

The Need for an Educated Workforce Has Never Been Greater – Norman R. Augustine

Advanced Technological Education Program Contributes to the Nation's Legacy of Innovation

America today faces a serious and intensifying challenge with regard to its future competitiveness and standard of living. Today, Americans find themselves in competition for their jobs not just with their neighbors, but with individuals around the world who are highly motivated, increasingly well-educated, and willing to work for a fraction of the compensation traditionally expected by U.S. workers.

If we are to offset the latter disadvantage and provide our citizens with the opportunity for high-quality jobs, it will require the nation to excel at innovation—and to do that we must significantly strengthen our workforce.

One of the more significant and effective investments designed to improve our nation's human capital is the National Science Foundation's (NSF) Advanced Technological Education (ATE) program in our nation's community colleges. This program is a unique partnership between education, government, and industry—and is helping America successfully compete in the global marketplace and maintain our competitive edge in scientific and technological innovation...all while providing an opportunity for a better life on the part of the individuals involved.

By fostering among their graduates knowledge geared to specific skilled jobs, community colleges are central to the future of higher education in America. They fulfill our national commitment of an affordable and readily accessible education to all who are qualified and wish to avail themselves of that opportunity.

With about 12 million students—almost half of the undergraduate students in the United States, and a higher percentage of minority and first-generation college students than any other sector of higher education—the nation's 1,200 community colleges provide associate degrees and certificate programs that speed highly motivated students' transition to careers in high-demand occupations and emerging industries.

More than \$51 million of the \$80 million that the NSF provides annually to community and technical college programs goes to support ATE centers' and projects' work in high tech fields such as aerospace technology, biotechnology, advanced manufacturing, and environmental technology. All ATE centers and projects create dynamic partnerships with businesses and industry as well as other two-year colleges, four-year colleges, and universities and secondary schools.

Forty-four percent of the students who receive baccalaureate or master's degrees in science, technology, engineering, or math (STEM) fields attended a community college at some point in their careers. Additionally, nearly 60% of new nurses and the majority of other new health care workers are educated at community colleges. Further, while 80% of firefighters, law enforcement officers, and emergency medical technicians gain their credentials in these institutions.



Only by providing leading-edge human capital and knowledge capital can America continue to maintain a high standard of living—including providing national security—for its citizens.

The Advanced Technological Education program spurs our nation's economic growth and contributes to our well-being by bringing together creative minds, motivated students, and innovative ideas in our community colleges to give hardworking Americans the advanced tools to realize their full potential and successfully compete in the 21st century job market.

Norman R. Augustine was the Chief Executive Officer and Chairman of the Board of the Lockheed Martin Corporation. He chaired the National Academies' Committee on Prospering in the Global Economy of the 21st Century, which authored *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future*. The report urges significant increases in the nation's investment in basic research in order to create new knowledge. He was honored in 2008 by the National Science Foundation "for his extraordinary contributions to the welfare of the nation through his advocacy of science, technology, and engineering education as national priorities."