As college campuses reopen, professors order their students to spend $100 on "Introduction to Psychology" or $120 on "Plant Virology." They cannot switch to another brand, as they can when their cellphone plan or favorite blue jeans brand becomes more expensive, or they will find themselves on the wrong page during a lecture.

Worst of all, the book might be worthless at the end of the semester. Whenever publishers come out with a new edition, they erase the resale value of all the used versions of the book.

It seems like the publishers have all the power and the students have no means for fighting back. But that isn't how it ends up, thanks to some impressive consumer sophistication on the part of the students, according to a new study by two economists.

Professors have long known - often to their dismay - that students are price-conscious textbook shoppers. They are less likely to buy a $150 book than a $75 book, even when both are assigned to them.

But their discriminating shopping habits do not stop there, the research found. The students skip buying a book that was published a few years ago far more often than they skip buying a new edition, and there seems to be only one explanation for the difference.

The students understand that the book with an older publication date is effectively more expensive than a more recent one, because the older one is more likely to get revised soon and lose its resale value. When an $80 textbook can be resold for $40, on the other hand, it effectively costs $40.

Biology books tend to be reissued every four years, while economics books are usually revised on a three-year cycle, and students seem to be quite good at predicting the schedule. In the semester before economics textbooks are revised, sales plummet, typically by 50 percent, according to the researchers, Judith Chevalier, a Yale economist, and Austan Goolsbee, a University of Chicago economist.

During the early part of a book's life, sales drop steadily, about 15 percent each semester, as the pool of used books on the market grows. But once it gets old enough to be in danger of revision, many more students suddenly say no thanks.

"As a college teacher myself, I would like to believe they are going to a library or borrowing it from a friend," Mr. Goolsbee said. "But I think a lot of them are actually blowing it off."

That is not as depressing as it sounds. For one thing, some of the students certainly do figure out other ways to do the reading. (And any college that does not keep a hefty load of current textbooks in its libraries is in fact making the fight an unfair one.) Other students realize they can learn the material from the lectures and class discussions without the book.

But even those students who are blowing it off play an important role. They help act as a check on McGraw-Hill, Pearson, Thomson and other textbook makers. Raise your price too high or revise your book too often, the students say with their wallets, and you will reduce your revenues.

It may seem hard to believe that large numbers of students look up the publication date of a book after picking it up in the aisle of a college bookstore - or listen to a friend who has. But it makes sense. One year's worth of textbooks cost about $900, according to several studies, making them a major part of a student's budget.

When Patrick Bajari, then an economics professor at Duke, discussed Ms. Chevalier's and Mr. Goolsbee's research in class a few months ago, the students did not find it surprising. They told him that they often looked for less expensive versions of the book on the Internet, tried to gauge the strength of a book's resale market and - yes - did notice the age of the edition.

"My impression," said Mr. Bajari, now a professor at the University of Michigan, "was that my undergrads at Duke were definitely putting a good deal of thought and effort into gaming the textbook market."

This is a useful reminder of the human mind's capability for shrewd rationality, at a time when many economists are focused on all the ways that people behave irrationally. We don't save enough money. We are fooled into buying cheap laser printers that require hundreds of dollars' worth of toner cartridges and paper. We pay $100 a month to a gym we use once every few weeks.

The study of these foibles has become known as behavioral economics, and it has rightly revolutionized the field. We are often not the returns-maximizing machines that classical economics imagined us to be. But we're no dummies either, at least much of the time.

The data collected by Ms. Chevalier and Ms. Goolsbee - covering sales at more than 1,000 colleges over five years - suggested that, if anything, students pay more attention to the age of an edition than they should. They almost seem more sensitive to a book's potential for resale than to its purchase price.

But there could be a rational explanation for that too. Parents sometimes pick up the bill for the new textbooks that a student buys at the start of a semester. The cash that comes from reselling the book often has a way of not making it back to mom and dad.