



# Strengthening Pathways Into the Teaching Profession in Texas

## Challenges and Opportunities

Jennifer A. Bland, Steven K. Wojcikiewicz, Linda Darling-Hammond, and Wesley Wei



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## Executive Summary

This report summarizes teacher workforce challenges and recent initiatives in Texas that are shaping the state of the educator workforce in important ways. Ongoing teacher shortages have led to the creation of a wide range of pathways into the profession, featuring varying types and amounts of training. The majority of first-time teachers in Texas are now entering the profession either through alternative certification routes that often include little to no student teaching or without any certification at all, resulting in a workforce that has experienced increasingly little preservice clinical practice before taking on responsibilities for teaching children.

A growing body of research demonstrates that these differences in pathways are associated with meaningful differences in teachers' knowledge, skills, and effectiveness, as well as the rates at which they enter and leave the profession. Research has found that teachers who are not fully prepared when they enter the profession—now a majority of newly hired Texas teachers—are, on average, both less effective and more likely to leave, creating high rates of churn, which also undermines school-level student achievement. These differences have implications for student learning, school management, and equity, since the districts that have the most difficulty hiring fully prepared teachers are those that serve the most students of color and students from low-income families.

This report reviews the emerging research; describes the substantial efforts Texas leaders and institutions are making to address concerns about workforce preparation and stability; and provides additional actionable, research-based policy recommendations.

### Background

Major initiatives are underway in Texas to strengthen routes into the teaching profession, including a newly launched, innovative statewide teacher residency program. Such initiatives are responding to recent research that identifies an increasingly unstable statewide teacher workforce, weakened by high annual attrition rates and a teacher pipeline bifurcated by preprofessional experiences that differ substantially in structure and content.

Texas has the largest teacher workforce of any U.S. state, numbering over 370,000 teachers in 2021–22. A high yearly demand for new teachers, exacerbated by higher teacher attrition rates than the national average, creates unique systemic

challenges. Workforce shortages, already present before the onset of COVID-19 but accelerated by pandemic-era teaching conditions, only increase this demand, pushing the number of new hires to more than 40,000 per year. The robustness of the preparation pipeline—in terms of quantity *and* quality—is thus a continuous and growing concern for Texas policymakers.

In March 2022, by directive of Governor Greg Abbott, the Texas Education Agency (TEA) created a statewide Teacher Vacancy Task Force to further study statewide teacher workforce shortages and make recommendations for state policy changes that continue to address them. To inform legislative staff and members of the task force, this report summarizes and builds on the research on teacher supply, demand, and attrition, and the outcomes of different pathways into the Texas teacher workforce. We then discuss the work already being done in Texas to address workforce instability and provide additional actionable, research-based policy recommendations to further the state’s efforts.

## Teacher Workforce Trends in Texas

Texas has been experiencing teacher shortages and workforce instability driven by high attrition rates for decades. Shortages have been especially acute in mathematics, special education, career technical education, and bilingual/English as a Second Language instruction, and have been more prevalent in rural communities and in large urban districts. In a recent statewide poll, 77% of Texas teachers indicated they thought seriously about leaving the profession, and over 90% of those teachers had taken at least one step to do so.

This workforce instability has resulted from several intersecting trends:

- **A growing need for additional teachers.** The number of Texas teaching positions has grown steadily for over a decade, as a function of both population increases and decreases in class size. The Texas teacher workforce is now at its largest size ever—over 370,000 teachers in 2021–22.
- **High levels of teacher attrition, compounded by the effects of the pandemic.** Texas has outpaced national teacher attrition averages by approximately 25% over the past decade; in 2021 alone, more than 1 in 9 Texas teachers left the state’s teacher workforce rather than return for the 2021–22 school year.



- **Increasing reliance on alternative certification programs that have low program completion rates and high attrition rates from the teaching profession.** A majority of new teachers in Texas are now certified through alternative routes with substantially lower program completion rates and lower retention rates in the profession than traditional preservice programs. Concerns are particularly acute with for-profit alternative pathways, which have increased their enrollment by more than 500% over the past 5 years without increasing the number of program completers.
- **A shrinking pool of fully credentialed new teachers.** Teachers who earned a standard certificate after completing a full complement of coursework and student teaching in Texas made up only 28% of statewide first-time teacher hires in 2021–22. Studies show that these fully prepared graduates are considerably more likely to stay in teaching than those who enter without full preparation. Five years after their first year of full licensure in 2016–17, 69% of teachers from traditional preservice programs remain in Texas classrooms, versus 60% of teachers who received a standard certificate after completing alternative certification programs.
- **Increasing reliance on interns and, more recently, on uncertified teachers.** In 2021–22, 57% of first-time teachers in Texas held either a substandard intern certificate or emergency permit (30%) or no certification at all (27%). With approximately 74% of districts now able to hire uncertified teachers under the state Districts of Innovation designation, and charter schools also able to hire uncertified teachers, the share of uncertified teachers in the entering workforce has increased substantially over the past few years, having doubled in the past year alone.

## The Need to Expand Productive Program Models

Texas’s ongoing teacher shortages are partly a function of the expansion of preparation models that exacerbate a leaky pipeline by failing to graduate a large share of their candidates and failing to prepare them well enough to enable them to stay in the classroom. Texas now has the largest alternative teacher preparation sector in the country and produces more than half of alternatively-prepared teachers in the United States each year. Alternative pathways vary widely in duration and structure, but these pathways generally allow an individual to become a teacher of record before completing coursework and with little or no student teaching. While both traditional

preservice programs and alternative programs are of varying quality, the evidence suggests that the less comprehensive the preparation is that candidates receive in the form of student teaching integrated with several essential kinds of coursework, the more likely they are to struggle in the classroom and the less likely they are to stay in teaching.

In addition, the lack of comprehensive preparation can affect student learning. A recent report from researchers at the University of Texas at Austin reveals that alumni of alternative certification programs in Texas produce significantly lower student learning gains than alumni of traditional teacher preparation programs. These gaps show up in every tested grade level and subject. For example, students with university-prepared teachers gained 2.2 additional months of learning in 9th-grade English language arts (ELA) and 1.8 additional months of learning in 9th-grade math as compared to those whose teachers entered through alternative routes. Similar trends are revealed for students of teachers prepared by nonprofit versus for-profit entities, with students of nonprofit-prepared teachers showing additional weeks to months of learning over students of for-profit-prepared teachers at each grade level in both math and ELA.

Participation in an alternative rather than a traditional teacher preparation program is also one of the strongest predictors of receiving an out-of-field teaching assignment in Texas (i.e., teaching outside the area in which a teacher is certified), which is associated with weaker student outcomes. Further, while there is growing evidence that Black teachers support improved achievement and attainment for Black students, there is also evidence that Black teachers trained through alternative routes leave teaching at much higher rates than those who receive the benefit of comprehensive preparation more often associated with the traditional route into teaching.

Texas is already making substantial investments to improve teacher preparation and teaching conditions, supported by federal and state funds and the philanthropic community. A leading example is the High-Quality, Sustainable Residency Program, part of the \$1.4 billion Texas COVID Learning Acceleration Supports (TCLAS) suite of initiatives. The residency program supports districts, working in collaboration with local teacher preparation programs, in creating partnerships to sustainably fund paid teacher residencies. TCLAS also includes funding for Grow Your Own (GYO) programs, another research-validated high-retention approach to addressing teacher vacancies. Another recent effort was H.B. 3 of 2019, which raised the minimum pay threshold for Texas teachers and provided substantial additional funding for expert

teachers to teach in districts with persistent shortages. Key additional support from the philanthropic community includes, for example, technical assistance for teacher residency programs and rich networks of teacher preparation programs working together on continuous improvement.

## Policy Recommendations

Given the magnitude of the state's teacher workforce challenges, sustainably improving teacher preparation and retention in Texas will require building upon the efforts already underway. Policymakers can employ a variety of research-based tools to grow the teacher pipeline, bolster state teacher development systems, and retain more of the teachers already in the classroom. For example, the state can:

- **Continue to increase the attractiveness of the teaching profession by equalizing funding and salaries across districts and calling attention to local working conditions.** Building on H.B. 3 of 2019, Texas policymakers can examine the competitiveness of wages across districts and consider means to equalize the purchasing power of teacher salaries in different locations across the state. They can also fund working conditions surveys, like those used in many other states, to provide actionable data to local policymakers on how to improve the attractiveness of teaching jobs.
- **Subsidize access to high-quality preparation programs** by funding service scholarships and/or loan forgiveness for teacher candidates repaid through service in the profession. These programs can open access to the teaching profession, support candidates in choosing high-quality preparation routes, and increase both the size and diversity of the teacher candidate pool. They can also be designed to incentivize teachers to choose high-need subjects and locations.
- **Attend to the preparation and professional learning of building administrators to help them support and retain teachers.** Because school leaders play a central role in shaping the norms, systems, and culture of schools, policymakers should consider school leadership as a lever for improving professional practice and working conditions. Efforts can include subsidizing principal preparation and supporting purposeful professional development for principals that is focused on helping them create supportive, collegial school environments that enable teachers to become more effective.

- **Support expansion and ongoing implementation of high-quality, high-retention pathways such as teacher residency programs.** Providing support for demonstrably high-quality, high-retention pathways into the profession—including, but not limited to, residencies like those within the new TCLAS program—could simultaneously increase teacher supply and preparedness while reducing attrition. Such support—including funding as well as technical assistance—can build upon the state’s initial investment. This support should be informed closely by ongoing research into the implementation and effectiveness of the TCLAS residency program and others operating in Texas.
- **Develop a range of successful GYO programs that recruit and train teachers from within local communities.** These programs can include career pathways that use dual-credit courses and tutoring opportunities to facilitate high school students’ entry into teacher preparation programs, as well as supports to enable paraprofessionals to become prepared as teachers. Incentives to districts and preparation programs, and supports for candidates, can enable more of these high-retention models. State policymakers can also study the success of those GYO programs launched through TCLAS to expand and replicate the most useful models.
- **Access federal, state, and local apprenticeship funds to enable teachers to earn and learn as they complete student teaching or residency experiences under the supervision of expert teachers.** Texas teacher education programs are beginning to access federal apprenticeship funds to support clinical learning for prospective teachers. The state can facilitate this access by allocating some of its state discretionary funds for this purpose and by documenting and disseminating successful local program models.
- **Strengthen all routes to certification through performance-based program approval and accountability strategies** that ensure supports for candidates and data for program improvement. Providing common data about candidate experiences and preparedness, as well as program outcomes such as completion, entry into teaching positions, and retention rates in teaching, can help hold various teacher preparation programs to more comparable standards of preparation. Such data, used well, can also inform program approval and catalyze continuous improvement, ultimately increasing the availability of higher-quality programs and incentivizing candidates to choose such programs.

- **Provide strong mentoring and induction programs** that can strengthen novice teachers' effectiveness and increase the likelihood of their retention in the profession. These programs can benefit schools and students while reducing shortages. These efforts are also vital pieces of the puzzle for their potential to fill in the gaps in preparation of teachers from intern and non-licensure routes.
- **Bolster the state's educator workforce data to provide data to better understand supply, demand, shortages, and their relationship to preparation, mentoring, and working conditions.** Policymakers and practitioners would especially benefit from an integrated data system that could track where and why teacher candidates exit the pipeline; what sort of coursework, classroom experience, and training new teachers receive; what kind of conditions they work in; how this relates to their practices and their persistence in the profession; and what can be learned about student outcomes.



## Introduction

Major initiatives are underway in Texas to strengthen routes into the teaching profession, including a newly launched, innovative statewide teacher residency program. Such initiatives are responding to recent research that identifies an increasingly unstable statewide teacher workforce, weakened by high annual attrition rates and a teacher pipeline bifurcated by preprofessional experiences that differ substantially in structure and content.

Texas has the largest teacher workforce of any U.S. state, numbering over 370,000 teachers in 2021–22.<sup>1</sup> A high yearly demand for new teachers, exacerbated by high teacher attrition rates, creates unique systemic challenges. Workforce shortages, already present before the onset of COVID-19 but accelerated by pandemic-era teaching conditions, only increase this demand, pushing the number of new hires to more than 40,000 per year.<sup>2</sup> The robustness of the preparation pipeline—in terms of quantity *and* quality—is thus a continuous and growing concern for Texas policymakers.

Some teachers enter the profession through traditional routes that combine preservice coursework and supervised student teaching. A large, and fast-growing, proportion of teachers enter through routes that combine varying levels of preparation with concurrent full-time teaching. Another rapidly growing group of entrants have no teaching certificate at all.<sup>3</sup> Texas researchers' recent

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analyses demonstrate how variations in attrition rates and teacher efficacy associated with these different routes into the profession translate into widespread implications for schools and students. In particular, the costs of teacher attrition and turnover—financially and in terms of student outcomes—are felt most acutely in schools that serve high proportions of students of color and students from low-income families, since these schools disproportionately employ underprepared teachers.<sup>4</sup>

Because of these concerns, a number of new initiatives are underway in Texas to create and expand more stable, high-retention pathways into the profession that make stronger preparation affordable for candidates and productive for districts. A leading

example is the High-Quality, Sustainable Residency Program, part of the \$1.4 billion Texas COVID Learning Acceleration Supports (TCLAS) suite of initiatives launched in summer 2021. The TCLAS residency program supports districts, working in collaboration with local undergraduate teacher preparation programs from a state-approved list, in creating partnerships to establish and sustainably fund paid teacher residencies.

These residencies provide teacher candidates with an intensive teacher education program in which coursework is interwoven with a full year of preservice student teaching experience in the classroom of an expert cooperating teacher. Subsidies for tuition and living expenses (\$20,000 in this case) are repaid by the teacher candidate through some sort of service in the sponsoring district, often serving as a substitute teacher, tutor, or aide approximately 1 day per week. To make residency funding sustainable, participating districts receive technical assistance from their regional educational service centers (ESCs) on “strategic staffing” (e.g., reallocating some of residents’ time in the ways described above to address district needs and offset costs). Districts receive 2 years of technical assistance to design and implement strategic staffing models that simultaneously support districts to sustainably fund the paid residency model while addressing instructional needs. This strategic focus on sustainability, as well as the scale of the TCLAS residency program and its focus on equitable access, are notable relative to other, smaller-scale, residency initiatives that have been tried. Nationally, residencies have been found to produce well-prepared teachers who stay in the profession at very high rates, ending the churn of underprepared teachers that districts otherwise experience.<sup>5</sup>

TCLAS also includes funding for Grow Your Own (GYO) programs, another potentially high-retention approach to addressing teacher vacancies.<sup>6</sup> An additional notable recent effort was H.B. 3 of 2019, which raised the minimum pay threshold for Texas teachers and provided limited opportunities for substantial additional funding for expert teachers to teach in districts with persistent shortages.

In March 2022, by directive of Governor Greg Abbott, the Texas Education Agency (TEA) created a statewide Teacher Vacancy Task Force to further study teacher shortages and make recommendations for state policy changes that continue to address them. To inform legislative staff and members of the task force, this report summarizes and builds on the research on teacher supply, demand, and attrition, and the outcomes of different pathways into the Texas teacher workforce. We then discuss the work already being done in Texas to strengthen the educator workforce and provide additional actionable, research-based policy recommendations to further the state’s efforts.



The glossary below defines a series of terms related to Texas teachers and how they are prepared and certified that will be used throughout this report.

## Glossary

### Teacher attrition vs. teacher turnover:

- **Teacher attrition:** Teachers leaving the profession. For the purposes of this report, we define attrition as having left the public school teaching workforce in Texas.
- **Teacher turnover:** Teachers staying in the profession but moving between districts or schools. For the purposes of this report, we define turnover as teachers staying within the Texas teacher workforce but moving between districts.

### Teacher of record:

- **The teacher of record** in a given classroom is the teacher formally responsible for the academic progress of the students in that classroom. According to the Texas Education Code, the teacher of record is responsible for tasks such as evaluating student achievement and assigning grades. In Texas, in addition to fully prepared teachers who have received a standard certificate, intern teachers and teachers on emergency permits can serve as the teacher of record before earning their standard certificate, as can uncertified teachers.

### Teacher preparation program types:

- **Traditional teacher preparation program:** A degree-granting teacher education program at the undergraduate or graduate level. For undergraduate teacher candidates, it is required that their clinical teaching experience be preservice (i.e., as a student teacher alongside an experienced mentor teacher). Graduate-level teacher candidates may engage in preservice student teaching and/or internships where they serve as the teacher of record, depending on the program they enroll in and the requirements—such as passing certification exams—that they have met.
- **Alternative certification program:** A non-degree-granting pathway into the teaching profession, available only at the postbaccalaureate level. A frequent characteristic of alternative certification programs is that a teacher candidate has the option to serve as the teacher of record for a classroom, teaching

on an intern certificate (and earning a teacher’s salary) while concurrently completing the coursework and pedagogical practice requirements for standard certification. (While many alternative certification programs also offer student teaching as an option, the large majority offer internship pathways that do not include student teaching.)

- **Teacher residency program:** A preservice teacher education program—designed and administered by colleges, universities, or entities like education service centers in partnership with school districts—that includes a full year of student teaching (called a “residency”) in the classroom of an expert cooperating teacher, integrating that clinical practice with the coursework and coaching required for a standard certificate. Nationally, residency programs are often designed to prepare candidates for subsequent service as teachers of record in the districts where they completed their residencies. In Texas, where many residencies are part of undergraduate programs, teacher candidates are not always expected to stay in the districts where they trained.

#### **Strategic staffing:**

- An approach to making the cost of teacher resident stipends sustainable for sponsoring districts by having the teacher resident concurrently perform some sort of service to their sponsoring district. For example, while teacher residents spend the majority of their time teaching alongside their cooperating teacher (i.e., the teacher of record whose classroom they are working in), residents in districts implementing a strategic staffing approach may spend some time each week as a substitute teacher, tutor, or aide. The Texas COVID Learning Acceleration Supports (TCLAS) teacher residency grant supports professional development for districts on strategic staffing that uses teacher residents in these or other capacities; TCLAS also requires that districts sustain their residency programs for at least a year beyond the grant period by implementing strategic staffing approaches.

