

Economic Scene

Virginia Postrel

In their hiring of teachers, do the nation's public schools get what they pay for?

PUBLIC-SCHOOL teachers just aren't as smart as they used to be. After all, women have more job opportunities. Bright women who once would have taught school today become doctors and lawyers. The gain for individual women is a loss for education.

Or so many people believe. The story is plausible, but is it true? As a Ph.D. student at the University of Maryland, the economist Sean P. Corcoran wondered just that. "The more I started to think about it, the more I started to think that it wasn't really a given that teacher quality has fallen over time," he said in an interview.

Women make up about three-quarters of teachers 25 to 34 years old, a proportion that has remained fairly constant since the early 1960's.

As women's job opportunities have increased, so has the chance that they'll go to college. Even women near the top of their high school classes are twice as likely to earn a college degree today as in the early 1960's.

That might swamp the effects of greater opportunities outside teaching. So what did really happen to teacher quality?

The first problem is to define "quality" in a measurable way. Research over the last

decade has demonstrated that teachers' aptitude test scores, particularly their verbal scores, are the best predictors of how their students will achieve.

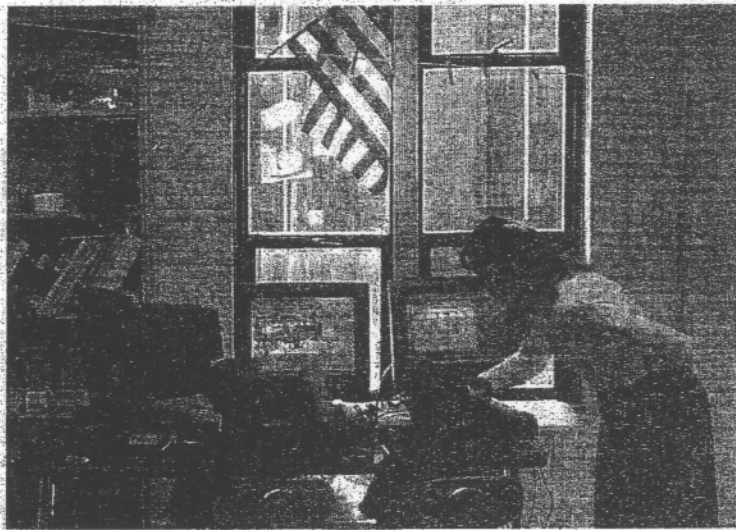
"If we think of teacher quality as those things that matter for student outcomes, then these test scores seem to be a pretty good measure," said Professor Corcoran, who is now at California State University, Sacramento. With William N. Evans and Robert M. Schwab of the University of Maryland, he analyzed the test results and career choices of individuals in five high school classes, from 1964 to 2000. All five surveys include math and verbal aptitude tests and follow the students over time, allowing the researchers to match students' test scores with their eventual occupations.

(A short version of the paper will be published in this summer's American Economic Review as part of the Papers and Proceedings of the American Economic Association's 2004 meetings. A longer version is forthcoming in *The Journal of Policy Analysis and Management*. The paper is online at <http://www.csus.edu/indiv/c/corcorans/research.htm>.)

The results both confound and support the conventional wisdom. Through the entire period, the average female teacher scores below the average female college graduate. But the teacher score falls only modestly over time. On average, teachers score about the same today as they did a generation ago.

But averages hide the real story. The best female students — those whose test scores put them in the top 10 percent of their high school classes — are much less likely to become teachers today.

"Whereas close to 20 percent of females in the top decile in 1964 chose teaching as a profession," making it their top choice, the economists write, "only 3.7 percent of top decile females were teaching in 1992," mak-



Karen Tam

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ing teachers about as common as lawyers in this group.

So the chances of getting a really smart teacher have gone down substantially. In 1964, more than one out of five young female teachers came from the top 10 percent of their high school classes. By 2000, that number had dropped to just over one in 10.

The average has stayed about the same because schools aren't hiring as many teachers whose scores ranked at the very bottom of their high school classes. Teachers aren't exactly getting worse. They're getting more consistently mediocre.

Professor Corcoran and his co-authors assume that the brightest young women don't

become teachers because other jobs have opened up to them. But new research by Caroline M. Hoxby, a Harvard economist, and Andrew Leigh, a doctoral student at Kennedy School of Government at Harvard, suggests a more complicated story here, too.

High-scoring women aren't the only women with greater opportunities today. All sorts of jobs, including those that require only average abilities, have narrowed the gender pay gap over the last generation. "We see the doctors and lawyers," Mr. Leigh said in an interview, "but I don't think we're as aware that the same thing has happened to bookkeepers."

He and Professor Hoxby examine the effects of two different trends: changes in the ratio of male and female pay across all professions and changes in the level of unionization among teachers. Unionization tends to compress the range of salaries, raising the average but reducing the premium to top teachers.

To separate the two effects, they divide teachers by state, since both pay-equity and unionization laws changed at different times in different places. Surveys with individual test scores aren't large enough to break down by state, so the economists use a larger data set that records where each person went to college. As a proxy for each woman's aptitude, they use her college's mean combined SAT score.

(The paper, "Pulled Away or Pushed Out? Explaining the Decline of Teacher Aptitude in the United States," which will also be published in the *American Economic Review's* Papers and Proceedings issue, is available at <http://post.economics.harvard.edu/faculty/hoxby/papers.html>.) While imperfect, this measure isn't correlated with either unionization rates or pay equity, so it's good enough to answer the researcher's question: Are women from top colleges leaving teaching because of the "pull" of better pay elsewhere or the "push" of reduced earnings at the top of teaching?

To their surprise, they find that wage compression explains a huge 80 percent of the change. If women from top colleges still earned a premium as teachers, a lot more would go into teaching.

"Women who went to a top 5 percent college earned about a 50 percent pay premium in the 1960's and earn about the same as other teachers today," Mr. Leigh said. "By comparison, somebody who went to a bottom 25 percent college earned about 28 percent below the average teacher in the 1960's; and they have the earnings of about the average teacher today."

In hiring teachers, we get what we pay for: average quality at average wages.

Virginia Postrel is the author of *"The Substance of Style: How the Rise of Aesthetic Value Is Remaking Commerce, Culture and Consciousness"* (HarperCollins).