-conscious admissions policies, should they employ such policies. Further, in each of the four U.S. Supreme Court decisions that addressed race conscious admission policies,<sup>1(h-k)</sup> the issue of thresholds emerged.

This *Analysis in Brief* (AIB) examines the relationship between student body racial and ethnic diversity and level of student agreement with statements about learning from individuals from different backgrounds. It seeks to establish whether educational benefits

from small increases in diversity can be achieved regardless of initial diversity amounts. This information can facilitate schools' capacity to address benefits of their diversity policies, including concerns about thresholds.

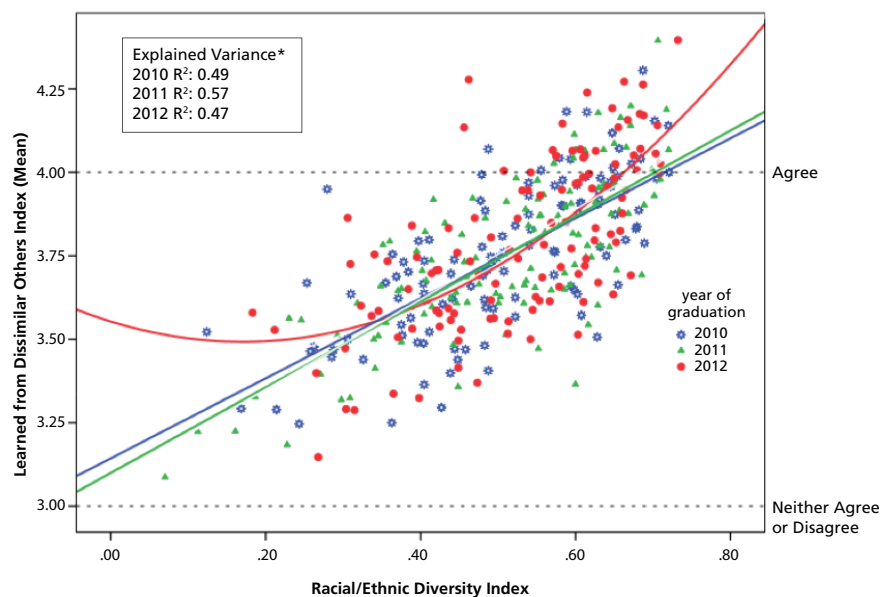
#### Methodology

Data in this AIB come from two sources. The racial data on student-class diversity come from the Student Record System (SRS),<sup>2</sup> a database of enrollment information—including demographic characteristics—on the national medical student population. Data on student reported self-perception of having learned from

others come from the Medical School Graduate Questionnaire (GQ)—a survey administered to all fourth-year medical students at U.S. medical schools.

We analyze the association of the institution's level of racial-ethnic diversity with their students' perceptions of having learned from others who are different from themselves. We use responses from the graduating classes of 118 fully LCME-accredited medical schools<sup>3</sup> from 2010 to 2012 (providing a sample of 354 graduating classes). For each graduating class, we measure

**Figure 1: Relationship between Student Body Racial and Ethnic Diversity and Mean Level of Student Agreement with Statements about Learning from Individuals from Different Backgrounds, for 118 U.S. LCME-accredited Medical Schools**



\* See final paragraph of *Supplemental Material* for explanation of explained variance.

1 See *Supplemental Material* for list of references.

2 For more information, see: <https://www.aamc.org/services/srs/>.

3 Sample is drawn from the 126 fully LCME-accredited medical schools in 2000. Seven schools with missions to serve students from specific populations (i.e., historically black universities and Puerto Rican schools) were excluded. One additional medical school was excluded due to unreliable data on race, leaving our sample of 118 schools.

diversity by the likelihood that any two randomly selected students within that class will be of a different racial classification as observed in the SRS.<sup>4</sup> Scores for graduating classes can range between zero (if all students are of the same race) to one (if every student reports a unique race). Within graduating classes, we measure students' perceptions of having learned from others who are different from themselves by averaging an aggregate score of the students' level of agreement with two prompts from the GQ<sup>5</sup>: "My knowledge or opinion was influenced or changed by becoming more aware of the perspectives of individuals from different backgrounds," and "The diversity within my medical school class enhanced my training and skills to work with individuals from different backgrounds." Survey respondents responded on a 5-point Likert Scale ranging from "strongly disagree" to "strongly agree."

We plotted class diversity and aggregate class level of student agreement with having learned from others to capture this association between the variables by generating a best fit curve.<sup>6</sup> Three possible positive associations that may emerge are a non-curved (linear) association that indicates a positive association (the strength of the association is uniform among schools, no matter the level of diversity), a concave curve that indicates that the association is strongest for the most diverse schools and weakest for the least diverse schools, and a convex curve that indicates that the strength of the association is greatest among the least diverse schools and is weakest among the most diverse schools (see *Supplemental Material* for accompanying Figure).

## Results

Results show that students in the most racially diverse graduating classes report the highest levels of agreement that they have learned from others who are different from themselves, and students in the least racially diverse classes report the lowest level of agreement that they have learned from others who are different from themselves (Figure 1). The relationship between the two variables is strong, with the level of racial diversity in the class composition explaining close to half the variation in student reports of having learned from others.

In 2010 and 2011, the best fit curve is essentially a straight line that maintains the same slope over the range of values of diversity (see Panel A, Supplemental Figure). These two straight lines suggest that the relationship holds with similar strength among the most diverse schools as well as among the least diverse schools. In 2012, the fact that a concave curve (see Panel B, Supplemental Figure) best captures the relationship suggests that among the subset of institutions with the lowest levels of diversity, marginal differences in levels of diversity are not associated with differences in student perceptions of having learned from others.

## Discussion

The analysis demonstrates a strong relationship between racial-ethnic diversity of medical school classes and student perception of having learned from others, and that the association is particularly strong among the subset of institutions that are most diverse. This study advances existing knowledge about benefits of diversity<sup>1(1)</sup> by focusing on associations between diversity and benefits of learning among the most diverse schools and among the least diverse schools.

From this pattern, we might infer that medical schools that already have a relatively high level of diversity could improve student capacity to learn from others different from themselves by increasing their level of diversity even more. These benefits, in turn, might enhance the development of a more culturally competent physician workforce.<sup>1(m)</sup>

The findings are ambiguous as to whether or not a minimum level of diversity must be reached in order to begin realizing benefits from increasing diversity relative to that level. Of the three years of data, only one provided the significant curve indicative of this effect. Future research is needed to explore this issue, yet this one curve suggests that schools with very homogenous classes might need to do more than add a small number of diverse students in order to improve general student perceptions of having learned from others who are different. Future research also should focus on the culture and climate of medical schools in order to identify factors that enable schools to best capitalize on their diverse classes that they have brought together.

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4 This measure of diversity accounts for differences across all racial and ethnic groups, including but not limited to underrepresented minority groups.

5 Association of American Medical Colleges. Medical School Graduate Questionnaire: 2011 All School Summary Report. Washington, DC; Association of American Medical Colleges. Page 28; 2012.

6 For more information see, for example: [http://pic.dhe.ibm.com/infocenter/spssstat/v20r0m0/index.jsp?topic=%2Fcom.ibm.spss.statistics.cs%2Fcurvefit\\_table.htm](http://pic.dhe.ibm.com/infocenter/spssstat/v20r0m0/index.jsp?topic=%2Fcom.ibm.spss.statistics.cs%2Fcurvefit_table.htm)