#### **Teacher certification types (note that these are associated with specific grade-level spans, and specific subject areas at the secondary level):**

- **Standard certificate:** The regular certification for individuals in Texas who have successfully completed all of the requirements to become a classroom teacher of record: obtaining a bachelor’s degree, completing a

state-approved teacher education program, passing certification exams, submitting a state application, and passing a background check. The standard certificate lasts for 5 years and is renewable.

- **Substandard certificate:** Any nonstandard certification, including an intern certificate or emergency permit (defined below), given to teachers of record in Texas who have not yet met the state’s requirements for a standard certificate.
- **Intern certificate:** A certification granted to teachers of record who are teaching as interns (explained above in the definitions for teacher preparation program types) and have thus not yet completed the requirements for a standard certificate. This is a 1-year, nonrenewable certification; to receive it, teacher candidates are required to pass a content exam.
- **Emergency permit:** A permit granted by the Texas State Board for Educator Certification to a district to address shortages; the district then applies it to teachers of record who are not interns and do not yet meet the requirements for a standard certificate. An individual may teach on an emergency permit for no more than 3 years.
- **Uncertified teacher:** A classroom teacher of record who holds no Texas teaching certification at all.

Sources: For Texas Education Code material in “teacher of record” definition, see: Tex. Educ. Code § 21.051; for Texas Education Agency regulations on traditional and alternative certification programs, see: Texas Educ. Code § 228.2; Texas Education Agency. (n.d.). *Becoming a certified Texas educator through an alternative certification program*. <https://tea.texas.gov/texas-educators/preparation-and-continuing-education/becoming-a-certified-texas-educator-through-an-alternative-certification-program> (accessed 12/06/22); Texas Education Agency. (n.d.). *Becoming a certified Texas educator through a university program*. <https://tea.texas.gov/texas-educators/preparation-and-continuing-education/becoming-a-certified-texas-educator-through-a-university-program> (accessed 12/06/22).

## What Causes Teacher Shortages?

The composition of the teacher workforce is a major factor in school quality and student learning. Teachers' methods, levels of preparation, and levels of experience affect students' academic achievement, well-being, and opportunities to learn.<sup>7</sup> Research suggests that teacher quality has the largest effect size of any in-school factor on student achievement<sup>8</sup> and is also associated with longer-term student outcomes (e.g., high school graduation, college enrollment, labor market outcomes).<sup>9</sup> Meanwhile, teacher attrition (i.e., teachers leaving the profession) and turnover (i.e., teachers staying in the profession but moving between districts) have been shown to directly harm student achievement.<sup>10</sup> Attrition and turnover also negatively influence other aspects of education, such as school community cohesiveness, that themselves impact student learning.<sup>11</sup> A stable, high-quality teacher workforce is thus an ongoing policy imperative, in Texas and elsewhere.

Teacher shortages occur when demand for teachers outpaces the available supply. Factors most frequently affecting teacher demand include population changes that affect the number of students needing to be taught, as well as teacher attrition and teacher turnover. Factors affecting teacher supply include availability, quality, and cost of teacher preparation programs, as well as the availability of trained teachers not currently in the classroom but willing to reenter the workforce. Factors such as teacher compensation and working conditions can simultaneously affect demand and supply by influencing whether current teachers stay in their positions and whether prospective new teachers are compelled to join the profession.

Teacher shortages—especially those that persist year over year—directly threaten the stability of the teacher workforce. While shortages generally focus attention on recruiting more teachers into the profession more quickly—often by reducing the expectations for completing preparation coursework and student teaching before entry—the primary driver of shortages is actually attrition, and policy solutions that address attrition are thus required. More than 9 in 10 vacancies nationally in any given year are a result of teachers who left the year before.<sup>12</sup> The large majority of those who leave teaching are not retiring, but are dissatisfied with the conditions of teaching or with aspects of their current position.<sup>13</sup>

Research has found that persistence in the teaching profession beyond the first few years depends in part on whether a teacher received complete preparation, including preservice student teaching and coursework on how to teach effectively. Those

who enter teacher of record positions without various aspects of a comprehensive preparation program are 2 to 3 times more likely to leave the profession within the first year of teaching than those who are fully prepared.<sup>14</sup> This creates churn for those teachers' schools and districts and exacerbates shortages, rather than solving them.

High attrition rates at the school level also undermine student achievement, which creates an additional equity issue.<sup>15</sup> Turnover is higher, and shortages thus more persistent, in schools serving greater proportions of students from low-income backgrounds and students of color. These schools are also more likely to be under-resourced, with more-challenging working conditions.<sup>16</sup> Inequitable distribution of qualified teachers, and the disruptions caused by higher rates of teacher turnover, create opportunity gaps and deprive students of the benefits of a stable, well-prepared teacher workforce.<sup>17</sup>

The cost of teacher preparation—particularly for programs that include substantial preservice student teaching—can be a considerable barrier for those otherwise interested in the teaching profession,<sup>18</sup> especially for candidates of color and those from low-income backgrounds who carry more debt and have fewer resources than other candidates.<sup>19</sup>

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The cost of preservice teacher preparation and multiple licensure exams, alongside the lower salaries of teachers compared to other college graduates, deters an unknown number of prospective candidates from entering the teaching profession altogether. It drives others toward alternative pathways that offer participants the opportunity to omit some coursework and quickly enter paid teaching placements rather than receiving mentored student teaching, even though many such pathways are associated with lower completion rates, higher attrition from the teaching profession, and lower teacher effectiveness.<sup>20</sup>

Inadequate compensation is directly connected to teachers both leaving the profession and moving to other districts.<sup>21</sup> Both the absolute level of compensation, adjusted for costs of living, and the gap between pay in teaching and other professions can drive attrition.<sup>22</sup> Historically, teacher attrition rates were lowest in the late 1980s

and early 1990s, when teachers' wages were most competitive with those of other college-educated workers.<sup>23</sup> In addition, research finds that mid-career teachers in low-wage districts leave at higher rates than teachers in high-wage districts.<sup>24</sup> Further, the prospect of low wages once in the teaching profession exacerbates prospective teachers' concerns about accruing high levels of debt in the teacher preparation process. This can incentivize prospective educators to choose pathways into the profession that pay a salary while training, because the trainee is serving as the teacher of record, even though these pathways—offered by alternative preparation programs or through emergency permits or “innovation” districts authorized to hire teachers without certification—often provide less preparation and support and are ultimately associated with higher attrition.<sup>25</sup>

Other common reasons that teachers leave the profession prior to retirement include accountability pressures, lack of administrative support, and dissatisfaction with working conditions and opportunities for advancement.<sup>26</sup> For years, increasing levels of work-related stress have contributed to teachers' decisions to leave the classroom; this trend was present before COVID-19 but has been exacerbated by the conditions of the pandemic, as we describe in more detail later in the paper.<sup>27</sup> Further, high teacher turnover itself creates working conditions that lead to more turnover, in part by imposing additional burdens on remaining teachers and other staff.<sup>28</sup>

# The Status of the Teacher Workforce in Texas

## Teacher Shortages

Texas has the largest teacher workforce of any state in the nation, numbering over 370,000 teachers in both 2020–21 and 2021–22.<sup>29</sup> Growing demand (through a combination of population growth, decreases in class size, and new positions recently created by federal COVID-19 recovery dollars) has combined with shrinking supply to create an ongoing challenge for the state to find enough well-qualified teachers, particularly in certain subject areas and localities.<sup>30</sup> These shortages have persisted over time, occurring in each year from 2010–11 through 2021–22 in bilingual/English as a Second Language, mathematics, and special education, and all but two of those years in career and technical education. (See Table 1.) Current stressors on the system include, but are not limited to, high levels of attrition from the profession, low pay and poor benefits, polarizing statewide politics, and challenging working conditions exacerbated by the COVID-19 pandemic.<sup>31</sup>

## Teacher Attrition

Teacher shortages are closely related to teacher attrition. Research has shown that over 90% of demand for teachers nationally is due to teachers who left teaching the year before, with two thirds of departures for reasons other than retirement.<sup>32</sup> In Texas, the proportion of annual teacher demand due to prior year attrition from the state workforce is now even higher than the national average; in 2021–22, 99.7% of statewide hires were to replace teachers who had left teaching in Texas public schools the year before. The proportion of departures for reasons other than retirement, which has hovered around 80% in each of the past 4 years, also exceeds the national average.<sup>33</sup> Together, these data illuminate the extent to which attrition is driving teacher shortages across the state.

**Table 1**  
**Texas Teacher Shortage Areas, 2010–11 Through 2021–22 School Years**

Academic Year	Career and Technical Education	Bilingual/English as a Second Language	Mathematics	Science	Special Education	World Languages
2021–22	7–12	PK–12	7–12		PK–12	
2020–21	7–12	PK–12	7–12		PK–12	
2019–20	7–12	PK–12	7–12		PK–12	
2018–19	7–12	PK–12	7–12		PK–12	
2017–18	*	*	*	*	E, S	
2016–17	*	E, S	*	*	E, S	
2015–16	*	*	*	*	E, S	
2014–15	*	*	*	*	E, S	
2013–14	*	*	*	*	*	*
2012–13		*	*	*	*	*
2011–12		*	*	*	*	*
2010–11	*	*	*	*	*	*

Notes: \* is identified as a shortage area, but no grade levels were identified. E, S indicates that both elementary and secondary levels were identified as shortage areas for the subject matter. PK–12 indicates that all grade levels were identified as shortage areas. 7–12 indicates that grades 7 through 12 were identified as shortage areas. A blank cell indicates no shortage for that year.

Sources: 2010–11 through 2020–21 data reproduced from Horn, C., Burnett, C., Lowery, S., & White, C. (2021). *Texas teacher workforce report*. (p. 44). University of Houston College of Education; 2021–22 data reproduced from 2022 update to the above report; a draft was provided through personal correspondence on October 5, 2022.

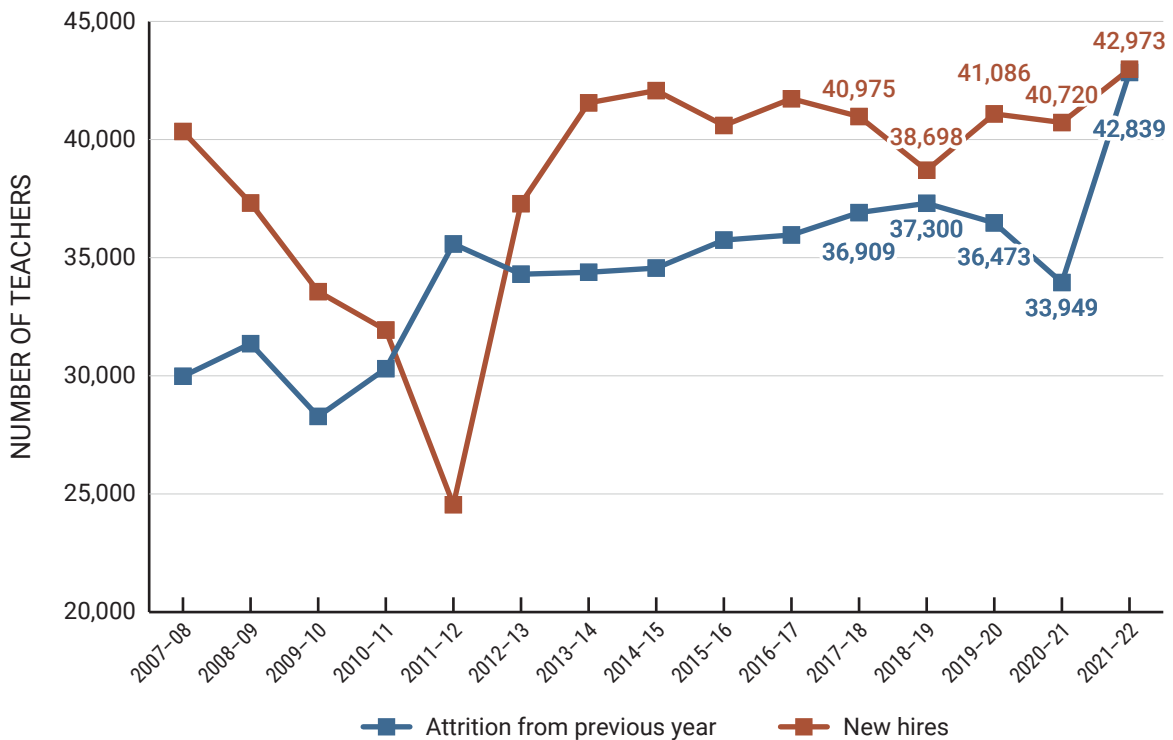
Over the past decade, Texas teacher attrition patterns have been consistently higher than the national average. In Texas, approximately 10% of teachers left the state’s PK–12 workforce each year from 2011–12 to 2019–20; this represents 25% greater attrition than the frequently cited annual nationwide teacher attrition rate of 8%.<sup>34</sup> Texas teacher attrition rates have since increased, according to more recent reports: Nearly 12% of Texas teachers left in 2021–22, meaning that more than 1 in 9 teachers in the state departed the Texas teacher workforce that year.<sup>35</sup> Two separate statewide polls found that, in 2021 and 2022, two thirds or more of Texas teachers were considering



leaving the profession.<sup>36</sup> Further, one result of the large size of the Texas teacher workforce is that even small shifts in percentage points for categories like teacher attrition have large real-world implications, amounting to thousands of teachers.

Recent changes in the difference between new teacher hires and teacher attrition also illuminate the extent to which workforce instability drives teacher shortages in Texas. Over most of the previous 15 years, the size of the Texas teacher workforce gradually increased, at a rate of 0.4% to 2.2% per year, due to enrollment growth and decreases in class size.<sup>37</sup> The only exception, in 2012, was when the state was experiencing massive budget shortfalls, with resulting cuts to teaching positions. For most of these years, between 84% and 95% of teacher demand has been a result of attrition. In 2021–22, however, nearly the entire demand for teachers was a function of attrition: The number of new teachers hired exceeded the number lost to attrition by only 134 (Figure 1).<sup>38</sup> The expectation for 2022–23 is that an even higher proportion of teachers will need to be replaced, further challenging the capacity of the teacher development system to keep up with demand.

**Figure 1**  
**Statewide Teacher Attrition vs. New Hires, 2007–08 Through 2021–22**



Source: Texas Education Agency. (2022). *Employed teacher attrition and new hires, 2007–08 through 2021–22*. <https://tea.texas.gov/sites/default/files/employed-teacher-attrition-and-new-hires-2022.pdf>

Attrition is especially pronounced among early-career teachers. A statewide analysis of new teacher cohorts, following them from 2012 to 2018, found that an average of 8% of new teachers left the classroom after year 1, an average of 26% by year 5, and an average of 46% by year 8 (Table 2).<sup>39</sup> The loss of a quarter of teachers in a cohort by year 5 represents a significant challenge to workforce stability, especially given that over a third of Texas teachers have 5 years of experience or less.<sup>40</sup>

**Table 2**  
**Teacher Retention by First-Teaching-Year Cohort, 2012–19**

Cohort	Year 1 (#)	Year 2 (%)	Year 3 (%)	Year 4 (%)	Year 5 (%)	Year 6 (%)	Year 7 (%)	Year 8 (%)
2012	4,773	91%	81%	74%	68%	64%	60%	54%
2013	13,427	93%	86%	80%	76%	70%	64%	–
2014	20,096	93%	86%	81%	76%	69%	–	–
2015	21,814	92%	86%	81%	76%	–	–	–
2016	21,174	92%	86%	80%	–	–	–	–
2017	20,740	92%	86%	–	–	–	–	–
2018	19,059	92%	–	–	–	–	–	–
<b>Average</b>		<b>92%</b>	<b>85%</b>	<b>79%</b>	<b>74%</b>	<b>68%</b>	<b>62%</b>	<b>54%</b>

Source: Reproduced from Templeton, T., Lowrey, S., Horn, C. L., Alghazzawi, D., & Bui, B. (2020). *Assessing the effectiveness of Texas educator preparation programs*. (p. 20). Center for Research, Evaluation, and Advancement of Teacher Education and Education Research Center, University of Houston College of Education.

