

STEM Schools Make Great Investments, as Successful Entrepreneurs Are Proving

New research shows that businesspeople are some of the most important financial supporters of university work in science, technology, engineering, and mathematics. The benefits — to the university and to the world as a whole — are tremendous.

By Taylor Pardue



Caption: University research into science, technology, engineering, and mathematics is arguably more important than ever, yet public funding for these fields is shrinking. Thankfully, private support — especially from successful businesspeople — is helping pick up the slack. Photo credit: Student Research Foundation

When someone makes it big in the business world, they tend to use their earnings to invest — in themselves, in their own company, and/or in the stock market. Many of the most successful entrepreneurs also invest in the future of science, technology, engineering, and mathematics (STEM), as new research from the University of North Carolina at Chapel Hill shows.

Emily I. Nwakpuda, a doctoral candidate in the university's Department of Public Policy, was [recently featured](#) in *Nonprofit and Voluntary Sector Quarterly* for her analysis of gifts made to higher education from 1995 to 2017. For her study, Nwakpuda used a specialized database that included information on nearly 7,000 “major” donations of more than \$1 million made to a variety of institutions. This information source gave her a very detailed view of academic philanthropy during that time period, especially of major donations made to support STEM research.

The acronym STEM has come to serve as a sort of catch-all for everything that is cutting-edge in the modern day. From artificial intelligence to gene-splicing to autonomous vehicles and more, STEM topics capture the imagination in a way that the Space Race did for Americans and Soviets, and for countless others around the world, during the Cold War. However, as STEM fields become more and more important to society, funding for university programs related to them has fallen. Nwakpuda cited economic and political shifts as causes for much of this downturn, as many universities receive funding from the government — directly via state support for public institutions or indirectly through government-funded research contracts given to both public and private ones.

Thankfully, private financial support enabled many of the universities Nwakpuda examined to maintain or even expand their STEM opportunities during the time frame of this research. The major donors examined in the study gave \$10 million on average, with the largest gift totaling a whopping \$600 million. Entrepreneurs supplied much of these gifts, with 61 percent of the “mega” gifts of \$50 million or more also coming from entrepreneurs.

Entrepreneurs also tended to support their alma maters more often than their fellow STEM donors — 40 percent compared to roughly 20 percent, respectively. However, somewhat counterintuitively, STEM donors were also more likely to support other universities than non-STEM donors were. The implications of this are that entrepreneur STEM donors tend to spread their philanthropy around more than others, giving to institutions not just because of a sense of personal loyalty but also to schools that show promising results in their respective programs.

The benefits of all this support are equally widespread. The arguably most fundamental benefit is to STEM-focused students who take part in scholarship programs made possible by entrepreneurs who wish to see others succeed in their chosen career fields — and potentially even come to work for them one day following graduation. Professors, especially research-focused faculty, are also recipients of this STEM funding, which enables them to conduct more and better research without having to spend their invaluable time and effort applying for governmental grants. Universities with well-known STEM programs also tend to draw more students and faculty as well, even if they don’t directly take part in the special funding.

Ultimately, society as a whole can benefit from the work being conducted on universities campuses — as entrepreneurs seem to believe. Nwakpuda’s research found that these STEM supporters often contributed to so-called “riskier” science, which governmental agencies and more established companies may be unwilling to do. The goal is to see a real-world, tangible breakthrough or breakthroughs that can result in better business for the entrepreneurs. While these are more personal goals, Nwakpuda’s findings pointed to the overall benefits for university life — and life in general — because of these philanthropic investments.

While public funding remains an important part of university support, Nwakpuda’s article illustrates the importance of private funding for new and continuing STEM research. And with entrepreneurs willing to give their money to institutions regardless of their alumni affiliation,

many more schools are benefiting from the latter. The question now becomes, how will they use it to fuel the future?