

TEACHING IS DEVALUED BY CULTURAL NORMS.

Written by

KRISTIE L. WOLFE, UNIVERSITY OF MISSOURI

01 CONTEXT AND TRENDS

The nation is experiencing a comprehensive shortage of highly qualified teachers in many districts across the country. As the Center for Public Education (2016) declared: “The headlines don’t lie. School districts across the country are struggling to attract and keep good teachers” (p. 1).

In light of this trend, it is particularly remarkable that teachers themselves discourage others from pursuing the profession. In 2015, distinguished literacy teacher Nancie Atwell was awarded the first annual \$1 million Global Teacher Prize by the Varkey Foundation. When asked by CNN whether she would advise others to become teachers, she said no. Rather,

“
It is particularly remarkable that teachers themselves discourage others from pursuing the profession.”

she advised those considering a career in teaching to find a job in the private sector or at an independent school. In her view, the focus on the Common Core State Standards (CCSS) and high-stakes testing have changed the profession for the worse. She concluded, “If you’re a creative, smart young person, I don’t think this is the time to go into teaching” (Moeny, 2015, p. 4).

In an informal poll of *Education Week* subscribers, 81 percent responded that they likewise would not recommend teaching as a profession (Moeny, 2015).

Families too are discouraging creative, smart young people from choosing teaching as a career. Research by Helen Snodgrass (2010) documents this reality. Her interviews with high-achieving young women revealed that their parents dissuaded them from becoming teachers, highlighting the negative aspects of the career. Some parents had specifically discouraged their daughters from teaching; other respondents indicated that even though they had never discussed teaching with their parents as a possible profession, they believed that their parents would not be happy about it. These reports reflect that the pervasive neg-

02
DISCUSSION

ative cultural norms and “politically hostile environment” created by the battles over CCSS, high-stakes testing, and the evaluation of teachers by test scores (Strauss, 2015, p. 6) have contributed to the teacher shortage we are seeing today.

Although teacher shortages remain across disciplines, the lack of highly qualified STEM teachers is particularly severe in many districts and states across the country. The National Comprehensive Center for Teacher Quality (2006) reports that teachers, particularly math and science teachers, are difficult to find, especially for urban and rural districts. The Urban Schools Human Capital Academy (USHCA, 2015) estimates that “25,000 new STEM teachers [are] needed each year to replace teachers who retire or leave the profession” and that districts are struggling to “find, grow, deploy, and keep highly effective STEM teachers” (p.7).

This perception that talented young people should not become teachers is detrimental to the quantity and quality of STEM educators. In recent years, a number of studies have verified “that the brightest students—those with the highest verbal and math scores on standardized tests—are less likely to enter teaching” (Corcoran, Evans, and Schwab, 2004). In fact, the negative relationship between academic performance and the likelihood of entering teaching is statistically significant (Manski, 1985). High-achieving students are the very ones needed in the drive for stronger STEM education, but STEM teaching is simply not currently perceived as a worthy career choice for college graduates who demonstrate great potential. To determine the roots of this perception, Marantz Cohen has studied the evolution of cultural norms surrounding the teaching profession in America. Her work “The global devaluing of teaching: An international perspective” was presented at the American Educational Research Association (AERA) conference in 2012. She notes that “being undervalued was the most frequently articulated grievance among the teachers she studied” (Falla, 2013, p. 3).

Compounding this unfavorable perception of teaching as an esteemed profession is the notion that teaching is “a woman’s job.” Men are indeed underrepresented in the ranks of teachers. The U.S. Bureau of Labor Statistics (2011) reports that men comprise only 18.3 percent of elementary and middle school teachers and 42 percent of high school teachers. Overall, in 2011–2012, 76 percent of public school teachers were female (U.S. Department of Education, 2016). A panel of researchers and former elementary teachers at AERA’s annual meeting in Vancouver in 2012 argued that the diminishing status of teachers generally, coupled with continuing sexism against men working with children, is keeping the number of male teachers down (Sparks, 2012). Until recently, teaching was “one of the few acceptable occupations for women” (Snodgrass, 2010, p. 136), and even though women now have access to nearly every career imaginable, the perception remains. The antiquated notion that men are the breadwinners of a family and that women can “just be teachers” has detrimental effects on the field of teaching today, since that image inhibits the effective recruitment of both high-achieving men and women.