## Teacher Turnover

Teacher turnover—reflecting the total proportion of teachers who left their district in a given year, whether or not they took another teaching position outside the district—provides another important piece of policy context. While not all of these teachers leave the profession, turnover is as costly and disruptive to districts as attrition. Estimates exceed \$10,800 in a rural district, \$13,200 in a suburban district, and \$25,200 in an urban district to replace each teacher who departs.<sup>41</sup>

The statewide Texas teacher turnover rate for teachers on standard certificates was 17% in 2021–22. For first-year teachers, the turnover rate was higher, at 21%.<sup>42</sup> If teachers on intern certificates or emergency permits and those with no certification were included in these calculations, the reported rates would be much higher, especially since these categories of teachers have higher attrition rates.<sup>43</sup> Turnover has been persistently higher in small (typically rural) districts than in their larger counterparts. Those with enrollments of less than 1,500 students lose 30% of their first-year teachers after a single year of teaching.<sup>44</sup> State efforts to address the root causes of turnover will need to take into account the particular sources of workforce instability in rural, often low-income districts, which can include not only salaries and in-school working conditions but also challenges associated with community poverty and access to housing and other amenities.<sup>45</sup>

## Teacher Compensation

There is tremendous variation in teacher starting salaries and pay schedules across Texas. As of 2022–23, the statewide minimum starting salary for first-year teachers is \$33,660 per year.<sup>46</sup> In contrast, in Houston Independent School District, first-year teachers earn a minimum of \$61,500, and in Dallas Independent School District first-year teachers earn a minimum of \$60,000.<sup>47</sup>

Texas ranks in the bottom half of states in terms of career-long teacher compensation and teacher wage competitiveness—a comparison of teacher earnings relative to earnings for other college-educated workers in the state. The overall mean teacher salary in Texas, averaged across years of experience, was \$57,641 as of 2021–22, ranking 28th in the nation.<sup>48</sup> Texas also ranks 28th nationally in teacher wage competitiveness, with teachers earning only 78.5% of what their college-educated counterparts earn.<sup>49</sup> Meanwhile, according to the Center for Research, Evaluation, and Advancement of Teacher Education at the University of Houston, the state average teacher wage premium for experience (i.e., the additional marginal pay for each year of teaching) has fallen by 44% over the past decade. In 2011–12, Texas teachers earned an average of \$1,219 (in 2021 dollars) for each additional year of experience; that amount has steadily fallen each year since, and by 2021–22, had dropped to \$678 for each additional year in the classroom. This means that a teacher with 20 years of experience in 2021–22 would stand to earn \$10,820 less in 2021 dollars than a teacher with the same amount of experience would have earned in 2011–12.<sup>50</sup>

Compensation is a source of significant stress among a large majority of Texas teachers. Eighty-one percent of teachers reported in a 2022 statewide poll that their pay is unfair (including 91% of teachers making less than \$50,000 per year). Additionally, over half of Texas teachers (52%) reported that they worked at least one additional job, and 79% of those teachers (41% of total teachers) reported that this was out of financial necessity. Among Texas teachers working at least one additional job, nearly all (89%) did so during the academic year.<sup>51</sup>

Over half of Texas teachers (52%) reported that they worked at least one additional job, and 79% of those teachers (41% of total teachers) reported that this was out of financial necessity.

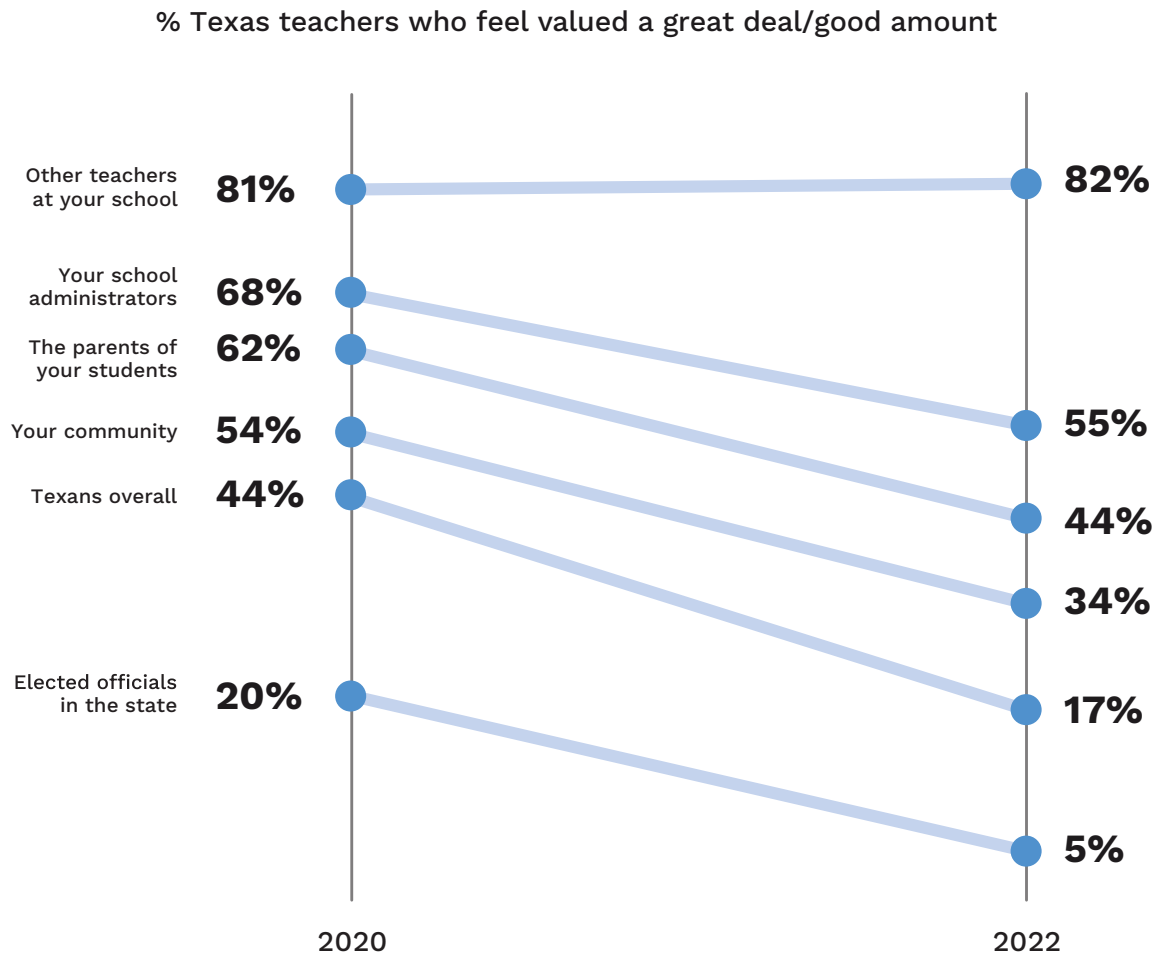
Providing competitive teacher compensation has been a particular challenge in rural districts, which typically have relatively low student enrollments, due to the economies of scale involved. Rural districts are often property-poor, meaning that their local property tax revenue nets them less money than elsewhere in the state, and they have a difficult time keeping up with the rates larger districts are paying teachers due to fixed costs elsewhere. (For example, all districts need buses and mechanics, but the costs of these resources are averaged across fewer students in small districts, thereby increasing the average cost per student. Although there is a small and midsize funding allotment for districts that aims to address these issues, it does not fully account for the fiscal challenges small rural districts face.) To handle funding shortfalls and to attract and retain teachers, 41 such districts have now implemented 4-day school weeks—27 for the first time in 2022–23.<sup>52</sup> Given that some research has suggested that 4-day school weeks are associated with weaker student outcomes, this trend raises policy concerns.<sup>53</sup>

## Teacher Working Conditions

The same 2022 statewide teacher poll reveals that low teacher morale is also a profound and increasing concern. In addition to salary frustrations, teachers across Texas consistently report that they are facing challenging working conditions. These include additional burnout and stress from “unrealistic expectations in closing pandemic-related learning gaps” as well as excessive workloads, pressure from standardized testing, and the challenges of supporting students socially and emotionally during the pandemic.<sup>54</sup> Further, over just the past 2 years, there have

been pronounced declines in the proportion of teachers who report feeling valued by key stakeholders. Indeed, Figure 2 shows notable decreases in the proportion of teachers who reported in 2022 relative to 2020 that they felt valued “a great deal” or “a good amount” by school administrators, parents, community members, Texans overall, and elected officials in the state.

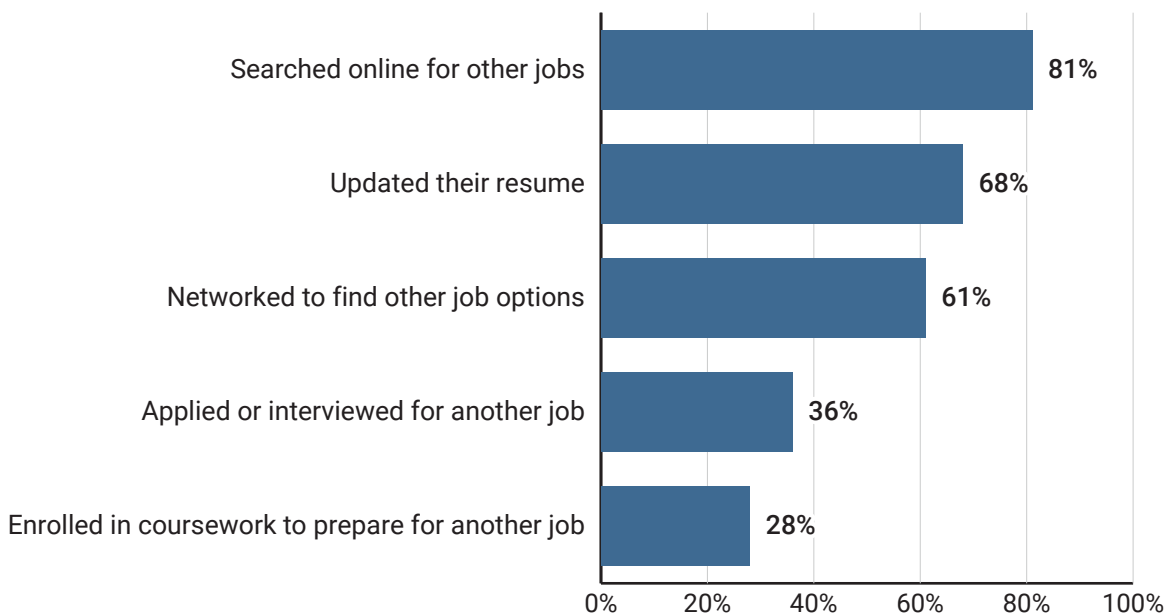
**Figure 2**  
**Proportion of Texas Teachers Who Felt Valued by Various Groups, 2020 vs. 2022**



Source: Reproduced from Charles Butt Foundation. (2022). *The 2022 Texas teacher poll: Persistent problems and a path forward*. (p. 7). <https://charlesbuttdn.org/wp-content/uploads/2022/09/2022-teacher-poll.pdf>

This combination of factors has, in a large and increasing majority of cases, led teachers to seriously consider exiting the teacher workforce. As referenced above, over the 2020, 2021, and 2022 statewide teacher polls conducted by the Charles Butt Foundation, there has been a 19 percentage point increase in teachers revealing that they were seriously considering leaving the profession (from 58% in 2020 to 77% in 2022).<sup>55</sup> The statewide 2022 figure represents a substantially higher rate than the 55% of educators nationwide who indicated in an early 2022 National Education Association member survey that they were thinking of leaving the profession.<sup>56</sup> Of further concern, among those Texas teachers who indicated that they seriously considered leaving the profession, over 90% had taken at least one concrete step to do so. Over 80% had searched for other jobs, over two thirds had updated their resume, over three fifths had networked to find other job options, over a third had applied for or interviewed for a different job, and over a quarter had enrolled in coursework intended to help them prepare for a different position (Figure 3).<sup>57</sup>

**Figure 3**  
**Concrete Steps Taken by Texas Teachers Seriously Considering Leaving the Profession**



Source: Charles Butt Foundation. (2022). *The 2022 Texas teacher poll: Persistent problems and a path forward*. (p. 10). <https://charlesbuttdn.org/wp-content/uploads/2022/09/2022-teacher-poll.pdf>

## Teacher Preparation in Texas

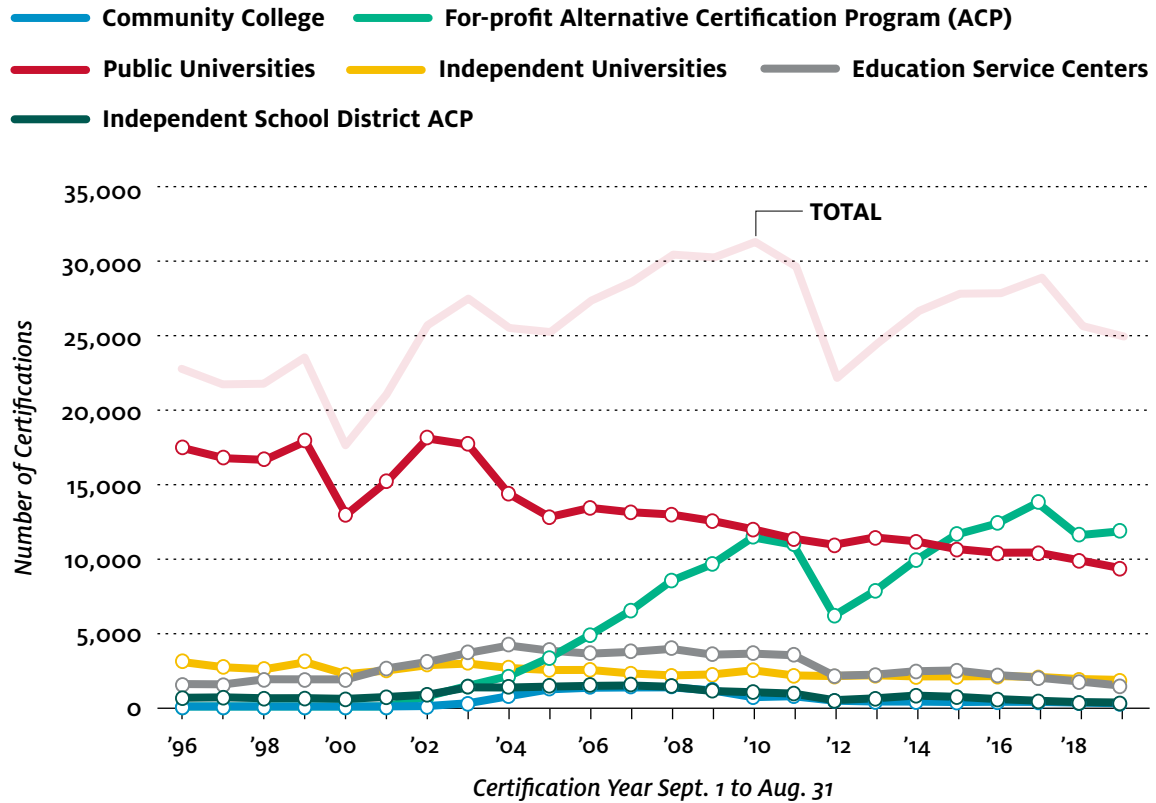
Teacher candidates in Texas have a wide range of options for preparation, with 122 different programs to choose from as of 2022.<sup>58</sup> These options include traditional programs and both nonprofit and for-profit alternative preparation programs, allowing entry from a range of points in prospective teachers' college or professional careers.

Both traditional and alternative preparation programs vary widely in the amount of coursework and clinical experience they require before a candidate can become the teacher of record in a classroom. Many alternatively-prepared teachers do not participate in conventional student teaching, instead being placed via intern certificates as teachers of record in 1-year internship positions. Programs that offer internships often have dramatically abbreviated preservice coursework and clinical requirements to enable teacher candidates to get into paid teacher of record positions sooner. They then offer varying kinds and levels of coursework while interns are employed, typically in the evenings or on the weekends.

The Texas Administrative Code requires teacher preparation programs to provide either a preservice clinical teaching experience (i.e., student teaching under the guidance of a more experienced teacher) or an internship (i.e., where a teacher candidate serves as the teacher of record while completing their training). The state has substantially different requirements for each of these pathways.<sup>59</sup> Of particular note, the minimum requirement for field experience prior to serving as the teacher of record in an internship capacity is only 30 hours, half of which can be fulfilled virtually. In contrast, the minimum requirement for field experience for a teacher candidate participating in student teaching prior to serving as teacher of record is at least 70 full days or 140 half-days of experience with students in real classrooms.<sup>60</sup>

Alternative preparation has been an option for teacher training in Texas since 1985 and has been an increasingly popular route into the Texas teacher workforce over the past 2 decades.<sup>61</sup> Texas was among the top 10 states relying on alternative preparation programs by 2003–04, when 35% of program completers came through alternative routes.<sup>62</sup> Alternative certification programs surpassed traditional preservice programs in 2014 as the most common route into the state's teacher workforce (Figure 4).<sup>63</sup> Texas alternative certification programs now train a majority of new Texas teachers annually<sup>64</sup> and train more than 60% of the nation's alternatively-prepared teachers.<sup>65</sup>

**Figure 4**  
**Texas Teaching Certificates by Preparation Sector, 1995–96**  
**Through 2018–19**



Source: Reproduced from Horn, C., Burnett, C., Lowery, S., & White, C. (2021). *Texas teacher workforce report*. (p. 88). University of Houston College of Education.

In 2002, Texas became the first state to authorize for-profit teacher preparation programs (TPPs), and these now account for the large majority of candidates enrolled in alternative preparation programs.<sup>66</sup> Currently, nearly 70% of all TPP enrollment in Texas comes from for-profit, non-college or university teacher preparation programs.<sup>67</sup> Just as there is substantial variation in the design of traditional preservice programs, Texas’s alternative certification programs also vary due to their programmatic structures and content. One alternative pathway, offered by the Region 4 Education Service Center (ESC), for example, provides 3 to 5 months of preservice preparation and an option for 14 weeks of student teaching, while some others provide almost no preservice coursework and only 30 hours of clinical practice before assigning recruits as teachers of record.



We illustrate the range of program types in this section with several examples that offer relatively comprehensive preparation, even as they serve different clientele in different ways. In addition to the Region 4 ESC program mentioned above, another innovatively designed program is housed at Texas Tech University. Texas Tech's TechTeach Across Texas program offers preservice preparation and a full year of student teaching to undergraduates. At the same time, it captures aspects of alternative programs in its efforts to both utilize online learning and speed pathways to entry into the teaching profession. (See Texas Tech University's TechTeach Across Texas Initiative.) This combination of programmatic features responds to the insistent district demand for teachers and the desire among candidates for affordable options. At the graduate level, Trinity University draws on another programmatic approach, offering a nationally recognized 5-year teacher education model that adds a full year of supervised student teaching in professional teaching schools (much like teaching hospitals affiliated with medical schools) at the end of undergraduate preparation. (See Trinity University's Master of Arts in Teaching Program.)

### **Texas Tech University's TechTeach Across Texas Initiative**

At Texas Tech University, the College of Education launched the TechTeach Across Texas (TTAT) program in 2011. TTAT expands on Texas Tech's face-to-face, university-based program to create a distance teacher preparation program that maintains a clinically intensive, competency-based program in partnership with both community colleges and school districts throughout Texas. Candidates enter with at least a 2-year associate degree. TTAT offers both a traditionally paced 2+2 option at some of its sites and a faster-track 2+1 option that allows students to complete a bachelor's degree and earn their teacher certification in 3 years. Program completers enter the teaching profession with 1 full year of clinical teaching experience while remaining in their home communities, often teaching in the same district as their clinical experience site.

