

**How Do Teacher  
Preparation Programs  
Affect a State's Economy?  
What State Policymakers  
Need to Know**

A REPORT FOR



Written by  
**Bob Wise**

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*Major industrial development goes where there are good teachers. Economic development prospects never asked about the college of education, but 100 percent asked about the quality of the schools.*

– David Satterfield, former West Virginia state economic development chief

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## PREFACE

This report on the importance of teacher preparation programs to a state's economic success was scheduled to be published in March 2020, right before the COVID-19 pandemic forced a nationwide shutdown of K–12 schools and higher education institutions, including teacher preparation programs. Since the outset of that crisis, educators and state policymakers have focused on the immediate challenges of a massive public health emergency and plummeting tax revenues while navigating a rapid shift to remote learning and unprecedented demand for vital social services. Publication of this report was delayed as its audience focused on those urgent priorities, but as the immediate crisis abates, its recommendations are more relevant than ever.

Since the initial writing of this report, COVID-19 has laid bare and aggravated existing social inequities, such as the digital divide that prevented many low-income students from fully engaging in remote learning. Additionally, as schools shut their doors, essential social services, including student nutrition programs, were less accessible to families who depend on them. Then the killing of George Floyd and the eruption of widespread social protest renewed attention to longstanding racial and economic inequities in American life, including our education system.

The fundamental premise of this report is that the quality of a state's teacher preparation programs directly influences its overall economic well-being. In February, the United States was enjoying low unemployment and the longest period of economic growth in its history — though profound inequities still existed. Two months later, a record 20 million Americans had filed for unemployment benefits and the economy was contracting at a pace not seen since the Great Depression. Seventy million K–12 and higher education students had been sent home, and students and teachers alike struggled to adapt to distance learning.

In many ways, the world as we knew it has been upended, but the tumultuous developments in public health, education, and the economy have only made the issues raised in this report more critical than they were six months ago. Recovery and rebuilding demand that state policymakers pay greater attention to long-struggling teacher preparation programs. Consider that:

- Every recession eliminates low-skilled jobs and forces workers to acquire higher-level skills or learn a different job altogether. The mindset and the knowledge developed in K–12 sets students up for a lifetime of learning and adaptation. The well-prepared teacher will be even more essential to ensuring that students are equipped to meet the growing learning demands of the post-COVID economic recovery. State policymakers must be aware that the pandemic shutdown means that many of the new teachers entering classrooms this fall will not have experienced the end-of-year clinical work, classroom observation, or practicums that are essential to both early teacher and student success. Nor will most have been exposed to training to adapt their teaching to a virtual or hybrid learning context.
- As documented in the report, a state's teachers compose one of the largest workforce sectors in almost every community. Absent further federal stimulus stabilization funds for education, states and school districts will be forced to meet dire revenue losses by laying off large numbers of teachers, resulting in even greater loss of tax revenues and consumer spending with corresponding increases in unemployment compensation.
- The report notes that during good economies, TPPs lose enrollment because higher-income jobs are available. While the current U.S. economy has declined sharply in just a few months, recent economic history and current predictions are that middle-income, higher-skilled jobs will be returning relatively quickly, and the competition for TPPs

to attract quality teacher candidates will continue. This becomes even more important if, as discussed elsewhere, the combination of COVID-19, changed teaching environments, and an uncertain economy accelerates retirements among more experienced teachers.

- Since most states reduce higher education funding before touching K–12 spending, teacher preparation programs will face sharp budget cuts precisely when they need to be adapting to meet the new teaching needs dictated by COVID-19 and heightened equity demands. With distance learning in varying degrees likely to be a new constant, teacher preparation programs must create new curricula and professional development programs. Similarly, teacher preparation programs must prepare teachers for the current social-emotional needs of their students, especially those who have long endured the trauma of racism and poverty.
- Amid reduced state budgets, changing education environments, and ongoing health risks due to the virus, many experienced teachers may choose to retire, leaving classrooms to be filled with recent graduates of teaching preparation programs. This is another reason for state policymakers to become aware of the ability of their state’s teacher preparation programs to meet emerging challenges with newly certified teachers.
- The jarring developments of the past months require major adaptations by teacher preparation programs to respond to persistent and glaring racial and economic inequities. The best distance-learning teaching will not be effective if a large percentage of students do not have access to basic broadband or adequate computers and mobile devices. Similarly, teachers must be prepared for large numbers of students who have been separated from school during a period of profound trauma and social disruption.

Policymakers understandably have been consumed with addressing the unprecedented crises of a pandemic, a closed education system, a rapidly declining economy, and renewed outrage and initiatives over racial and economic equity. While each of these requires immediate attention and action, attention to the quality of a state’s education system will be fundamental to addressing them in a way that delivers lasting progress.

The full report makes recommendations for policymakers about questions to ask and actions to take. A further question reflects this tumultuous period in education: “How is the teacher preparation program adapting its program, curriculum, and clinical experiences to ensure that teachers are prepared for the new education landscape?”

More than ever, teacher preparation will determine the economic, equity, and education outcomes for a state. Before the pandemic hit, this report outlined compelling reasons for state policymakers to become deeply involved in supporting and improving teacher preparation programs. Today, the necessity for active engagement of state policymakers cannot be ignored. If we want to do more than simply “recover,” if we want to build back a society that is stronger and more equitable than in the past, the time to act is now.

# TEACHER PREPARATION: CRUCIAL BUT OFTEN OVERLOOKED

Every year, local and state governments spend billions of dollars on economic development incentives.<sup>1</sup> In the chase for Amazon alone, it was estimated that Newark, New Jersey, offered up to \$7 billion in incentives; other cities were almost equally generous.<sup>2</sup>

But even though corporations regularly say that a skilled or educated workforce is more important to them than almost any other factor — including tax incentives — in choosing a location, few state legislatures focus on the training of those who develop that workforce: teachers.<sup>3</sup>

As a result, states are missing out on major economic growth opportunities. If an average-sized state knows that a business is willing to relocate to that state and requires 50,000 highly skilled workers, its governor, legislators, and state officials should work tirelessly to ensure the state has training programs that meet the industry's rigorous requirements. The overall economic impact alone, not to mention the spending power of the industry, should mandate that type of attention. Yet the rigorous training of teachers and principals is often overlooked by state legislatures.

