MATHEMATICAL ASSOCIATION of AMERICA

1529 Eighteenth Street, NW ▪ Washington, DC 20036 ▪ Telephone: (202) 387-5200

September 14, 2009

The Honorable George Miller
Chairman
Committee on Education and Labor
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Miller:

On behalf of the Mathematical Association of America (MAA), I am writing in support of H.R. 3221, the Student Aid and Fiscal Responsibility Act (SAFRA) of 2009. Specifically, the MAA would like to commend the committee for including a significant investment in Historically Black Colleges and Universities and Minority-Serving Institutions, and other programs that will expand opportunities for students from underrepresented groups to finance their undergraduate education.

The MAA is deeply concerned about the pipeline of talented students from diverse populations and women into undergraduate STEM programs, particularly mathematics and mathematics-intensive areas. Undergraduate mathematics education is a critical gateway between pre-college and graduate school that builds upon the foundation of math skills, and serves to motivate students to pursue baccalaureate and advanced mathematics degrees and enter STEM professions.

A dramatic drop in STEM majors, particularly in mathematics and mathematics-intensive fields, began in the United States during the 1990s. Between 1990 and 2007, the total number of bachelor's degrees awarded in the United States grew by over 45% while the number of degrees in mathematics grew by only three percent.[1] Over the period of 1990-2005, there has been a steady decline in mathematics enrollments at both small colleges and comprehensive universities.[2]

While the overall decline in mathematics enrollments affects all STEM education enrollments, as they rely heavily on mathematics, the most serious decline is occurring at the institutions that prepare the majority of our nation's teachers. Among the population pursuing STEM majors, women, African-Americans, Hispanics, and Native American students remain seriously underrepresented in mathematics, and women simply do not persist in the study of mathematics beyond the bachelors degree. Women account for fifty-seven percent of all undergraduates, but only 44 percent of majors in the mathematical sciences, and a meager 18 percent in engineering. African-Americans are twelve percent of the undergraduate population, but only 5 percent of majors in mathematical sciences and engineering.

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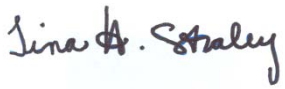
[1] National Center for Education Statistics. 1990–2008. *Digest of Education Statistics*. US Department of Education. Washington, DC.

[2] D. Lutzer, S. Rodi, E. Kirkman, J. Maxwell (Fall 2005), CBMS Fall 2005 Survey: *Statistical Abstract of Undergraduate Programs in the Mathematical Sciences in the United States"*, American Mathematical Society.

The MAA strongly supports the programs contained in H.R. 3221 that will help minority students pursue an undergraduate education, especially in engineering, the physical sciences, and the mathematical sciences in which they are most critically underrepresented. While there are several federal initiatives that have been successful in recruiting diverse populations into undergraduate education, the evidence simply does not show that there is an increasing number of minority and female students who are completing undergraduate degrees in mathematics, the physical sciences, and engineering. The MAA encourages the committee to consider policies that not only recruit students from diverse or disadvantaged backgrounds into postsecondary education through scholarship support, but those that will also support minority and female students throughout the undergraduate experience so that they stay in school and obtain a college degree in a STEM field.

Thank you for your work on this important legislation. We look forward to working with you to ensure that the bill is enacted into law.

Sincerely,



Tina H. Straley
Executive Director

cc: The Honorable Rubén Hinojosa, Chairman, Subcommittee on Higher Education, Lifelone Learning, and Competitiveness