



Teacher Talent Pipelines

**STREAMLINING THE PATH
FROM STUDENT TO EDUCATOR IN ARIZONA**



U.S. CHAMBER OF COMMERCE FOUNDATION
Center for Education and Workforce





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Introduction

One of our country's most critical resources is in trouble. Communities are finding it difficult to manage its supply, putting the future of our country's schools at potential risk. The resource—teachers.

In schools and districts across the United States, principals and hiring managers face two major issues regarding the teaching workforce: adequate supply and retention of quality teachers.

One state, Arizona, identified a recent private sector innovation as a potential solution to teacher readiness and supply gaps, particularly within staffing a cohort of high-performing, high-poverty schools that need teachers ready to close gaps in student achievement. With this challenge before them, the Arizona Chamber of Commerce & Industry and its Foundation partnered with their A for Arizona education initiative to explore creative solutions to the teacher shortage. One such solution is Talent Pipeline Management (TPM), an initiative built on the principles of supply chain management from the U.S. Chamber of Commerce Foundation (USCCF) and USA Funds.

TPM is an innovative effort designed to help companies fill skilled positions and combat the growing national skills gap. It is rooted in the idea that ensuring a steady supply of a qualified and quality workforce requires employers to take on an expanded leadership role in education and workforce systems building flexible and responsive partnerships with training providers. The initiative is founded on strategies that inform and streamline sourcing, recruiting, and developing talent to meet employers' needs. As part of the TPM initiative, USCCF brought together a number of pilot site partners, including Arizona, to explore the potential applications of these strategies. The full findings of the pilots are highlighted in *Building the Talent Pipeline: An Implementation Guide*¹.

Because TPM bridges the information and communications gaps between colleges, trainers, and employers, it holds great promise in addressing Arizona's and other states' challenges with the readiness and retention of teachers. As such, we jointly publish this case study in hopes that TPM strategies, as seen through the eyes of Arizona, will bring states answers to their teacher pipeline challenges and give teachers, students, and schools the pipeline they deserve.

1. This paper builds on a previously published paper written in 2015 for the U.S. Chamber of Commerce Foundation. Robert G. Sheets and Jason A. Tyszko, *Building the Talent Pipeline: An Implementation Guide* (Washington, D.C.: U.S. Chamber of Commerce Foundation, 2015).

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Teacher Supply Challenges

According to the National Center for Education Statistics, approximately one out of every six public school teachers across the country leaves the classroom during their first five years.² Though pay is often cited as a major factor in recruiting and retaining teachers, new teacher preparedness and a weak pipeline to recruit, support, and retain quality teacher talent are heavily cited by both employers and teachers.

Despite the challenges in filling teacher vacancies, not all school leaders experience a shortage of applicants.³ What does appear to be consistent is that where shortages exist, schools and districts find it challenging to acquire the right number of teaching candidates with the right set of skills and competencies. For this case study, we examine Arizona's challenge to find the right *quantity of qualified* applicants for the state's highest performing low income schools.

Issues Affecting Quantity

Teacher supply faces challenges on both the preparation and retention ends of the pipeline.⁴ While we have a woefully antiquated certification system that limits options for building supply on the preparation side, we often limit the mobility of teachers to take their talents where they are most needed, particularly to a new state, and we struggle to give teachers the professional growth and learning opportunities they demand.

Despite a rapidly growing list of teacher preparation options and a shift in focus from inputs to outcomes, teacher certification systems have found it difficult to keep pace. While certification reformers are working to clear regulatory hurdles and build access to alternative pathways that can target the skills teachers need

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2. L. Gray and S. Taie. *Public School Teacher Attrition and Mobility in the First Five Years: Results From the First Through Fifth Waves of the 2007–08 Beginning Teacher Longitudinal Study*. NCES 2015-337. U.S. Department of Education. (Washington, DC: National Center for Education Statistics, April 2015). <http://nces.ed.gov/pubs2015/2015337.pdf>

3. J. Barshay, "Cries about National Teacher Shortages Might Be Overblown." *The Hechinger Report*. (25 April 2016). http://hechingerreport.org/national_teacher_shortages_overblown/

4. This paper recognizes that issues surrounding financing and school supports also affect the supply of teachers willing to enter a particular school or district. While not specifically addressed in this paper, these issues must be kept in mind by districts and schools when developing teacher talent pipelines.

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to be effective, those changes are frequently subject to unclear and overly burdensome approval processes. For example, Arizona’s Alternative Pathway to Certification has much potential, but it is weighed down with many of the requirements of traditional pathways. By limiting teacher preparation to the traditional pathways, we inadvertently limit pathways to teaching and, therefore, the number of teachers who could be entering the pipeline.