A lack of attention to teacher preparation programs (TPPs) has broad negative effects since without high-quality preparation, many teachers will be poorly prepared to shape the citizens of tomorrow. The economic effects of neglecting TPPs, however, are much more immediate and specific. Good teachers help create the educated workforce that is so necessary for attracting businesses to an area. They also stay at their jobs longer than poorly trained teachers, saving states and school districts money. And something that all too often is not even acknowledged is that teachers alone make up a large percentage of any city or county's workforce.

The quality of a state's workforce depends upon the state having successful students with core academic content knowledge and the "four Cs": critical thinking, creativity, collaboration, and communication. It is well established that teachers are the single greatest determinant of students' success within a school. It follows, then, that teacher preparation is an essential part of the economic development process — and that states should be motivated to ensure that they offer high-quality teacher preparation. These issues are more critical than ever as states work to recover and rebuild from the current economic crisis.

"Major industrial development goes where there are good teachers," says David Satterfield, who served as West Virginia's state economic development chief and continues to work on regional efforts. "Economic development prospects never ask about the college of education, but 100 percent ask about the quality of the schools."<sup>4</sup>

Or, as noted in a 2013 Economic Policy Institute report, "Overwhelmingly, high-wage states are states with a well-educated workforce. There is a clear and strong correlation between the educational attainment of a state's workforce and median wages in the state."<sup>5</sup>

The current report is intended to motivate state policymakers — including governors, legislators, and other key officials — to focus attention on their state's TPPs by demonstrating how important these programs are in determining a state's economic development and success. It also provides questions for state policymakers and suggestions for how they could be more involved.

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1 Joseph Parilla and Sifan Liu, *Examining the Local Value of Economic Development Incentives: Evidence from Four US Cities* (Washington, D.C.: Brookings Institution, 2018).

2 Lydia DePillis, "What These States Learned about Wooing Companies with Big Tax Breaks," *CNNMoney*, February 13, 2018.

3 Geraldine Gambale, "33rd Annual Corporate Survey & the 15th Annual Consultants Survey," *Area Development*, Q1 2019.

4 David Satterfield (former executive director, West Virginia Development Office), in telephone interview with author, September 3, 2019.

5 Noah Berger and Peter Fisher, *A Well-Educated Workforce Is Key to State Prosperity* (Washington, D.C.: Economic Policy Institute, 2013).

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*“It was only after I left public office that I realized I had never visited a college of education nor had I met with faculty or teachers to learn about the teacher preparation process. I was always thinking about improving student learning outcomes, but I never asked about the process of preparing those responsible.”*

– Robert Wise, former governor of West Virginia

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The report mainly focuses on traditional undergraduate TPPs in colleges of education in both public and private institutions, but state policymakers should be aware that alternative certification programs are fast-growing and have varying degrees of effectiveness. Most state policymakers will be surprised to learn how many TPPs currently operate in their state. For traditional TPPs, 2,300 colleges and universities award degrees or certificates in education; 1,689 four-year institutions award degrees at the bachelor’s level. And with the rapid proliferation of specialized teaching certifications, one institution may offer numerous TPPs, for a total exceeding 26,000 nationwide.<sup>6</sup>

The report also provides insights I wish I had had when I served as governor, state legislator, and member of the U.S. House of Representatives. During those 24 years, I devoted much of my energy to improving education, since, as one of my high school classmates said decades ago, “Education is the only passport from poverty.” But it was only after I left public office that I realized I had never visited a college of education nor had I met with faculty or teachers to learn about the teacher preparation process. I was always thinking about improving student learning outcomes, but I never asked about the process of preparing those responsible.

I am certainly not alone in this: most state leaders focus on economic development and the rapidly changing skills that need to be taught in K–12. Teacher training too often is not even on the radar.

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<sup>6</sup> U.S. Department of Education, Office of Postsecondary Education, *Preparing and Credentialing the Nation’s Teachers: The Secretary’s Tenth Report on Teacher Quality* (Washington, D.C.: 2016).

## Direct Economic Impacts of Teacher Preparation

More effective teachers can add as much as \$10,600 in earnings over the lifetime of an average worker, according to the Hoover Institution, a public policy think tank at Stanford University. Therefore, if a teacher annually educates a class of 20 students (a low-end estimate), the economic impact on a state is significantly larger.

Using a “value-added” methodology, the Hoover Institution’s Eric Hanushek calculated that a teacher who is just above the mean (84th percentile) in effectiveness produces over \$400,000 in added earnings for a class of 20.<sup>7</sup> If one teacher in one year for one class produces at that level, imagine what that means for the economy at large. The growth potential is astounding.

Hanushek also calculated that the impact of replacing the lowest-performing teachers with average ones would increase the annual growth rate of the U.S. by 1 percent. For someone born today, that would be a lifetime increase in U.S. economic output of \$112 trillion.<sup>8</sup> In a related study, he calculated the long-term growth of each state’s gross domestic product that could be realized by improving its student achievement levels.<sup>9</sup>

This economic impact accounts for more than the earnings increase for each student. As wage earners’ income increases, they spend more on houses, automobiles, and consumer services, and in doing so, they generate increased economic activity that creates additional jobs and wages. The Alliance for Excellent Education annually demonstrates the positive economic impact of increasing the high school graduation rate to 90 percent with an economic model that projects how increased disposable income for one class of students will generate opportunities for others.<sup>10</sup>

Because the value-added methodology is based on measurements of students’ improvement on test scores while working with a particular teacher, Hanushek calculated the economic impact of a “highly effective” teacher but did not analyze how, or the extent to which, a TPP determines effectiveness. However, logic and practical experience dictate that there is a direct connection between the quality of preparation and how effective a teacher will be — and how quickly a teacher will become highly effective.

