



By Barnett Berry and Patrick M. Shields

Solving the teacher shortage:

Revisiting the lessons we've learned

Years ago, many states came up with effective ways to address teacher shortages only to see those efforts dismantled for political reasons. It is time to restore them.

Over the next decade, we will recruit and hire more than 2 million teachers for America's schools. More than half the teachers who will be teaching 10 years from now will be hired during the next decade. If we can focus our energies on preparing this generation of teachers with the kinds of knowledge and skills they need to succeed in helping students reach these goals and on creating schools that use their talents well, we will have made an enormous contribution to America's future.

— *National Commission on Teaching & America's Future, 1996*

Over two decades ago, in its landmark report *What Matters Most*, the National Commission on Teaching & America's Future issued a clarion call to policymakers to invest in strengthening the teaching profession, both to combat teachers' high rates of attrition and to build their capacity to help all students meet the higher academic standards needed for the 21st century. Until the states improve teacher preparation and working conditions, argued NCTAF, their

BARNETT BERRY (bberry@teachingquality.org, @BarnettCTQ) is CEO and Partner at the Center for Teaching Quality, Carboro, N.C. **PATRICK M. SHIELDS** (pshields1015@gmail.com) is executive director of the Learning Policy Institute, Palo Alto, Calif.

public school systems will continue to experience shortages of caring, competent, and qualified teachers (NCTAF, 1996). Nor will states be able to fill the gap by rushing new recruits into the classroom, the report added: In the absence of meaningful training and support, teachers tend to exit the profession as quickly as they enter it, as though coming and going through a “revolving door” (Marinell et al., 2013).

In the wake of the NCTAF report, many states took bold steps to increase both the size and quality of the teaching workforce. Beginning in the late 1990s, policymakers funded a wide variety of efforts to improve teacher recruitment, preservice training, mentoring and induction, and ongoing professional development, including opportunities and incentives for teachers to seek national board certification (Darling-Hammond & Wei, 2009). Within a few years, researchers began to find that these policies were working, helping to strengthen the teacher pipeline and keep teachers in the profession (Guha et al., 2006). And yet, state policymakers gradually withdrew their support for these efforts, allowing them to wither on the vine.

Two decades later, the nation faces many of the same challenges identified in *What Matters Most*. Current teacher shortages vary somewhat more by region and subject area, but they are just as serious today as in the 1990s. In the 2015-16 school year, for example, 48 states and the District of Columbia reported shortages of teachers in special education, 42 reported shortages of math teachers, 40 reported shortages of science teachers, and 30 reported shortages of bilingual education/ESL teachers (U.S. Department of Education, Office of Postsecondary Education, 2015).

There are several reasons why the demand for teachers exceeds the supply once again:

- Student enrollment is on an upward trend — and expected to grow by 3 million in the next decade.
- Many districts and schools are trying to restore teacher positions and course offerings cut during the Great Recession.
- Fewer individuals are entering the profession: Between 2009 and 2014, enrollments in teacher preparation programs dropped 35% nationwide (from 691,000 in 2009 to 451,000 just five years later).

- The U.S. loses about 8% of its teachers annually; the attrition rate in this country is about two times as high as it is in top-performing nations like Finland and Singapore (Sutcher, Darling-Hammond, & Carver-Thomas, 2016).

The declining interest in teaching likely has much to do with subtle shifts in the nature of the profession. As top-down school reform increased under No Child Left Behind, teaching became less attractive to young people. For example, a 2014 Gallup poll showed that teachers scored “dead last” among 12 occupational groups in agreeing with the statement that their opinions count at work (Kamenetz, 2014). One poll in Georgia found that teachers who leave the profession tend to report feeling “devalued” by recent policies and “under constant stress,” fueled by high-stakes testing and unfair and inaccurate teaching evaluations (Downey, 2016). Similarly, teachers

The challenge is not to design and implement programs to strengthen the teaching profession — the real challenge is to sustain such supports over time. This is not a technical problem so much as a *political* one.

have experienced a steep decline in professional autonomy, particularly in high-poverty schools. In response to a 2003 survey by the U.S. Department of Education, a majority of teachers said they enjoyed a high degree of professional autonomy. By 2012, however, the reverse was true, with the majority reporting they had little autonomy (U.S. Department of Education, 2015) — and as research by the sociologist Richard Ingersoll has made crystal clear, teachers who experience lower levels of decision-making authority in their classes and schools are significantly less likely to stay in teaching as a career (Ingersoll, 2001).

In some ways, then, the teaching profession has fallen back to where it was in 1996, when the NCTAF report was released. In other ways, though, the challenges that teachers now face are much more difficult than before, and for students the stakes are much higher.

Join the conversation

[@pdkintl](https://facebook.com/pdkintl)
[@pdkintl](https://twitter.com/pdkintl)

See the related article in this issue, “The power and potential of teacher residencies,” by Roneeta Guha, Maria E. Hylar, and Linda Darling-Hammond, on p. 31. A more comprehensive report from the Learning Policy Institute is available at <https://learningpolicyinstitute.org/product/teacher-residency>

To become prepared for college and careers, students need to develop advanced analytical and communication skills so they can navigate and excel in a dynamic, information-rich environment (Autor, Levy, & Murnane, 2003). Yet, most teachers continue to work in schools that were designed for an industrial era, when few graduates attended college or pursued a professional career. Further, teachers of low-income students, English learners, and students of color are especially likely to work in these outdated, factory-model schools, and they are most likely to be forced to adopt a narrow, one-size-fits-all curriculum, further constraining their autonomy and professionalism (Ravitch, 2010).