Another barrier is the limited mobility of teachers. In recruitment, teachers colleges engage heavily in new teacher placements, which tend to favor large urban and suburban districts and leave small and rural schools struggling to secure enough teachers. Reciprocity laws also differ from state to state—such as minimum cut scores on tests like the Praxis I and II⁵—resulting in limitations on the mobility of a teaching license.

Finally, teacher retirements have accounted for approximately one-third of national teaching attrition in recent years.⁶ At the same time, the number of students enrolling in teachers colleges is declining, with a 40% decrease in education degrees over the last 30 years.⁷ Together, these quantity issues have accelerated the draining of the pool of available teachers.

Issues Affecting Quality

Teachers may simply give up and leave if their academic preparation leaves them sorely unprepared for the demands of real-life classrooms filled with students who start school behind.

On the quality side, schools are not confident that new teachers are ready for the modern classroom. This lack of readiness leads many teachers to leave teaching, particularly those trying to educate students who start school behind. In fact, one Harvard study reported that many schools serving America’s poorest children lose more than half of their teaching staff every five years.⁸ Teachers may simply give up and leave if their academic preparation leaves them sorely unprepared for the demands of real-life classrooms filled with students who start school behind.

Additionally, traditional certification systems are often expensive. There has been much discussion around the costs rising due to the ever-increasing numbers of required degree credentials.

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5. Jane G. Coggshall and Susan K. Sexton, “Teachers on the Move: A Look at Teacher Interstate Mobility Policy and Practice,” (Washington, DC: National Association of State Directors of Teacher Education and Certification. 2008) 24. <http://files.eric.ed.gov/fulltext/ED518859.pdf>
 6. L. Darling-Hammond, R. Furger, P. Shields, and L. Sutcher, *Addressing California’s Emerging Teacher Shortage: An Analysis of Sources and Solutions*. (Palo Alto, CA: Learning Policy Institute. 2016) 14. www.learningpolicyinstitute.org/addressing-ca-teacher-shortage
 7. Darling-Hammond, Furger, Shields, and Sutcher, 3.
 8. N. Simon and S. Johnson. “Teacher Turnover in High-Poverty Schools: What We Know and Can Do” Project on the Next Generation of Teachers, Harvard Graduate School of Education. (Cambridge, MA: Harvard University, 2013) 5. [http://isites.harvard.edu/fs/docs/icb.topic1231814.files/Teacher Turnover in High-Poverty Schools.pdf](http://isites.harvard.edu/fs/docs/icb.topic1231814.files/Teacher%20Turnover%20in%20High-Poverty%20Schools.pdf)

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Credentials, at times, take the place of practical hands-on skills that could be integrated into entry-level training and education. Associating administrative readiness with classroom readiness can create confusion for schools looking to hire teachers, meaning they must spend extra time and effort inspecting each applicant in order to find quality candidates.

The propensity of states to stick to the more traditional and cumbersome routes of preparation, instead of aggressively modernizing licensure processes to reflect work readiness, contributes to the loss of teachers and teaching candidates.⁹

Also, years of educator feedback tell us that once in the classrooms, teachers who do not feel supported in developing their craft leave. Teacher attrition not only causes problems for classrooms and student achievement, but it also burdens cash-strapped schools. Replacement costs for teachers have been found to be about \$18,000 per teacher. This adds up to a national price tag of more than \$7 billion a year.¹⁰

Nationally, the teaching force is mired by antiquated certification systems, restrictive reciprocity policies, inconsistent training standards, and rising attrition issues. We now turn to Arizona and the quantity and quality challenges the state faces currently and in coming years.

A Closer Look at Arizona

The Arizona Chamber Foundation is home to the A for Arizona initiative. This effort seeks to improve educational outcomes for Arizona students living in poverty by identifying, sustaining, replicating, and expanding the public schools and methods serving these students at the highest level.

In terms of size, Arizona is home to more than 1.1 million K-12 students,¹¹ more than half of whom are served by schools in low income communities.¹² A for Arizona's research has identified approximately 100 schools that are A-rated by the state's Department of Education and serve 60% or more free-and-reduced lunch populations in urban settings, rural settings, and along the Arizona border with Mexico. Approximately 60% of these schools are district schools; 40%, charter schools.¹³

9. T. Hiler and S. Johnson. *Creating a Consistent & Rigorous Teacher Licensure Process*. Third Way. (20 November 2014). <http://www.thirdway.org/report/creating-a-consistent-and-rigorous-teacher-licensure-process>

10. Darling-Hammond, Furger, Shields, and Sutcher, iii.

11. *Arizona October 1 Enrollment Figures* Arizona Department of Education. (2016). <http://www.azed.gov/research-evaluation/arizona-enrollment-figures/>

12. *A New Majority Research Bulletin: Low Income Students Now a Majority in the Nation's Public Schools*. Southern Education Foundation. (Atlanta, GA: 2015). <http://www.southerneducation.org/Our-Strategies/Research-and-Publications/New-Majority-Diverse-Majority-Report-Series/A-New-Majority-2015-Update-Low-Income-Students-Now>

13. *2013-2014 A-F Letter Grades for All Schools*. Arizona Department of Education. (2014). <http://www.azed.gov/accountability/state-accountability/>

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At the start of the 2014–2015 school year, 62% of charter schools and districts reported unfilled teaching positions.