A major report supporting this connection noted that “a number of studies have indeed found teacher education, preparation, and qualifications, of one sort or another, to be significantly and positively related to student achievement.”<sup>11</sup> And if the existing process, which requires four to five years for each teacher candidate and millions of public dollars annually to administer, cannot show a direct impact, then state officials need to ask, “Why not?”

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7 Eric Hanushek (education economist, Hoover Institution, Stanford University), in telephone interview with the author, September 4, 2019. See also Eric Hanushek, “The Economic Value of Higher Teacher Quality,” *Economics of Education Review* 30, no. 3 (June 2011): 466–479.

8 Eric Hanushek, “Valuing Teachers: How Much Is a Good Teacher Worth?” *Education Next* 11, no. 3 (Summer 2011): 40–45.

9 Eric Hanushek, “It Pays to Improve School Quality,” *Education Next* 16, no. 3 (Summer 2016): 16–24.

10 Alliance for Excellent Education, *The Graduation Effect: The Economic Impact of a High School Diploma*. (Washington, D.C.: Alliance for Excellent Education, 2018).

11 Richard Ingersoll, Lisa Merrill, and Henry May, *What Are the Effects of Teacher Education and Preparation on Beginning Teacher Attrition?* (Philadelphia: University of Pennsylvania, Consortium for Policy Research in Education).

Given the large number of state dollars spent on teacher preparation, state policymakers need to better understand this connection between teacher training and effectiveness to ensure that TPPs are indeed setting up teachers to succeed. As one longtime official of a regional education funder suggests, policymakers need to “make a succinct arc to what turns out college-ready high school seniors.”<sup>12</sup> And as a graduate school of education dean recommends, it is important not to “get too tied up with how a teacher’s students show up on tests” but instead “look at the economic outcome beyond the individual.”<sup>13</sup>

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*“Skilled labor is the number one priority for businesses in selecting a site, with more than 90 percent ranking it as ‘very important’ or ‘important.’ An educated workforce beat out the importance of tax incentives and labor costs.”*

– Area Development magazine’s annual corporate survey

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## Noneconomic Impacts of Good Teachers

While this report focuses on the economic impacts of preparing good teachers, it would be remiss not to briefly note how crucial good teachers are in cultivating the involved citizenship so necessary to a democracy.

Research suggests that the growing emphasis on social-emotional learning in schools can lay the foundation for more active civic engagement among young people.<sup>14</sup> In a 2018 study of almost 2,500 students aged 8 to 20, researchers found that those with greater emotional and socio-cognitive skills — such as empathy, emotion regulation, and moral reasoning — reported higher civic engagement, including volunteering more, valuing political involvement, and helping friends, family, and neighbors more.<sup>15</sup>

A 2003 CIRCLE and Carnegie Corporation of New York report noted that “it is crucial for the future health of our democracy that all young people, including those who are usually marginalized, be knowledgeable, engaged in their communities and in politics, and committed to the public good,” and that “schools are the only institutions with the capacity and mandate to reach virtually every young person in the country [and] are the most systematically and directly responsible for imparting citizen norms.”<sup>16</sup> That report was published almost 20 years ago, but its message — and the need for involved and connected citizens — is perhaps even more important now.

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12 Jim Denova (vice president, Claude Worthington Benedum Foundation) in interview with author, September 13, 2019.

13 Michael Feuer (dean, George Washington University’s Graduate School of Education and Human Development) in telephone interview with author, September 17, 2019.

14 Amy L. Eva, “How to Inspire Students to Become Better Citizens,” *Greater Good*, November 6, 2018.

15 Aaron Metzger, Lauren M. Alvis, Benjamin Oosterhoff, Amy Syvertsen, and Laura Wray-Lake, “The Intersection of Emotional and Sociocognitive Competencies with Civic Engagement in Middle Childhood and Adolescence,” *Journal of Youth and Adolescence* 47, no. 8 (August 2018): 1663–1683.

16 CIRCLE and Carnegie Corporation of New York, *The Civic Mission of Schools* (New York: Carnegie Corporation of New York, 2003).

## EFFECTIVE TEACHERS, EDUCATED WORKERS

State economic developers, continually on a quest to create and attract well-paying jobs, know the importance of providing high-quality schools. *Area Development* magazine, the executive magazine covering corporate site selection and relocation, found in its annual corporate survey that skilled labor is the top priority for businesses in selecting a site, beating out tax incentives and labor costs. More than 90 percent of respondents ranked it as “very important” or “important.”<sup>17</sup>

“For most businesses, the issue of location choice now is driven by labor: Will we be able to attract the white-collar skills we need?” said Wharton management professor Peter Cappelli, director of the Wharton School’s Center for Human Resources, in a *Wharton Magazine* article. “For unskilled or semi-skilled jobs, will we be able to get it at a price we want to pay? No business goes to the Silicon Valley or New York City because it is cheap; they go because of the labor supply.”<sup>18</sup>

Take the example of North Carolina. Long recognized for fast economic growth, the state countered the demise of traditional industries such as textile and furniture manufacturing with the rapid development of technology and information-based sectors. Former North Carolina governor Beverly Perdue — now chair of the National Assessment Governing Board, which enables states to compare student achievement — says, “You have to tell businesses that the schools are good. Give them the data. This is a priority for locating a business.... Economic growth and teacher preparation are inextricably linked. Having good teachers across the state is essential.”<sup>19</sup>

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During my first legislative session as governor, I quickly saw how important a good elementary and secondary school system was in luring companies. I pushed through a new set of business incentives — lower business taxes, infrastructure development, direct monetary grants, and low-cost loans — designed to attract companies to relocate and expand in my state. Equipped with these new economic incentives, I set out on a series of marketing meetings with corporate leaders ready to discuss them. But I soon realized that their first question was always, “Tell me about your education system.” The reason for the curiosity was obvious: How well prepared for this new employer would the local workforce be? Another reason, less often voiced but equally important, was that if the company’s leaders were moving their families, or asking colleagues to move their children to my state, they needed to know that their children would receive a good education.

Jim Denova, vice president of the Claude Worthington Benedum Foundation, which has long supported economic development initiatives in West Virginia and Pennsylvania, makes a direct correlation between “how well ... that teacher [is] prepared” and “the quality of their practice,” which “shapes the economy.”

