TEXASDATE<

Texas Classroom Teacher Certification



Contributing Authors:

Toni Templeton Sara R. Sands Catherine L. Horn Sherri Lowrey Jeanette Narvaez

2022

Acknowledgments

This report was produced for Philanthropy Advocates, a collaboration with Educate Texas. Philanthropy Advocates is comprised of over 55 foundations and United Ways and philanthropists from across Texas interested in ensuring that policymakers, parents, educators, media, and the general public have objective data about Texas public and higher education. Since their founding a decade ago, Philanthropy Advocates (formerly Texas Education Grantmakers Advocacy Consortium) has harnessed the power of philanthropy and data-driven research to achieve their vision: to see all Texas students achieve their educational goals from cradle to career. For more information on Philanthropy Advocates, please visit philanthropyadvocates.org.

The authors of this report are grateful to Philanthropy Advocates staff and supporters who were involved in project design and provided feedback on results. The authors would also like to thank Diana D'Abruzzo for their assistance throughout the project.

Table of Contents

List	of Tables	6
List	of Figures	7
List	of Acronyms Used in This Report	8
Exe	cutive Summary	9
	Background	9
	Overview of the Texas Teacher Workforce	10
	Uncertified Teachers in Traditional Public Schools	11
	Uncertified Teachers in Public Charter Schools	11
	Limitations & Implications	12
Inti	roduction	13
Sec	tion 1: Key Texas Public School Teacher Certification Policy Review	13
	State Board for Educator Certification	15
	Charter Schools	15
	Alternative Certification Programs	15
	School District Teaching Permit	16
	Districts of Innovation	16
Sec	tion 2: Data and Methods	17
	Key Terms and Definitions	17
	Limitations	22
Sec	tion 3: Overview of the Texas Teacher Workforce	23
	Total Teacher Population	23
	Teacher Characteristics	24
	School Characteristics	25
	Attrition and Mobility	28
	Certification	30
	Conclusion	33

Section 4: Uncertified Teachers in Traditional Public Schools	34
Certification Status of All Teachers in Traditional Public Schools	34
Teacher Characteristics	35
School Characteristics	36
Attrition and Mobility	38
District of Innovation	40
Subject Area	41
Section 5: Uncertified Teachers in Public Charter Schools	43
Certification Status of Teachers in Public Charter Schools	43
Teacher Characteristics	44
School Characteristics	45
Attrition and Mobility	47
Subject Area	49
Section 6: Discussion	51
Uncertified Teachers in Traditional Public Schools	51
Uncertified Teachers in Public Charter Schools	51
Implications	52
References	53
Appendix A: An Exploration of Teacher Salary and Certification	55
Texas Traditional Public School Teacher Salary Per Certification Status	56
Texas Charter School Teacher Salary Per Certification Status	57
Appendix B: An Exploration Into Texas Teacher Earnings and Student Loan Debt	58
Teacher Education Requirements	58
Teacher Student Loan Debt	58
First-Year Teacher Salary	58
Conclusion	59

List of Tables

Table 2.1	Texas State Board for Educator Certification Teacher Certifications	19
Table 3.1	Texas Public School Teachers by School Grade Level, 2009–10 through 2020–21	25
Table 3.2	Texas Public School Teachers by Community Type, 2009–10 through 2020–21	27
Table 3.3	Texas Public School Teacher Attrition Rates by First-Year Teacher Cohorts, 2009–10 through 2020–21	28
Table 3.4	Certification Status of Texas Public School Teachers, 2009–10 through 2019–20	30
Table 3.5	Texas Public School Teacher Preparation Pathways by First-Year Teacher Co- horts*, 2009-10 through 2019-20	31
Table 3.6	Texas Public School Teacher Attrition Rates by First-year Teacher Cohorts* Cer- tified through Traditional University-Based Programs, 2009-10 through 2020-21	32
Table 3.7	Texas Public School Teacher Attrition Rates by First-year Teacher Cohorts* Cer- tified through Alternative Certification Programs, 2009-10 through 2020-21	33
Table 4.1	Certification Status of Traditional Texas Public School Teachers, 2009–10 through 2019–20	34
Table 4.2	Uncertified Texas Traditional Public School Teachers by School Grade Level, 2009–10 through 2019–20	36
Table 4.3	Uncertified Texas Traditional Public School Teacher Attrition Rates by First-Year Teacher Cohorts, 2009–10 through 2020–21	39
Table 4.4	Uncertified Texas Traditional Public School Teachers by Subject, 2011–12 through 2018–19	42
Table 5.1	Certification Status of Texas Public Charter School Teachers, 2009–10 through 2019–20	43
Table 5.2	Uncertified Texas Public Charter School Teachers by School Grade Level, 2009–10 through 2019–20	45
Table 5.3	Uncertified Texas Public Charter School Teacher Attrition Rates by First-Year Teacher Cohorts, 2009–10 through 2020–21	47
Table 5.4	Uncertified Texas Public Charter School Teachers by Subject Area Taught, 2011–12 through 2018–19	50
Table A.1	Average Texas Traditional Public School Teacher Base Salary Per Certification Status, 2009–10 through 2019–20	56
Table A.2	Average Texas Charter School Teacher Base Salary Per Certification Status, 2009–10 through 2019–20	57