Despite pockets of excellence, much still needs to be done to bring quality teachers to serve Arizona students. At the start of the 2014–2015 school year, 62% of charter and district schools reported unfilled teaching positions. In the 2013–2014 school year, Arizona schools experienced a 29% increase in the number of self-reported long-term substitutes serving to fill open teaching positions from the previous school year.¹⁴ In 2013, there was a 7% decrease from 2012 in the number of students enrolled in approved educator preparation programs,¹⁵ and in the 2013–2014 school year, 24% of first-year teachers and 20% of second-year teachers left their positions and were not reported as teaching in Arizona.¹⁶ Of the teachers who are applying for positions in the state, A for Arizona leaders report that

only a small percentage of applicants are prepared for the challenges of a diverse student population, particularly helping students who come to school a year or more behind in their learning.

A for Arizona recognized that these teacher sourcing issues needed immediate attention and traditional strategies would not be sufficient. After learning of USCCF’s TPM initiative and its work to close the national skills gap, the Arizona team joined as a pilot site to explore what might be adopted from these broader workforce strategies to recruit and retain qualified teachers in the state. As part of the TPM grant work, the team surveyed public school leaders from districts and charters alike—both principals and charter network leaders—from across the state in both A-rated schools and others that A for Arizona has deemed “On-the-Way to A” about their teacher preparation and supply issues. The survey revealed the following:

- Most mainstream providers are not sending teachers into schools prepared—both academically and in terms of mission alignment—for the diversity of student needs, especially achievement gaps.
- Most of the schools surveyed are retraining both new and experienced teachers.
- School leaders could not identify one “best” teacher preparation provider currently scaled to meet demand. Rather, they identified themselves as the best retrainers of teachers from all programs.
- There are no formal systems in place to better communicate teacher supply needs between preparation providers and schools.

14. *Educator Retention and Recruitment Report* Educator Recruitment & Retention Task Force. (January 2015) 2-3. <http://www.azed.gov/wp-content/uploads/2015/02/err-initial-report-final.pdf>

15. Ibid.

16. Ibid.

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- Small schools do not get the same placement activity from the state colleges as do the large districts.
- Individual schools are managed by centralized hiring practices, further disconnecting them from the preparation pipeline.

If Arizona's and, indeed, America's education system is to make good on its promise of opportunity and a better future, we must ensure that all students have enough teachers prepared to meet the needs of today's students and school.

Recommendations: Bringing the Supply Chain to Schools

The Arizona survey identified teacher sourcing concerns that are similar to issues found in other industries experiencing a skills gap—issues that were at the heart of why TPM was created. Supply chain management principles have been used to bring efficiency and efficacy to the private sector for decades, and there is much promise in the TPM program's work indicating the time is right to bring these strategies to human capital. To apply supply chain management strategies to education's hiring needs, it is important to understand the key concepts behind this work. For this case study, there are three major TPM takeaways:

- 1. Employers must be empowered to come together in groups to collectively explore their respective industry's and/or region's demand for key jobs as well as define what common competencies and credentials qualified candidates are expected to have.**
- 2. Employer groups should identify the current sources of top job candidates and employees.**
- 3. Once top sources are identified, employers need to build strong relationships with these organizations and create or access incentives to ensure a mutually beneficial partnership.**

Interestingly, the Chamber Foundation found that high-performing schools were already organically relying on TPM-like strategies to triage their talent crisis. Based on these results, we offer recommendations in the hopes that a purposeful expansion of TPM strategies may be part of the solution to improving teacher readiness.

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Recommendation 1: Schools should come together in groups to define collective demand for talent and define skills needed from candidates.

Under a TPM model, employers in an industry and/or region are encouraged to come together to discuss common needs with fellow employers in groups called collaboratives. Similar groups could be formed in education, with collaboratives of schools that are regional or based on school types coming together to gain a broader understanding of where persistent teaching gaps remain.

For example, collaboratives of schools could examine how many teachers will be needed in a particular region over the next few school years and in what subject areas. This could be particularly useful for small or rural areas, where schools are small and staff capacity is limited. This is the case in Arizona where many of its high-achieving schools are subject to centralized hiring practices or are small charters and seldom have the opportunity to engage in direct and meaningful conversations with large training providers, thus leaving them at a disadvantage for placement of new teachers. Simply communicating hiring needs as a group to the training programs could lead to reimagined placement strategies by providers.

