

# Department of Mathematics, Morehouse College



Photo courtesy of the Morehouse College Department of Mathematics.

Each year, the Department of Mathematics at Morehouse College hosts the Harriett J. Walton Symposium on Undergraduate Mathematics Research. Now in its fourteenth year, the conference gives undergraduate math majors in Georgia and neighboring states a venue in which to present their own research and to make contact with others sharing their interests. The conference was named to honor Harriett J. Walton, a remarkable black woman who joined the Morehouse faculty in 1958. By that time she held master's degrees in mathematics from both Howard and Syracuse Universities. While teaching full-time at Morehouse and raising four children, she earned her PhD in mathematics education from Georgia State University in 1974. A teacher and mentor of exceptional dedication and a beloved member of the department, she retired from Morehouse in 2000, after forty-two years of service.

That the conference was named after this inspirational figure gives a hint of the soul of the Morehouse department. This is a place that values and draws on its heritage and traditions while striving to improve itself today and plant seeds for the future.

Founded in 1867, Morehouse College is the nation's only institution of higher education dedicated to black men. Its approximately 2,200 students are all male, and nearly all of them are black. With an emphasis on top-quality academics, the college aims to produce highly educated and morally conscious graduates who are, as the Morehouse website puts it, "the heart, soul and hope of the community."

The Department of Mathematics at Morehouse is oriented to this ideal. Its faculty strive to provide a challenging yet nurturing environment for all of its students. Much of the department's energy is focused on excelling in the ordinary business of all mathematics departments: delivering high-quality instruction in rigorous courses. Faculty provide plenty of office hours for one-on-one help, students can join study sessions to work together, and the Mathematics Lab offers a sociable setting where students

provide or receive tutoring. Encouragement and support are given both to students who are struggling and to students who are excelling.

Through interactions with faculty and colloquium speakers, Morehouse mathematics students gain new perspectives on the opportunities a degree in mathematics opens up. They also start to see beyond their coursework and to get a taste of what research in mathematics is like. Mathematics majors are encouraged to participate in Research Experiences for Undergraduates programs, and some also do research projects with Morehouse faculty. Students make presentations in departmental poster sessions and at local and national mathematics conferences, including the Harriett J. Walton Symposium.

The department hosts various social events that build community among the students and foster a sense of camaraderie centered on shared interest in mathematics. When a mathematics education researcher, Christopher Jett, was invited by the department to interview its majors in 2014, he found that “[the students’] mathematical bond created a brotherly sense of community among them” (quotation from a summary report submitted to the Morehouse department). He described the atmosphere in the Morehouse department as a “Mathematical Brotherhood.”



Photo courtesy of the Morehouse College Department of Mathematics.

Today the department has about sixty mathematics majors, and an average of fourteen of them graduate each year, making Morehouse the nation’s top producer of black male mathematics bachelor’s degree recipients. Increasingly, Morehouse math majors are continuing on to graduate school. Of the twenty-nine majors who finished in 2014 and 2015, half are now in graduate programs, most of them in the mathematical sciences and nearly all in science, engineering, or technology disciplines.

The year 2015 was a banner year for the department, as three of its alumni received PhDs in mathematics: Kevin Buckles (PhD, Tufts University), now at Henry Ford College; Bobby Wilson (PhD, University of Chicago), now a Moore Instructor at the Massachusetts Institute of Technology; and Samuel J. Ivy (PhD, North Carolina State University), now an assistant professor at the United States

Military Academy in West Point. They are among a total of six Morehouse alumni who received mathematics doctorates over the past seven years.

To put those numbers in context, consider that, between 2007 and 2014, an average of 13 mathematics PhDs went to black male US citizens each year, out of an average yearly total of 1,700 mathematics PhDs.

In a letter supporting the nomination of Morehouse for the Programs That Make a Difference award, Ivy wrote that the Morehouse Department of Mathematics has great professors who “perpetuate the ideals of Morehouse in producing great leaders and mathematical scholars....I only wish to continue the efforts of this program and its faculty within my career.” In this way, the seeds the Morehouse department is planting are bearing fruit beyond the borders of its own institution.

—Allyn Jackson  
*Senior Writer/Deputy Editor*