List of Figures

Figure 2.1	Steps to Attainment of Different Certification Statuses	20
Figure 3.1	Total Texas Public School Teachers, 2009–10 through 2020–21	23
Figure 3.2	Race and Ethnicity of Texas Public School Teachers, 2009–10 through 2020–21	24
Figure 3.3	Map of Texas Teachers, 2019–20	26
Figure 3.4	Texas Public School Teacher Mobility, 2009–10 through 2020–21	29
Figure 4.1	Race and Ethnicity of Uncertified Texas Traditional Public School Teachers, 2009–10 through 2019–20	35
Figure 4.2	Map of Uncertified Texas Traditional Public School Teachers, 2019–20	37
Figure 4.3	Uncertified Texas Traditional Public School Teachers by Community Type, 2009–10 through 2019–20	38
Figure 4.4	Uncertified Texas Traditional Public School Teacher Mobility, 2009–10 through 2019–20	40
Figure 5.1	Race and Ethnicity of Uncertified Texas Public Charter School Teachers, 2009– 10 through 2019–20	44
Figure 5.2	Map of Uncertified Texas Public Charter School Teachers, 2019–20	46
Figure 5.3	Uncertified Texas Public Charter School Teacher Mobility, 2009–10 through 2019–20	48
Figure A.1	Average Teacher Salaries in Reported Year and Constant 2020 Dollars, 2009–10 through 2020–21	55

List of Acronyms Used in This Report

Alternative Certification Programs (ACPs) Career & Technical Education (CTE) Full-Time Equivalent (FTE) Public Education Information Management System (PEIMS) School District Teaching Permit (SDTP) State Board for Educator Certification (SBEC) Texas Education Agency (TEA) Texas Education Code (TEC) Texas Higher Education Coordinating Board (THECB) U.S. Department of Education (USDOE) University of Houston Education Research Center (UH ERC)

Executive Summary

Background

Highly effective teachers are an important component in student learning and academic achievement (Goldhaber et al., 2015; Hanushek, 2011; Rivkin et al., 2005). Aware of this importance and concerned with teacher shortages, the U. S. Department of Education (USDOE) has documented the nation's teacher

shortage areas by state from the 1990–91 school year to the present.¹ In Texas, this includes longstanding shortages in such critical subject areas as bilingual/ English as a Second Language, special education (elementary and secondary), mathematics, and Career & Technical Education (CTE) (USDOE, 2017). To ensure that students are taught by effective teachers while also encouraging the development of a sufficient supply of teachers in subject areas with a documented shortage, federal and state education policies have been created to 1) mandate standards for teacher preparation and certification and 2) support the development of multiple pipelines into teaching, such as alternative preparation programs and pathways to certification (Sutcher et al., 2019; USDOE, 2017).

Texas teacher certification policies include the creation of a government agency to regulate the preparation and certification of new teachers, the development and regulation of alternative teacher certification pathways, and special waivers and designations that enable increased flexibility in teacher certification requirements. Most recently, the state granted traditional public schools the same flexibility in teacher certification requirements granted to charter schools through the District of Innovation designation (TEC § 12A).² This report seeks to understand the ways in which the contemporary Texas teacher workforce, composed of traditional public school and charter school teachers, has been shaped by educator preparation and certification policies and is guided by the research question:

How do state laws and regulations, including those that permit individuals to serve as classroom teachers without preparation or certification, contribute to the supply of classroom teachers in Texas, and what is the impact of those policies? Investigating the teacher workforce between 2009-10 and 2019-20, this report found:

- despite the increasing flexibility the state granted to school districts to hire teachers without certification, the percentage of uncertified teachers decreased from 19% in 2009-10 to 7% in 2019-20 (See Table 3.5),
- the large majority of first-year certified teachers are prepared through alternative certification programs (See Figure 3.6),
- teachers prepared through alternative certification programs have higher attrition rates than teachers prepared through traditional university-based programs (See Tables 3.6 & 2.7), and
- compared to teachers in traditional public schools, a larger percentage of charter school teachers are uncertified and uncertified charter school teachers have lower attrition rates (See Tables 5.1 & 5.4)

¹ The full USDOE report and individual reports for shortage areas by state by year (through 2022–23) is available through the Office of Postsecondary Education's website on <u>Teacher Shortage Areas</u>.