Furthermore, the Arizona survey makes it clear that there must be more overlap between what these schools need their teachers to know and what colleges and other providers embed in their education degrees and teacher training programs. These newly formed school groups should also collectively look at what competencies and credentials these collaboratives have in common as well as what makes each school's needs unique. Once these areas are clearly defined, the collaborative is better positioned to communicate *to* and *with* teacher preparation programs about what teachers need to know in real time, share successful training methods, and empower the collaborative to positively impact their own talent pipelines.

One of the more pressing needs in schools, for instance, is to better prepare educators to support students who start school behind. In the most recent assessment by the Education Equality Index, Arizona proved to be a top contender in the race to close this country's achievement gap.¹⁷The A for Arizona schools surveyed about their talent needs are big contributors to this success. Intentional efforts for these schools to transfer their knowledge back to the preparation programs could accelerate the closure of the achievement gap.

Recommendation 2: Analyze current ways of sourcing teacher talent.

Once needs have been defined both in number and in terms of skills, collaboratives and individual schools should identify where they are hiring teachers from and which programs are providing top teaching candidates.

17. *Education Equality in America: Comparing the Achievement Gap Across Schools, Cities, and States* Education Equality Index. (March 2016) 18. <http://www.educationequalityindex.org/wp-content/uploads/2016/02/Education-Equality-in-America-v1-4.pdf>

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By identifying what they want from their worker pools and who delivers it, TPM has empowered employers across the country to pinpoint where *their* best workers are trained. Schools, specifically high-poverty schools, could benefit from such a strategy.

Identifying sourcing partners is an efficient way to see where mid- and late-career workers enter the profession and from which providers—both traditional and alternative. Collaboratives can help schools understand and better use their provider options along workers' career paths.

One of the more striking outcomes from the A for Arizona survey is that these high-performing low income schools are their own best training providers in preparing teachers for the classroom. Through the TPM model, a school could be empowered to implement a “grow-your-own” program, which would allow states to reward effective training programs on K-12 campuses with funding dollars and award prepared educators with a recognized credential to help them on their career paths.

Finally, collaboratives may find through this exercise that they are sources of talent to other schools. This could lead to innovative solutions to address workplace flexibility and mobility issues. Having agreements to share talent and career opportunities through collaboratives can ease worker transitions, improve access to career opportunities, and reduce training costs.

Recommendation 3: Build and incentivize relationships with top talent providers.

Having a clear picture of teacher supply sources would allow individual schools to understand who is meeting their recruitment and professional development needs, inform recruitment strategies, and identify best practices from top providers to show others how they can improve classroom readiness. All this knowledge will help schools build partnerships with programs best suited to their needs. To protect these partnerships, incentives are key.

The TPM work promotes an employer practice of creating financial incentives like grants or nonfinancial incentives such as preferred internships as a way of encouraging mutually beneficial partnerships between employers and workforce and training partners. Similarly, schools could use financial or nonfinancial (e.g., preferred student teaching opportunities) incentives to build and maintain relationships with the teacher preparation and development programs that best meet their needs.

With the right incentives, dollars spent on retraining and replacing lost teachers could instead be used to reward programs that give teachers the necessary preparation to support America's educational needs. The reauthorized Workforce Investment and Opportunity Act (WIOA), federal education Title II dollars, and performance-based state formula funding could all be explored as options to reward effective programs that meet employers' and students' needs.

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Conclusion

What Arizona has taught us is that the breakdown in the teacher talent pipelines has created an unsustainable system where too few quality teachers are entering the schools where they are desperately needed. TPM brings to schools and classrooms a way to organize into groups, define what their needs are, and build relationships with the preparatory programs that are providing quality teacher candidates in the areas where they are most critical. This utilization of TPM strategies shows real promise as a way for districts and schools to reorganize how they approach training, recruiting, and hiring in order to stem the teaching shortage, support teachers on their career paths, and provide stability in American classrooms.

We must find ways to bring quality teachers into every classroom. To take this work to the next level, additional research and experimentation are needed to explore how school leadership can be implemented in other states and communities. We are confident that Arizona will continue to lead the way and inspire other communities to take a larger leadership role in building their own teacher talent pipelines.

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Authors

Carrie Samson, *Manager of Programs*, U.S. Chamber of Commerce Foundation

Katie Fischer, *Director of Legal and Federal Affairs*, Arizona Chamber of Commerce and Industry

Lisa Graham Keegan, *Executive Director*, A for Arizona

Emily Anne Gullickson, *Senior Program Director*, A for Arizona

Becky Hill, *Senior Policy Director*, A for Arizona

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Doran Miller, *Executive Director*, Arizona Chamber Foundation

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