To help readers understand how and why the teaching profession has come to this point, we take a closer look at two states, California and North Carolina, that launched significant efforts, beginning in the late 1990s, to strengthen the profession and build coherent systems of teacher development. While these states differ in size, population, and many other ways, their policy strategies had much in common: Both states raised minimum salaries for teachers, reformed their teacher education systems, and offered scholar-

ships and forgivable loans as ways to recruit teachers to work in hard-to-staff fields and locations. Both states created mentoring systems for new teachers and incentives and supports for veteran teachers to pursue certification by the National Board for Professional Teaching Standards. Both states invested in statewide efforts to improve teacher recruitment, and both explored innovative ways to get the most effective teachers to work with the neediest students. Finally, both states gradually dismantled these policies, programs, and services in response to economic and political pressures. Today, both are confronted, once again, by looming teacher shortages, especially in high-need schools.

The story of California

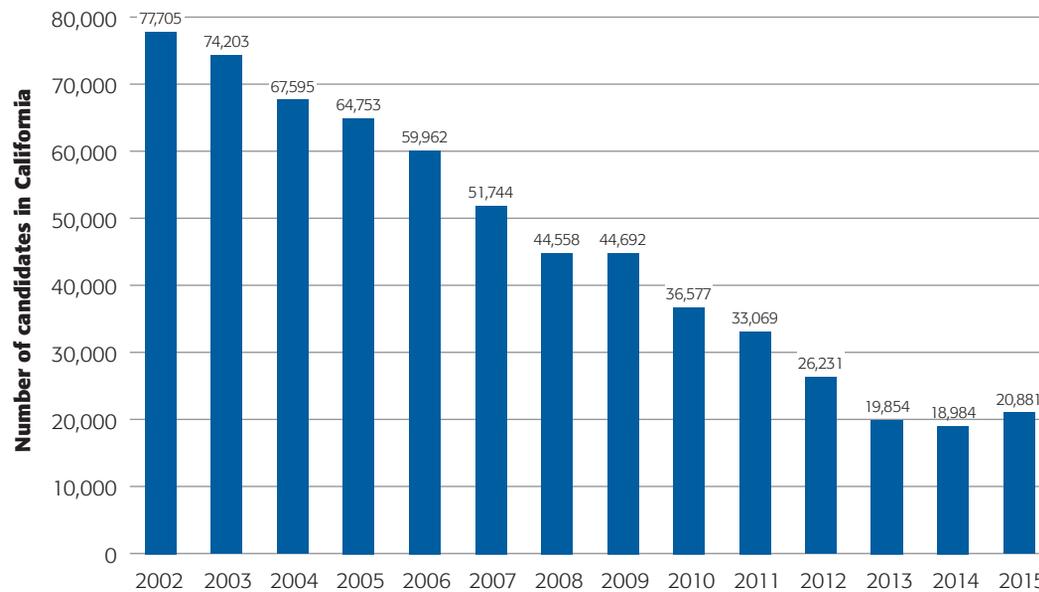
In 1996-97, when the NCTAF report was released, California embarked on an ambitious effort to reduce class sizes, and, since smaller class sizes translate to more classes overall, this meant the state had to hire tens of thousands of additional teachers. However, the supply of qualified teachers fell far short of demand. By 2000, 14.5% — or 42,000 — of California's classrooms were headed by a teacher who had not

FIGURE 1.
Supports for recruiting and retaining teachers have dwindled
Discontinued and inactive California teacher development and support programs

Program	Description	When instituted	Current status
Teacher Recruitment Incentive Program (TRIP)	Established six regional teacher recruitment centers to address the teacher shortage. Centers assisted school districts in recruiting qualified teachers to low-performing and hard-to-staff schools. \$9.4 million allocated annually.	Funded beginning in 2000-01	Suspended in 2003-04
California Center for Teaching Careers (CalTeach)	Created to serve as a one-stop information, recruitment, and referral service for prospective teachers. Funding peaked at \$11 million in 2000-01 and 2001-02.	Funded beginning in 1997	Suspended in 2003-04
Governor's Teaching Fellowship	Created to attract and retain qualified individuals in the teaching profession. Provided \$20,000 for tuition and living costs in exchange for a four-year teaching commitment in a low-performing school. \$21.1 million allocated in 2001-02.	Funded beginning in 2000-01	Suspended in 2002-03
Cal Grant T	Provided tuition and fee assistance to students in teacher preparation programs in exchange for teaching in a low-performing school for at least one year. \$10 million allocated annually, from 1998-99 through 2001-02.	Funded beginning in 1998-99	Discontinued in 2003-04
Teacher Retention Tax Credit	Allowed teachers to claim a state income tax credit of up to \$1,500, depending on years of service.	Funded beginning in 2000	Suspended in 2004
Mathematics Initiative for Teaching	Created to address shortage of credentialed math teachers. Provided funds for tuition and related expenses. Recipients agreed to teach one year of math for every \$2,500 received.	Funded beginning in 1998	Eliminated in 2003-04
Teaching As a Priority (TAP) block grant	Provided competitive block grants to districts to create incentives to recruit and retain credentialed teachers for low-performing schools. Incentives included signing bonuses, improved working conditions, teacher compensation, and housing subsidies.	Funded beginning in 2000-01	Funding suspended in 2003-04; incorporated into the Professional development Block Grant in 2005-06
Assumption Program of Loans for Education (APLE)	Long-standing loan forgiveness program designed to encourage outstanding students to work in teacher shortage areas. Teachers received a total of up to \$19,000 in outstanding loan forgiveness.	Established in 1983	New warrants suspended in 2012-13 (active recipients still received remaining funds)

Source: Teaching and California's Future: California's Teaching Force 2006: Key Issues and Trends; and California Student Aid Commission data available at www.csac.ca.gov/doc.asp?id=111.