² See <u>Section 1</u> for a full description of the District of Innovation policy.

To answer this question, this report takes full advantage of the robust data repository made accessible to researchers through the University of Houston Education Research Center. The repository includes teacher demographic, certification, employment, and assignment data, as well as student-, campus-, and school district-level information for their assigned campuses. This report describes the state of the teacher workforce from 2009–10 through the 2020–21 school year, as well as the individuals serving as classroom teachers without certification in traditional public schools and charter schools through the 2019–20 school year. It concludes with a discussion of the policy implications of the research findings.

Overview of the Texas Teacher Workforce

From 2009–10 to 2020–21, the Texas teacher workforce, composed of traditional public school and charter school teachers, grew larger, increased in racial and ethnic diversity, and earned graduate degrees in increasing numbers. The number of public school teachers grew from 338,190 in 2009–10 to 375,068 in 2020–21, an increase of 11%. This change was gradual, with the workforce growing by an average of 1% each year (See Table 3.1).³ The teacher workforce remained majority White (61% in 2009–10 to 57%

Recent data published by the Texas Education Agency demonstrates that the patterns of decreasing uncertified teacher populations found from 2009-10 through 2019-20 are reversing for the 2020-21 and 2021-22 school years.

In fact, examining the new teachers hired after the 2019-20 school year examined in this report, the Texas Education Agency found that 11.42% of new teachers in 2020-21 and 19.63% of new teachers in 2021-22 held no teaching certificate.

Additionally, the report also highlights the number of teachers that have reentered the teaching field in recent years.

See <u>The Certification Pathway of an</u> Employed New Hire, 2007-08 through 2021-22. in 2020–21) and majority female (78% in 2009–10 to 74% in 2020–21). During the same period, however, the representation of Hispanic teachers increased from 22.4% to 28.2%, the representation of Black teachers increased from 8.9% to 11.1%, and the representation of Asian teachers increased from 1.1 to 1.8% (see Figure 3.2). Beyond the bachelor's degree requirement for both charter and traditional public school teachers, which was met by 99% of teachers,⁴ the percentage of teachers who hold a master's degree increased from 21% in 2009–10 to 25% in 2020–21.

With the exception of increased attrition among firstyear teachers in recent years, the attrition pattern of Texas public school teachers remained constant over the past decade. Each year, first-year teachers made up an average of 7% of the entire teacher workforce (traditional public schools and charter schools combined). Nine percent of the 2014–15 cohort of first-year teachers left teaching, compared with 12% of the 2019–20 cohort of first-year teachers, reflecting an increase in the rate of departure over the past decade (See Table 3.3). Notably, teachers prepared by traditional university-based programs have lower rates of attrition than teachers prepared by alternative certification programs (See Table 3.7).

Except for the 2011–12 school year immediately following legislative cuts to education funding, mobility

among Texas public school teachers also remained constant over the past decade. Each year, roughly 10% of teachers moved to another campus in the same school district, and roughly 6% of teachers moved to a campus in a different school district (See Figure 3.4).

Over the past 30 years, Texas has adopted numerous statewide policies to expand teacher certification. These policies include the creation of a government agency to regulate the certification and training of

³ For detailed information regarding student growth, see Enrollment Trends in Texas Public Schools.

⁴ Many courses classified as CTE do not require teachers to have a bachelor's degree. See TAC §233.14

new teachers, the development and regulation of alternative teacher certification pathways, and special designations for school districts meeting performance requirements that enable increased flexibility in teacher certification requirements.⁵ Despite increased flexibility in teacher certification requirements granted to schools, the percentage of certified teachers in Texas public school classrooms (charter and traditional schools) has increased substantially since the 2009–10 school year. The percentage of Texas public school teachers with a standard, five-year teaching certification increased from 80% in 2009–10 to 92% 2019–20, and each year, less than 2% of teachers were temporarily certified for a one-year period with an emergency, probationary, or extended permit certification. Inversely, the percentage of teachers without a teaching certification decreased from 19% in 2009–10 to 7% 2019–20 (See Table 3.5). In further exploration of the state policies that have provided flexibility in hiring uncertified teachers, this report separately considers the populations of uncertified teachers in traditional public schools and charter schools.