This program offers candidates a host of instructional and clinical support, including coursework based in an evidence-supported Teacher Advancement Project (TAP) rubric and use of video footage for performance-based evaluation and improvement. Furthermore, candidates receive co-planning and co-teaching opportunities beginning on day one, with veteran teachers providing support by "conducting walkthroughs/on-the-spot coaching, demonstration lessons, or

modeling teaching strategies in university coursework.” For TTAT partnerships in rural areas, candidates are also incentivized with a \$15,000 stipend conditional on a 3-year commitment to teaching in the placement district upon graduation.

Early evaluations of TTAT show promising outcomes in diversifying the teaching profession and encouraging teacher retention. Over 50% of TTAT candidates identify as Latino/a or Hispanic, a much higher average compared to statewide teacher preparation program enrollment, with suggestive evidence that TTAT’s distance-learning structure contributed to program uptake as candidates were better able to navigate their education around personal circumstances. Across both TTAT and Texas Tech University’s in-person enrollment, program completers remain in the teaching profession longer than the average candidate in Texas, including a 97% 2-year retention rate among TTAT program completers. These retention rates partially stem from TTAT’s Grow Your Own program design, which allowed the university to cultivate and support local interest in teaching while maintaining the same expectations of teaching quality across its programs.

Sources: Barnett, J. H., Hudgens, T. M., & Alexander, J. L. (2016). *Examining the evidence and impact of TAP: The system for teacher and student advancement*. National Institute for Excellence in Teaching; Kearney, W., Murakami, E., Bunch, K., Viamontes, C., & Campbell, A. (2018). Leadership advocacy towards teacher and student success: Addressing inequities and opportunities in a rural district. *Rural Society*, 27(2), 143–156. <https://doi.org/10.1080/10371656.2018.1477512>; Texas Tech University College of Education. (2022). TechTeach Across Texas Program [PowerPoint slides]. [https://ciel.educ.ttu.edu//TechTeach/TC\\_i-Handbook\\_TechTeach\\_Across\\_Texas\\_2022.pdf](https://ciel.educ.ttu.edu//TechTeach/TC_i-Handbook_TechTeach_Across_Texas_2022.pdf) (accessed 12/06/22); Texas Tech University College of Education. (n.d.). TechTeach at a distance. <https://www.depts.ttu.edu/education/undergraduate/techteach-across-rural-texas/faqs.php> (accessed 12/06/22); Schmidt, M., Johnson, L., Mohammed, F., & Hamman, D. (2020). *Assessment of effectiveness of Tech Teach across Texas graduates*. Texas Education Research Center; Cumby, S. K. (2018). *Exploring the academic resilience of first generation Latina/o teacher candidates of immigrant parents in a non-traditional teacher preparation program through the lens of community cultural wealth* [PhD dissertation]. Texas Tech University; Mahler, B. K. (2019). *Grow your own teachers: A case study of strategies used by rural Texas schools to produce and retain qualified teachers* [EdD dissertation]. Texas Tech University.

## Trinity University’s Master of Arts in Teaching Program

Considered one of the most innovative teacher education programs in the nation, Trinity University’s school-embedded Master of Arts in Teaching program holds an excellent reputation for producing prepared and effective teachers. School administrators consistently rate teachers and teacher candidates from Trinity University as their “most effective teachers,” and graduates’ retention rates exceed national averages. Designed around a professional development school, much like teaching hospitals in medicine that aim to prepare all candidates for

state-of-the-art practice, this route to certification offers candidates relevant graduate-level coursework that is strongly linked to their full year of clinical experience in the classroom of an expert mentor teacher.

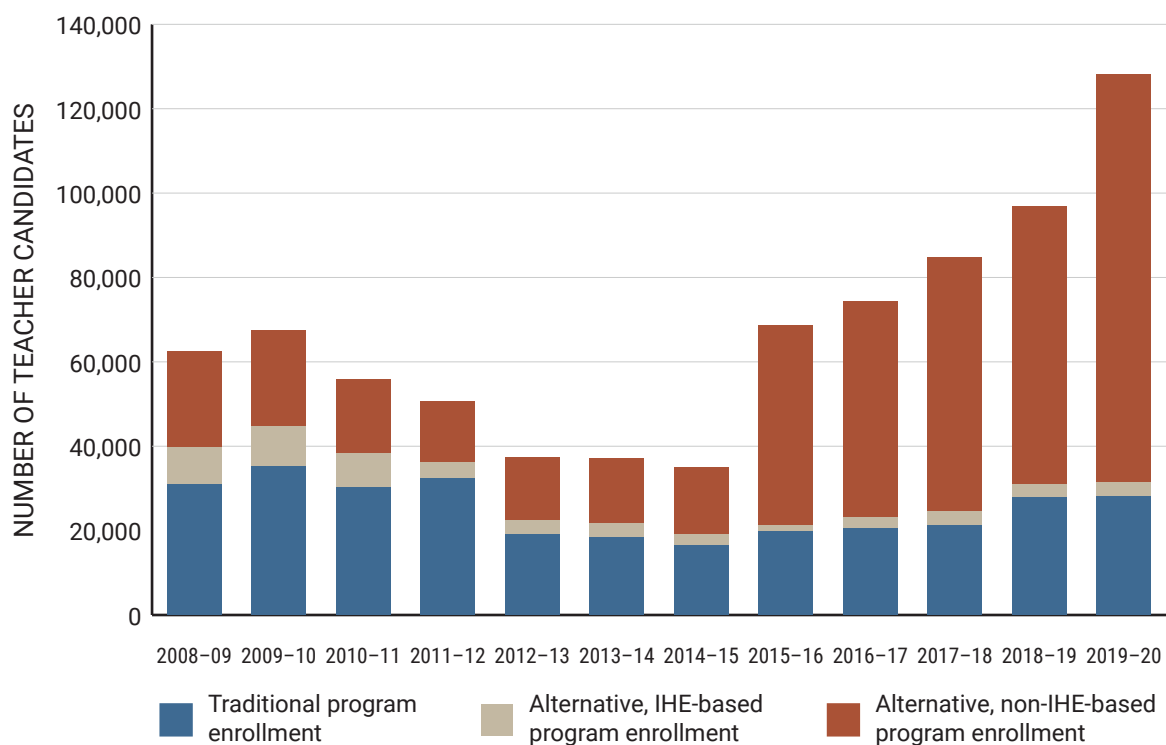
During the program, candidates receive rigorous, well-supported preparation through collaborative learning within a small cohort as well as advising and mentorship by both university staff and on-site mentor teachers. Faculty model student-centered practices such as reflection, collaboration, and guided inquiry, which candidates apply to their own practice and self-assessments. Additionally, the program places a continual emphasis on backward designing; teaching through inquiry-based instruction; and engaging with issues around race, identity, and equity. Candidate assessments are portfolio- and performance-based, which not only aligns to Texas teacher evaluation requirements, but also ensures that candidates are prepared to deliver quality instruction.

Multiple program evaluations support Trinity University's program efficacy. Candidates have near-100% pass rates on Texas certification exams. One principal of a partner school attributes the teachers' effectiveness to the "quality of their instruction in terms of their precision around planning, their ability to execute those plans, their ability to work with students who weren't making the progress they expected, the way that they plan for more complex thinking in the classroom, [and their] ability to take on different challenges outside of their classroom instruction." Though Trinity University's program is small in scale, its practices and structures can serve as an instructive model for university-based preparation programs on how to prepare teacher candidates for quality instruction.

Sources: Guha, R., & Wojcikiewicz, S. (2020). *Preparing teachers for deeper learning at Trinity University*. Learning Policy Institute. <https://learningpolicyinstitute.org/product/preparing-teachers-deeper-learning-brief>; Van Zandt Allen, L. (2013). The impact of induction support on teacher development, teacher retention, and the teacher quality issue. *Teacher Education Quarterly*, 40(3), 75–92; Van Zandt, L. M. (1998). Assessing the effects of reform in teacher education: An evaluation of the 5-year MAT program at Trinity University. *Journal of Teacher Education*, 49(2), 120–131. <https://doi.org/10.1177/0022487198049002005>

More common are alternative routes that allow interested candidates to bypass student teaching, with varying supports for intern teachers. These routes have grown significantly in Texas, accounting for the fact that overall enrollment in teacher preparation programs has more than doubled since 2008–09 (Figure 5).<sup>68</sup> Over the same time period, Texas has seen a slight enrollment decline in preservice teacher preparation programs based at institutions of higher education (IHEs).

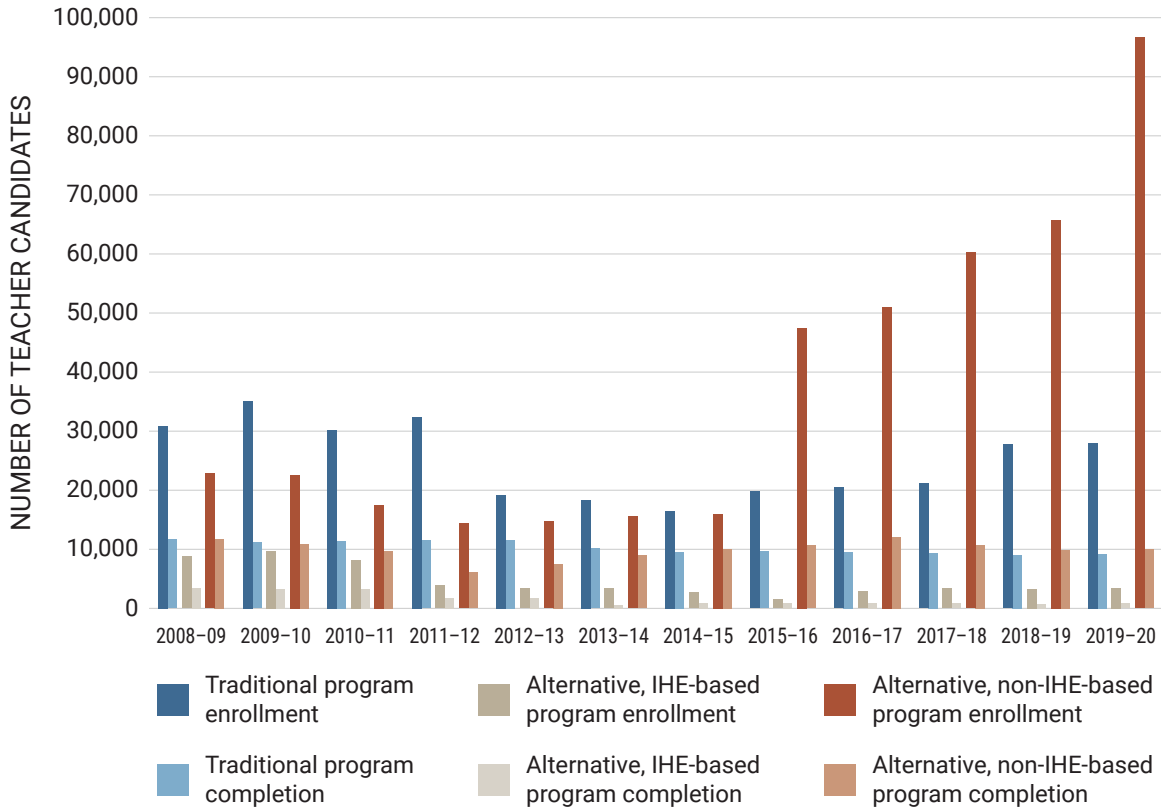
**Figure 5**  
**Texas Teacher Preparation Program Enrollment by Route (per Federal Title II Data), 2008–09 Through 2019–20**



Source: U.S. Department of Education. (2022). *Title II national teacher preparation data, 2008–2020*.

Despite this huge enrollment growth overall, statewide teacher preparation enrollment and completion data collected by the federal Title II program reveal that the number of candidates completing non-IHE alternative preparation has essentially remained flat over the past 5 years for which full data are available, even while enrollment in these programs increased by more than 500% over the same period (Figure 6). Exact completion percentages are not currently calculable based on the available data, in part because teacher candidates take different lengths of time to complete differently designed programs and in part because program-level definitions of “enrollment” can vary widely, with some teacher preparation programs keeping large numbers of individuals on their rosters who are not currently progressing toward program completion. Still, comparing the decreasing ratios of enrollees to completers by program type over the past 5 years of available data reveals what appears to be a substantial leak in the pipeline affecting participants in non-IHE alternative preparation programs.

**Figure 6**  
**Texas Teacher Preparation Program Enrollment and Completion by Route**  
**(per Federal Title II Data), 2008–09 Through 2019–20**



Source: U.S. Department of Education. (2022). *Title II national teacher preparation data, 2008–2020*.

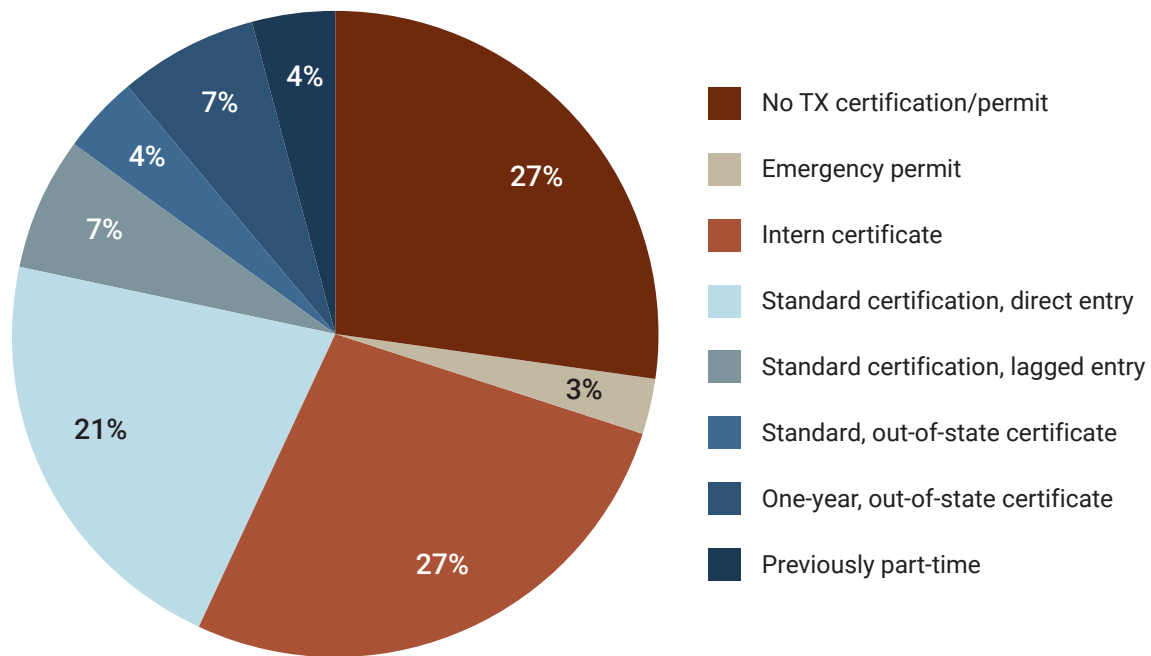
Much of this trend can be attributed to a program that has developed outside influence in the Texas alternative preparation landscape as it has proliferated over the past decade, with enrollment of over 80,000 candidates in 2019–20 (the most recent school year for which data are available).<sup>69</sup> Texas Teachers of Tomorrow, also known as A+ Texas Teachers, is a for-profit, non-university-based, fully online and asynchronous alternative program that has been responsible for training over half of the state’s alternatively-prepared teachers in each of the past several years.<sup>70</sup> Meanwhile, the Texas Education Agency (TEA) has flagged Texas Teachers of Tomorrow for being noncompliant in seven of nine measures required for program approval.<sup>71</sup> Among these measures, TEA flagged the program for adopting a curriculum insufficiently supported by research on the science of learning, as well as failing to assign candidates a mentor during their internship.

Although the program has taken some steps to address noncompliance, TEA informed the program in November 2022 that they “have not met the terms of their agreement to improve”; accordingly, TEA is recommending that the program’s accreditation be rescinded, and the dispute is now expected to go before the State Office of Administrative Hearings.<sup>72</sup> Further, the large number of teachers certified through the program prior to the TEA audit creates concern that many active teachers across the state did not receive the quality of training they deserved or paid for before entering the classroom.<sup>73</sup> The disproportionate negative influence of this single program on the training of teachers obtaining alternative preparation across the state may distort the data on alternative certification programs more generally in aggregated statewide data.