FIGURE 2.
Enrollment in teacher preparation, while increasing, remains low



Source: Carver-Thomas, D. & Darling-Hammond, L. (2017). *Addressing California's growing teacher shortage: 2017 update*. Palo Alto, CA: Learning Policy Institute.

completed, or in some cases even begun, a preparation program (and English learners and low-income students were most likely to be assigned these underprepared teachers). Among new hires, nearly half lacked a preliminary credential (Shields et al., 2003).

In response to this crisis, the state introduced a number of new programs, including a statewide teacher recruitment system, fellowships and loan forgiveness for teachers working in high-need areas, and tax credits and block grants for local districts to recruit and retain effective teachers. Drawing largely upon NCTAF recommendations, the state also launched a comprehensive data collection system to track teacher staffing patterns and needs, and it began to offer \$20,000 stipends to teachers who earned national board certification and chose to work in low-performing schools.

This combination of programs produced impressive results. From 2000 onward, the proportion of underprepared teachers declined every year, even as the overall size of the teacher workforce in the state grew significantly — from 292,000 in 2000 to 310,000 in 2008. Unfortunately, though, just as these initiatives started to bear fruit, policymakers began to reduce or eliminate them. Starting with the closure of its statewide recruitment center in 2003 as fiscal pressures mounted, California abandoned every one of the teacher development programs that it had created only a few years earlier. (See Figure 1.)

The effects weren't felt immediately, however. The Great Recession led to sharp budget cuts, which forced many districts to stop hiring new teachers and, quite often, to lay off veteran teachers. Recent research from the Learning Policy Institute shows that by 2011-12, the state had lost nearly 9% of its teaching positions, which effectively canceled out the previous demand for new teachers. Not surprisingly, enrollment in teacher preparation programs steadily declined as well, from a high of nearly 78,000 candidates in 2001-02 to less than a quarter as many in 2013-14. (See Figure 2.)

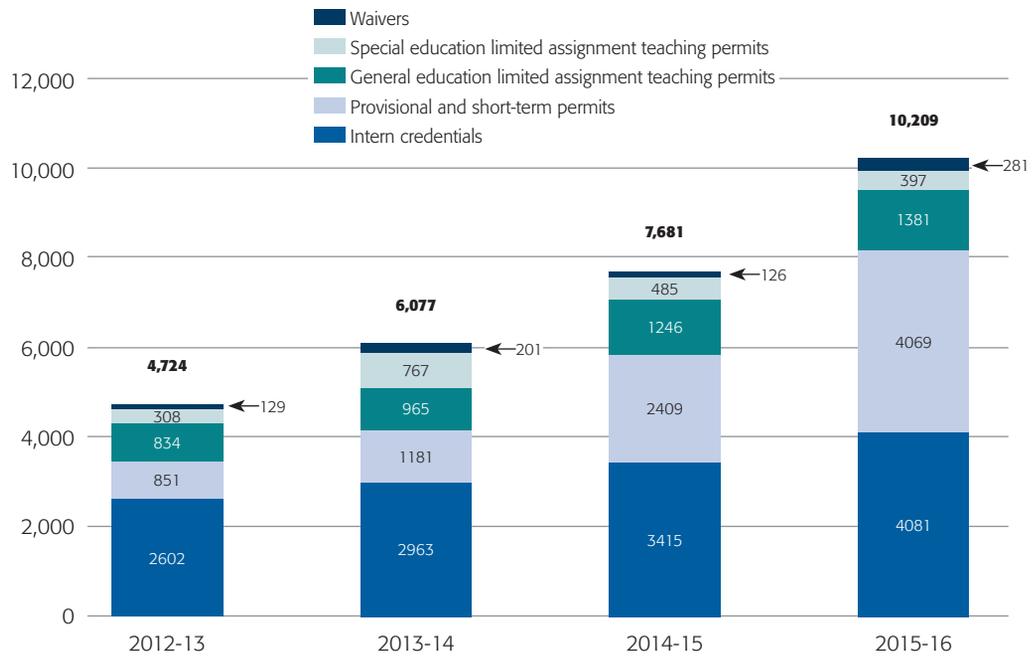
Thus, when the economy began to improve and when ballot measures brought new revenue to school districts, California found itself in a desperate position: Once again, the schools were looking to hire tens of thousands of teachers, but the challenge of finding good candidates had become more difficult than ever. Not only were there few candidates in the preservice pipeline, but the state no longer had functioning systems for recruiting, supporting, and retaining effective teachers.