Uncertified Teachers in Traditional Public Schools

The percentage of uncertified teachers in traditional public school classrooms decreased from 18% to 5% of teachers from 2009–10 to 2019–20 (See Table 4.1). Schools across the state employ uncertified teachers, with no clear concentration of uncertified teachers in any one geographic locale. Over the past decade, uncertified teachers in traditional public schools most often taught high school CTE, fine arts, and physical education/health classes (See Table 4.6). The annual attrition rate of uncertified teachers maintained an unsteady pattern of small increases and decreases, hovering around 40% from 2009–10 to 2019–20 (See Table 4.4). Notably, when compared with the first-year attrition rate trends of the total Texas teacher workforce (all traditional public school and charter school teachers, including all certifications), the attrition rate of first-year uncertified teachers in traditional public schools was more than three times greater. Also, starkly different from the generally flat trend of district mobility in the total teacher workforce, the district mobility of uncertified teachers in traditional public schools increased over the past decade. Of the uncertified teachers who remained in teaching, 17% in 2019–20 moved to a different school district from the one in which they taught the prior year, an increase from 6% in 2009–10 (See Figure 4.3).

Uncertified Teachers in Public Charter Schools

The total number of teachers in charter schools has almost tripled in the past decade from 7,745 in 2009–10 to 20,663 in 2019–20, and the percentage of those teachers without certification has fluctuated.⁶ In 2009–10, 31% of charter school teachers were uncertified, 19% were uncertified in 2015–16, and 31% were uncertified in 2019–20 (See Table 5.1). The attrition rate of first-year uncertified charter school teachers averaged 4% over the past 10 years, much lower than the first-year attrition rate of the total Texas teacher workforce (all traditional public school and charter school teachers, including all certifications) (See Table 5.4). Of those uncertified charter school teachers who stayed in teaching, district mobility showed a general decreasing trend over the past decade, from just over 40% in 2009–10 to under 35% in 2019–20, but it remained much higher than the district mobility of the total Texas teacher workforce (all traditional public school teachers, including all certifications). While campus mobility had been relatively stable at approximately 5% from 2009–10 through 2017–18 and aligned to the campus mobility rates for the total Texas teacher workforce, the rate escalated to 12% in 2018–19 and 13% in 2019–20 (See Figure 5.3).

⁵ For more detail on teacher certification policies, see Section 1 of this report.

⁶ Texas public charter schools require teachers to hold at least a bachelor's degree unless exempted as a residential center teacher for a non-core vocational class. Special education teachers, bilingual teachers, and teachers of English as a Second Language must be certified in the fields in which they teach. <u>See TAC {100.1212</u>

Limitations

All data made available through the UH ERC are ultimately derived from the PEIMS. Therefore, any data integrity issues (e.g., keystroke error on entry) would be included in this report unless otherwise corrected. Similarly, other data cannot be independently verified. Given the large amount of data—and that these are the most comprehensive data available—we do not expect this to substantively bias our findings. The data set does not contain an exhaustive list of policy exemptions or waiver statuses that were active and implemented for the assignment of each teacher in each school district or charter school for each year. Thus, it was not possible for researchers to determine the exact number of uncertified teachers assigned to positions allowed under different policy options.

The teacher certification data available at the time of this report is limited to the 2019–20 school year, thus the sections reporting teacher certification are restricted to 2019–20. During March 2020, schools began to be affected and closed due to the COVID-19 pandemic. While this report depicts the teacher workforce prior to the pandemic, the Teacher Vacancy Task Force⁷ has since been established by the Texas Education Agency to understand the effects of the pandemic on the teacher workforce.

