

24 INNOVATIVE STARTUPS



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## July 8, 2013, 2:40 PM ET Math, Science Popular Until Students Realize They're Hard

ByKhadeeja Safdar

Math and science majors are popular until students realize what they're getting themselves into, according to new research.



Christopher Griggs

In a <u>working paper</u> published by the **National Bureau of Economic Research**, researchers **Ralph Stinebrickner** of **Berea College** and **Todd R. Stinebrickner** of the **University of Western Ontario** say that college students are fleeing from math, physics, chemistry and the like after dipping into some classes.

The researchers surveyed 655 students entering Berea College, a private liberal arts college located in Kentucky, in the falls of 2000 and 2001. The students were asked about their beliefs pertaining to majors 12 times during each year they were in school, the first time prior to starting college. The questions covered a variety of topics, including their certainty of graduating with a particular major, their anticipated grade point average and the amount of work they expected to do each day.

The researchers found that while math and science majors drew the most interest initially, not many students finished with degrees in those subjects. More students dropped out of math and science majors and fewer students switched into them than any other area of study, including professional programs, social sciences, humanities and business.

The survey results also showed that the students who dropped out didn't do so because they discovered an unexpected amount of the work. In fact, students who expressed interest initially anticipated more work than other majors.

The students switched out because they were dissatisfied with their grades. "Students knew science was hard to begin with, but for a lot of them it turned out to be much worse than what they expected," said

Todd R. Stinebrickner, one of the paper's authors. "What they didn't expect is that even if they work hard, they still won't do well."

At Berea College, all students are required to take some basic math and science courses as part of the liberal arts curriculum. The researchers say that the reason not many students decided to switch into math or science majors is that they didn't discover a particular talent for those areas of study.

"If more science graduates are desired, the findings suggest the importance of policies at younger ages that lead students to enter college better prepared to study science," the researchers write in the paper.

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