As a result, many districts saw no option but to hire just about anybody they could find. Between 2012-13 and 2015-16, California saw a dramatic increase in the number of teachers entering the field on substandard credentials and permits — that is, without completing a teacher preparation program or meeting requirements for a preliminary teach-

Join the conversation

facebook.com/pdkintl
[@pdkintl](https://twitter.com/pdkintl)

FIGURE 3.
Substandard permits and credentials in California doubled between 2012-13 and 2015-16



Source: Carver-Thomas, D. & Darling-Hammond, L. (2017). *Addressing California's growing teacher shortage: 2017 update*. Palo Alto, CA: Learning Policy Institute.

ing credential. Across the state, just over 4,700 intern credentials, permits, or waivers were granted in 2012; just three years later, the figure had risen to 10,209, and the number was growing at an accelerating pace. (See Figure 3.)

Further, most of that increase was represented by emergency-style permits, issued in response to “acute staffing needs” and given to individuals who met neither subject-matter standards nor basic standards for teaching competency. Altogether, substandard authorizations totaled more than 10,000 in 2015-16 (comprising nearly half of all credentials issued in the state), a level not seen since the late 1990s.

In short, California now faces a massive teacher shortage, but the infrastructure that it built to address such a shortage no longer exists. In 2016, the state began to reinvest in that infrastructure, launching a new statewide recruitment center, expanding undergraduate teacher credentialing programs, and restoring a pathway for paraprofessionals to enter the teaching profession. But each of these efforts will take years to affect the supply of teachers.

The story of North Carolina

Like California, North Carolina has gone through

a lengthy process of building a strong teacher development system only to dismantle it for political and economic reasons. And like California, the state now faces a teacher shortage.

The North Carolina story begins with its former governor, James B. Hunt, who served for two eight-year periods, from 1977-85 and from 1992-2000. As the founding chair of NCTAF, Hunt knew well that if his state (where teacher salaries ranked 47th in the country) hoped to build a world-class education system, it would have to make serious investments in teacher recruitment, preparation, and professional learning opportunities.

Under Hunt's leadership, that is precisely what happened. For example, in the mid-1980s, North Carolina created the Teaching Fellows Program, an effort to attract bright young college students into teaching, give them rigorous preparation, and keep them in the profession — at one point, the initiative even funded scholarships for 11,000 new recruits to enroll in revamped teacher education sequences at a number of the state's universities. Over time, the program proved to be quite successful. As one administrator noted, “By and large, the Teaching Fellows have had a large impact on teaching and learning

in this state. These are dedicated and well-prepared new teachers who contribute a great deal. They become leaders in their schools almost immediately” (Berry, Price, & Noblit, 2002).

Around the same time, the state created the North Carolina Center for the Advancement of Teaching (NCCAT), which provided innovative support to veteran teachers: week-long residential programs, which allowed participants to engage in scholarly activities, reflect on teaching, and renew enthusiasm for their work. By the mid-1990s, NCCAT had served 4,000 teachers, and state officials credited it with boosting participants’ creativity in their classrooms and schools.

In the late 1990s, Hunt worked closely with the legislature to pass the Excellent Schools Act, which made North Carolina the first of NCTAF’s partner states to pursue its comprehensive recommendations. By the 2001-02 school year, the state’s teacher salary ranking had rocketed to 19th in the U.S., just \$2,000 below the then-national average of \$44,655. North Carolina also created strong incentives for teachers to earn national board certification, which involved a rigorous process by which teachers had to document the effect of their instruction on student learning. The state offered to pay the \$2,500 assessment fee, fund three additional professional development days to support the process, and provide a 12% salary increase to teachers who became board certified.

To further encourage professional learning, North Carolina also began awarding a 10% pay increase to teachers who earned master’s degrees related to their subject areas. Then, in 2002, the state launched a biannual survey of its 90,000+ teachers to collect data on their job satisfaction and working conditions. A few years later, the legislature funded a Teacher Cadet Program (modeled after a well-regarded program in South Carolina), a college-credit bearing course for high school seniors interested in the teaching profession.

These efforts seemed to have a salubrious effect, including a rise in graduation rates and meteoric rise in student scores on the National Assessment of Educational Progress. Granted, teacher shortages continued to beset policymakers, in part due to the lack of attention to out-of-field teaching and new teacher induction. But during the Hunt years, “Teachers felt like they were respected” (Coble, 2017).

By the late 2000s, however, Hunt had left office, and his approach to teacher development began to fade. While one in five of the state’s teachers had become a National Board Certified Teacher (NBCT), policymakers no longer showed much interest in cultivating their leadership potential or encouraging them to teach in the neediest schools (Koppich,

Humphrey, & Hough, 2007). Investments in maintaining teachers’ salaries also began to wane, exacerbated by the recession of 2008. In 2010, Republicans who opposed Hunt’s agenda dominated the legislature and wasted no time in stripping away teachers’ due process rights, reducing their health care benefits, and rolling back their salaries. By 2013-14, North Carolina once again ranked 47th in teacher pay, with average salaries having fallen more than 17% (adjusted for inflation) from a decade earlier (N.C. Department of Public Instruction, 2016).

Like California, North Carolina went through a lengthy process of building a strong teacher development system only to dismantle it for political and economic reasons.

