Experiments with dough

Course work
From bagel pricing to worker productivity, in Levitt and List’s class the answer to every question is “experiment”—except on the midterm.

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Photography by Dan Dry

There is no such thing as a free lunch, any economist—behavioral or neoclassical—will tell you. And yet there it is, on the back table of the Goldman Sachs Lecture Hall: leftover pizza from a Chicago Booth career event. Many of the 65 students in the three-hour class Using Experiments in Firms recognize the opportunity to free-ride and quietly help themselves.

At 1:32 John List claps his hands three times to get his students’ attention. Behind him Steven Levitt transcribes midterm scores onto the white board. Both professors are dressed business-casual: List in a black V-neck sweater and white T-shirt, Levitt in a light-green button-down tucked into gray slacks. Economics faculty members, they are teaching their first course at the University of Chicago Booth School of Business. “Sorry we’re a tad late,” says List. “We have been ferociously reading, grading, and curving the exam.”

Out of a possible 90, Levitt’s scribbles show, the highest score was a 74, the lowest 29, the median 56.5. “You should never let yourself be deceived by absolute numbers,” says Levitt. “We intentionally made it hard because we wanted you to score low. Business is hard, and we wanted this to be like the real world.”

On a table near the front, guarded on each side by a teaching assistant, sits a stack of bluebooks a foot thick. Levitt and the TAs take turns running over the five-question midterm, answering questions and defusing objections. List chimes in, directing unsatisfied students to meet with the TAs at a time to be voted on later.

An hour into the class, the midterm discussion ends, and Levitt begins his half of the lecture. The subject is “one of the silliest projects I ever did,” he says, based on the data of an economist-turned-bagel-salesman. As readers of the best-selling

Freakonomics (2005) know, the salesman dropped off bagels in office break rooms each
workday, leaving behind an honor box to collect payment. In the book Levitt analyzed the
bagel man’s meticulous data to get at white-collar crime—discovering, for example, that office
workers steal more bagels when it’s cold outside. But in a class of business students, Levitt
is concerned less about the moral turpitude of office workers than about stocking and
pricing.

How does the bagel salesman know how many bagels to bring to each office park? Levitt
asks the class. “One-word answer.”

“Guess,” comes a voice from the back.

Levitt nods. “Better—experiment,” he says. “No matter what the question is, the answer
should always be ‘experiment.’”

The bagel guy was remarkably talented at determining how many bagels to leave at each
office, Levitt explains, but terrible at pricing. Every time he increased prices, both revenue and
profits increased too; he easily could have charged more per bagel, and his customers would
have paid up. “He was losing $30,000 to $40,000 a year because he didn’t price correctly.”

“Why didn’t he see that?” asks a woman with long blond hair.

“He didn’t have an experimental mindset,” says Levitt. When Levitt showed the bagel man
how much more money he could have made, “he was very embarrassed”—and yet he still
refused to run pricing experiments. “Sometimes, once people have made a $250,000 mistake,
they’re willing to make another $250,000 mistake rather than admit” the first one.

At 3:15 the class takes a 20-minute break. “Don’t come down here and try to get your test,”
List warns. “I don’t want you in a bad mood when I’m talking.” Many students return with
bottled water or coffee, while others—perhaps swayed by the bagel discussion—have
purchased sandwiches. As List begins his half of the lecture, the smell of someone’s
hamburger pervades the room.

List, whom Levitt likes to call “the young economist most likely to win a Nobel,” makes
innovative use of natural field experiments to study issues like marketplace discrimination
and charitable giving. His philanthropy research was the subject of a 2008 New York Times
Magazine feature. Stepping to the front of the classroom, he first reviews the results of the
last class experiment. In it students could choose to cooperate with an unseen player or to
“defect.” Some recognized it as a variant of the prisoner’s dilemma or Friend or Foe?, a game
show that aired from 2002 to 2004. Contestants could spurn team members when it came
time to divvy the winnings they had earned together. In 2006 List wrote about the show for
The Review of Economics and Statistics, finding that players turned against each other—and
risked losing their money—nearly a quarter of the time. Levitt, List tells the students, has a
Journal of Law and Economics paper on discrimination in The Weakest Link, a winner-take-all
game show in which contestants vote each other out of the game. “That’s what academics
do,” says List: “sit around and watch game shows.”
The professors’ version of the prisoner’s-dilemma experiment was intended to demonstrate the effect of “framing,” or how a rational-choice problem is presented. Students were split into two groups and sent to different rooms. Although the game was identical for each, in Levitt’s group it was called the Wall Street Game, while in List’s group it was the Community Game. “I’m a nicer guy than Steve,” List says, smiling. “That’s unobservable,” responds a bearded student.

The results showed that the frame had a powerful effect on whether the subjects decided to be “nice” or not—even though many of the students had taken the course Competitive Strategy. In the Wall Street Game, only 25 percent of students chose to cooperate, while 41 percent cooperated in the Community Game.

Framing can have a substantial effect in lab experiments, List tells the class, “but I was skeptical framing would work in the workplace.” At Wanlida Group, a Chinese electronics manufacturer, he got the chance to find out. List was given money to dispense as employee bonuses tied to productivity. The amount of the bonus was the same for each employee, but he could play around with the frame. He told workers in the “reward” group simply that they would earn a bonus if they met a certain target. Workers in the “punishment” group were told they had been awarded a bonus provisionally but would lose it if they didn’t meet the target.

List flips on a slide: “Frame Matters!” Although productivity increased for both groups, it was about 1 percent higher in the punishment group than in the reward group. “Is that a big deal?” he asks the class. Most of them nod. A 1 percent increase might not sound like much, but it goes directly to Wanlida’s bottom line. As List explains later, “Just for one year, 1 percent of a large number is itself a large number.” Year by year its value compounds as productivity rises and 1 percent becomes a larger and larger amount. Agreeing with his students, List says, “It’s a pretty big deal.”

“But does it last?” a dark-haired man asks. “What if you did this over two years?”

“I can honestly say I don’t know,” says List. “I suspect the effect might wane. But that doesn’t mean you shouldn’t do it, if you get a shock of productivity for six or eight weeks.”

As class draws to a close at 4:30, List holds a vote on what time students will meet with the TAs to quibble over the midterms. At Chicago Booth grades are confidential; the school does not reveal them to employers, and students do not list their GPA on their resumes. Nonetheless, the students can’t seem to resist framing their education in those terms.