NEW YORK STATE SENATOR

James L. Seward

Boosting Our Math And Science Competitivenes

JAMES L. SEWARD

One recurring theme heard in discussions about both education and economic development is the state's inability to produce and retain scientists and mathematicians -- critical fields in the state's drive to take advantage of growth in cutting edge high tech fields. Without a substantial number of students entering science and math based careers, New York can't attract and retain employers in the new lines of chip fab or semiconductor production.

A panel of experts was convened by the National Academies, the nation's leading science advisory group, at the request of a bipartisan group in Congress to look at America's competitiveness in math and the sciences. The report released by the group in October of 2005 concluded that it is imperative for the United States to address the apparent decline in its economic, scientific, and technological edge in a very competitive world of globalization. The report cited a lack of qualified math and science teachers as one of the primary reasons for this increasingly threatening situation.

Statistics recently released by the Commission on Independent Colleges and Universities (CICU) show a steady decrease in the number of bachelors' degrees conferred in the areas of engineering, mathematics, and the physical sciences in New York State over the past 20 years. CICU specifically cited the following declines since 1985: 35 percent in engineering degrees; 25 percent in mathematics; and 33 percent in the physical sciences.

A recent review by the CICU of New York State Regents exams in math and science point to a lack of preparedness for majors in math, science, and engineering on a post secondary level. In fact, studies show that less than 15 percent of students nationwide have the prerequisites needed to pursue such degrees.

Former Governor Pataki, in his 2006 State of the State address, set a goal of making New York a national leader in preparing students for careers in math, science, and engineering by creating a comprehensive package of education reforms and enhancements.

In the spirit of the National Academy's panel recommendations, the state legislature established as part of the 2006-07 higher education budget (A. 9558-B, Chapter 58, L. 2006), a **New York State Math and Science Teaching Incentive Program** for students majoring in mathematics and sciences who commit to teach in those subject areas in a middle or high school located in New York State for five years.

Based on certain criteria, 500 awards will be granted annually and are to be awarded after the successful completion of each academic year.

Undergraduate and/or graduate students who are matriculated in approved programs at degree granting institutions leading to careers as math or science teachers in secondary education are eligible. Stipulations require a signed contract agreeing to teach on a full-time basis for five years in the field of math or science, in a school located within New York State on the secondary level at a school recognized by the Board of Regents or the University State of New York.

Each award entitles the recipient to receive an annual scholarship equal to full-time tuition at SUNY, or actual tuition charged, whichever is less. The award may not exceed a period of four years for undergraduate study, or one year of graduate study.

Students who don't complete the program will see their awards changed into student loans equal to the full amount given in the event the recipients fail to complete their programs within the specified time period; fail to receive or maintain their teaching certifications or licenses in New York State; fail to respond to requests to report on their academic status; or are not working at recognized institutions in specified areas within 2 years of completion of the program.

Is a math or science teaching career in your future? New York wants and needs more math and science teachers.