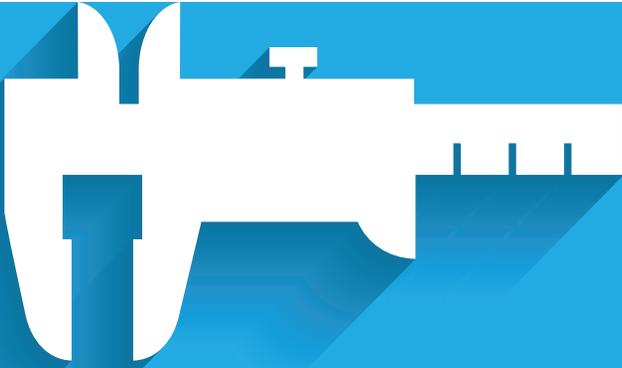
In addition, the legislature cut NCCAT’s funding in half, eliminated the Teacher Cadet program and salary bonuses for master’s degrees, and reduced support for teachers seeking board certification (rescinding the offer to pay their assessment fee). Perhaps most striking, the legislature abolished the Teaching Fellows Program and sent its entire funding allocation to Teach For America, which tends to lose more than 80% of its recruits by their fourth year of teaching (Clotfelter, Ladd, & Vigdor, 2007; Boyd, et al., 2006).

These legislative changes have left many North Carolina teachers to conclude that the state’s policy leadership “just doesn’t care that much about (them)” (WJAL, 2016). The results have been predictable. As the profession became less attractive, veteran teachers began leaving the classroom, while young college graduates became increasingly likely to choose other career paths. The state education agency recently reported that 15% of the state’s teachers left the classroom in 2014-15 — a precipitous rise since 2010 (N.C. Department of Public Instruction, 2015).

From 2010 to 2014, enrollment in North Carolina’s teacher education programs fell by 26% (and by 30% for graduate programs), and, as in California, its school districts became increasingly reliant on short-cut entry programs to fill classroom vacancies (Bastian, 2015). As of 2013-14, only 36% of the state’s teachers were prepared by in-state university programs — ironically, though, recent research find-

Join the conversation

facebook.com/pdkintl
[@pdkintl](https://twitter.com/pdkintl)



How do you measure a teacher shortage?

Teacher shortage indicator	What does it mean?
Number of vacancies	Vacancies are easy to understand, but budget cuts (or teacher shortages themselves) may lead districts to reduce the number of classes offered, artificially reducing the measure of the shortage.
Number of applicants per vacancy	Applicant numbers provide some indicator of the pool districts can select from but say little about whether districts can fill their vacancies with sufficiently capable teachers. And, many districts do not track this information.
Pupil-teacher ratios	Pupil-teacher ratios necessarily rise with teacher shortages and so can usefully indicate trends over time. But without a clear benchmark for the desired ratio, this indicator does not clarify whether there is a shortage. Status quo pupil-teacher ratios have been used as the benchmark without consensus on whether the status quo is adequate. As such, pupil-teacher ratios aren't an accurate indicator of teacher shortage. Nor are they easy to disaggregate at the district level across subject areas. Overall numbers can mask teacher shortages or surpluses in particular areas.
Number of emergency certificates issued	In many states, emergency credentials can be issued only when a fully prepared teacher can't be found, so the prevalence of these certificates signals a teacher shortage. However, as an option of last resort, emergency certificates alone may not capture the full scope of a teacher shortage.
Number of preparation program enrollees	Preparation-program enrollment figures provide information about possible future teacher shortages (or surpluses) but could reflect changes in program admission policies as much as interest in the profession. Because these programs may accept too many candidates in surplus areas or recruit too few in shortage areas, this number has only limited significance, particularly in light of evidence that many program completers never enter the teaching profession. Without accompanying information on teacher attrition, this number has limited value because there is less need for new teachers if current teachers stay put.
Number of new teachers certified	Newly certified teacher numbers provide a closer estimation of new teacher supply than program enrollees but don't reflect the fact that many certified teachers can't or won't teach in the subjects, grades, or locations where teachers are needed. On its own, this number does not indicate a teacher shortage.
Total number of teachers certified	As above, because many certified teachers can't or won't teach in the subjects, grades, or locations where teachers are needed, this number alone does not indicate a teacher shortage (or surplus) but does offer some useful context.
Number of teachers leaving the profession	Teacher attrition rates represent the flow of teachers in only one direction. If exiting teachers are easily replaced by new teachers, there is no teacher shortage, but there may be other problems.
Number of projected retirees	Same as above.
Perceptions of shortages by district superintendents or human resource directors	Perception surveys that calculate the percentage of district leaders who believe there is a shortage are easy to understand and can capture local and subject-specific information. But expectations among district leaders may vary, so a risk is that the more complacent district leaders' schools will appear to have fewer teacher shortages and the least complacent more.

Source: Behrstock-Sherratt, E. (2016). *Creating coherence in the teacher shortage debate: What policy leaders should know and do*. Washington, DC: American Institutes for Research Education Policy Center. www.air.org/sites/default/files/downloads/report/Creating-Coherence-Teacher-Shortage-Debate-June-2016.pdf

ings show that new teachers prepared at the 15 campuses of the University of North Carolina system are far more likely than those hired from out-of-state programs to be effective instructors and to remain in the classroom for more than five years (Bastian & Wing, 2015).

Similarly, the Teaching Fellows Program was scrapped in spite of evidence that its graduates had much higher retention rates after three and five years (90% and 75%) than did other teachers prepared through both traditional university and alternative routes in the state (80% and 68%) (Podolsky & Kini, 2016). Noting the legislature's lack of interest in such findings, some political observers have suggested that the real reason for the program's elimination was that it was supported by Democrats with "close ties" to former Gov. Hunt and his focus on professionalizing teaching (Fitzsimon, 2015).