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17 Gambale, *Corporate Survey*.

18 “The Headquarters Checklist: How Do Companies Pick a Location?” *Knowledge@Wharton*, October 24, 2017.

19 Beverly Perdue (former governor, North Carolina), in telephone interview with author, September 20, 2019.

# THE COSTS OF TEACHER ATTRITION

More than three million K–12 teachers in the United States comprise one of the largest workforce sectors, far exceeding the U.S. Postal Service, the U.S. Department of Defense, and Walmart. The fierce bidding war over where Amazon’s second headquarters would be located involved two centers, each employing 25,000 persons; every state sees far more teachers report to work each morning, most of whom are trained within the state.

While teacher pay scales arguably should be improved in many regions, teaching is still a high-wage occupation compared with many others. The economic impact of 50,000 teachers — the ultimate knowledge workers — in an average-sized state is unequivocally significant.

Any state would compete furiously, offering economic, infrastructure, and job-training incentives to attract a workforce with such a monetary and growth impact. Yet the job training that most teachers undergo receives almost no attention from state policymakers — nor does the role teacher training programs play in minimizing or exacerbating teacher shortages. This is unusual, as most large industries are concerned with excessive turnover in a workforce in which they have invested a great deal of training.

According to a study by the Learning Policy Institute, teacher attrition in the United States is about twice as high as that in high-achieving jurisdictions such as Finland, Singapore, and Ontario, Canada. The costs of this turnover are high with replacement costs for each teacher leaving an urban school district exceeding \$20,000. The Learning Policy Institute also notes that two key variables driving turnover are the preparation teachers receive prior to entering the profession and the

administrative support they receive on the job. Similarly, depending on the study, “attrition rates are found to be two to three times higher for teachers entering the profession without full preparation, than for teachers who are comprehensively prepared.”<sup>20</sup>

These national figures mask state-by-state differences in attrition, which in some cases can be cause for alarm. For example, the Arkansas legislature was so concerned about its teacher turnover statewide that it commissioned a study. The study revealed that 10 percent of teachers did not return to the classroom after their first year of teaching, 24 percent did not return after three years, and 31 percent did not return after five years.<sup>21</sup> No major industry that faces shortages of skilled workers on this scale can long ignore the problem. And retention is likely to become an even greater challenge as teachers contemplate exiting the profession due to health concerns and difficulties transitioning to remote learning. In a recent national survey, 20 percent of teachers reported that they are somewhat or very likely to retire from teaching at the end of the 2019–20 school year, compared with just 9 percent prior to the pandemic.

Notably, there are direct links between teacher retention, especially in a teacher’s early years in the classroom, and the quality of their TPP. “Less prepared teachers tend not to stay as long,” notes Jane West, former senior vice president of the American Association of Colleges for Teacher Education.<sup>22</sup> Conversely, states with robust TPPs save money due to lower attrition. “Better-prepared teachers stay in the classroom,” says Javaid Siddiqi, a former principal who has served as Virginia’s secretary of education and who currently sits on a district school board.<sup>23</sup>

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20 Anne Podolsky, Tara Kini, Joseph Bishop, and Linda Darling-Hammond, *Solving the Teacher Shortage: How to Attract and Retain Excellent Educators* (Palo Alto, CA: Learning Policy Institute, 2016).

21 Arkansas Department of Education, *Recruitment and Retention 2018 Report*, 2018.

22 Jane West (former senior vice president, American Association of Colleges for Teacher Education), in meeting with Lynn Gangone (president and chief executive officer) and author, October 2, 2019, Washington, D.C.

23 Javaid Siddiqi (president and chief executive officer, The Hunt Institute), in telephone interview with author, October 29, 2019.

# ADDRESSING THE SHORTAGE OF ASPIRING TEACHERS

Retaining those who have already been trained as teachers is one challenge; another is getting students to enroll in colleges of education in the first place. While estimates of teaching shortages vary, it is uncontested that, at the least, “there are shortages within the shortages, in areas like STEM and English language learners.” Jeremy Anderson, president of the Education Commission of the States, has concerns about looming teacher shortages, observing that “in 2008, there were 719,000 college students enrolled in a teacher preparation program, and in 2016, that number had dropped to 441,000.”

A recent report noted that enrollment in TPPs in Michigan had decreased by 67 percent. In a five-part series, the Economic Policy Institute reported that enrollment in TPPs declined 38 percent from 2008 to 2016, and graduation rates experienced a 27 percent decline. Meanwhile, the number of people entering the teaching profession via alternative certification increased by 17 percent from 2011 to 2015; the quality of these certification programs can vary widely and requires state policy-maker involvement.<sup>24</sup>

“TPPs have lost enrollment because of a better economy,” in which people can make a much higher income than that offered by teaching, says David Steiner, executive director of the Institute for Education Policy at Johns Hopkins University and former state commissioner of education for New York. “As a nation, we will either have to give up on public education or address the entire teacher pipeline from recruitment to retirement.”<sup>25</sup> Steiner is currently on the Maryland State Board of Education.

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Offering high-quality preparation and ongoing support is more effective than emphasizing punitive oversight during a teacher’s career. Finland has long been held up as a model of education and TPPs, but, as Linda Darling-Hammond, noted international education researcher and chair of the California State Board of Education, cautions, “We can’t fire our way to Finland.”<sup>26</sup>

While many factors determine high school students’ college and career decisions — prospective salaries, working conditions, intellectual challenges — to consider going into education, they must have a positive view of where they will spend the next four to five years preparing for their field of choice. How highly regarded and well-known a college or university TPP is will determine both the type and number of people who apply for this career path.

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24 Garcia, interview. See also Emma Garcia and Elaine Weiss, *U.S. Schools Struggle to Hire and Retain Teachers* (Washington, D.C.: Economic Policy Institute, 2019).

25 David Steiner (executive director, Institute for Education Policy, Johns Hopkins University), in telephone interview with author, December 2, 2019.

26 Linda Darling-Hammond (president and chief executive officer, Learning Policy Institute), in meeting with author, August 15, 2019, Austin, Texas.