## Entry Pathways of New Teachers in Texas

In 2021–22, 12,228 of the teachers designated as “new hires”—about 28%—were actually from the state’s “reserve pool” of teachers who were already fully certified and who were reentering the profession rather than teaching for the first time. When those reentering teachers are removed from the analysis, the data reveal that 57% of first-time teachers in Texas in 2021–22 held either a substandard certificate (i.e., an intern certificate or emergency permit) or no certificate at all. This represents double the 28% of first-time teachers trained in Texas who had earned a standard certificate after completing a clinical experience (Figure 7). (Of the remaining 11%, most had completed a 1-year certificate out of state; the remainder were previously in part-time assignments.)<sup>74</sup>

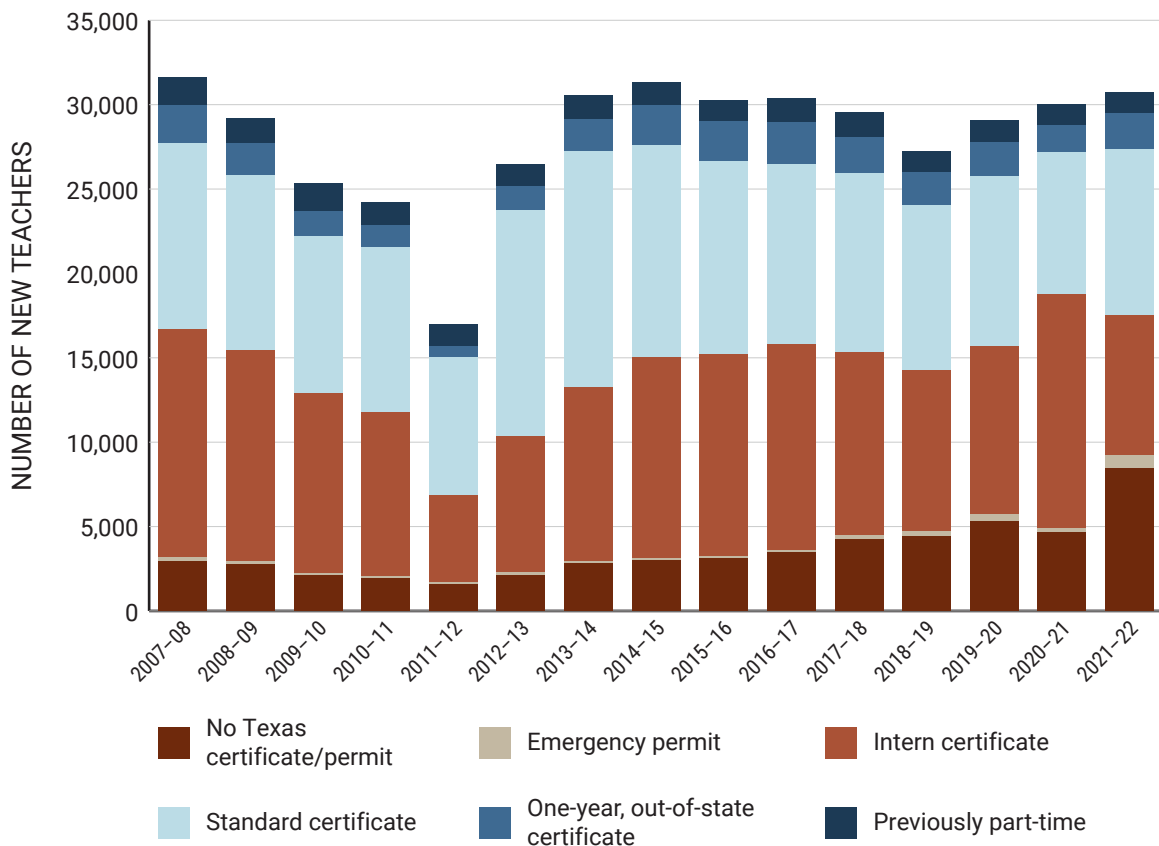
**Figure 7**  
**2021–22 Statewide New Hires (Excluding Rehires) by Pathway Into the Teaching Profession**



Source: Authors’ calculation derived from Texas Education Agency. (2022). *Employed teacher attrition and new hires 2007–08 through 2021–22*. <https://tea.texas.gov/sites/default/files/employed-teacher-attrition-and-new-hires-jbl220825.pdf> (accessed 12/06/22).

The total proportion of new hires teaching on substandard intern certificates or emergency permits, or on no certification at all, has hovered at or above half of Texas new hires (excluding rehires) for much of the past 15 years (Figure 8). Further, the share of uncertified teachers in the entering workforce has increased substantially over the past few years, having nearly doubled in the past year alone.<sup>75</sup> Hiring uncertified teachers is an option in the large majority of districts statewide, with 74% of districts now able to hire uncertified teachers under the state Districts of Innovation designation.<sup>76</sup> Additionally, approximately 5% of Texas public school teachers teach at charter schools that were already permitted to hire uncertified teachers,<sup>77</sup> and there are several other statewide provisions that allow uncertified teachers to enter the profession.<sup>78</sup> Uncertified teachers appear largely to be displacing interns in the state teacher workforce.<sup>79</sup>

**Figure 8**  
**New Teachers in the Texas Workforce (Excluding Rehires), 2007–08 Through 2021–22**



Source: Learning Policy Institute calculation derived from Texas Education Agency. (2022). *Employed teacher attrition and new hires 2007–08 through 2021–22*. <https://tea.texas.gov/sites/default/files/employed-teacher-attrition-and-new-hires-jbl220825.pdf> (accessed 12/06/22).



One other factor that affects the number and proportion of candidates able to secure a standard certificate is the set of licensure examinations required. Currently, the Texas Education Agency (TEA) requires all candidates for certification, regardless of certification route, to pass both a content/pedagogy-based exam (TExES) and a pedagogy/ethics-based exam (PPR) prior to earning a standard certificate. PK–6 teacher candidates must also pass the Science of Teaching Reading exam prior to certification. These three exams cost over \$100 each, on top of other costs for preparation. Lower pass rates among candidates of color, especially Black male candidates, present a heightened equity hurdle in diversifying the teaching profession.<sup>80</sup>

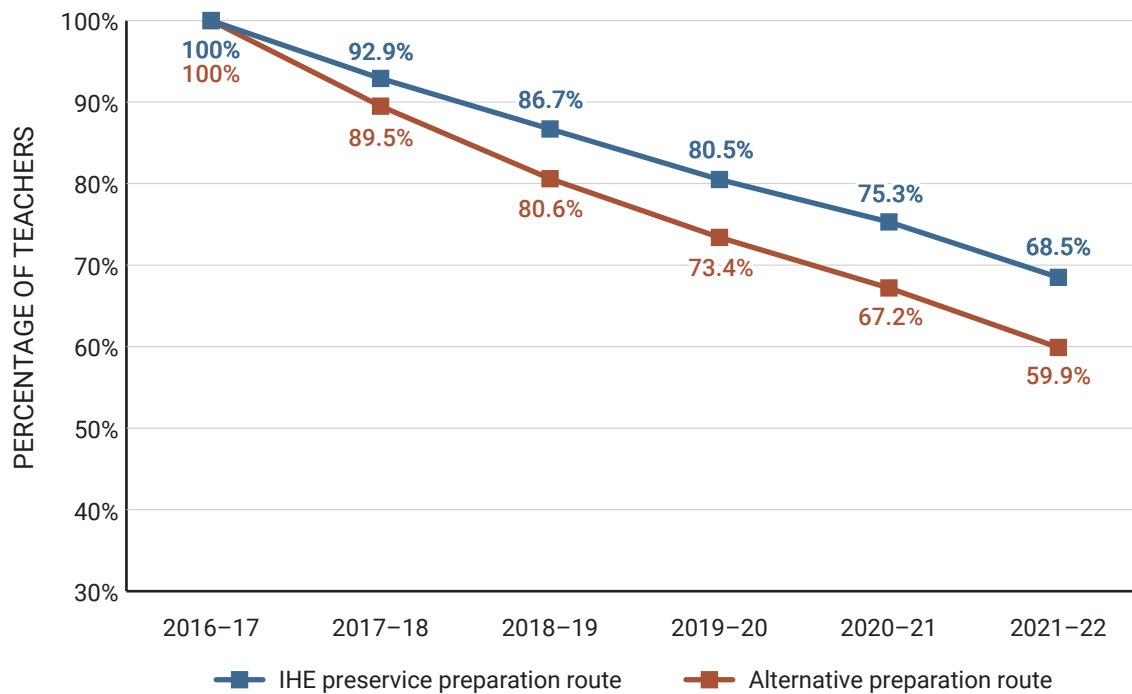
TEA began to pilot the Educative Teacher Performance Assessment (edTPA) as an optional performance assessment in 2019. However, the state has paused in its implementation of the edTPA as a permanent option toward certification and is considering other alternatives, including a Texas-designed performance assessment.<sup>81</sup>

## **Divergent Outcomes by Route Into the Teaching Profession**

The variety of pathways into the teaching profession in Texas have been linked to variations in new teacher persistence in the profession, as well as differences in teachers' effectiveness as measured by student test score gains. On average, traditionally prepared teachers who complete all of their preparation and meet state standards prior to entry in the classroom as a teacher of record stay in the profession longer and foster higher levels of student learning than alternatively-prepared teachers.<sup>82</sup>

For example, statewide workforce data for the 2016–17 entering cohort of Texas teachers—the most recent year for which 5-year retention rates can be calculated—reveal that teachers prepared by undergraduate programs featuring preservice student teaching had higher retention rates in the Texas workforce than teachers from alternative preparation programs, with the gap widening in each of the first 5 years after initial teaching assignment (Figure 9). Additionally, these data undercount attrition for alternatively-prepared teacher candidates who pursued internships because they do not capture the teaching experience of intern teachers until after they have completed their preparation programs and received a standard Texas teaching certificate. A 2021 report by the University of Houston College of Education followed the 2010–11 statewide entering cohort of teachers for a decade and found even larger gaps between traditionally and alternatively-prepared teachers after 10 years.<sup>83</sup>

**Figure 9**  
**Percentage of 2016–17 Beginning Teachers Remaining in Texas Classrooms, by Year and Preparation Route**

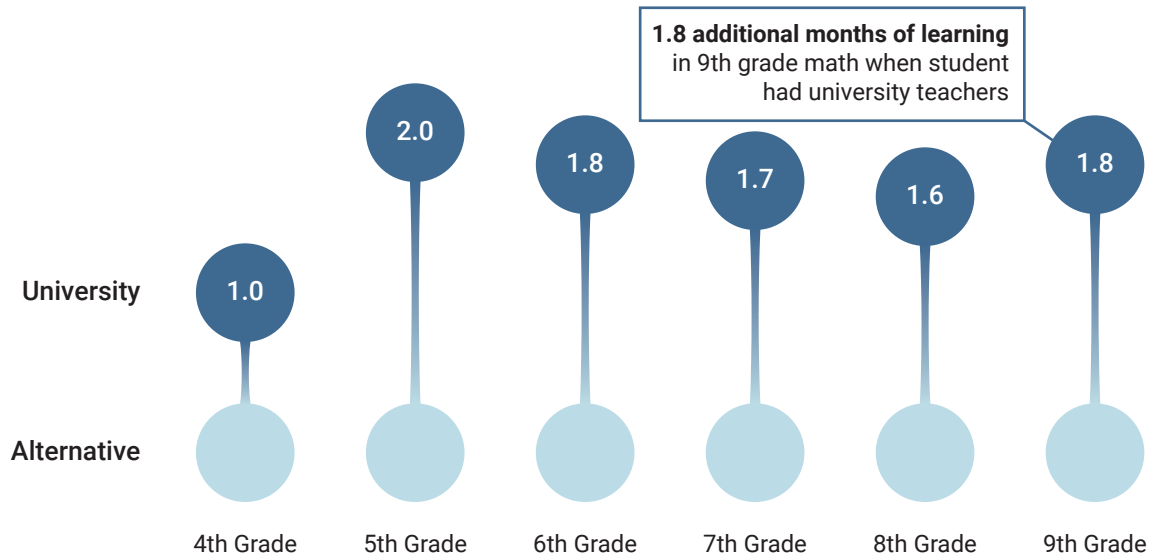


Source: Texas Education Agency. (2022). *Teacher retention by preparation route 2015–16 through 2020–21*.  
<https://tea.texas.gov/sites/default/files/teacher-retention-by-preparation-route-2022.pdf> (accessed 12/06/22).

A 2021 University of Houston College of Education study also found that fully prepared teachers are more likely to persist at campuses classified as low versus middle or high economic need and at campuses with lower versus higher proportions of students dropping out.<sup>84</sup>

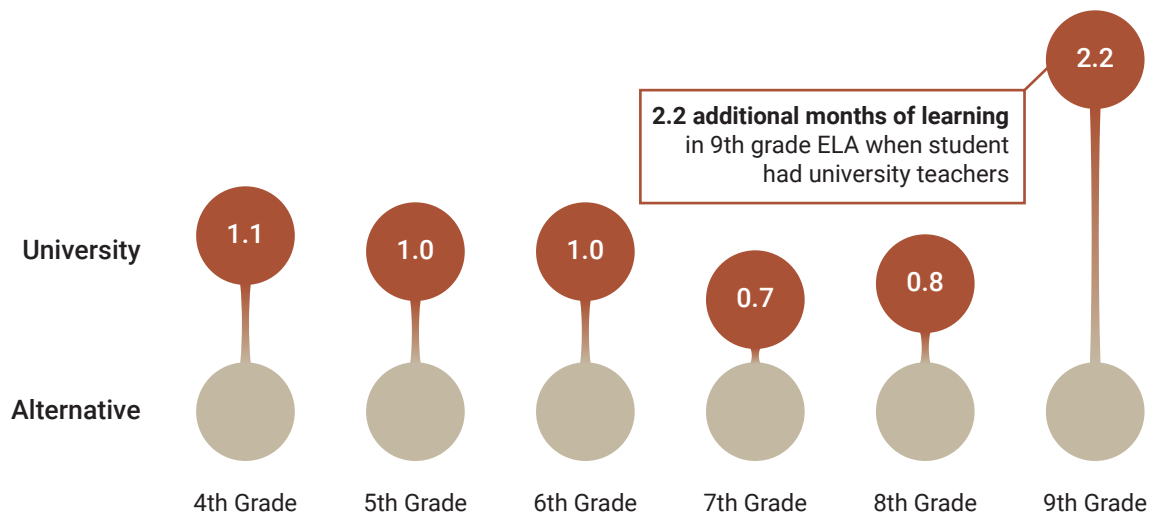
Teacher effectiveness also varies. According to a 2022 report from the University of Texas at Austin (UT Austin), State of Texas Assessments of Academic Readiness (STAAR) test data show that students of teachers prepared in non-institution of higher education (IHE) alternative preparation programs make smaller learning gains relative to students with teachers from university-based preparation programs; these differences show up in every tested grade and subject and accumulate over time.<sup>85</sup> For example, students with IHE-prepared teachers had 2.2 additional months of learning over 1 year in 9th-grade English language arts (ELA), and 1.8 additional months of learning over 1 year in 9th-grade math (Figures 10 and 11), controlling for “campus, individual student characteristics, classroom characteristics, and student scores from the previous year.”<sup>86</sup> As the UT Austin report explained, “For low-income students, having an IHE-certified teacher can offset half or more of the disadvantages that come with living in poverty.”<sup>87</sup>

**Figure 10**  
**Additional Months of Learning in Mathematics per Year With a University-Prepared vs. an Alternatively-Prepared Teacher**



Source: Reproduced from Marder, M., Reyes, P., Marshall, J., Alexander, C., Martinez, C. R., & Maloch, B. (2022). *Texas educator preparation pathways study: Developing and sustaining the Texas educator workforce*. (p. 15). University of Texas at Austin College of Education.

**Figure 11**  
**Additional Months of Learning in ELA per Year With a University-Prepared vs. an Alternatively-Prepared Teacher**



Source: Reproduced from Marder, M., Reyes, P., Marshall, J., Alexander, C., Martinez, C. R., & Maloch, B. (2022). *Texas educator preparation pathways study: Developing and sustaining the Texas educator workforce*. (p. 15). University of Texas at Austin College of Education.

The same UT Austin report also reveals similar trends for students of teachers prepared by nonprofit versus for-profit entities, with students of nonprofit-prepared teachers showing additional weeks to months of learning over students of for-profit-prepared teachers at each grade level in both math and ELA.<sup>88</sup>

In addition, preparation via an alternative route is one of the strongest predictors of out-of-field teaching placement in Texas—i.e., a teacher teaching a subject they are not certified to teach. Teaching out-of-field is much more challenging, and this type of placement is associated with weaker student outcomes.<sup>89</sup>

Unfortunately, alternative certification programs in Texas—whose alumni are less effective and attrit from the profession at higher rates than traditional preservice program alumni—enroll higher proportions of teacher candidates from populations underrepresented in the profession, including twice as many male enrollees and more than three times as many Black enrollees as traditional preservice programs in recent years.<sup>90</sup> In particular, 77% of the Black teacher candidates in the state between 2012 and 2018 enrolled in alternative certification programs.<sup>91</sup> Given the large body of literature pointing to the particular importance of Black teachers for Black student achievement and attainment (when Black teachers are prepared comparably and are as experienced as non-Black teachers),<sup>92</sup> it would be preferable to make stronger preparation pathways more available and affordable for these candidates.

Research shows that teacher candidates of color tend to have higher debt than White teacher candidates.<sup>93</sup> With more than two thirds of teacher candidates nationally having taken out loans to pay for higher education,<sup>94</sup> and higher rates of borrowing among Black and Latino/a teacher candidates than White teacher candidates,<sup>95</sup> choices about preparation pathways are constrained by how much a given program will cost and how much financial support a candidate has.<sup>96</sup> When there is inadequate financial aid, higher program costs for preservice preparation programs can have the effect of incentivizing higher proportions of teacher candidates of color and from low-income backgrounds into pathways that offer less-comprehensive preparation or emergency entry routes, which are associated with lower graduation rates, higher attrition from the teaching profession, and weaker student outcomes.