A new strategy

Embedded in the stories of California and North Carolina are many of the solutions to current teacher shortages. As our colleagues from the Learning Policy Institute describe in this issue of *Kappan* (pp. 19-25), a wealth of evidence shows the importance of:

- Ensuring strong preparation and mentoring for all entrants, which increases effectiveness and reduces attrition;
- Increasing compensation and equalizing salaries across districts;
- Providing material supports for good teaching, from reasonable class sizes to high-quality materials;
- Enhancing professional working conditions by focusing on shared school leadership and time for collaboration; and
- Valuing teacher leadership (Sutcher, Darling-Hammond, & Carver-Thomas, 2016).

As the experiences in these two states illustrate, though, the challenge is not to design and implement programs to strengthen the teaching profession — the real challenge is to sustain such supports over time. This is not a technical problem so much as a *political* one. Thus, we conclude by pointing out that creating a stronger and more attractive teaching profession will depend on effective advocacy.

In particular, we argue that an important source of political strength lies in the many teacher networks that exist across the country. Over the past several decades, countless school districts, universities, professional associations, nonprofits, and other organizations have created valuable opportunities for teachers to discuss their work, share practices, and learn from each other (Little, 2003). For ex-

ample, many states boast large numbers of NBCTs. North Carolina alone has more than 20,000, many of whom participate in dozens of teacher networks that are active around the state. These include over 500 NBCTs who are part of a collaborative managed by the Center for Teaching Quality (CTQ), thousands of alumni of NCCAT and Teaching Fellows, and a cohort of over 450 classroom experts identified a few years ago by the Department of Public Instruction to develop instructional and professional development resources. Similarly, CTQ has identified 15 California-based networks of teachers (Kohl & Kerchner, 2016), including the California Professional Teaching Development Centers, Stanford's National Board Resource Center (NBRC), and the Instructional Leadership Corps sponsored by NBRC and the California Teachers Association, which has enabled nearly 300 teacher leaders to leverage professional learning for 40,000 other teachers (Heins, Snyder, & Adams, 2016).

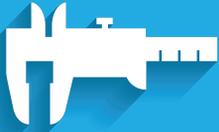
We do not know the precise numbers of teachers who participate in such networks across the country. But we do know that nearly six in 10 teachers nationwide regularly use technology to reach out to and interact with teaching colleagues (Scholastic & Bill & Melinda Gates Foundation, 2014), and one in five teachers report participating in online networks (Grunwald Associates & Digital Promise, 2015). It is safe to say, then, that many tens of thousands — perhaps hundreds of thousands — of teachers are actively engaged in these sorts of professional exchanges.

Recent studies have pointed to "the value of strong social networks among teachers for the spread of reform implementation and innovative climate . . . and

In some ways, the teaching profession has fallen back to where it was in 1996. But the challenges that teachers now face are much more difficult than before, and for students the stakes are much higher.

Join the conversation

facebook.com/pdkintl
[@pdkintl](https://twitter.com/pdkintl)



A glossary of teacher shortage terminology

To resolve the teacher shortage problem, teacher leaders, school leaders, district leaders, and community and state leaders need a shared and accurate understanding of the issue . . . starting with the words they use.

Teacher shortage. A situation where the teacher supply falls short of teacher demand

Teacher supply. The number of individuals willing and able to teach at prevailing wages and conditions

New teacher supply. The number of individuals willing and able to teach at prevailing wages and conditions who are newly certified each year

Teacher demand. The number of teachers that districts wish to employ at prevailing wages and conditions

Teacher attrition. The number or percentage of teachers who leave the profession in a given year, diminishing the teacher supply

Teacher movers or teacher mobility. The number or percentage of teachers who leave a school or district to teach in another school or district

Teacher turnover. The rate at which teachers are replaced (due to teacher attrition or teacher mobility)

Reserve pool. The number of certified teachers not currently employed as teachers

Re-entrants. Members of the reserve pool who regain their interest or ability to teach, thus rejoining the teacher supply

Source: Behrstock-Sherratt, E. (2016). *Creating coherence in the teacher shortage debate: What policy leaders should know and do*. Washington, DC: American Institutes for Research, Education Policy Center. www.air.org/sites/default/files/downloads/report/Creating-Coherence-Teacher-Shortage-Debate-June-2016.pdf

their capacity to change” (Moolenaar & Slegers, 2010). If networks are well-facilitated, they can connect teachers and encourage collaboration. Networks also reduce teacher isolation while elevating teachers’ capacity to serve in any number of formal and informal leadership roles, which can greatly reduce attrition from the classroom.

But networks can do more, empowering teachers, heretofore isolated from each other, to find and use their collective voices as advocates for effective policies and practices. Indeed, recent opinion polls suggest that if teachers were to take more prominent roles in advocating for their profession, large portions of the American public would be inclined to support them. Nationwide, according to the PDK Poll of the Public’s Attitudes Toward the Public Schools, two in three public school parents say they have “trust and confidence” in teachers (2013). In California, one recent poll found that 60% of the state’s voters would give public school teachers a letter grade of A or B for their teaching, and 77% believe the state should “spend more on schools” (Tulchin Research & Moore Information, 2016). In North Carolina, 62% of poll respondents said the

best way to improve the state’s schools would be to increase funding for public education, particularly to increase teacher salaries (Z. Smith Reynolds Foundation, 2016).