# IMPROVING TEACHER PREPARATION AND PROFESSIONAL DEVELOPMENT

Reexamining how teacher education is delivered is crucial as we enter the second decade of the 21st century — and as higher education institutions face an unprecedented fiscal crisis. As former New Jersey governor Thomas Kean says, “Teacher preparation programs will deteriorate without attention.”<sup>27</sup>

TPPs also face growing competition from alternative certification programs. Almost 20 percent of new teachers hold alternative certifications, and in some states, the proportion is much higher. Half the teachers in Texas, for example, have alternative certification. Not all teacher education programs are created equal, however. Some research has shown small differences in achievement gains for students taught by teachers who completed a traditional TPP compared with those from an alternative certification program.<sup>28</sup>

Below, I identify several strategies that states can use to strengthen their TPP programs.

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*“Teacher preparation programs will deteriorate without attention.”*

— Thomas Kean, former New Jersey governor and president of Drew University

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## Emphasizing Training Practices That Promote Long-Term Teaching Success

In a state TPP, the state assumes part of the cost for the training of its teachers — an investment that will see a much greater return if fewer students drop out and more graduate ready to enter the classroom. Ensuring that students receive a robust clinical experience in teaching is essential for TPPs to graduate highly prepared teachers who will stay and thrive in the profession.

How teachers are prepared affects whether and how long they stay in teaching. A report by noted education researcher Richard Ingersoll concluded that the type of college, degree, entry, or certificate awarded was not a significant factor. Instead, “what did matter was the substance and content of new teachers’ pedagogical preparation. Those with more training in teaching methods and pedagogy — especially practice teaching, observation or other classroom teaching, and feedback on their teaching — were far less likely to leave teaching after their first job.”<sup>29</sup>

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27 Thomas Kean (former governor, New Jersey), in group discussion with author, August 15, 2019, Austin, Texas.

28 Julie Rowland Woods, *Mitigating Teacher Shortages: Alternative Teacher Certification* (Denver: Education Commission of the States, 2016).

29 Ingersoll, Merrill, and May, *Effects of Teacher Education*.

The research evidence that clinical experience in teaching matters for teacher quality is powerful. According to Thomas Kane, professor of education at Harvard Graduate School of Education and director of the Center for Education Policy, “Every study has found that teachers improve their value-added scores during their first three or four years of teaching.”<sup>30</sup>

This is where the state’s role in establishing the licensure and certification requirements for teacher and school leaders comes into play. Each state is required by federal law to hold educator preparation programs accountable. Further, each state crafts its own accountability structure for educator preparation. Reviewing and using accountability structures to emphasize high-impact training practices rooted in authentic classroom experiences can help ensure that TPPs produce career teachers and a strong return on investment for states.

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*“Legislators also need to get into K–12 schools to talk to teachers, principals, students, and parents about what they are looking for in teacher preparation.”*

– North Carolina state representative Craig Horn

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## Diversifying Feedback Sources to Strengthen TPPs

Improving TPPs also requires that state legislators “get out into colleges of education and find out what they are doing,” says Craig Horn, North Carolina assembly representative and chair of the K–12 Education Committee and Appropriations subcommittee. “Find out how these colleges are matching their preparation with modern teaching environments. Legislators also need to get into K–12 schools to talk to teachers, principals, students, and parents about what they are looking for in teacher preparation.”<sup>31</sup>

Talking to deans of teachers’ colleges about how they inform their process is also crucial, Horn says. “Too often, they are not talking to the real customer, but just talking to [people from] other teacher preparation programs,” he adds. “Legislators can establish their own priorities for teacher preparation. This will show in policies and budgets.”

Research likewise suggests that in not gathering feedback from diverse constituencies, TPP leaders and legislators are missing opportunities for improvement. For example, research has shown that having parents involved in their child’s schooling is a key component of student success. Greater parent involvement is correlated with improved attendance and graduation rates, decreased disciplinary problems, and stronger academic achievement scores. At least one study shows, however, that teachers say they have received little training or information in their courses on the importance of involving parents or guidance on how to work with parents.<sup>32</sup>

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30 Thomas Kane (professor of education, Harvard Graduate School of Education, and director of Center for Education Policy), in telephone interview with author, December 2, 2019.

31 D. Craig Horn (representative, North Carolina General Assembly) in telephone interview with author, December 2, 2019.

32 Margaret M. Ferrara and Peter J. Ferrar, “Parents as Partners: Raising Awareness as a Teacher Preparation Program,” *The Clearing House* 79, no. 2 (August 2010): 77–82.

## Using Clinical Experience as a Barometer

TPPs should not only recruit and prepare future teachers but also play an important role in filtering out those who will not be effective teachers. As medical schools sort out unsuitable future doctors through clinical and hands-on experiences, so too should TPPs train for effectiveness while identifying those unfit for the profession.

Governors and legislators need to challenge TPPs and school districts to develop models of training that stress clinical experience for novice teachers, Kane says. State policymakers, for example, could provide pilot money through the federal Every Student Succeeds Act to fund a summer teaching experience for all teachers whom a school district has decided to hire. TPPs should then collect data from teaching supervisors on which novice teachers are likely to be successful.<sup>33</sup> These predictions could then be compared with teachers' actual classroom performance in terms of their ability to promote student achievement, and the insights from this analysis used to develop a better means of preparing and evaluating teachers.

It also might make sense, Kane says, for states to delay full certification for teachers until they have been in the classroom for two years, at which point it will be much clearer who will make an effective teacher. He acknowledges, though, that such a delay in certification could create its own problems.

“The holy grail is to find a way to provide those curious about a career in teaching a shorter period for assessing their preparation for teaching — say, an eight-week summer teaching experience in which schools could assess a teacher’s promise and teachers could assess whether teaching is the right career for them,” he says.

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*“The holy grail is to find a way to provide those curious about a career in teaching a shorter period for assessing their preparation for teaching.”*

— Thomas Kane, professor of education at Harvard Graduate School of Education

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<sup>33</sup> Kane, interview.

