



Indianapolis Public Schools

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Eugene G. White, Ed.D.
Superintendent

February 26, 2009

The Honorable Richard G. Lugar
United States Senate
309 Hart Senate Office Building
Washington, DC 20510

Dear Senator Lugar:

On behalf of Indianapolis Public Schools (IPS), I am writing to request your assistance with federal funding to implement the instructional and technology plans related to STEM at the Harshman Magnet Middle School through the FY 2011 Labor, HHS, Education Appropriations Bill.

In a world where advanced knowledge is widespread, the U.S. advantages in the marketplace and in science and technology have begun to erode. Without high-quality knowledge-intensive workers, that support scientific discovery and new technology innovations, American economic and political leadership in the world will continue to be compromised. Congress and the Administration have launched a comprehensive effort to address the issues surrounding STEM education, and how to create a robust pipeline of talented individuals into science and engineering fields. The Harshman Math, Science and World Languages Magnet Middle School was established as the IPS response to the need for well-prepared students in the foundation of STEM education who can then go on to attend high school with a focus on STEM-related programs. This will then lead to a greater number of students entering postsecondary education and advanced learning in the STEM disciplines, and later Indiana's workforce.

Indiana faces a shortage of STEM career professionals not unlike that of the nation. The number of students completing a postsecondary education in the STEM disciplines falls far short of the need within the state. Central Indiana will need over 40,000 STEM graduates to fill positions in the medical science, engineering and technology in the next eight years. While the need is critical, a pipeline for students with STEM interest has not been established in IPS, the state's largest school district. High school STEM related programs exist, but there is no middle school or elementary connection. Students in middle school, particularly those from urban settings with few role models, will not select STEM fields without prior awareness and engagement. Exposure to STEM professionals is critical, if students are to develop some understanding of what career options are available in STEM areas and see themselves as being capable and interested in pursuing these careers.

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Recognizing the need to generate interest in STEM beginning in elementary school, IPS will provide five elementary schools and three magnet elementary schools with a STEM focus. A curriculum will be developed to provide students with a continuum of skills and content in STEM to link elementary to middle school, then to high school and beyond. Students in middle and high school also must have a personal connection to STEM careers through engagement with mentors, field experiences to businesses, and interactions at the university or colleg-level. University STEM-related matriculation from these types of programs throughout the district have shown a three-fold increase annually. The Harshman Magnet Middle School is expected to multiply the number of students that are prepared to enter the STEM disciplines by a factor of ten.

We respectfully request your assistance for \$1,350,000 from the Labor, HHS, Education Appropriations bill through the Fund for the Improvement of Education (FIE) at the U.S. Department of Education. Federal funds will be used to develop the curriculum and implement the instructional plan aimed at giving the middle school students access to an accelerated core STEM curriculum where students have access to high school courses in science, mathematics, and pre-engineering for credit during middle school. The instructional plan calls for teacher professional development, partnerships with university science and engineering programs, local industry, and the purchase of science and engineering equipment all supported by an advanced technology infrastructure. The school will serve as a national model in light of the heightened need to equip Indiana's students with STEM-related skills to enter the workforce.

Thank you for your consideration of this request.

Sincerely,

A handwritten signature in black ink that reads "Eugene G. White". The signature is written in a cursive, flowing style.

Eugene G. White, Ed.D.
Superintendent