In short, the time is now for teachers to speak out. With help from parents and the many other Americans who trust and support them, they can and should become more forceful advocates — in their local districts, statehouses, and national forums alike — for the kinds of teacher recruitment, preparation, and support that are known to strengthen the profession and yield powerful results for students. **K**

References

- Autor, D.H., Levy, F., & Murnane, R. (2003). The skill content of recent technological change: An empirical exploration. *Quarterly Journal of Economics*, 118 (4), 1279.
- Bastian, K.C. (2015). *Rebuilding an infrastructure to advance teaching in North Carolina*. Raleigh, NC: Think NC First.
- Bastian, K.C. & Wing, Q.W. (2015). *Staffing North Carolina’s classrooms: Evidence connecting teacher preparation to*

teacher outcomes. Chapel Hill, NC: Education Policy Initiative at Carolina. https://publicpolicy.unc.edu/files/2015/07/Staffing_North-Carolinas_Classrooms_Evidence-Connecting_Teacher-Preparation_to_Teacher-Outcomes_April-2016.pdf

Berry, B., Price, P.G., & Noblit, G. (2002). *The effects of long-term investment in the improvement of teaching: North Carolina 1980-2000*. Seattle, WA: University of Washington, Center for Teaching Policy.

Boyd, D., Grossman, P., Lankford, H., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy*, 1 (2), 176-216.

Clotfelter, C., Ladd, H.F., & Vigdor, J.L. (2007). *Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects*. Cambridge, MA: National Bureau of Economic Research. www.nber.org/papers/w13617

Coble, C. (2017). Personal communication. April 3.

Darling-Hammond, L. & Wei, R.C. (2009). Teacher preparation and teacher learning: A changing policy landscape. In Gary Sykes (Ed.), *Handbook of education policy research* (pp. 613-636). Washington DC: American Educational Research Association.

Downey, M. (2016, January 6). Survey of Georgia teachers reveals 'a workforce that feels devalued and constantly under pressure.' *The Atlanta Journal & Constitution*. <http://getschooled.blog.myajc.com/2016/01/06/survey-of-georgia-teachers-reveals-a-workforce-that-feels-devalued-and-constantly-under-pressure>

Fitzsimon, C. (2015, March 19). The outrage of ending North Carolina's teaching fellows program. *The News & Observer*. www.newsobserver.com/opinion/op-ed/article15384026.html

Grunwald Associates LLC & Digital Promise. (2015). *Making professional learning count: Recognizing educators' skills with micro-credentials*. Washington, DC: Digital Promise.

Guha, R., Campbell, A., Humphrey, D., Shields, P., Tiffany-Morales, J., & Wechsler, M. (2006). *California's teaching force 2006: Key issues and trends*. Santa Cruz, CA: The Center for the Future of Teaching and Learning.

Heins, E., Snyder, J., & Adams, T. (2016). *Teachers, school leaders, and public scholars*

developing an ecosystems approach to growing educator capacity. Paper prepared for the 2016 meeting of the American Educational Research Association, Washington D.C. <https://edpolicy.stanford.edu/sites/default/files/docsonly/ilcaeraslides41016.pdf>

Ingersoll, R. (2001). Teacher turnover and teacher shortages: An organizational analysis. *American Educational Research Journal*, 38 (3), 499-534.

Kamenetz, A. (2014, April 9). Almost 70% of teachers are not engaged. Here's why that matters so much. *Washington Monthly*.

Kohl, K. & Kerchner, C. (2016, December 16). Teacher networks: Here, there, and everywhere. *Education Week*.

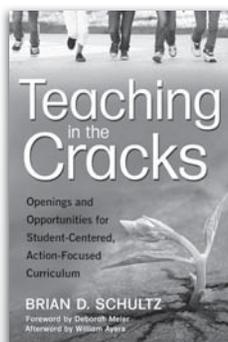
Koppich, J.E., Humphrey, D.C., & Hough, H.J. (2007). Making use of what teachers know and can do: Policy, practice, and national board certification. *Education Policy Analysis Archives*, 15 (7). <http://dx.doi.org/10.14507/epaa.v15n7.2007>

Little, J.W. (2003). Constructions of teacher leadership in three periods of policy and reform activism. *School Leadership & Management*, 23 (4), 415-416.

Join the conversation

[@pdkintl](https://facebook.com/pdkintl)

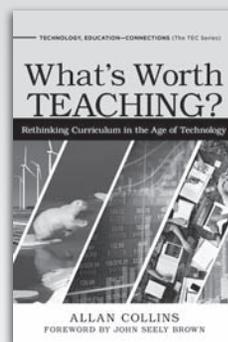
NEW FROM TC PRESS!



Brian D. Schultz
Foreword by
Deborah Meier

"For teachers who seek to make a difference through their work."
—Pedro A. Noguera

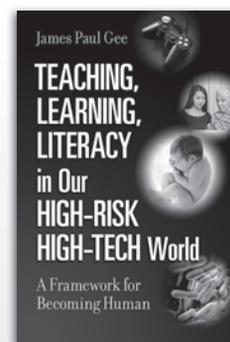
"Reminds us that curriculum should be dynamic, living, evolving, and responsive."
—H. Richard Milner IV



Allan Collins
Foreword by
John Seely Brown

"Collins' manifesto launches the comprehensive conversation we need on the future of learning."
—Roy Pea

"This book is such a gift to us at this critical time."
—Shirley Brice Heath



James Paul Gee

"A highly readable tour de force by one of the most original thinkers in the social sciences."
—David C. Berliner

Gee reconceptualizes education to better prepare students for a digitally driven modern world.



