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*The Founding Society of the National Society of Professional Engineers*

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November 20, 2003

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To: The New York State Commissioner of Education  
The NYS Assistant Commissioner of Education  
Chancellor, NYS Board of Regents  
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The enclosed resolution, submitted by Broome Chapter NYSSPE, was passed by the New York State Society of Professional Engineers Board of Directors at its 2003 Annual Convention & Expo. It wholeheartedly supports the continuation of mandatory Technology Education, with reinstitution of Grade 8 assessment, for New York State Middle Schools.

The New York State Society of Professional Engineers joins major US industrial corporations (Lockheed Martin, IBM and Microsoft, for example) in our concern for the future supply of engineers to guarantee our nation's continued technological leadership. This concern is especially acute for our nation's defense contractors, who cannot hire foreign national engineers to meet their needs.

Vance Coffman, Chairman and CEO of Lockheed Martin, wrote the following in his capacity as 2003 Honorary Chair for National Engineers Week: "We have long sought to expand the career opportunities of young people to include engineering. The problem for many is the fact that our profession has an extended 'pipeline' for producing future talent. Potential engineers must be 'caught' at a young age so they can begin to take the intensive math and science courses that will allow them to pursue engineering years later. It is especially critical to reach women and minority students by middle-school age if our profession is to have greater future contributions from their ranks. Demographers have observed that, more and more in the coming century, those entering America's work force will not be white males. Consequently, America has a special need for minorities and women to become engineers. As a nation, we must fully benefit from the talent represented by diverse groups of people if we are to retain our global economic leadership."

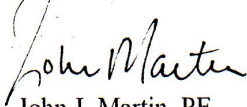
In our view, technology education in our Middle Schools is an extremely important means of interesting our young students, especially minorities and women, in pursuing an exciting career in engineering and/or science. In New York State's existing excellent Middle School Technology Education program, students learn about the following: History & Evolution of Technology; the Impacts of Technology on our society; Engineering Design; Computer Technology; Tools, Resources & Technological Processes; Technological Systems; and Management of Technology. These studies give them insight into the practical, real-life aspects of technology. Judging by talks with Technology teachers and students, they thoroughly enjoy this combination of theory and hands-on application. For many students, this may be their only exposure to these subjects during their secondary education. If the Middle School Technology Educational program no longer is mandatory, we may lose the opportunity to influence many young persons to consider the possibility of an exciting and high-paying career in technology, engineering or science.

A recent study of "diversity in the high-tech workplace" for the 10 highest-grossing high-tech companies in Silicon Valley, showed that one in three jobs between 1996 and 2000 were filled by Asian employees. This is attributed to the fact that Asian countries (especially China and India) turn out three times as many science and engineering graduates as the United States annually, according to the National Science Foundation; and Asians comprise nearly 8 percent of science and engineering graduates from the U.S. The U.S. education system is losing the battle to educate native-born engineers and scientists. At the same time an increasing number of technology and engineering jobs are being exported overseas due to a combination of cheaper labor rates and insufficient home-grown talent – many billions of dollars worth of lost U.S. wages.

For those New York State students who currently take the mandated Middle School Technology education classes and do not later pursue careers in engineering, science or technology, society still benefits. A populace that is well-grounded in technology is needed to make intelligent decisions which affect the quality of life in our State and our communities. Such issues as landfill siting, the re-use of brownfield sites for economic development, nuclear power, nuclear and hazardous waste disposal, the risks of soil vaporization from groundwater pollution, the need for infrastructure improvements, and homeland security in the wake of September 11 (to mention just a few technology issues), require technology-literate citizens who can balance risks against cost and benefits.

The New York State Society of Professional Engineers is in sympathy with the NYS Education Department's goals "to strengthen middle grades education and to improve student performance on the State's intermediate assessments." However, we urge that New York State secondary education not be allowed to take a major step backward from its national leadership position of mandatory Technology Education for NYS Middle School students. We also urge that mandatory Grade 8 assessment for Technology courses be re-established so that the courses will be taught with the same diligence and dedication as other core courses.

Very truly yours,



John J. Martin, PE  
Immediate Past President

Enclosure

Cc: Mr. Joseph Leogrande, President, NYS Technology Education Association  
Mr. Charles Goodwin, Co-Chairperson, NYSTEPA Advisory Council  
Mr. Kendall Starkweather, Executive Director, International Technology Education