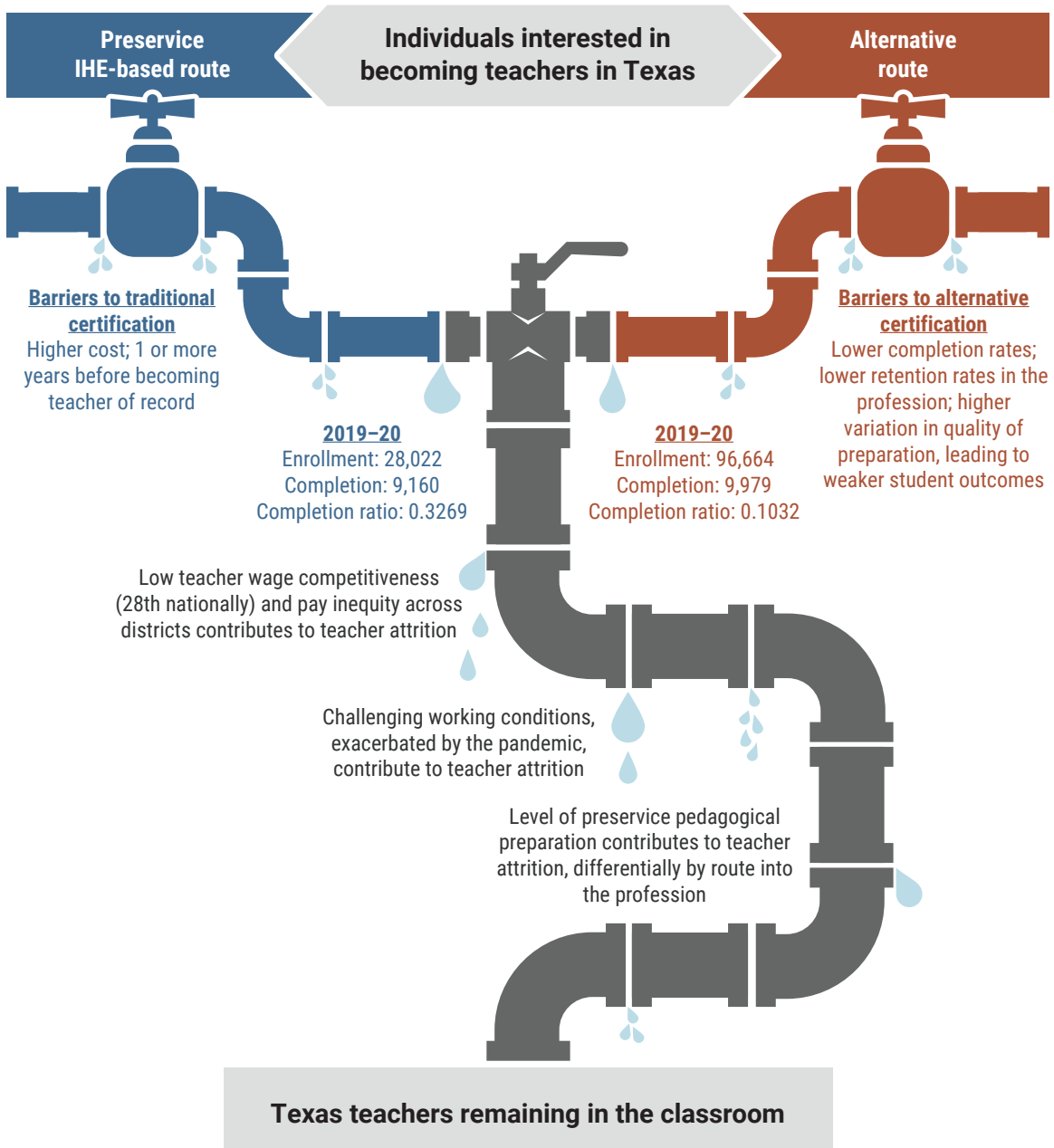
Further, as is the case nationally,<sup>97</sup> Texas schools that employ first-year teachers from alternative certification programs enroll significantly higher proportions of students from low-income families and students of color than campuses that employ first-year teachers from traditional preservice programs.<sup>98</sup> Schools that

employ alternatively-prepared first-year teachers also tend to be larger (explained by the fact that more are middle and high schools) and are more likely to be rated as “improvement required” by the state (i.e., graded “D” or “F” in state accountability ratings).<sup>99</sup> Given the higher attrition rates and lower effectiveness of alternatively-prepared teachers, these statistics are especially concerning.

Additional concerns arise about the subset of Texas teachers with no certification at all, who have likely received even less training than teachers who completed internships. While alternative preparation in Texas has been studied extensively over the past few years, much more needs to be understood about professional backgrounds, trajectories, and student outcomes for the subset of Texas teachers who enter the profession with no certification. Existing research raises questions about the quality of instruction these uncertified teachers provide and their likelihood of remaining in the profession, as well as their disproportionate placements in schools with large populations of students of color. For example, statewide data from 2016 showed that schools with high enrollment of students of color employed more than 4 times as many uncertified teachers and nearly twice as many inexperienced teachers as schools with low enrollment of students of color.<sup>100</sup>

Collectively, these findings reveal substantial leaks in the teacher pipeline at numerous stages—from the point at which candidates first consider becoming teachers but may be deterred, into and through the teacher preparation and certification process, and via attrition for various reasons once teachers do enter the classroom. Figure 12 provides a visualization of these leaks at various points in the teacher pipeline. The details cited in Figure 12 should be interpreted alongside some additional contextual details. For example, time to program completion is typically longer for students in undergraduate IHE-based programs, who often formally enroll in teacher preparation by their sophomore or junior year, versus students in alternative programs and graduate IHE-based programs that can often be completed in 12 to 18 months. Further, the graphic does not account for teachers reentering the profession after time off. Nevertheless, the trends identified in Figure 12 are worthy of concern by Texas policymakers.

**Figure 12**  
**Leaks in the Texas Teacher Pipeline**



Note: Time to program completion is typically longer for students in undergraduate IHE-based programs, who often formally enroll in teacher preparation by their sophomore or junior year, versus students in alternative programs and graduate IHE-based programs that can often be completed in 12 to 18 months. Further, this graphic does not account for teachers reentering the profession after time off.

Sources: U.S. Department of Education. (2022). *Title II national teacher preparation data, 2008–2020*; Allegretto, S. (2022). *The teacher pay penalty has hit a new high: Trends in teacher wages and compensation through 2021*. Economic Policy Institute. <https://www.epi.org/publication/teacher-pay-penalty-2022/>; Texas Education Agency. (2022). *Teacher retention by preparation route 2015–16 through 2020–21*. <https://tea.texas.gov/sites/default/files/teacher-retention-by-preparation-route-2022.pdf> (accessed 12/06/22).

## How Is Texas Addressing Teacher Shortages?

Texas policymakers looking to stabilize the teacher workforce are already working to address various leaks in the teacher pipeline. Key statewide efforts thus far include implementation of research-validated, high-quality innovative pathways into the teaching profession in the form of residencies and Grow Your Own (GYO) programs. Additionally, legislation was passed in 2019 that augments teacher base pay; provides incentive funding for teachers who are designated by their district as “recognized,” “exemplary,” or “master” teachers to teach in hard-to-staff schools; and provides funding for experienced teachers to mentor new teachers. Still, further work remains. The remainder of this report describes the considerable work already underway in Texas to address leaks in the teacher pipeline and provides additional research-based policy recommendations to stem teacher attrition and thereby stabilize the teacher workforce.

### The TCLAS High-Quality, Sustainable Residency Program

In the summer of 2021, the state of Texas combined state funds and federal Elementary and Secondary School Emergency Relief (ESSER) funding (i.e., pandemic stimulus funds) to make \$1.4 billion available for the Texas COVID Learning Acceleration Supports (TCLAS) umbrella of 15 initiatives.<sup>101</sup> “Teacher pipelines” was one of the five TCLAS strategies for accelerating learning, aimed specifically at supporting teacher quality to positively impact student learning by funding teacher recruitment and preparation.<sup>102</sup>

A key initiative to support this goal is the High-Quality, Sustainable Residency Program. This initiative supports districts, working in collaboration with local teacher preparation programs who have been approved by the state as Vetted Teacher Residency partners, to create teacher residencies (a research-validated strategy for improving teacher retention and quality, as described later in this report). The Texas Education Agency (TEA) defines “a high-quality teacher residency model” as:

One in which a teacher candidate is paired with an experienced highly effective mentor teacher for a full year of clinical training/co-teaching in a k–12 classroom (minimum of 3 days per week for full year).... In high-quality teacher residency models, the EPP [educator preparation program] and LEA [local education agency] have shared ownership over the preparation, support, and success of the teacher resident.<sup>103</sup>

The TCLAS High-Quality, Sustainable Residency Program provides districts with \$20,000 per resident to cover their living expenses while they complete the requirements for a standard Texas teaching certificate through the district's Vetted Teacher Residency partner, along with \$5,000 per resident to be used per LEA discretion (e.g., to provide a stipend to residents' mentors, referred to in Texas as their cooperating teachers). As of December 2022, the program had 88 LEAs partnering with 28 state-approved vetted teacher preparation programs;<sup>104</sup> statewide, it had placed 462 residents in the 2021–22 academic year and 820 residents in the 2022–23 academic year.<sup>105</sup>

Notably, the TCLAS High-Quality, Sustainable Residency Program requires that participating districts receive technical assistance on designing and implementing innovative “strategic staffing” models centered on reallocating people, time, and resources to make the financial support they provide to candidates sustainable.

For example, in addition to spending the majority of their time co-teaching under the supervision of a quality mentor teacher, residents may spend approximately 1 day per week serving as a substitute teacher, tutor, or aide. The technical assistance that districts receive on strategic staffing is intended to help LEA partnerships with teacher preparation programs plan for and implement staffing models that address specific instructional needs (e.g., vacancies, subbing, tutoring); it enables LEAs to reallocate and reinvest staff time and salaries to incorporate the residents' assistance in addressing instructional needs in ways that save the LEA money on other staff positions or substitute teachers to sustain paid positions for teacher residents. The expectation is that by year 4 of the program, innovative staffing models will be able to sustainably fund teacher residencies.

TCLAS technical assistance enables LEAs to reallocate and reinvest staff time and salaries to incorporate the residents' assistance in addressing instructional needs in ways that save the LEA money on other staff positions or substitute teachers to sustain paid positions for teacher residents.

Beyond the funding some residencies are receiving under TCLAS and from their districts, some residency programs are also securing federal funds from other sources, such as the federal Teacher Quality Partnership grants and, more recently, federal apprenticeship funding that was made available for teaching apprenticeships.



In describing the strategic importance of the residency program, TEA pointed to not only the high numbers of novice teachers—nearly 35% of Texas teachers had 5 years of experience or less in 2019—but also their concentration in schools serving students from low-income families and students of color.<sup>106</sup>

### **Dallas College Residency Apprenticeship**

Acknowledging the high demand for certified teachers and the ongoing shortage situation, in early 2022 Dallas College announced its launch of the state's first paid teacher residency apprenticeship program. Designed around a residency model and in partnership with the Dallas-area Richardson Independent School District (ISD) and Uplift Education, a charter school network, the innovative program offers local school systems a solution to short-term staffing issues while growing their own pipeline of high-quality, long-term educators. The program provides candidates with substantial field experience: While they are taking coursework at Dallas College, candidates serve as residents 3 days a week in the classrooms of their expert cooperating teachers, then tutor or serve as a substitute for an additional day each week. Residents also participate in a weekly cohort-based meeting, and they receive deep coaching from Dallas College faculty.

The residency structure enables candidates to complete a high-quality teacher preparation program with practical experience in a localized context without incurring major financial expenses. Through apprenticeship initiative funding from the federal Department of Labor and an Apprenticeship Building America grant, the first cohort launched in fall 2022 with students each receiving a \$30,000 stipend to offset financial barriers to teacher preparation. As Richardson ISD's interim superintendent noted, "The [Dallas College] School of Education will graduate students who will not be deeply in debt, so when they become teachers, they won't have to find ways to pay off that debt. The immediate opportunity for Richardson ISD is that we will be able to host and hire students who have spent a year preparing and honing their craft. We think an apprenticeship year increases the likelihood that they will become excellent long-term educators in our district."

Sources: Dallas College. (2022, March 10). First-of-its-kind teacher apprenticeship program in Texas to address need for high-quality teacher talent pipeline [Press release]. <https://www.dallascollege.edu/news/pages/newsitem.aspx?ArticleId=146> (accessed 12/06/22); Dooley, K. (2022). *Benefits of teacher residency programs*. Texas Association of School Boards. <https://www.tasb.org/services/hr-services/hrx/recruiting-and-hiring/benefits-of-teacher-residency-programs.aspx> (accessed 12/06/22); Preston, Q. (2022, July 18). Dallas College is awarded a \$5M Apprenticeship Building America Grant. *Dallas Innovates*. <https://dallasinnovates.com/dallas-college-is-awarded-a-5m-apprenticeship-building-america-grant/> (accessed 12/06/22).

## TCLAS Grow Your Own Programs

As part of its focus on teacher recruitment, TCLAS funds both licensure programs for paraprofessionals and educator training for high school students. The former program provides funding for tuition reimbursement and living stipends either for a licensure program or a combination bachelor's and licensure program for up to six candidates at each LEA that receives a grant.<sup>107</sup> The latter program aims to increase LEA capacity and provide courses in the "Education and Training" track of the state's career and technical education (CTE) program for high school students, leading to an Educational Aide I certification.<sup>108</sup> The TCLAS program adds new cycles to the state's already-existing GYO grant program, which began issuing grants in 2018–19, with Cycle 6 applications due in fall 2022 for a grant period running from 2023 through 2025. As with the residency programs, LEAs must consider program sustainability and inform TEA how they will maintain their GYO programming beyond the grant period.<sup>109</sup>

## H.B. 3 of 2019

Texas policymakers have also been working to enhance teacher compensation. House Bill 3, a school finance bill, passed the Texas state legislature and was signed by Governor Greg Abbott in 2019. The bill directed funding toward several key teacher workforce policy levers, including by raising the minimum pay threshold for Texas teachers and providing access to substantial additional funding for expert teachers, particularly in more rural and/or higher-poverty districts. Specifically, H.B. 3:

- Increased the basic allotment<sup>110</sup> that governs per-student state funding to districts, allowing for the minimum statewide salary schedule to be raised by \$5,000 per step. (While this increase to teacher base pay was much needed, after accounting for inflation, the increase was only enough to bring teachers back up to the level of compensation they were receiving a decade prior.)
- Funded incentive pay of up to \$32,000 per teacher for LEA-designated advanced teachers (based on a combination of observation data, student growth, and other locally defined measures; National Board certification can also qualify an individual for these incentives), with compensation provided at higher rates for teachers in rural and higher-poverty locations (detailed in Table 3).

- Created a Mentor Program Allotment, which allocates \$1,800 per mentee to cover stipends and other costs associated with the mentoring of new teachers. Mentor teachers must be trained, must cover certain topics, must have designated time for mentoring, and must provide mentoring for the entirety of a new teacher’s first 2 years. Districts must apply annually for these funds; if the funding applied for exceeds the state’s annual allocation of \$3 million, funds will be allotted based on need.<sup>111</sup>
- Increased the state contribution to teacher retirement funds.<sup>112</sup>

**Table 3**  
**Teacher Incentive Funding Allocations From H.B. 3 of 2019**

Designation	Base	Multiplier	Tier	Non Eco-Dis	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5
			Student Point Value	X 0	X 0.5	X 1.0	X 2.0	X 3.0	X 4.0
Recognized	\$3,000	\$1,500	Non-rural	\$ 3,000	\$ 3,750	\$ 4,500	\$ 6,000	\$ 7,500	\$ 9,000
			Rural	\$ 4,500	\$ 6,000	\$ 7,500	\$ 9,000	\$ 9,000	\$ 9,000
Exemplary	\$6,000	\$3,000	Non-rural	\$ 6,000	\$ 7,500	\$ 9,000	\$ 12,000	\$ 15,000	\$ 18,000
			Rural	\$ 9,000	\$ 12,000	\$ 15,000	\$ 18,000	\$ 18,000	\$ 18,000
Master	\$12,000	\$5,000	Non-rural	\$ 12,000	\$ 14,500	\$ 17,000	\$ 22,000	\$ 27,000	\$ 32,000
			Rural	\$ 17,000	\$ 22,000	\$ 27,000	\$ 32,000	\$ 32,000	\$ 32,000

Note: Non Eco-Dis = Non-economically disadvantaged.

Source: Reproduced from Texas Education Agency. (2019). *House Bill 3 Texas school finance: 86th legislative session* [PowerPoint slides]. <https://tea.texas.gov/sites/default/files/HB%203%20Master%20Deck%20Final.pdf> (accessed 12/06/22).

## The Teacher Vacancy Task Force

The statewide Teacher Vacancy Task Force, established in March 2022, brings together teachers and school administrators from across Texas once every other month for a year to develop further policy recommendations for reducing teacher vacancies. The task force has split its work into four primary areas: improving educator preparation, strengthening talent pipelines and staffing models, augmenting educator compensation, and improving teacher working conditions.

Final recommendations from the Teacher Vacancy Task Force will not be made prior to the start of the state’s 2023 legislative session. However, as of its October 2022 meeting, the task force has identified preliminary policy trends that will inform its subsequent recommendations. These build upon the work already underway in Texas and align with research-supported best practices. They include further strengthening, incentivizing, and expanding GYO programs and teacher residencies; supporting and incentivizing teacher mentor and leader roles; expanding new teacher induction programs; better defining characteristics of rigorous preservice programs; and requiring intensive preservice practice prior to intern certification.<sup>113</sup>

## **Solving Teacher Shortages: What Does the Research Tell Us?**

Though teacher shortages may be endemic in Texas, they are not inevitable. Research identifies a host of related interventions that can help stabilize the teacher workforce and minimize teacher shortages by addressing the root causes of teacher attrition.