TEACHERS COLLEGE PRESS
TEACHERS COLLEGE | COLUMBIA UNIVERSITY

800.575.6566
www.tcpres.com

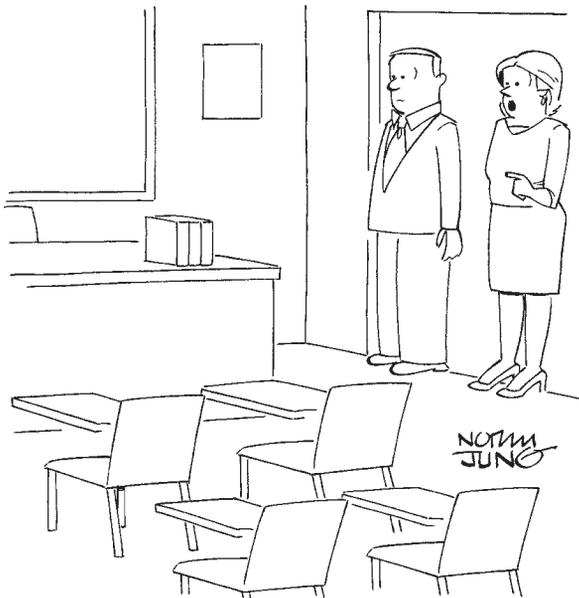
California now faces a massive teacher shortage, but the infrastructure that it built to address such a shortage no longer exists.

Marinell, W.H., Coca, V.M., Arum, R., Goldstein, J., Kemple, J., Pallas, A., Bristol, T., Buckley, C., Scallon, A., & Tanner, B. (2013). *Who stays and who leaves? Findings from a three-part study of teacher turnover in NYC middle schools*. New York, NY: Research Alliance for New York Schools.

Moolenaar, N.M. & Slegers, P. (2010). Social networks, trust, and innovation: The role of relationships in supporting an innovative climate in Dutch schools. In A. Daly (Ed.), *Social network theory and educational change*. Cambridge, MA: Harvard Education Press.

National Commission on Teaching and America's Future (NCTAF). (1996). *What matters most: Teaching and America's future*. New York, NY: Teachers College. <http://nctaf.org/wp-content/uploads/2012/01/WhatMattersMost.pdf>

North Carolina Department of Public Instruction. (2015). *2014-2015 state of the teaching profession in North Carolina*. Raleigh, NC: Author. www.ncpublicschools.org/docs/



“Teacher shortages and absenteeism seem to go hand in hand.”

educatoreffectiveness/surveys/leaving/2014-15turnoverreport.pdf

North Carolina Department of Public Instruction (2016). *Statistical profile*. Raleigh, NC: Author. <http://apps.schools.nc.gov/pls/apex/f?p=1:21:0::NO>

PDK International. (2013). *PDK poll of the public's attitudes toward the public schools*. Bloomington, IN: Author. www.pdkpoll.org

Podolsky, A. & Kini, T. (2016). *How effective are loan forgiveness and service scholarships for recruiting teachers?* Palo Alto, CA: Learning Policy Institute.

Ravitch, D. (2010). *The death and life of the great American school system*. New York, NY: Basic Books.

Scholastic & Bill & Melinda Gates Foundation. (2014). *Primary sources: Update: Teachers' views on Common Core state standards*. www.scholastic.com/primarysources/PrimarySources-2014update.pdf

Shields, P.M., Esch, C.E., Humphrey, D.C., Wechsler, M.E., Chang-Ross, C.M., Gallagher, H.A., Guha, R., Tiffany-Morales, J.D., & Woodworth, K.R. (2003). *The status of the teaching profession 2003*. Santa Cruz, CA: The Center for the Future of Teaching and Learning.

Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2016). *Coming crisis in teaching? Teacher supply, demand, and shortages in the U.S.* Palo Alto, CA: Learning Policy Institute.

Tulchin Research & Moore Information. (2016). *California statewide poll, August 23-30, 2016*. <http://edpolicyinca.org/sites/default/files/PACE%20USC%20Poll%20CA%20Statewide%20Topline.pdf>

U.S. Department of Education. (2015). *Public school teacher autonomy in the classroom across school years 2003-04, 2007-08, and 2011-12*. Washington DC: Institute for Education Sciences. <https://nces.ed.gov/pubs2015/2015089.pdf>

U.S. Department of Education Office of Postsecondary Education. (2015). *Teacher shortage areas nationwide listings 1990-1991 through 2015-16*. Washington, DC: Author.

WJAL. (2016, April 26). *After inflation, NC teacher pay has dropped 13% in past 15 years*. www.wral.com/after-inflation-nc-teacher-pay-has-dropped-13-in-past-15-years/15624302

Z. Smith Reynolds Foundation. (2016). *North Carolina voters and the value of public education: 2015 survey highlights*. www.zsr.org/sites/default/files/documents/NC%20Voters%20and%20Value%20of%20Public%20Education%20%28Executive%20Summary%29_0.pdf