For this report, performance of uncertified teachers is limited to a discussion of attrition and mobility. The small number of uncertified teachers in charter schools and traditional public schools in recent years is not large enough to support the statistical power necessary for a comprehensive analysis of student performance. Performance data was limited to areas in which Texas requires state standardized testing, thus limiting the data set further. For example, the relatively small number of uncertified teachers (18,199, or 5% of the total traditional public school teacher population as of 2019-20) most often taught in subjects without state standardized tests (e.g., CTE, PE, art) and were dispersed among campuses throughout the state, making rigorous analysis of student academic performance for uncertified teachers impossible possible for this report. Similarly, the 6,312 uncertified charter school teachers in 2019-20 most often taught in subject areas without standardized testing (e.g., CTE, PE, art) and were dispersed among charter school campuses across the state, thus making robust analysis of student performance for uncertified teachers impossible for this report. Robust analysis to appropriately link student performance to teacher certification would require much larger populations so that necessary controls for variance among and between groups could be included.

Implications

Over the past decade, certification of the Texas teacher workforce (charter school and traditional public school) increased substantially, particularly driven by increases in certified teachers in traditional public schools. Even though the state granted schools the flexibility to hire uncertified teachers in recent years, more than 90% of traditional public school teachers and more than 60% of charter school teachers were certified. With the nascent development and implementation of new policies allowing flexibility in teacher certification-like Districts of Innovation created in 2015-additional research and analysis within the next few years could illuminate the rationale behind traditional public schools and charter schools increasingly employing certified teachers, despite granted flexibilities. Further research is also especially relevant in light of the TEA's recent publication of data indicating that school districts hired larger percentages uncertified new teachers in the two school years following the 2019-20 school year examined in this report. Additional research is also needed into the uncertified teachers assigned to positions that are subject to federal regulation. This includes the prohibition on exemptions for certification in a bilingual/ English as a Second Language, or special education assignment (Hoover, 2021; Texas Association of School Boards, 2018). The employment of uncertified teachers in these areas aligns with national and state trends in teacher shortages and could be manifestations of the documented shortage of teachers in those areas (USDOE, 2017).

⁷ At the time this report was written, the Teacher Vacancy Task Force was being developed and beginning work to investigate causes of and solutions for teacher vacancies in the state. By the end of 2022, the task force is scheduled to publish reports and information vital to the teacher vacancy discussion.

Introduction

Research has consistently demonstrated that high-quality teachers increase student learning, achievement, and academic performance in the classroom (Goldhaber et al., 2015; Hanushek, 2011; Rivkin et al., 2005). Teacher quality has also been associated with long-term schooling outcomes such as increased college enrollment and improved labor market outcomes, including higher earnings (Chetty et al., 2014). Aware of this importance and concerned with teacher shortages, the U. S. Department of Education (USDOE) has documented the nation's teacher shortage areas by state from the 1990–91 school year to the present. ⁸ In Texas, this includes longstanding shortages in such critical subject areas as bilingual/English as a Second Language, special education (elementary and secondary), mathematics, and Career & Technical Education (CTE) (USDOE, 2017).⁹ To ensure that students are taught by effective teachers while also encouraging the development of a sufficient supply of teachers in subject areas with a documented shortage, federal and state education policies have passed legislation to 1) mandate standards for teacher preparation and certification and 2) support the development of multiple pipelines into teaching, such as alternative preparation programs and pathways to certification (Sutcher et al., 2019; USDOE, 2017).

For almost four decades, the federal government has sought to address the demand for an abundant supply of well-prepared teachers. National demands for improved teacher quality originated with the publication of *A Nation at Risk* (National Commission on Excellence in Education, 1983). In the report, the authors raised concerns that the nation's teachers were those primarily from the lowest quartile of their high school and college graduating classes, and that in some subjects like English, mathematics, and science, teachers were not qualified to teach the content (Smith & Gorard, 2007). The report recommended a strengthening of the teaching profession through higher standards for training, entry, and professional development, including increased emphasis on content area expertise and less focus on pedagogic practice (Smith & Gorard, 2007).

The federal government took its most significant action to target teacher quality with the passage of the No Child Left Behind Act of 2001. Through this legislation, the federal government instituted a "highly qualified teacher" requirement, stipulating that by the end of the 2005-06 academic year, teachers of core academic subjects had to obtain certification based on their state standards or pass the teacher licensing examination and hold a license to teach in their state. Teachers could pursue qualification either through traditional teacher preparation or alternative certification programs, and charter schools could bypass the requirement altogether as long as their teachers met requirements in their respective state's charter school law (USDOE, 2002). In 2015, the federal government changed course with the passage of the Every Student Succeeds Act, which eliminated the highly qualified teacher provision of No Child Left Behind. Instead, upon implementation of the law, states could develop their own definitions of unqualified, out-of-field, inexperienced, and ineffective teachers (Saultz et al., 2017). In practice, this meant that states could decide that a teacher no longer needed a bachelor's degree and state certification to be a "highly qualified teacher" and could define for themselves what it meant to be effective (Klein, 2019). This rollback of highly qualified teacher provisions applied to all subjects, including core content areas like special education and English as a Second Language (Association for Supervision and Curriculum Development, 2016; Pennsylvania State Education Agency, 2016). Similar to No Child Left Behind, charter school teachers had to be licensed and certified only as required by their respective state laws (Spillan, 2017).