### **Compensation**

A significant body of research suggests that more-competitive compensation contributes to the recruitment of a higher-quality teaching force, as well as to higher retention.<sup>114</sup> Beyond salaries, research shows that providing other aspects of compensation—including access to resources like secured pensions, high-quality health insurance, and housing supports—is associated with an increased likelihood of recruiting and retaining teachers.<sup>115</sup>

### **Service Scholarships and Loan Forgiveness**

Providing financial assistance to prospective teachers in the form of service scholarships for preparation or loan forgiveness programs before or after entry to teaching aids recruitment and retention, including in high-need subjects and schools.<sup>116</sup> Both forms of financial assistance can be tied to subsequent service in the classroom by the recipient. Ameliorating the costs of teacher training can also help encourage teacher candidates who might have otherwise chosen less-comprehensive teacher preparation programs (TPPs) with a lower financial burden to pursue higher-quality routes into the profession. Service scholarship and loan forgiveness programs associated with positive outcomes generally share a set of features. They provide substantial awards, covering all or a large percentage of the cost of teacher preparation. They target high-need fields and schools. They also recruit academically strong, well-prepared, committed teacher candidates. Finally, they require teacher candidates to fulfill teaching commitments for a defined number of years and reinforce this requirement through reasonable financial consequences.<sup>117</sup>

### **Working Conditions and School Climate**

Working conditions and school climate are also significant predictors of teacher retention.<sup>118</sup> In addition to such working conditions as a safe, well-resourced environment with reasonable class sizes, teaching conditions include supports for

collaboration and learning. Teachers working in collegial environments conducive to their professional development and instructional efficacy are more likely to be satisfied with their jobs and continue teaching; they also grow in effectiveness more than teachers in less collegial schools. Key factors include positive relationships with other teachers, high-quality instructional leadership from building administrators, shared decision-making, and a supportive school culture.<sup>119</sup> High-quality instructional leadership and support are essential aspects of positive teacher working conditions contributing to teacher retention, while poor leadership increases the likelihood of turnover and attrition.<sup>120</sup> Research also indicates that the quality of school leaders' preparation influences these practices and, in turn, affects teacher retention.<sup>121</sup>

Unfortunately, teachers in the United States have more-demanding working conditions than their international peers, working longer hours by contract on average than teachers in all but 2 of 48 countries surveyed and spending 8 hours more per week on instructional time, 40% higher than the international average.<sup>122</sup> These circumstances reduce time for collaborative planning and learning, as well as for handling other parts of the job, such as meeting with parents and students and providing feedback to students on their work.<sup>123</sup>

## High-Quality, High-Retention Pathways Into Teaching

Stronger teacher preparation has been linked to increased teacher effectiveness and retention, ultimately influencing both student achievement and school climate.<sup>124</sup>

Widely recognized features of effective teacher preparation include rigorous pedagogical training—for example, through coursework in child development, learning theory, teaching methods, curriculum development, and student assessment that focuses on meeting the needs of diverse learners—along with substantive gradual-release clinical experience in a classroom, typically lasting a semester or more, under the guidance of an experienced teacher mentor. Frequent opportunities to observe experienced teachers and receive feedback are also considered essential.<sup>125</sup> The absence of this type of comprehensive preparation is a frequently cited reason for teacher attrition.<sup>126</sup> Research has shown that teachers who have had comprehensive pedagogical preparation leave the profession at much lower rates than teachers who are untrained or undertrained.<sup>127</sup>

In addition to preservice teacher preparation programs housed at colleges and universities, high-quality teacher residencies are among the more promising pathways into the profession that include the above features. High-quality teacher residencies,

which function much like medical residencies, typically involve tightly coupled coursework provided by a partnering university and a full year of clinical training in a partner district in the classroom of an expert mentor teacher.<sup>128</sup> Across the country, these are often 1-year graduate programs; however, they are also offered at the undergraduate level in Texas. Residencies do not place candidates in the classroom as the teacher of record prior to program completion; instead, they place candidates who are completing their yearlong clinical teacher preparation experiences in the classroom of an expert teacher, and they frequently provide funding for participants. Programs sometimes incorporate 1 to 2 days per week of service to that district in a substitute or paraprofessional role to offset the costs of the resident's stipend.

In many states, in exchange for financial supports for tuition and living expenses, residents agree to accept a 3- to 5-year teaching placement in that district upon program completion. Residencies have been associated with higher retention rates, both at the residency school and in the teaching profession, compared with beginning teachers who did not complete residencies, and some studies have found that residency alumni are more effective than other beginning teachers.<sup>129</sup>

Teacher preparation that builds from a school's local context in the form of Grow Your Own (GYO) programs can also contribute to increased workforce preparation and diversification.<sup>130</sup> GYO programs focus on preparing and supporting an array of local community members to teach in their local schools. Because of the way GYO programs adapt to local contexts, programs may target different local populations, including incentivizing high school or college students to take educational courses as well as school paraprofessionals or support staff who may want to pivot into teaching.<sup>131</sup> Students who are exposed to positive experiences in teaching through GYO programs, including tutoring younger students or taking education courses, are more likely to want to pursue teaching.<sup>132</sup> For mid-career professionals, when GYO programs are designed to provide candidates with financial, instructional, and programmatic support, they help prepare a workforce that is less likely to leave the classroom and reduce districts' frequency of needing to replace teachers.<sup>133</sup> Further, GYO programs have made promising efforts to diversify the workforce by supporting candidates of color toward certification.<sup>134</sup> Though GYO programs vary in structure and target audience, well-designed programs that tap into knowledge of the local community and context pair well with other features of high-quality, high-retention pathways into teaching to help solve teacher shortages.

## New Teacher Induction and Mentoring

Strong mentoring and induction programs can strengthen novice teachers' effectiveness and increase the likelihood of their retention in the profession, thereby benefiting schools and students while reducing teacher shortages. Research shows that teachers who receive the highest-quality induction and mentoring support are roughly half as likely to leave teaching as those who receive no such support.<sup>135</sup>

Strong induction programs provide many kinds of support for new teachers, including professional learning opportunities, reduced teaching loads and release time for shared planning or coaching, mentoring from experienced teachers, and support from administrators.<sup>136</sup> Features of high-quality induction programs associated with positive outcomes include frequent touch points over a new teacher's first 2 years with a veteran teacher who receives targeted training to support new teachers; opportunities to observe expert teaching and be observed; opportunities for formative assessment and examination of student work; and a focus on instructional quality as well as classroom management strategies.<sup>137</sup> These efforts are also vital pieces of the puzzle for their potential to fill in the gaps in preparation of teachers from alternative and non-licensure routes.

High-quality induction and mentoring programs are vital pieces of the puzzle for their potential to fill in the gaps in preparation of teachers from alternative and non-licensure routes.

## Creating a Systemic Approach: Success Stories From Other States

States that have acted on this research have solved shortages, attracted and retained high-quality teachers, and increased student achievement. Both Connecticut and North Carolina provide cases in point.<sup>138</sup> Connecticut's 1986 Education Enhancement Act was a linchpin of the state's education reforms.<sup>139</sup> In the face of severe teacher shortages in high-need districts, the legislation coupled major increases in teacher salaries with higher standards for teacher education and licensing. Funds were allocated on an equalizing basis tied to district wealth and the number of fully certified teachers, creating incentives for districts to recruit those who met the new certification standards and for individuals to meet those standards. With these incentives, plus service scholarships to underwrite preparation for high-need candidates and a new mentoring program for all beginning teachers, the state eliminated emergency credentials and attracted a surplus of high-ability teacher candidates within only



3 years. Connecticut also invested deeply in training for principals and ongoing professional development for teachers. Following steep gains throughout the decade, by 1998 Connecticut 4th-graders ranked first in the nation in reading, writing, and mathematics on the National Assessment of Educational Progress, even as the numbers of students from low-income families, minority students, and new immigrant students in its public schools were increasing.<sup>140</sup>

In North Carolina, the Elementary and Secondary School Reform Act of 1983 enhanced and equalized school funding and teacher salaries and increased standards for entering teaching and school administration. It also authorized a noted service scholarship program—the North Carolina Teaching Fellows program—to recruit thousands of talented students into strong teacher preparation programs and expanded professional development, eliminating teacher shortages. North Carolina also increased licensing requirements for teachers and principals and required national accreditation for all publicly funded schools of education, leading many colleges to improve their curriculum and increase their investments in preparing teachers. Studies now show that teachers trained by North Carolina teachers' colleges are more effective and stay in the profession longer than other teachers in the state.<sup>141</sup> North Carolina's 1997 Educational Excellence Act allocated funds to further upgrade salaries as well as the quality of teacher preparation and mentoring. It also created a 12% salary increase for teachers who achieved National Board certification, an accomplishment that has been associated with greater teacher effectiveness.<sup>142</sup> It also substantially upgraded principal training and support for principals to experience intensive internships as part of their training, another move associated with greater effectiveness for principals and their teachers. During the 1990s, the National Education Goals Panel noted that North Carolina posted the largest student achievement gains of any state in mathematics and realized substantial progress in reading. It was also the most successful state in the nation in narrowing the achievement gap between White students and students of color.<sup>143</sup>

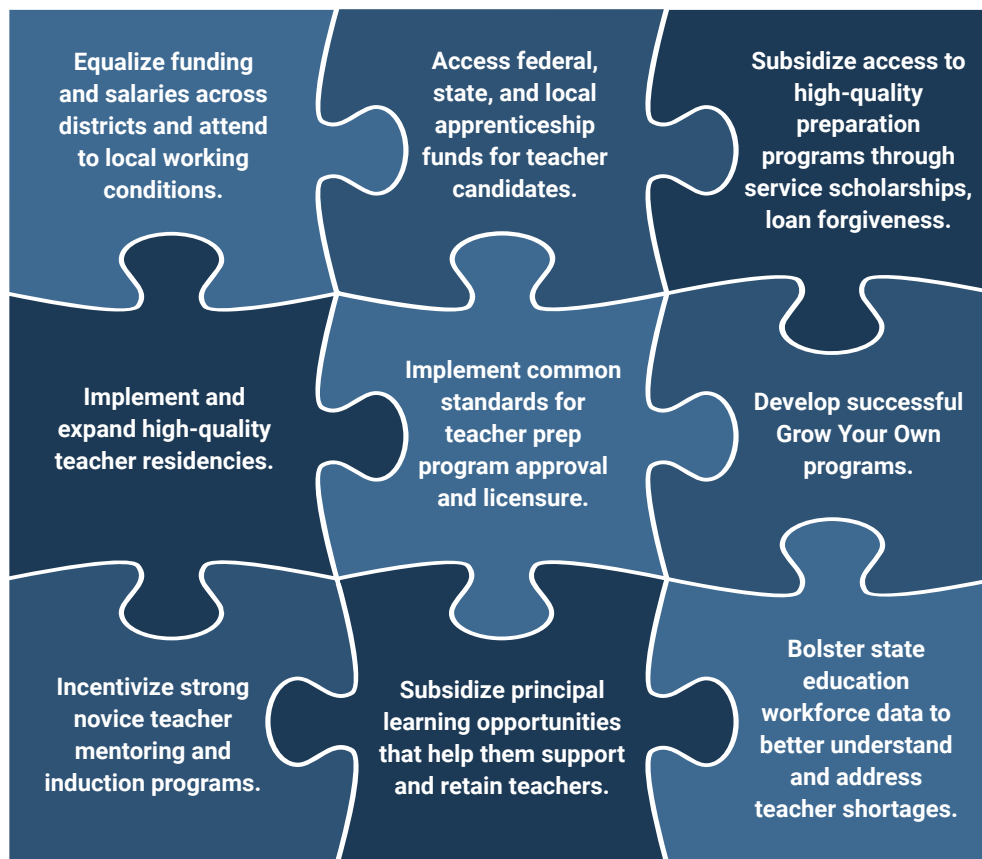
## Policy Recommendations

Texas policymakers have acknowledged the importance of “highly qualified teachers,” and the state has launched a number of promising initiatives to address teacher workforce challenges. The unique teacher workforce context in Texas, and the magnitude of the challenges that arise in this context, suggest that substantial work remains to improve teacher preparation and retention sustainably and at scale. The recommendations below are based on evidence about what matters for recruitment and retention at different phases of the teacher pipeline, including preparation, recruitment and hiring, induction, and beyond, taking up issues of access as well as issues of quality.

Taken together, these two areas of focus—creating state systems to both ensure access and guide stronger practice—work in ways that are necessarily interconnected. It is important to consider how to strengthen both teacher preparation systems and teacher candidate pipelines in order to create the conditions in which teacher candidates are provided with learning experiences needed to serve all students effectively and in which there is a sufficiently large and diverse supply of aspiring teachers entering the pipeline and the profession. It is equally important to shore up efforts to retain effective teachers; for every teacher who stays in the classroom, there is one less vacancy to fill, thus alleviating pressure to recruit another new teacher. Retain enough teachers, and the demand on overall recruitment systems becomes much more manageable. While these research-based recommendations address parts of these systems separately, the policy moves indicated here should be seen as interconnected and mutually reinforcing (Figure 13).

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**Figure 13**  
**Combined Strategies to Address Teacher Shortages**



Source: Learning Policy Institute. (2023).

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Given the magnitude of the state’s teacher workforce challenges, sustainably improving teacher preparation and retention in Texas will require building upon the progress already made. Policy strategies can include:

1. **Continue to increase the attractiveness of teaching by equalizing funding and the purchasing power of salaries across districts and calling attention to local working conditions.** As noted earlier, Texas places 28th in the country in average teacher salaries and salary competitiveness and offers dramatically unequal salaries across districts. Stagnating salary growth for mid-career teachers is a particular concern. H.B. 3 in 2019 offered a first step toward addressing these needs.

Across the country, states are addressing compensation concerns in a variety of ways. Alabama and New Mexico, among others, have taken the step of directly raising salaries to increase the competitiveness of teacher pay compared to other professions.<sup>144</sup> Other states, such as Florida and Georgia, are using federal recovery funding to offer teacher retention bonuses.<sup>145</sup> Another route to increase pay, with the additional benefit of encouraging teacher leadership and professional development, is providing compensation for teachers to take on leadership roles or enhance their expertise, such as by becoming mentors or becoming National Board–certified teachers. For example, California is offering \$25,000 stipends to National Board–certified teachers who teach and mentor other teachers in high-poverty schools.<sup>146</sup> Loan forgiveness and service scholarships (see next recommendation) also function to enhance compensation.

Building on H.B. 3, Texas policymakers can examine the competitiveness of wages across districts, set long-term goals for investment, and consider a range of means to enhance compensation and equalize purchasing power over time. If the state were to work toward increasing salaries and equalizing purchasing power, it would allow districts to account for cost-of-living differences across the state, while still enabling districts' teacher salaries to become more competitive in their local labor markets; this would bring teacher compensation into closer alignment with compensation for other jobs requiring similar levels of education and experience. Such efforts also may include differentiating pay in certain harder-to-staff fields. For example, increasing pay for secondary math and science teachers would help districts compete with other employers recruiting candidates with math and science expertise.

Members of the Teacher Vacancy Task Force concurred that the lack of recent wage increases outside of H.B. 3 impair teachers' ability to keep up with the rising costs of living in many districts.<sup>147</sup> A growing number of states and districts have found that, in addition to wages and benefits, compensation incentives can include housing and child care supports where those are needed.<sup>148</sup> As the Teacher Vacancy Task Force formalizes their set of recommendations, their discussions at their October 2022 meeting pushed past basic allotment increases to broader discussions about improving teacher compensation. The task force expressed interest in making recommendations that improve teachers' access to health care, child care, leave days, and housing vouchers or subsidies.<sup>149</sup>

The state can also sponsor a survey,<sup>150</sup> like those used in North Carolina and many other states, to provide actionable data to local policymakers that illuminates current conditions influencing supply and demand and informs ongoing efforts to improve the attractiveness of teaching jobs.

In high-performing education systems, professionalized teaching structures offer support for collaboration and for career ladders that offer teachers opportunities to take on leadership roles and contribute to professional development for themselves and others.<sup>151</sup> Support for collaboration comes in the form of shared planning and observation time linked to professional development and evaluation systems, while career advancement is facilitated by compensation and training connected to increased responsibility.<sup>152</sup> These features of high-performing systems have been shown to improve teacher recruitment and retention.<sup>153</sup> Similar structures in U.S. schools, including disciplinary and grade-level teaching teams that allow for shared planning and professional development and facilitate student cohorts and advisory structures, are associated with improved outcomes for teachers and students.<sup>154</sup> Because Texas has already linked changes in teacher preparation to innovative staffing models through the Texas COVID Learning Acceleration Supports (TCLAS) grant program, this creates an opportunity for policymakers to consider how staffing changes can not only support sustainable preparation models but also contribute to retention for more experienced educators.

2. **Subsidize access to high-quality preparation programs** by funding service scholarships and/or loan forgiveness for teacher candidates that are repaid through service in the profession. A significant challenge in any state system of teacher preparation and licensure is ensuring broad access to high-quality preparation. Reducing standards by eliminating student teaching and coursework requirements to create immediate (though often temporary) supply is a strategy that has not proven effective at addressing persistent teacher workforce needs in Texas. Alternatively, providing financial aid that underwrites educator training can support candidates in choosing high-quality preparation routes. Providing financial assistance for prospective teachers can thereby increase both the size and diversity of the teacher candidate pool. This type of financial aid can also incentivize teachers to choose high-need subjects and locations.

When considering state priorities in meeting workforce goals, loan forgiveness and service scholarship programs can be tailored to provide a range of incentives. Such a move balances program accessibility with a focus on meeting schools' needs. Many states have implemented teacher incentive programs focused on high-need candidates and fields. The North Carolina Teaching Fellows program covers the cost of preparation for candidates enrolled in high-quality educator preparation programs who are seeking licensure in special education and in the STEM fields.<sup>155</sup> California has recently expanded its \$20,000 Golden State Teacher Grants to cover all subject areas for candidates who teach at high-priority schools, investing \$500 million to recruit at least 25,000 candidates over the next 5 years.<sup>156</sup>

The United States largely eliminated teacher shortages in the 1970s, in part through a large forgivable loan program under the National Defense Education Act, which repaid students' college loans on a pro rata annual basis when they entered teaching, with full forgiveness over 5 years for all teachers and over 3 years for those who taught in high-poverty schools or in high-need fields. More recently, Nebraska and North Carolina have doubled the amount of loan forgiveness for educators teaching in high-needs schools.<sup>157</sup> Other states, prioritizing the diversification of their teacher workforces, have aimed programs at recruiting teachers of color and required only that they teach in state public schools, focusing on workforce demographics instead of workforce distribution, while also offering flexible admissions options.<sup>158</sup> Texas can consider designing a program of supports that meets its specific needs, focusing on recruiting candidates into well-supported, high-yield, high-retention programs that will keep them in the profession over the long term.