## Looking to TPPs as Long-Term Professional Development Providers

The traditional role of a college of education is to prepare its students to be teachers and, in some cases, provide graduate-level degrees and the coursework needed for advanced certification. Increasingly, however, entrepreneurial programs are exploring ways to provide ongoing professional development to teachers, principals, and their districts. One dean envisions the future of his state college of education as being accessible to every teacher in the state and “building partnerships between the business community, community leaders, and educators.”<sup>34</sup>

Professional development — something teachers already participate in on a regular basis throughout their careers — and its return on investment are also implicated in questions of teaching quality and opportunities for TPPs to improve on their effectiveness. In most teacher compensation systems, salary increases are based on years of service and additional certifications; most school districts contract for ongoing professional development for the teacher workforce as well. *Education Next* estimates that \$18 billion is spent on professional development annually, but many question its quality.<sup>35</sup> This should prompt legislative oversight to ensure the best outcomes for educators. Is there a way that TPPs could mitigate these continuing costs?

Some education leaders are now urging colleges of education to serve teachers long after they have graduated, which will also develop additional streams of revenue. Furthermore, TPPs could play a pivotal role in preparing teachers to adapt to a distance- or hybrid-learning environment. As more attention is focused on the importance of school leadership, colleges of education can offer ongoing training to groom and develop school principals.

TPPs can also provide systematic professional development to districts, ensuring continuous improvement for all students by identifying current teaching needs. Aside from increasing the relevance and educational impact of a college of education, this enhanced role also could result in cost savings, if not revenue gains, for professional development.

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34 Ray Reutzel (dean, College of Education, University of Wyoming), in discussion with author, August 8, 2019, Laramie, Wyoming.

35 Michael B. Horn and Michael Goldstein, “Putting School Budgets in Teachers’ Hands,” *Education Next* 18, no. 4 (Fall 2018): 82–83.

## Why Teacher Preparation Programs are Ignored

On top of being the largest expenditure in most state budgets, education is also one of the most complex areas, with many interested constituencies, ranging from teachers to parents to business and community leaders.

From early childhood development to postsecondary access to lifelong workforce training, the issues surrounding education are varied and complicated. One long-serving K–12 state superintendent observes that states are reticent to focus on colleges of education because negotiating with the many different entities in a state higher education system can be “excruciatingly painful.”<sup>36</sup>

Much of the focus in state and federal policy has been on determining student outcomes by measuring graduation rates, assessment performances, or postsecondary persistence. During the previous federal No Child Left Behind decade, policymakers heavily emphasized measuring students’ academic performance and linking it to teacher evaluations. No Child Left Behind has now been replaced by the more flexible Every Student Succeeds Act, which uses additional measurements of student outcomes and encourages a focus on what happens within schools.

Policymakers, however, tend to concentrate on what they can see and experience. Classroom teaching and student performance are readily observable; the extensive process of transforming a teaching candidate into a highly effective teacher is not.

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*“The organization of state and federal legislatures inhibits a look at the relationship of the preparation of teachers and their placement at work.”*

– Christopher Cross, former president of the Maryland Board of Education

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“The solution for state policymakers has been to focus less on quality and more on generating quantity,” says veteran policymaker Roberto Rodriguez, currently head of Teach Plus. He also notes that higher education and K–12 are too siloed in preparing teachers. “One creates supply, the other demand, and neither coordinates as much as possible.”<sup>37</sup>

Nor does a state policymaker have much bandwidth to take a deep dive into TPPs: most state legislatures meet for only part of a year, limiting legislative time to the most pressing issues. Education debates are dominated by annual appropriations, educator compensation, pension challenges, school infrastructure, and accountability measures.

As Christopher Cross, a former congressional education committee staff director and former chair of the Maryland State Board of Education, says, “The cycles of legislation act against a coordinated approach, which then translates into actions of the state bureaucracies.”<sup>38</sup>

When the topic of teacher preparation does arise, it is often in the context of emergency alternative teacher certification being needed to meet crucial staffing needs in rural and low-income areas, as well as hard-to-fill subjects.

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36 John White (former Louisiana superintendent of education), in telephone interview with author, September 12, 2019.

37 Roberto Rodriguez (president and chief executive officer, Teach Plus, and former deputy assistant to the president for education) in meeting with author, October 1, 2019.

38 Christopher Cross (education policy consultant), in meeting with author, October 15, 2019, Danville, California.

Additionally, the diffuse structure of state and federal government discourages an intense focus on TPPs. Cross observes that “the organization of state and federal legislatures inhibits a look at the relationship of the preparation of teachers and their placement at work.” In the U.S. Congress, there are separate subcommittees for higher education and K–12, and, he notes, “there are real gaps in their interaction.” This structural challenge is compounded further if legislative bodies have an education committee and a finance or appropriations committee with separate jurisdictions in education decision-making.

For Benjamin Riley, founder and executive director of the growing advocacy organization Deans for Impact, “Colleges of education are at the nexus of K–12 and higher education. Yet because they sit in this in-between space, no one has direct responsibility for their improvement. Colleges of education have not been seen as responsive but that may be because their efforts go unrecognized.”<sup>39</sup>

What is more, colleges of education are often not high on the list of bragging points when higher education leaders are touting their institutions. As Thomas Kean, a former governor and university president, said, “Don’t blame a governor for not focusing on teacher preparation; often, the university administration is discouraging the education deans from being active.”<sup>40</sup> Perhaps this is one of the reasons that state legislators often fail to pay much attention to TPPs but regularly visit schools such as business and law.

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*“Deans want to innovate; however, they often operate in spaces that squash innovation. How nimble can a dean be if a university president does not share the same vision?”*

— Lynn Gangone, president of the American Association of Colleges for Teacher Education

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Others note that the teaching profession often suffers from the inaccurate assumption that low-performing students opt for teaching careers. Though current research data does not support this idea, the perception nevertheless persists. Warned that teaching may offer less pay and prestige than other professions, high-performing students may be counseled to enroll in other professional programs.

A longtime professor and former chief of staff at a flagship state university says he does not know any college or university president who “puts the college of education forward.” One reason, he offers, is that “the modern university president’s time is 40–60 percent consumed by raising money. The business school alums have money. The education grads tend to be lower earners. Always sell the professional schools and their achievement.”

