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# Why Business Should Support OST STEM

## Economic Transformation

The 21st Century's information economy is creating more jobs that require not only a college education but also some expertise in the fields of science, technology, engineering and math – collectively known as STEM. The last several decades have seen America's industrial- and manufacturing-based economy shift to a service economy fueled by information, knowledge and innovation. According to the U.S. Bureau of Labor Statistics, between 1996 and 2006, the United States lost three million low-tech manufacturing jobs. In that same timeframe, however, 17 million service sector jobs were created, specifically in the areas of health care, education, environment, security and energy. From 2008–2018, many of the fastest-growing jobs in the service sector are and will be STEM-related, high-end occupations that include doctors, nurses, health technicians and engineers. Industries projected to have the most employment growth are in scientific, technical and management consulting; high-tech manufacturing; computer systems design; and other STEM-related services.

## Preparing the next generation to succeed in school and in life

Science and technology underpin nearly every aspect of today's society, making STEM skills necessary for all students, regardless of whether or not they eventually pursue careers in STEM. We need a STEM-literate citizenry to make informed decisions about energy sources, health care, transportation, communication, and even food development and nutrition. To become the innovators, scientists, technologists and engineers of the future, youth must be exposed to and master STEM skills. Unfortunately, there is a growing body of research suggesting Americans students are falling behind their peers internationally in their understanding of key math and science concepts.

## It's All About Time...

All segments of our society have a role to play in helping to turn these dangerous trends around. Schools will continue to have a vital role. However, to prepare youth for today's challenges, we must think about STEM learning opportunities beyond the traditional school day. Combining STEM learning with out-of-school time programming can offer students of all ages fun, challenging, hands-on introductions to the skills they will need to be successful in school, college and the workplace. Research shows that when young people have meaningful, high-quality STEM experiences during non-school hours that support their classroom instruction, they are much more likely to succeed in STEM careers. Innovative school-community partnerships with strong private-sector participation can provide youth with out-of-school time learning opportunities to become the excited, engaged and inspired STEM learners that America needs.

Adapted from Afterschool Alliance, Issue Brief #44: Afterschool and Middle School Science, Technology, Engineering and Math, September 2010