- 3. Attend to the preparation and professional learning of building administrators regarding how to support and retain teachers** through subsidies for participation in and replication of successful administrator training programs. Because school leaders play a central role in shaping the norms, systems, and culture of schools, policymakers should consider school leadership as a lever for improving professional practice and working conditions.<sup>159</sup> Texas's principal preparation and certification systems have been in the process of change in recent years, providing a foundation upon which future work can build.

After adopting new principal standards in 2016, the state made changes to preparation, including the adoption of a new certification assessment, the Performance Assessment for School Leaders (PASL), rolled out in 2019.<sup>160</sup> Using a performance assessment aligned to state and national standards for certification of school leaders may help focus clinical preparation and leverage skill development.<sup>161</sup>

Another step Texas policymakers have taken is the Texas Education Agency Principal Residency Grant initiative. Currently in its sixth cycle of grant funding, with almost \$6.5 million made available through 2023–24, this initiative provides grants to qualifying local education agencies (LEAs), which must apply and must have at least one low-performing school according to state accountability ratings and/or at least one school labeled Targeted, Additional Target, or Comprehensive per 2019–20 Federal Title I status.<sup>162</sup> Using federal funding, the program provides grants of \$70,000 per resident, also requiring a \$15,000 LEA match per resident to support the yearlong clinical experience along with LEA commitments to program features, such as targeted recruiting and gradual assumption of leadership responsibilities, among others.<sup>163</sup> LEAs that apply for residency grants must partner with leadership preparation programs on the state’s Vetted Principal Residency Program List, which currently includes 18 university-based programs and one educational service center (ESC).<sup>164</sup> Programs on this list must meet the state’s definition of a residency, which includes a full year of clinical experience, focused on administrative support for teaching duties, under the guidance of a mentor principal.

A next step for Texas to consider would be to expand currently targeted residency support to a statewide system, tightly linked to the standards and assessments in place. Texas might look to North Carolina for a long-running example of a statewide program focused on school leader preparation. The North Carolina Principal Fellows Program, launched in 1993, included a year of graduate study along with an additional year of full-time, supervised administrative internship, with candidates receiving scholarships in exchange for 4 years of post-program employment as a North Carolina school administrator.<sup>165</sup> Research on program outcomes not only showed high rates of program participants entering the principalship and remaining in administrative positions, but also found positive impacts on school working conditions and teacher retention in schools employing program alumni, as compared to schools that employ non-program

principals.<sup>166</sup> Though the program was folded into another state grant program in 2020, preparation programs receiving this grant must offer many of the same features.<sup>167</sup>

**4. Support expansion and implementation of high-quality teacher residencies.**

Providing support for demonstrably high-quality, high-retention pathways into the profession—including, but not limited to, residencies like those within the new TCLAS program—could simultaneously increase teacher supply, diversity, and preparedness while reducing attrition. Such support—including funding as well as technical assistance—can build upon the state’s initial investment. This support should be informed closely by ongoing research into the implementation and effectiveness of the TCLAS residency program and others operating in Texas and elsewhere.

Even before the onset of the pandemic, states across the country began adopting residency models that provide both strong clinical preparation and ongoing mentoring after employment, increase teacher diversity, and improve retention.<sup>168</sup> These residencies provide financial supports for teacher candidates, who experience a full year of clinical learning integrated with their credential coursework in exchange for 3 or 4 years of service in the partnering school district. Among these states are Delaware;<sup>169</sup> Indiana;<sup>170</sup> Mississippi;<sup>171</sup> New Mexico;<sup>172</sup> and Pennsylvania, where residencies have shown positive results in placing teachers in high-need schools and subject areas.<sup>173</sup> In the largest such initiative nationally, California has allotted \$500 million over 5 years for residency grants to districts and their teacher preparation program (TPP) partners.<sup>174</sup> A forthcoming study found that 40 California residency programs prepared at least 1,180 candidates in 2022, and these programs received the highest ratings from graduates for effective preparation of any program model in the state.<sup>175</sup>

Texas will benefit from examining the outcomes of these states’ efforts as well as the outcomes of its own new programs as it considers how to continue support for programs funded under the TCLAS initiative. These actions align with the Teacher Vacancy Task Force’s prioritization of scaling up paid, yearlong residencies as a strategy to bolster the teacher pipeline, especially residencies at TPPs and in programs that prepare teachers for hard-to-staff fields and rural locations.<sup>176</sup> Funding for the TCLAS program is limited in duration, in part because of the state’s reliance on federal Elementary and Secondary School Emergency Relief (ESSER) funding, and in part because the program was designed



to establish sustainable residency models that would not require continuing state and federal support. Funding timelines for federal and state funds run into the fall and spring of 2024, respectively. Each district is required to commit to maintaining its residency program with the original \$20,000 stipend only through the 2024–25 school year.<sup>177</sup> Yet even if these models are successful, there will be funding needs associated with expansion of scope in the current districts, new efforts in other districts, and potential improvements based on what is learned in this process.

- 5. Develop a range of successful Grow Your Own (GYO) programs that recruit and train teachers from within local communities.** These can include career pathways that start with high school students and use dual-credit courses and tutoring opportunities to launch them into teacher training programs, as well as routes to licensure for candidates with roots in local communities, including working paraprofessionals, who are already invested in the successful local schools and are likely to continue teaching in them on a long-term basis.<sup>178</sup>

South Carolina and Washington are among the states successfully implementing high school career pathways GYO models, which show promise in contributing to the growth and diversity of the teacher workforce over time.<sup>179</sup> California’s classified staff recruitment model supported paraprofessionals in entering teaching, with strong yields and retention outcomes.<sup>180</sup> Tennessee also used funding from the CARES Act to expand GYO programs, providing candidates in paid paraprofessional positions with teacher training leading to a credential plus specialization in special education or English learner development.<sup>181</sup> Well-designed models have proven to improve teacher retention as well as diversity.<sup>182</sup> Incentives to districts and preparation programs, and supports for candidates, can enable more of these high-retention models. Texas policymakers can also study the success of those GYO programs launched through TCLAS to expand and replicate the most useful models. In doing so, the state would align its actions with the Teacher Vacancy Task Force’s working recommendations to create “strong supports for early GYO pathways via high school education and training courses” and to attract local talent (e.g., paraeducators) into the profession.<sup>183</sup>

- 6. Access federal, state, and local apprenticeship funds to enable teachers to learn and earn as they complete student teaching or residency experiences under the wing of expert teachers.** Texas teacher education programs are beginning to access apprenticeship funds to support clinical learning for

prospective teachers. Brazosport Independent School District is using both state workforce commission and federal Department of Labor funds to support entry pathways, starting with high school students and extending through college and graduate-level training. To supplement external funding, the district maintains a sustainable local funding source by diverting money from its attrition budget—i.e., funds set aside to replace departing teachers and paraprofessionals—toward this front-end workforce investment, which enables teacher candidates to “earn while they learn.”<sup>184</sup> Dallas College has created an approach that uses apprenticeship funds to support its residency programs with both its local independent school district and a local charter management organization, Uplift Education. The state can facilitate this access by allocating some of its state discretionary funds under the Texas Workforce Innovation and Opportunity Act for this purpose and by documenting and disseminating successful local program models.

Tennessee’s Teacher Occupation Apprenticeship offers an example of how apprenticeship funds can support candidate development.<sup>185</sup> In a partnership with the federal Department of Labor, an institution of higher education (IHE)-based teacher preparation program, and a local school district, Tennessee built on its GYO program expansion to offer an innovative path toward teacher licensure that leverages permanent federal and state workforce dollars. Candidates are paid as they gain 3 years of teaching experience in the classroom of a veteran teacher while completing a university-based teacher residency program. As a Registered Apprenticeship, Tennessee’s approach ensures that a locally designed program meets national quality standards, thereby lowering the barriers of entry into the teaching profession through a sustainable strategy to reduce the state’s teacher shortages.<sup>186</sup>

**7. Strengthen all routes into teaching by using common standards for candidate learning in program approval and accountability strategies**

that ensure supports for candidates and data for program improvement. Such data, used well, can catalyze a culture of continuous improvement for teacher preparation programs rather than fostering a focus on compliance.

Currently, Texas holds different expectations regarding learning experiences and outcomes for different types of programs. Minimum standards are quite low, including, for example, only 30 hours of clinical practice, which may or may not include coaching or mentoring. Tools to understand how different programs are preparing candidates are limited and are not used with alumni of all program

types. A state survey of first-year teachers is helpful, but it has a low response rate and is accessed only by those holding a standard certificate; it includes data about candidate perceptions of their programs, but not about the programs' offerings and supports. A survey of program completers measures only perceptions of supervision in student teaching for those who encountered student teaching; it is not linked to individual candidates or made publicly available by the state. Creating standards and measures that allow the state to examine how well teacher preparation programs meet comparable expectations for preparation, completion rates, and retention can both increase the availability of higher-quality programs and incentivize candidates to choose such programs.

State systems that function to guide high-quality practice include consistent standards for candidate learning opportunities, regardless of whether a candidate is trained through a traditional or alternative preparation program or an innovative model such as a teacher residency. Such consistent standards reflect what the profession knows about how people learn, about performance assessments that assess what educators can do in practice, and about teacher preparation and program approval processes that examine what programs provide and what candidates learn. Even when program models differ, expectations for learning opportunities can be common. For example, with a large number of alternative and traditional preservice programs, California evaluates teacher candidates' access to coursework that allows them to meet the statewide Teacher Performance Expectations, with key courses required before entry as teacher of record. California also evaluates teacher candidates' access to a minimum of 600 hours of guided clinical practice, which may occur during traditional student teaching, during a residency placement, or during well-mentored internships where in-classroom coaching, supervision, and supports for planning and problem-solving are put into place. Surveys of completers look especially at what candidates have had the opportunity to learn deeply (e.g., how to teach reading; how to teach English learners) and what clinical supports they receive (e.g., the extent of student teaching, the availability and helpfulness of mentor teachers, the amount of support for curriculum planning).

A number of states are beginning to provide common measures of candidates' learning experiences and outcomes for all programs—traditional and alternative—as information both for the public and for the accreditation or approval process. These can include survey data about candidates' coursework

and clinical experiences and preparedness (completed online en route to the teaching certificate or credential for high response rates); employer surveys about the preparedness of recruits; the results of performance assessments; program admissions, diversity, and graduation rates for different licensing areas; and entry and retention rates in teaching. Detailed data can be provided to programs for their own internal program improvement, reported on state dashboards, and/or used as flags in the program approval or accreditation process where challenges are apparent.

8. **Incentivize strong mentoring and induction programs** that can support novice teachers' ongoing professional learning and increase the likelihood of their retention in the profession. These programs can benefit schools and students by enhancing beginning teachers' effectiveness while reducing teacher shortages. These efforts are also vital pieces of the puzzle for their potential to fill in the gaps in preparation of teachers from intern and non-licensure routes. Research has shown that induction programs that produce these positive outcomes include key features such as mentor training, common planning and collaboration time for mentors and new teachers, a focus on quality instruction and classroom management, and opportunities for observation and assessment.<sup>187</sup>

Texas has previously sponsored several kinds of induction programs. Beginning in 1999, Texas sponsored the Texas Beginning Educator Support System (TxBESS), which was designed around features common to high-quality induction, including mentoring, shared planning time, and ongoing feedback and development based on professional standards. The almost 12,000 TxBESS participants in over 300 districts from 1999 to 2003 were found to be more likely to stay in teaching, with larger effects for teachers of color, and these positive outcomes also held in schools serving students of color and students from low-income families.<sup>188</sup> However, statewide TxBESS funding was not sustained by the legislature beyond that period due to budget cuts.<sup>189</sup> A Beginning Teacher Induction and Mentoring program, funded from 2006 through 2011, was not noted for its impact.

Currently, the small-scale Teacher Mentor Program Allotment, created by H.B. 3 in 2019, offers grants of up to \$1,800 per mentee to district applicants for mentor stipends, compensation, and training. The \$3 million appropriated in 2020–21 would have covered mentor supports for about 1,600 of the approximately 27,000 new-to-the-profession teachers in the state in that year. Federal funds also provide some mentor support for residents supported through TCLAS.<sup>190</sup>

A number of states are currently strengthening their mentoring efforts to meet the present challenges in the educator workforce. For example, New Mexico has recently required that all new teachers receive a year of mentoring support from teachers who have achieved more advanced levels of licensure.<sup>191</sup> The state's Public Education Department plans to expand funded induction and mentoring to a full 2 years, consistently implemented across districts.<sup>192</sup> Delaware's Comprehensive Induction Program provides 4 years of induction and mentoring for all new teachers, including 2 years of specified meetings, observations, and learning sessions and 2 additional years of professional learning community participation.<sup>193</sup>

In their August 2022 meeting, Texas's Teacher Vacancy Task Force focused on "extensive, differentiated, and sustainable" mentoring as part of a quality clinical experience and recommended the selection of well-qualified and sufficiently compensated mentors so "preservice teachers receive high-quality mentorship, feedback, supervision, and support during their experience."<sup>194</sup> Research suggests that at least a 2-year program of mentoring from expert mentors chosen for their own accomplished teaching should include in-classroom coaching as well as support for curriculum planning and problem-solving around student needs. Seminars in areas such as special education, teaching English learners, and working with parents help beginners tackle areas of need. Mentors benefit from being in a learning community with each other to problem-solve and sharpen their mentoring skills. The findings of the task force may provide a jumping-off point for large-scale state action on induction, building off of recent efforts and drawing not only from contemporary examples in other states, but also from Texas's own past success with the TxBESS program.

- 9. Bolster the state's educator workforce data systems to provide data to better understand supply, demand, and shortages, and their relationship to preparation, mentoring, and working conditions.** Understanding where and why teachers and teacher candidates enter and exit the pipeline is an additional policy imperative. Texas currently has many data elements about its teachers and some about their preparation that provide a partial understanding of these issues. Policymakers and practitioners would especially benefit from an integrated data system that could track who enters what programs; what sort of coursework, classroom experience, and training new teachers receive; where and when they enter and exit teaching positions; what kind of conditions they work

in (measured by working conditions surveys integrated into the state’s educator data system, as is the case in some other states); how this relates to their practices and their persistence in the profession; and what can be learned about student outcomes. Providing the capacity to disaggregate by region and/or district would be further instructive for district leaders as they navigate their local teacher labor markets, as would data systems that create transparency about school staffing (e.g., vacancies, teachers with substandard credentials, teachers teaching out-of-field). It will be important to track whether current and future investments in high-quality preparation improve these outcomes and what is working to strengthen the state’s ability to provide a stable, diverse, well-prepared teacher workforce for all students in Texas.

## Conclusion

Systemic challenges for the Texas teacher workforce have been created via a large yearly demand for new teachers that has been exacerbated by high and climbing teacher attrition rates. These challenges warrant close attention from policymakers. Fortunately, substantial work is already underway in Texas to address teacher shortages and stabilize the teacher workforce, but more remains to be done. A range of targeted policy interventions, guided by successful experiences in other states, can help address the key factors that influence workforce stability. These policy interventions include investing in high-quality preparation models; reducing financial barriers to entry for teacher candidates; increasing teacher compensation; and supporting improvements to teacher induction and teacher working conditions. Improving state educator workforce data to better understand and address teacher supply and demand issues is also a key policy imperative.

## Appendix A: Additional Data

**Table A-1**  
**New Teachers in the Texas Workforce (Excluding Rehires), 2007–08**  
**Through 2021–22**

Academic Year	Total New Hires Minus Reentry	No TX Cert./ Permit	Emergency Permit	Intern Cert.	Standard Cert., Direct Entry	Standard Cert., Lagged Entry	Standard, Out-of-State Cert.	One-Year, Out-of-State Cert.	Prev. Part-Time
2021–22	30,745	27.44%	2.58%	26.93%	21.46%	6.78%	3.86%	6.83%	4.11%
2020–21	30,010	15.50%	0.84%	46.14%	18.99%	5.40%	3.71%	5.32%	4.10%
2019–20	29,101	18.32%	1.42%	34.19%	23.74%	6.99%	3.90%	6.75%	4.68%
2018–19	27,258	16.15%	1.26%	34.80%	25.27%	7.12%	3.55%	7.32%	4.54%
2017–18	29,577	14.23%	0.81%	36.83%	25.16%	7.34%	3.18%	7.31%	5.14%
2016–17	30,366	11.43%	0.50%	40.02%	24.05%	7.71%	3.41%	8.20%	4.68%
2015–16	30,250	10.21%	0.46%	39.74%	25.30%	8.56%	3.86%	7.82%	4.05%
2014–15	31,333	9.47%	0.40%	38.07%	26.50%	10.39%	3.38%	7.47%	4.33%
2013–14	30,537	9.21%	0.50%	33.72%	28.08%	14.48%	3.17%	6.30%	4.54%
2012–13	26,459	8.06%	0.50%	30.58%	28.92%	18.88%	2.90%	5.20%	4.97%
2011–12	16,964	9.35%	0.53%	30.66%	31.56%	13.64%	2.91%	3.63%	7.71%
2010–11	24,204	7.98%	0.43%	40.32%	26.66%	10.34%	3.31%	5.44%	5.52%
2009–10	25,340	8.28%	0.55%	41.97%	26.59%	7.08%	3.11%	5.97%	6.47%
2008–09	29,195	9.36%	0.66%	42.94%	27.14%	5.92%	2.44%	6.45%	5.10%
2007–08	31,585	9.35%	0.73%	42.77%	26.63%	5.21%	2.97%	7.26%	5.09%

Source: Authors' calculations derived from Texas Education Agency. (2022). *Employed teacher attrition and new hires, 2007–08 through 2021–22*. <https://tea.texas.gov/sites/default/files/employed-teacher-attrition-and-new-hires-jbl220825.pdf>



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