While teaching has been and remains a predominately female profession, the employment opportunities for talented women outside of education, particularly in STEM fields, have soared (Corcoran, Evans, and Schwab, 2004). The feminist movement and the ensuing legislative changes have dramatically expanded the professional opportunities open to women, who are now able to participate in a wide range of careers (Snodgrass, 2010). School districts, accustomed to effortless recruitment and a reliable labor pool in college-educated

“
School districts, accustomed to effortless recruitment and a reliable labor pool in college-educated women, are now forced to compete with a diverse array of attractive and well-paying career options for the best and brightest..”

with higher-status jobs; it has a relatively low salary structure; teachers are often blamed for failing schools” (p. 142).

In sum, with so many more options open to them, young adults interested in STEM fields are seeking a career that carries some prestige and promises the respect of others as a worthy, challenging career. Right now, teaching is not a career that includes either of those.

women, are now forced to compete with a diverse array of attractive and well-paying career options for the best and brightest. As a result, there is a much lower representation of women with high academic performance in the pool of elementary and secondary teachers (Corcoran, Evans, and Schwab, 2004). The high-achieving and motivated women in Snodgrass’ (2010) study who chose to enter a field other than teaching reported their reasons: “[T]eaching is seen as an easy job with short hours and long vacations; it has traditionally been a female-dominated occupation; teachers are not seen as having the same training or professional knowledge as those

03 BRIGHT SPOTS

In today’s climate, it is not sufficient to sit back and simply hope for more high-quality teachers; targeted, effective recruitment and incentives are critical. Otherwise, nonteaching STEM fields will continue to entice the best students away from serving as educators. Some strategies have taken hold and are promising. These include paying STEM teachers more competitively, as well as offering financial incentives such as signing bonuses, student loan forgiveness and scholarships, housing assistance, and higher base salary for high-quality teachers (National Comprehensive Center for Teacher Quality, 2006). These strategies may help move the needle in the short-term on filling critical gaps, but are not sufficient as a long-term solution.

More innovative approaches, such as taking a team approach, where various departments across a university collaborate in the recruitment of STEM teachers, may be more effective in helping to build the STEM teaching workforce and change the normative perception of teaching as an inferior career choice (Abell et al., 2006; Hutchinson, 2012). Utilizing the opportunities of college employment fairs, print and social media networks, career counseling, peer information exchange, and special programs designed to attract students with STEM majors into teaching has resulted in greater numbers of STEM teaching majors in several locations. (Abell et al., 2006; Hutchinson, 2012).

Other successful programs recruit college students who are STEM majors into programs that integrate STEM content and pedagogy. The UTeach Program at the University of Texas at Austin (2016) is one such program that uses a team approach to provide students in STEM majors with an opportunity to explore pedagogy and teach some simple lessons, while encouraging them to consider a possible career in teaching. Programs like these that

leverage the collaboration between STEM faculty and education faculty provide STEM majors with the opportunity to explore teaching in a hands-on way, inviting interest in STEM teaching among those who might not have otherwise considered it as a viable or attractive profession. Providing high-achieving STEM students with opportunities to see the value of their talent and skills in classroom settings may be what is needed to sustain long-term progress in addressing the nation's STEM teacher shortage.

Similar team strategies can be used to recruit professionals in the field who have STEM-related majors and are looking to switch careers and serve in the education sector. Abell (2006) documented strategies used in a Missouri program known as SMAR2T: Science and Mathematics Academy for the Recruitment and Retention of Teachers, funded by the National Science Foundation (NSF). SMAR2T offered an alternative certification for STEM teachers, a pipeline into teaching for those who chose a different career during their college years. This team approach utilized the resources of academic advisers, financial aid advisers, STEM and education faculty at the University of Missouri, school district human resource offices, and others to provide assistance to individuals during the career transition. Among its successes, the program graduated two cohorts of new, highly qualified STEM teachers. Despite these promising results, the program ended when the NSF funding was exhausted, but it still can serve as a successful model for future programs.