Within that broader context, Texas instituted several policies intended to maintain an ample supply of highly effective teachers, while also implementing and sustaining multiple pathways to enter the field of teaching. In 1995, the 74th Texas Legislature created the State Board for Educator Certification to

⁸ The full USDOE report and individual reports for shortage areas by state and by year (through 2022–23) is available through the Office of Postsecondary Education's website on <u>Teacher Shortage Areas</u>.

⁹ Data submitted to the USDOE from the Texas Education Agency regarding teacher vacancies and shortages are not accessible from the University of Houston Education Research Center, where this research was conducted. At the time this report was written, the <u>Teacher Vacancy Task Force</u> was being developed and beginning work to investigate causes of and solutions for teacher vacancies in the state. By the end of 2022, the task force is scheduled to publish reports and information vital to the teacher vacancy discussion.

govern the standards of the profession, including the rules determining teacher certification, continuing education, and training requirements. Four years later, the state created alternative pathways to teacher certification to increase the supply of classroom teachers (Templeton et al., 2020b). In the last decade, alternative certification programs have become the primary producers of teacher certifications in the state (Van Overschelde & Wiggins, 2017).

Historically, literature has established key differences between teachers prepared through traditional university-based programs and alternative certification programs (Ingersoll & May, 2011; Podolsky, Kini, Bishop & Darling-Hammond, 2016; Whitford, Zhang, & Katsiyannis, 2018). Teachers prepared through traditional university-based settings report feeling more prepared for the classroom as a result of in-service training and pedagogical training provided in traditional programs (Lowrey, Roberts, & Roberts, 2012; Kee, 2011). Additionally, teachers prepared through traditional university-based preparation programs have lower attrition rates than teachers prepared through alternative certification pathways (CRE-ATE, 2020; Freedman & Appleman, 2009; Ronfeldt & Reininger, 2012; Zhang & Zeller, 2016). Texas has also sought to promote the development, recruitment, and retention of well-qualified teachers by enabling different kinds of flexibility for school districts and schools. Of particular interest to this study was the creation in 2015 of the District of Innovation designation, a tool to encourage school districts to innovate solutions to the barriers they often experience as they adapt to best serve students. The designation allows traditional school districts with an academic accountability rating of "C" or better to apply for exemptions to particular parts of the Texas Education Code (TEC) for which charter schools are not held liable (Texas Education Agency, n.d.). For this report, the District of Innovation designation is especially relevant as it allows for exemption from educator certification requirements and teacher contracts and could contribute to uncertified teachers in the Texas teacher workforce.

The purpose of this report is to understand the ways in which the contemporary Texas teacher workforce, including traditional public schools and charter schools, has been shaped by educator preparation and certification policies and is guided by the research question:

How do state laws and regulations, including those that permit individuals to serve as classroom teachers without preparation or certification, contribute to the supply of classroom teachers in Texas, and what is the impact of those policies?

To answer this question, this report takes full advantage of the robust data repository made accessible to researchers through the University of Houston Education Research Center. The repository includes teacher demographic, certification, employment, and assignment data, as well as student-, campus-, and school district-level data for their assigned campuses. This report is organized into six sections. Section 1 provides a review of key Texas policies that influence teacher certification. Section 2 describes the data accessed and methods employed, accompanied by key term definitions. Section 3 provides an overview of the Texas teacher workforce, including all teachers in traditional public schools and charter schools. Sections 4 and 5 are devoted to descriptions of the uncertified teachers in traditional public schools and public charter schools, respectively, including their demographic makeup, their geographic concentration, and the characteristics of the charter schools and school districts that employ them. Section 6 concludes with a discussion of the implications of the research findings.

Section 1: Key Texas Public School Teacher Certification Policy Review

Over the past 30 years, Texas has created policies to supply the education system with a robust population of teachers and to regulate the teacher certification process to maintain quality (Templeton et al., 2020a; Templeton et al., 2020b). These policies include the creation of a government agency to regulate the certification and training of new teachers, the development and regulation of alternative teacher certification pathways, and special designations for high-performing school districts that enable increased flexibility in teacher certification requirements. This section provides an overview of the key Texas policies that have shaped the landscape of teacher certification in the state—policies that are especially relevant for this report examining the uncertified teachers in Texas public schools.