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<sup>39</sup> Benjamin Riley (executive director, Deans for Impact), in telephone interview with author, September 17, 2019.

<sup>40</sup> Thomas Kean (former governor, New Jersey), in interview with author.

Whether encouraged or not by their institution’s administration, many deans may not feel comfortable promoting their TPP. Often, a college of education leader who wants to change may be caught in a university system that demands guaranteed revenue. “Deans want to innovate; however, they often operate in spaces that squash innovation. How nimble can a dean be if a university president does not share the same vision?” asks Lynn Gangone, president and chief executive officer of the American Association of Colleges for Teacher Education.<sup>41</sup> Deans for Impact’s Benjamin Riley observes that “in the past, deans may have exhibited a circle-the-wagons mentality, because criticism of the field is relentless, so leaders who want to drive change need support.”<sup>42</sup>

As long as enrollment and tuition income remain steady, some deans or university administrators may think, “Why venture outside the comfort zone?” If roughly the same number of students cycle through and pay tuition, what incentives are there to rock the boat?

“When colleges of education are considered a cash cow, it does not create a strong incentive to improve,” according to Thomas Toch, director of the education think tank FutureEd and longtime education writer.<sup>43</sup>

Ultimately, teacher preparation needs to be elevated and treated as integral to the success of universities and states’ economic futures. But as Kane of Harvard notes, it will not be higher education or school districts that push the issue onto the agenda. Rather, he says, “it will take governors and state legislators to provide leadership.”

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*“It will not be higher education or school districts that push the issue onto the agenda. Rather, it will take governors and state legislators to provide leadership.”*

– Thomas Kane, professor of education at Harvard Graduate School of Education

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41 Lynn Gangone (president and chief executive officer, American Association of Colleges for Teacher Education), in meeting with Jane West (senior vice president) and author, October 2, 2019, Washington, D.C.

42 Riley, telephone interview.

43 Thomas Toch (director, FutureEd), in meeting with author, September 6, 2019, Washington, D.C.

# RECOMMENDED IMMEDIATE ACTIONS FOR POLICYMAKERS

## **Convene a P-16 or P-20 council and require regular review of TPPs.**

During the past 20 years, most states have created a structure for occasional discussions among education leaders in the state. These councils typically involve the state leaders — K–12 commissioner, postsecondary chancellors or presidents, workforce training directors — in prekindergarten through grade 16 or 20, as well as others with important roles, such as legislators, teachers and principals, and business leaders.

Many of these councils are created by a governor’s executive orders and depend directly on the active participation of the governor and legislative leaders for effectiveness. Simply stated, when the state’s elected leaders show up, so will everyone else. TPPs are an excellent topic for consideration, as they will force active discussion of the common tension between higher education leaders complaining about the academic preparation of students coming to their campuses and K–12 leaders frustrated about how new teachers are prepared for the classroom.

## **Increase TPP visits and oversight by legislative leaders.**

Legislative leaders have several ways to focus attention on the importance of TPPs.

First, they can encourage individual officeholder visits to TPP campuses. This step is one that any elected legislative or executive official can take. It also provides the opportunity for frank one-on-one discussions with TPP deans, faculty, and students.

Second, legislative leaders can conduct official legislative visits or proceedings on a TPP campus. Having the chair and members of a legislative education committee visit TPPs will provide insight as well as underscore the increased attention.

Third, they can hold legislative hearings about the importance of teacher quality to the state’s economic growth and the quality and needs of TPPs.

Finally, they can work with legislative leaders with overlapping jurisdiction of TPPs to develop a coordinated approach.

## **Hold regular meetings between executive and legislative branch leaders and heads of colleges and universities.**

Governors and legislative leaders can convene regular meetings of TPP deans and the presidents of their institutions for frank discussions about improving the status of teacher preparation on each campus.

## RECOMMENDATIONS FOR EDUCATION RESEARCHERS, ADVOCATES, AND PHILANTHROPISTS

### Develop a legislative and administrative action agenda to improve TPPs.

While each state has its unique needs and situations, these are some uniform areas for action:

- Create a longitudinal data system that follows TPP graduates and seek valid means to link student outcomes, recognizing the many variables involved. Individual TPPs can then determine what is working and where improvement is needed.
- Provide incentives for TPPs that encourage them to forge deep and innovative relationships with school districts, which can lead to improved teaching and learning.
- Support research that establishes the role TPPs play in creating highly effective teachers.
- Provide financial support through scholarships and student loan forgiveness for TPP candidates who demonstrate proficiency and agree to teach in schools with a large percentage of low-income students.
- Analyze the impact of alternative teacher certification programs on student learning outcomes and consider how it should affect the operation of the state's traditional TPPs. Develop a compensation structure for master teachers that can provide comprehensive mentoring for both student teachers and teachers in the classroom.
- Perform analyses of the economic impact of addressing teacher shortages through high-quality teacher preparation.
- Conduct research that shows the direct impact of TPPs on the creation of highly effective teachers, along with the TPP practices that produce the best outcomes.
- Conduct research that reveals why high school students are not choosing to enter TPPs and pursue educational careers.
- Determine the criteria for a highly effective TPP that focuses on modern curriculum and pedagogy and award certificates for proficient programs.

# QUESTIONS EVERY STATE POLICYMAKER SHOULD ASK A TPP DEAN OR LEADER

## **How do you think TPPs affect the state's economy? What improvements are needed? What is holding you back?**

It is important to know whether the TPP leader views TPPs' role as crucial to the state's economic growth and development. Assuming the dean or leader does see a direct connection, what is needed to fulfill that role and what are the barriers to moving forward? Funding can always be improved, but without work to overcome other obstacles — including the role of the TPP in the overall university system — funding will accomplish little.

