STEM ecosystems

STEM PERCEPTIONS: STUDENT & PARENT STUDY: PARENTS AND STUDENTS WEIGH IN ON HOW TO INSPIRE THE NEXT GENERATION OF DOCTORS, SCIENTISTS, SOFTWARE DEVELOPERS AND ENGINEERS BY HARRIS INTERACTIVE.

Two nationally commissioned surveys from Microsoft Corporation among college students pursuing STEM majors help us gain insight into the types of preparation and inspiration needed to get students there.

Microsoft Corporation commissioned two national surveys in 2011 among college students pursuing science, technology, engineering and math degrees, and among parents of K-12 students. The goal was to gain knowledge useful in preparing and inspiring students to pursue post-secondary education in STEM subjects.

The report provides a summary of key findings as well as a more detailed report on responses to the questions in a very readable form with many graphics.

Among parents, most believe that STEM education should be a priority in the U. S., but only half agree that is in fact a top priority. About half indicate that their support is based on a desire for the U.S. to be competitive in the global marketplace and to produce the next generation of innovators. Fewer show willingness to spend extra money to enable their children to be successful in the field, but six in ten say they are extremely or very willing to provide more funds for schools to offer more and better programs. Two-career parents were asked about their desires for their children to pursue various careers (top choices scientist and engineer). However, many perceive their children to be more interested in performing or visual arts.

Nearly four of five students surveyed indicated they decided to study STEM in high school or earlier (one in five in middle school or earlier). Many credit a teacher or class as a significant factor in their interest (as well as some reporting parental influence). However, only one in five STEM college students feel their K-12 education prepared them extremely well for their college courses in STEM. Two-thirds indicate they are seeking good salaries, want significant job potential, and find their degree program intellectually stimulating and challenging. In addition to K-12 education, many says that studying hard and having a passion for the studies are the most important factors in their success. There are some gender-based differences in these responses.

The report closes with a word cloud that illustrates key words used by students to indicate how parents and schools can make STEM more interesting for kids. Some of the key terms are fun, technology, encourage, interesting, interested, early, and parents learning.

The survey methodology is also described. Data were weighted to be representative of U.S. adults with 0-17-year-olds in their household and U.S. undergraduate students between the ages of 18 and 24.

Harris Interactive. (2016). "STEM perceptions: Student & parent study: Parents and students weigh in on how to inspire the next generation of doctors, scientists, software developers and engineers." PDF. Retrieved from https://news.microsoft.com/download/archived/presskits/citizenship/docs/STEMPerceptionsReport.pdf