State Board for Educator Certification

In the 1990s, as the state's student population was becoming more diverse, the Texas Legislature recognized the need to expand the teacher workforce while upholding the quality of educators in the classroom. As a solution, and with the passage of Senate Bill 1(74th Legislative Session, 1995), it created the State Board for Educator Certification (SBEC), which established public school teachers as professionals and granted them the ability to govern their profession. The board is responsible for the preparation, certification, and standards of conduct for classroom teachers, and it provides oversight for the various teacher certification options, including those traditionally provided through university-based certification programs as well as alternative certification programs (Templeton, et al., 2020b).

Charter Schools

Texas charter schools were first established in 1995 by the 74th Texas Legislature. As stated in Chapter 12 of the Texas Education Code (TEC), charter schools were established to improve student learning, increase the choice of learning opportunities within the public school system, create professional opportunities to attract new teachers to the public school system, and encourage different and innovative learning methods (TEC § 12.001). Texas charter schools are subject to fiscal and academic accountability, though they have fewer regulations than traditional public schools to encourage innovation and flexibility. One of those flexibilities is the teacher certification requirement. Under the statute, charter school teachers are required to hold a bachelor's degree but are not required to hold a teaching certificate (TEC § 12.129).¹⁰

Alternative Certification Programs

Alternative certification programs (ACPs)—originally established in 1995 as a response to a math and science teacher shortage that was particularly stifling in the state's rural areas—were conceived as programs providing new avenues for bachelor's degree holders to receive teacher certification through the passage of House Bill 714 (74th Legislative Session, 1995).¹¹ Alternative certification programs (ACPs) are provided by nonprofit education service centers, institutions of higher education, nonprofit organizations, school districts, and for-profit providers (Texas Education Agency, n.d.). Bachelor's degree holders enter an ACP and, after passing state-required content and pedagogy tests, are granted a probationary teaching certificate for their first year of teaching. After the successful completion of requirements, ACP participants are issued a Standard Teaching Certificate (TEC § 21.049). ACPs have increased in popularity over the years

¹⁰ Many courses classified as Career & Technical Education (CTE) do not require teachers to have bachelor's degrees (see <u>TAC</u>. <u>§233.14</u>), and charter schools may employ individuals without bachelor's degrees in residential centers for non-core vocational classes (see <u>TEC § 12.129</u>).

¹¹ The alternative certification was originally created in 1984 by House Bill 72 and mandated the SBOE to provide for certification for individuals that did not complete teacher education programs. See the Legislative Reference Library of Texas for more information.

to become the leading certifier of Texas public school teachers (Van Overschelde & Wiggins, 2017).

School District Teaching Permit

Since 1995, Texas has allowed school districts to issue a school district teaching permit (SDTP) (TEC § 21.055). These permits allow a school district to employ an individual it deems qualified to serve as a teacher but who does not possess a teaching certificate. The permits are only valid in the district where the permit is issued and remains valid until the district issuing the permit revokes it for cause. The school district board of trustees has the authority to determine if a district can issue an SDTP without approval from the state commissioner of education for noncore academic career & technical education (CTE) courses only; all teaching assignments for other subjects are contingent upon state approval. Teachers serving with an SDTP are not certified by SBEC (Texas Education Agency, n.d.). Subsequently, in this analysis, any teacher who is teaching via an SDTP is considered an "uncertified teacher," as they would not be in the state-issued certification data.

Districts of Innovation

Created by House Bill 1842 (84th Legislative Session, 2015), a "District of Innovation" designation provides increased flexibility to traditional school districts by exempting them from particular provisions of the TEC for which charter schools are not liable (Anglin, 2021). School districts with a state accountability rating of A, B, or C are eligible to become a District of Innovation and can authorize their exemption from certain provisions of the TEC including educator certification, teacher contracts, first and last day of school, length of school day, class size, and certain purchasing and contract requirements. The school district board of trustees oversees and approves (with two-thirds majority vote) a comprehensive educational plan that outlines the specific innovations to be adopted. Board of trustee-authorized District of Innovation plans remain in place unless the school district receives two or more consecutive years of unacceptable academic or financial ratings.¹² The designation as a District of Innovation may not exceed five years (TEC § 12A).