Henry Levin, a senior education economist, urges policymakers and TPP leaders to address key questions, the first of which is the kind of teacher we want in today's classroom. From there, the type of teaching candidate that is desirable and how candidates of this type are recruited must be examined. Finally, policymakers and TPP leaders should consider what type of teacher preparation process produces the identified competencies.<sup>44</sup>

## **How do you and the faculty view the role of the TPP as part of the state's economic future?**

TPP leaders and faculty must understand that their program is critical for their state's economic future and evaluate its effectiveness accordingly. Simply turning out the requisite number of teachers each year is no longer enough. How does the faculty evaluate its curriculum and instruction, taking into account the needs of students and the state's economy? Are there advisory councils of classroom teachers, business and community leaders, principals, or district leaders that actively provide input?

## **How often, and in what manner, do you interact with policymakers? How often do they visit your program?**

Some deans conduct outreach and maintain regular contact with legislators and K–12 leaders. It is important to know whether the dean has a goal of regularly contacting state officials, especially when they may be considering issues such as early childhood education and teacher shortages. Building these relationships requires persistence but can provide information that will benefit all parties.<sup>45</sup>

## **How are you adjusting your curriculum and program to reflect fast-growing learning needs for the 21st century?**

While this is a complex question, there are some key indicators of a modern TPP. Every program should include concepts of the science of learning, social-emotional learning, teaching to the state's college and career-ready standards, engagement with parents, and problem-based pedagogy, as well as strategies for engaging with a diverse student body composed increasingly of students of color and low-income students. These concepts should be offered in courses and in clinical experiences. Further, they should be viewed not as separate components but as part of the learning environment in totality, and they should be incorporated into the TPP curriculum in the same way.<sup>46</sup>

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44 Henry Levin (professor emeritus, Teachers College, Columbia University, and cofounder of the Center for Benefit-Cost Studies of Education) in telephone interview with author, September 11, 2019.

45 Robert Pianta (dean, Curry School of Education and Human Development, University of Virginia), in telephone interview with author, October 1, 2019.

46 Ellen Moir (founder and former chief executive officer, New Teacher Center), in telephone conversation with author, September 11, 2019.

**What type of practical clinical experiences are your teacher candidates receiving?**

Traditionally, TPPs have offered a brief period of student teaching in a classroom. The most successful TPPs have extensive clinical programs with teacher candidates participating in residencies or spending extended periods in classrooms. Providing some clinical experience early in the TPP often illuminates which students are comfortable in the classroom and which ones should perhaps reconsider their career path. Another important indicator of program quality is the type of close working relationships that exist between the TPP and school districts beyond simply providing limited student teaching opportunities.

**What percentage of faculty members have not taught in a school classroom in more than 10 years? How do they stay in touch with what is happening in schools?**

A frequent complaint about TPPs is that many of their faculty members have not taught in a classroom for many years. Classroom demographics, issues, and learning needs are changing rapidly. How well are faculty members adapting their instruction? Posing this question also creates an opportunity to probe the ways the TPP actively engages with its alumni and other classroom educators in improving the overall program.

**How do you follow your graduates' progress once they leave your program?**

For too many TPPs, awarding the teaching certificate is the end of their relationship with students. This means that new teachers do not receive continued support — and, more significantly, that the TPP does not receive feedback on what it does well and where it needs to improve. Ideally, the TPP should maintain a database that monitors its graduates' progress. State policymakers can assist with developing a longitudinal data system that connects TPPs to student outcomes.

Similarly, when teacher candidates complete a program, how is their effectiveness evaluated and how are those evaluations used to gauge the effectiveness of the TPP?

**Are you actively exploring or developing new strategies to make your TPP more relevant to district and school leaders?**

How is the TPP actively engaged with the rapidly changing K–12 environment? Some TPPs have deep partnerships with surrounding school districts; others are looking at how they can be involved with developing principals and other education leaders. Can the TPP provide high-quality professional development or use technology to assist teachers in acquiring meaningful certifications throughout their careers?

In addition to those quoted, the author appreciates other contributors who provided background information and helped shape the report:

**Arthur Levine**, former president of the Woodrow Wilson Graduate School of Teaching and Learning and former president of Teachers College at Columbia University in New York

**Robert Shand**, education economist and assistant professor at the School of Education at American University in Washington, D.C.

The deans and leaders of TPPs who participated in The Hunt Institute’s Hunt-Kean Leadership Fellows program on August 14–15, 2019, in Austin, Texas

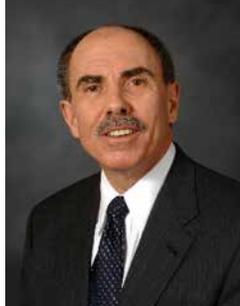
**Alina Tugend**, editor

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*“In 2008, there were 719,000 college students enrolled in a teacher preparation program, and in 2016, that number had dropped to 441,000.”*

– Jeremy Anderson, president, Education Commission of the States

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### **Governor Bob Wise**

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Washington, D.C.

Former West Virginia governor Bob Wise has spent his career advancing education opportunities for our nation's students. He recently completed 14 years as president of the Alliance for Excellent Education (All4Ed), a national nonprofit based in Washington, D.C. that has become a national leader in advocating the policies and practices necessary for secondary school students to be ready for postsecondary education and careers.

Governor Wise's accomplishments include leading the development of Future Ready Schools®, a network of 3,300 school districts committed to the effective use of digital learning to assist teachers and improve student learning outcomes. He chaired the National Board for Professional Teaching Standards for six years and now serves as interim coordinator of the Global Science of Learning Education Network. He works closely with school district, state, and national leaders for evidence-based systems change that advances 21st-century learning to meet each student's needs.

After serving 24 years as governor, member of the U.S. House of Representatives, and state legislator, Governor Wise has become a prominent speaker and advisor on education issues and trends. He has advised the U.S. Department of Education, White House, and key state and federal policymakers. As governor and U.S. congressman, he focused on improving financial aid for college and early childhood development.

Governor Wise authored *Raising the Grade: How High School Reform Can Save Our Youth and Our Nation*. He earned a Bachelor of Arts degree from Duke University and a Juris Doctor degree from Tulane University. He also has a black belt in Tae Kwon Do. Working from Washington, D.C., and California, Governor Wise constantly strives to improve education opportunities for America's youth through the Bob Wise LLC.



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