

# OVAE CONNECTION

## Defining STEM (Continuing Series That Began June 30)

The U.S. Department of Commerce recently released the report [STEM: Good Jobs Now and for the Future](#), which shows that STEM jobs are expected to grow between now and 2018 at a much higher rate than non-STEM jobs. In commenting on the report, U.S. Secretary of Education Arne Duncan noted: “A STEM education is a pathway to prosperity—not just for you as an individual but for America as a whole. We need you in our classrooms, labs and key government agencies to help solve our biggest challenges, and that’s why we are investing heavily to promote STEM education.”

Since “STEM” is used in a variety of ways, it is useful to consider what it means in this particular report. There, the authors note that while the acronym STEM is reasonably precise—referring to science, technology, engineering, and mathematics—there is no standard definition of a STEM job. This Department of Commerce report defines STEM jobs as those including professional and technical support occupations in computer science and mathematics, engineering, and life and physical sciences. The definition also includes three management occupations closely tied to STEM—computer and information systems, engineering, and natural science managers. (Education jobs and social science jobs allied with STEM fields are not included. Future discussions in *OVAE Connection* will look at STEM aspects of education.)

According to the report, of the 7.6 million STEM jobs in the United States, representing about 1 in 18 workers, the largest number is within the computer and mathematics fields, accounting for almost half of all STEM employment. Engineering and surveying positions account for about one-third, physical and life sciences positions for about 13 percent, and management positions for 9 percent of all STEM jobs.

More than two-thirds of STEM workers, as defined in this Commerce Department report, have at least a college degree. STEM degree holders were found to enjoy higher earnings, regardless of whether they work in STEM or in non-STEM occupations.

Not all studies of STEM use these same definitions. Studies of STEM and its impact are undertaken by different scholars for different purposes, leading to the use of different definitions of STEM jobs and STEM education. When *OVAE Connection* discusses various studies and reports on STEM, it is essential that the reader keep this matter of varying definitions in mind.



### OVAE Welcomes Dina Fikeru

OVAE is pleased to welcome Dina Fikeru to the OVAE team as a student intern from the DC Summer Youth Employment program. Dina is a Washington, D. C. Public Schools graduate from Benjamin Banneker Academic High School, and is now a sophomore at the University of Oklahoma. Her major is business administration with a minor in Spanish. Dina is supporting Johan Uvin, deputy assistant secretary for policy and strategic initiative, and the Division of Academic and Technical Education by researching and developing analyses for CTE transformation.

Welcome, Dina!

### Those Without College Degrees Skeptical About Return on Investment

[One Degree of Separation: How Young Americans Who Don't Finish College See Their Chances for Success](#) is the third in a [series of Public Agenda surveys](#) examining young people’s attitudes on higher education and college completion. Sponsored by the Bill and Melinda Gates Foundation, the survey examined the views of more than 600 young adults, aged 26 to 34, both those who completed either a college degree or postsecondary certificate and those whose highest educational credential is a high school diploma.

“There is a jarring gap in optimism between young people who have a college degree in today’s economy and those who don’t,” said Jean Johnson, director of Education Insights at Public Agenda and lead author of the report. In the [news release](#) issued by Public Agenda, Johnson said, “Even more disturbing, young people who don’t get a credential beyond high school face a trifecta of barriers. They’re more likely to come from poorer, less-educated families; they lack basic knowledge about the higher education system and employers and many aren’t convinced a college degree will pay off for them, especially if they need to borrow to get it.”