

The worst eighth-grade math teacher in New York City

For 10 months, Carolyn Abbott waited for the other shoe to drop. In April 2011, Abbott, who teaches mathematics to seventh- and eighth-graders at the Anderson School, a citywide gifted-and-talented school on the Upper West Side of Manhattan, received some startling news. Her score on the <u>Teacher</u> <u>Data Report</u>, the New York City Department of Education's effort to isolate a teacher's contribution to her students' performance on New York State's math and English Language Arts (ELA) tests in grades four through eight, said that 32 percent of seventh-grade math teachers and 0 percent of eighth-grade math teachers scored below her.

She was, according to this report, the worst eighth-grade math teacher in New York City, where she has taught since 2007.

"I was angry, upset, offended," she said. Abbott sought out her principal, who reassured her that she was an excellent teacher and that the Teacher Data Reports bore no relation to her performance. But, the principal confided, she was worried; although she would enthusiastically recommend Abbott for tenure, the Teacher Data Report could count against her in the tenure process. With a new district superintendent reviewing the tenure recommendation, anything could happen.

Using a statistical technique called value-added modeling, the Teacher Data Reports compare how students are predicted to perform on the state ELA and math tests, based on their prior year's performance, with their actual performance. Teachers whose students do better than predicted are said to have "added value"; those whose students do worse than predicted are "subtracting value." By definition, about half of all teachers will add value, and the other half will not.

Carolyn Abbott was, in one respect, a victim of her own success. After a year in her classroom, her seventh-grade students scored at the 98th percentile of New York City students on the 2009 state test. As eighth-graders, they were predicted to score at the 97th percentile on the 2010 state test. However, their actual performance was at the 89th percentile of students across the city. That shortfall—the

difference between the 97th percentile and the 89th percentile—placed Abbott near the very bottom of the 1,300 eighth-grade mathematics teachers in New York City.

How could this happen? Anderson is an unusual school, as the students are often several years ahead of their nominal grade level. The material covered on the state eighth-grade math exam is taught in the fifth or sixth grade at Anderson. "I don't teach the curriculum they're being tested on," Abbott explained. "It feels like I'm being graded on somebody else's work."

The math that she teaches is more advanced, culminating in high-school level algebra and a different and more challenging test, New York State's Regents exam in Integrated Algebra. To receive a high school diploma in the state of New York, students must demonstrate mastery of the New York State learning standards in mathematics by receiving a score of 65 or higher on the Regents exam. In 2010-11, nearly 300,000 students across the state of New York took the Integrated Algebra Regents exam; most of the 73 percent who passed the exam with a score of 65 or higher were tenth-graders.

Because student performance on the state ELA and math tests is used to calculate scores on the Teacher Data Reports, the tests are high-stakes for teachers; and because New York City uses a similar statistical strategy to rank schools, they are high-stakes for schools as well. But the tests are *not* high-stakes for the eighth-graders at Anderson.

By the time they take the eighth-grade tests in the spring of the year, they already know which high school they will be attending, and their scores on the test have no consequences. "The eighth-graders don't care; they rush through the exam, and they don't check their work," Abbott said. "The test has no effect on them. I can't make an argument that it counts for kids. The seventh-graders, they care a bit more."

The state tests, she believes, are poorly equipped to assess real mathematical knowledge, especially for high-performing students. "They're so basic; they ask you to explain things that are obvious if you're three years ahead," she says. The Anderson students "understand it at a different level. They want to explain with equations, not words." But the scoring of the free-response items on the tests emphasizes a formulaic response, with the scoring instructions often looking for a single keyword in a response to garner credit.

"They're not accepting answers that *are* mathematically correct," Abbott notes, "and accepting answers that *aren't* mathematically correct." And the multiple-choice questions? "Multiple-choice questions don't test thinking," she declares. Knowing how to answer them is "just an art."

When she taught PSAT prep classes while on the faculty at the Bronx High School of Science, she realized that she was "teaching how to eliminate the wrong answer, not how to get to the right answer." She didn't mind doing that outside the classroom—but *in* her classroom, "mathematics is about deep understanding, and enjoying the process."

How do her students perform on the content that she actually *does* teach? This year, the 64 eighthgraders at Anderson she teaches are divided into two groups, an honors section and a regular section. All but one of the students in the honors section took the Regents Integrated Algebra exam in January; the other student and most of the regular-section students will take the exam in June. All of the January test-takers passed with flying colors, and more than one-third achieved a perfect score of 100 on the exam.

"They did phenomenally," Abbott said. "If they did so well, I don't see how they can say I added no value whatsoever."

In mid-February, <u>the courts authorized the public release of the Teacher Data Reports</u>, and they were published in print and online by major media outlets in New York City. "It was humiliating," Abbott said. "To be published online, and stay there forever—it felt like an invasion of privacy." She was terrified about the possible backlash from parents.

But of the parents of the 128 seventh- and eighth-graders she is teaching this year, only one wrote to her school principal—to express appreciation for a number of things she had done in her classroom. Anderson parents are a notorious bunch; they're like helicopter parents on steroids. "I'd be more worried about the parents whose students haven't had me—their preconceived notions that I must be a bad teacher," Abbott said. "They have this idea that I'm the worst eighth-grade math teacher in the city."

This summer, New York State will release the new iteration of the Teacher Data Reports, ranking English and math teachers in grades four through eight all across the state on their contributions to their students' scores on the state tests. For Carolyn Abbott, the numbers will be little more than a curiosity. She has decided to leave the classroom, and is entering the Ph.D. program in mathematics at the University of Wisconsin-Madison this fall.

"I love to teach," she says. And she loves mathematics. Ultimately, she decided, the mathematics was more important than the teaching, although she envisions teaching mathematics at the college level in the future. "It's too hard to be a teacher in New York City," she says. "Everything is stacked against you. You can't just measure what teachers do and slap a number on it."

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