Your Parents Are Correct, Scholars Report: Studying Pays Off

By DAVID GLENN

As parents deposit their offspring at college this month, many of them will anxiously appraise their children's roommates. Does this one seem hungover? Does that one have a few too many piercings?

Here is another question parents might ask: Did the roommate bring a video-game system? According to a paper scheduled for release this week by the National Bureau of Economic Research, first-year college students who happen to be assigned roommates with video-game consoles study 40 minutes less per day, on average, than first-year students whose roommates did not bring consoles.

And that reduction in study time has a sizable effect on grades: First-year students whose roommates brought video-game consoles earned grades that were 0.241 lower, on a 4-point scale, than did otherwise-equivalent students whose roommates did not have consoles.

The point of the paper is not to prove anything about video games. Instead, the researchers wanted to examine the relationship between the amount of time students spend studying and the grades they earn.

That seemingly simple question has bedeviled scholars of education for many years. It is treacherous to draw conclusions about causation from simple correlations between grades and time spent studying, because there are so many hidden variables that might shape the relationship. (To cite just one of many possibilities, students who choose to study more might be smarter, on average, than students who choose to study less.)

The ideal way to solve the puzzle would be to randomly assign students to two different groups, forcing one group to study more and the other to study less. But an experiment like that would be hugely cumbersome and arguably unethical. So the authors of the new paper -- Todd R. Stinebrickner, an associate professor of economics at the University of Western Ontario, and his father, Ralph Stinebrickner, a professor of mathematics and computer science at Berea College, in Kentucky -- settled on what they believe is a next-best solution.

The two scholars looked at a real-world situation at Berea, where entering first-year students are randomly assigned their roommates. In the ordinary course of things, some of those roommates bring video-game consoles, and some do not. The researchers predicted -- correctly, it turns out -- that students whose roommates had consoles would study less than students whose roommates did not have them. In this way, the two Stinebrickners constructed a rough equivalent of the idealized random experiment.

The researchers followed 210 students who entered Berea in 2000 and 2001. Roughly a dozen times during the course of the freshman year, the researchers asked the students to write down a detailed log of how they had spent the previous 24 hours. The researchers were given access to the students' transcripts each semester, so they could directly compare their grades with the time they spent studying.
"On a very fundamental level, effort makes a big difference," said Todd Stinebrickner in an interview on Monday. "If you want to look at what's going on with students, you can't leave that out of the picture." Most studies of college students' experiences, Mr. Stinebrickner said, do not collect enough information about their time use.

The new study cuts against the conclusions of a much-debated 1985 paper that found little relationship between study time and students' grades. The lead author of that paper, Howard Schuman, who is now a professor emeritus at the University of Michigan's Institute for Social Research, told The Chronicle in an e-mail message on Saturday that the Stinebrickners' new paper is "useful," but he also raised a few concerns about their work.

For one thing, Mr. Schuman suggested, students with video-game consoles might influence their roommates' grades through mechanisms in addition to reducing their study time. The video-gaming students might tend to drink more, for example, than their non-game-playing peers.

In the paper, the authors deal with that possibility. "While it is tempting a priori to view students who bring video games as types who will tend to encourage a variety of harmful behaviors in their peers," they write, "this does not seem to be the case. ... We find no evidence that students at Berea who bring video games are of lower observed ability, are less likely to attend class, are more likely to drink alcohol, or have harmful sleep habits."

Mr. Schuman also suggested that Berea's unusual character -- it is a zero-tuition college designed for students from low-income backgrounds -- makes it dangerous to draw broad conclusions from the new paper.

But Mr. Stinebrickner insisted that "there is no reason to think that in broad strokes, the things that affect students' decisions at Berea are going to be all that different than what happens somewhere else."

Mr. Stinebrickner did concede, however, that "Berea is a specific school, and a unique specific school. We have tried to be cautious about generalizing too much."

So how nervous should parents be if they see a video-game system in their child's roommate's luggage? Mr. Stinebrickner said that he and his father have no intention of recommending that colleges discourage video-game use or any other reasonable kind of leisure. The important lesson of their research, he said, is that colleges should encourage effort, frequently reminding their students that study time pays off.

"There are a lot of reasons why people stay in school," he said. "I think one thing we're going to learn from our studies, eventually, is that how much you enjoy being in school really makes a difference. There are a lot of ways we could get people to have better grades. We could lock them in the library. But it's not clear in the end that people in that case would actually graduate in higher numbers."

The new paper, "The Causal Effect of Studying on Academic Performance," is part of a much larger project, known as the Berea Panel Study, in which the father-and-son team has followed Berea students from 2000 until the present day. Their central goal is to learn about the factors that affect students' decisions to stay in school or to drop out.

In a second new paper from the economics bureau, "The Effect of Credit Constraints on the College Drop-Out Decision: A Direct Approach Using a New Panel Study," the two scholars argue that factors other than the cost of attending college heavily affect students' decisions to drop out. Those factors include immediate job opportunities, anxiety about schoolwork, and personal crises such as parents' ill heath.

And in yet another new paper, "Evidence About the Potential Role for Affirmative Action in Higher Education," which the Stinebrickners wrote with Braz Camargo, an assistant professor of economics at Western Ontario, the researchers explore the relationships between students' racial beliefs and the friendships they make during the early weeks of their first year of college.

The three papers are available for $5.00 each from the bureau's Web site.