04 CONCLUSION

Changing cultural norms and perceptions of the teaching profession is a process that will take years of intentional effort, particularly in STEM, where teaching is largely perceived as an inferior career choice to higher-paying, more esteemed jobs in the noneducation sector. In the meantime, the education community can build on the short-term steps that are being taken to professionalize teaching and to design and implement more innovative approaches to teacher recruitment. Implementing these and other potential solutions in the continuing efforts to showcase teaching as a valued and attractive profession are needed to recruit today's high-achieving young men and women into STEM teaching. Failing to do so threatens the nation's ability to improve the quality of STEM education for America's youth now and well into the future.

ABOUT THE GRAND CHALLENGES WHITE PAPERS

In 2017, 100Kin10 released an unprecedented representation of the big, systemic challenges to preparing and supporting STEM teachers following over two years of extensive research alongside more than 1,500 STEM teachers and hundreds of other education experts. As a part of this work, 100Kin10 commissioned a series of short white papers from well-versed thinkers and practice-oriented researchers to synthesize the most relevant research around the specific challenge areas. Together, they compose a thoughtful and well-rounded examination of the systemic challenges currently facing STEM teaching.

REFERENCES

- Abell, S., Boone, W., Arbaugh, F., Lannin, J., Beifuss, M., & Volkmann, M. (2006). Recruiting future science and mathematics teachers into alternative certification programs: Strategies tried and lessons learned. *Journal of Science Teacher Education*, 17, 165–184.
- Center for Public Education. (2016). *Fixing the holes in the teacher pipeline: An overview of teacher shortages*. Retrieved from <http://www.centerforpubliceducation.org/Main-Menu/Staffingstudents/An-Overview-of-Teacher-Shortages-At-a-Glance/Overview-of-Teacher-Shortages-Full-Report-PDF.pdf>
- Corcoran, S., Evans, W., & Schwab, R. (2004). Women, the labor market, and the declining relative quality of teachers. *Journal of Policy Analysis and Management*, 23(3), 449–470.
- Falla, J. (2013, September 9). The low status of teachers: A global epidemic? *Insight*. Smith College. Retrieved from <https://www.smith.edu/insight/stories/teaching.php>
- Hutchinson, L. (2012). Addressing the STEM teacher shortage in American schools: Ways to recruit and retain effective STEM teachers. *Action in Teacher Education*, 34(5-6), 541–550.
- Manski, C. F. (1985). Academic Ability, Earnings, and the Decision to Become a Teacher: Evidence from the National Longitudinal Study of the High School Class of 1972 [NBER Working Paper No. 1539].
- Moeny, J. (2015, March 23). Don't become a teacher, advises award-winner Nancie Atwell. *Education Week*. Retrieved from http://blogs.edweek.org/teachers/teaching_now/2015/03/award-winner-nancie-atwell-advises-against-going-into-teaching.html
- National Comprehensive Center for Teacher Quality. (2006). *Recruiting quality teachers in mathematics, science, and special education for urban and rural schools*. Document No. 2063_06/07.
- Snodgrass, H. (2010). Perspectives of high-achieving women on teaching. *The new educator*, 6, 135–152.
- Sparks, S. (2012, May 8). Despite a downturn, few men attracted to teaching field. *Education Week*, 31(10), 10–11.
- Strauss, V. (2015, August 24). The real reasons behind the U.S. teacher shortage. *The Washington Post*.
- The University of Texas at Austin: College of Natural Sciences. (2016). *Early field experiences*. Retrieved from <https://austin.uteach.utexas.edu/current-students/early-field-experiences>
- Urban Schools Human Capital Academy. (2015). *Reboot: Redefining human resources' role in supporting great STEM teaching*. Retrieved from <http://ushcacademy.org/wp-content/uploads/Reboot.pdf>
- U.S. Bureau of Labor Statistics. (2011). *Current Population Survey*. Retrieved from <http://www.bls.gov/cps/cpsaat11.pdf>
- U.S. Department of Education, National Center for Education Statistics. (2016). *Digest of Education Statistics, 2014* (NCES 2016-006).