Bending the Bell Curve At the University of Texas/Austin

In this *New York Times Magazine* article, Paul Tough reports the latest statistics on college retention: fewer than 60 percent of American students who get into four-year colleges graduate within six years. But this figure disguises stark class disparities. Almost 90 percent of students from the top income quartile earn a diploma, whereas only 25 percent of students from the lower half of the income distribution earn a degree by age 24. And this disparity has little to do with academic achievement. Students with similar standardized-test scores do very differently in college depending on their socioeconomic status.

What's going on here? To find out, Tough profiles Vanessa Brewer, who earned a spot at the University of Texas and arrived on campus full of optimism and excitement: she was the first in her family to make it college, and she had her career trajectory all mapped out, including helping her mother, who never made it to college. When people warned her that U.T. was hard, she thought to herself, "Oh, I got this far, I'm smart. I'll be fine." In her high school, she aced all her math tests without studying. Her senior-year GPA was 3.50, and she placed 39th out of 559 seniors.

Then, a month into freshman year at U.T., Vanessa failed the first test in statistics – a course that was a prerequisite for the nursing program she hoped to enter. Crushed, she called home, and her mother's reaction made things worse: "Maybe you just weren't meant to be there. Maybe we should have sent you to a junior college first." Vanessa said she died inside when her mother said that. "You know, moms are usually right. I just started questioning everything: Am I supposed to be here? Am I good enough?"

"There are thousands of students like Vanessa at the University of Texas," says Tough, "and millions like her throughout the country – high-achieving students from low-income families who want desperately to earn a four-year degree but who run into trouble along the way… They get into a good college and encounter what should be a minor obstacle, and they freak out. They don't want to ask for help, or they don't know how. Things spiral, and before they know it, they're back at home, resentful, demoralized, and in debt… To solve the problem of college completion, you first need to get inside the mind of a college student."

The good news is that Vanessa enrolled in a pilot program at U.T. that addressed not just her academic and financial concerns, but also her doubts, misconceptions, and fears – and she is now earning top grades, networking among her friends, and gaining confidence every day. The program is the brainchild of David Laude, a former U.T. chemistry professor who is now a top administrator whose mission is to boost the university's graduation rate from 52 percent to 70 percent. He and his colleagues created a 14-item algorithm to identify incoming freshmen with the lowest probability of graduating. These high-risk students are enrolled in TIP – the Texas Interdisciplinary Plan – which includes smaller classes, peer mentoring, extra tutoring help, engaged faculty advisors, and community-building exercises. There's also the University Leadership Network, a selective sub-program in which the most economically disadvantaged

freshmen perform community service, take part in discussion groups, and attend weekly lectures on time management and teambuilding. ULN students wear business attire for these events, and later in their college careers they serve in internships on campus and serve as mentors or residence-hall advisors or student-government officials.

But these essential supports aren't the most important part of what U.T. is doing. Laude's guiding principle – the same one he used 15 years earlier in a highly successful program he devised to boost the achievement of his lowest-achieving/economically poorest chemistry students to comparable grades and graduation rates as their more-affluent classmates – was this: "Select the students who are least likely to do well, but in all your communications with them, convey the idea that you have selected them for this special program not because you fear they will fail, but because you are confident they can succeed." Basically, "no one will give them the chance to simply give up."

Laude has been heavily influenced by David Yeager, a young U.T. psychology professor who worked with Stanford professors Carol Dweck, Claude Steele, and Hazel Markus before coming to Texas. Laude and Yeager realized that two negative thoughts often overwhelm struggling students:

- Belonging – doubts that they are in the right university;
- Ability – doubts, especially after failing a test or getting a bad grade, that they are smart enough.

"Doubts about belonging and doubts about ability often fed on each other," says Tough, "and together they created a sense of helplessness. That helplessness dissuaded students from taking any steps to change things. Why study if I can't get smarter? Why go out and meet new friends if no one will want to talk to me anyway? Before long, the nagging doubts became self-fulfilling prophecies."

Yeager and Greg Walton, a U.T. colleague, experimented with different ways of counteracting this negative vortex. They found that three strategies worked:

- Appealing to social norms – for example, when students are told that most students don't engage in binge drinking, they're less likely to do so themselves.
- Allowing a degree of autonomy – in other words, not marching all students into a lecture hall and delivering a lecture, but instead giving them some choice.
- Engineering self-persuasion – students hear a message and then compose their own lecture or video and deliver it to other students.

The psychologists devised two experiments to put these insights to work. In the first, at an elite northeastern college, first-year students read brief essays by upperclassmen recalling their own experiences when they first arrived. The essays conveyed the same basic message: "When I got here, I thought I was the only one who felt left out. But then I found out that everyone feels that way at first, and everyone gets over it. I got over it, too." Students then wrote their own essays and made videos for future students with the same message. The whole process took about an

hour, but the results for African-American students were dramatic: compared to a control group, the experiment tripled the percentage of black students who earned GPAs in the top quarter of their class, and cut the black-white achievement gap in half. There was even a positive effect on black students' health. The intervention had no effect on white students.

The second experiment involved ninth graders at three high schools in Northern California. Students sat in front of computers and read scientific articles and testimonials from older students with this message: *People change. If someone is being mean to you or excluding you, it's mostly likely a temporary thing; it's not about you*. Remarkably, this 25-minute intervention virtually eliminated depressive symptoms that usually crop up with freshmen.

In these and other experiments, Yeager and Walton have found that although the same basic message works, it needs to be tailored to the culture and circumstances of every school and college. They customized the "belonging" and "mindset" messages for incoming U.T. freshmen in the fall of 2012, and by the end of the first semester, students who received those messages cut the traditional advantaged/disadvantaged achievement gap in half.

How can such brief interventions bring about such dramatic changes? Yeager and Walton believe it's because they keep students from over-interpreting discouraging events that might happen to them in the future – it acts as an inoculation against negative thinking. Students from more-advantaged backgrounds don't seem to need this. "Sure, they still feel bad when they fail a test or get in a fight with a roommate or are turned down for a date," says Tough. "But in general, they don't interpret those setbacks as a sign that they don't belong in college or that they're not going to succeed there." But students who are in the minority on any dimension are highly susceptible to these feelings, and the kinds of interventions Yeager and Walton help them deal much more effectively with their doubts.