Following the passage of the legislation in 2015 and the state education agency's rulemaking process, 178 school districts adopted District of Innovation education plans and designations by the 2017–18 school year, and an additional 509 school districts did the same in the 2018–19 school year (Anglin, 2021). As of 2021, 908 school districts in Texas (88.9% of the total 1,021 school districts) were recognized as Districts of Innovation. Of those, 840 school districts (92.5%) have specifically authorized exemption from teacher certification requirements (TEC § 21.003), and 313 (34.5%) of those authorized waiving parental notification of certification status (TEC § 21.057).¹³

Commissioner of Education Waivers

Per TEC § 7.056, the Commissioner of Education may grant waivers and exemptions to campuses or districts for requirements, restrictions, or prohibitions in the Texas Education Code (TEC). Teacher certification can be waived generally, or for qualified individuals to teach outside their areas of certification in CTE, in a subject not tested in state standardized testing, in Alternative Education, or in ROTC.¹⁴

¹² For more information, see the Texas Education Agency's Districts of Innovation page.

¹³ In addition to certification requirements, Districts of Innovation have adopted exemptions from multiple statutes to provide more flexibility in schooling, such as changes to the school calendar. In fact, 900 districts have adopted exemptions to change the first day of school (TEC § 25.0811), 263 have adopted exemptions to change the last day of school (TEC § 25.0812), and two have adopted exemptions for year-round schooling (TEC § 25.084).

¹⁴ See the Texas Education Agency site State Waiver Types – General for more information.

Section 2: Data and Methods

This report was created using data accessed through the University of Houston Education Research Center (UH ERC). The center is a data repository that houses individual-level administrative data from the Texas Education Agency (TEA), Texas Higher Education Coordinating Board, and Texas Workforce Commission. This study combined certification data from the SBEC as well as data submitted by schools to TEA through the Public Education Information Management System (PEIMS), a statewide administrative data repository, to explore the certification status of the Texas teacher workforce (traditional public school and charter school teachers.) Campus and school district data for students and staff were available from the 2009–10 through 2020–21 school years. The SBEC certification data were available through the 2019–20 school year.

Throughout this study, descriptive statistics of counts, percentages, and averages are presented. For campus- and school district-level statistics, counts are aggregated to the appropriate level, and percentages are reported as a percentage of the entire population. The following section describes key terms used throughout the report and the methods used to define or calculate each term.

Key Terms and Definitions

Teachers

For this research, a teacher is defined by the role assigned to an individual in PEIMS. Over the years, role code ID numbers 025, 029, and 087 have been used to define the teaching position and are included in this study. Teachers in the data set represent both part-time and full-time teachers, as each data observation represents one individual.¹⁵

Certifications

Texas teacher certifications are defined as certifications authorized by the SBEC that allow a teacher to be considered a certified teacher in the classroom. Over the years, the SBEC has offered different types of teacher certification. Those certification types are detailed in Table 2.1.

In order to contextualize the ways in which the certifications listed in Table 2.1 work along the certification pathway, Figure 2.1 depicts common pathways to certification and the circumstances under which teachers might start or become uncertified. The figure uses cream to denote the process of certification, gray to represent teaching with a valid certification or policy-approved "teaching while uncertified," and gold to represent uncertified teaching outside of appropriate statutes.

Uncertified Teacher

For the purposes of this report, an uncertified teacher is defined as an individual who served as a classroom teacher of record (role code ID numbers 025, 029, and 087) and had no valid Texas teacher certification issued by the SBEC as listed in Table 2.1. These individuals may have held any number of certifications, such as educational aide or principal, but did not hold a valid teaching certification. This includes teachers who taught under SDTPs¹⁶—which are statutorily approved under state law but are issued by school districts and not the state—and thus were considered as not holding a valid state certification. For a certification to be considered valid, it had to be effective for the period the individual served as the teacher of record. The categorization of *uncertified teacher* refers to uncertified teachers in school districts and charter schools exercising statutorily authorized flexibility, as well as those uncertified teachers hired in school districts without statutorily authorized flexibility. While not an exhaustive list, the descriptions below serve as examples of different uncertified teachers included in this report:

¹⁵ In other reports, teachers may be reported as Full-Time Equivalent (FTE) units. In this report, teachers are reported as individuals, not FTEs. The number of individuals is typically larger than the reported FTEs for the same year.

¹⁶ See page 14 of this report or TEC § 21.055.

Statutorily Authorized Uncertified Teachers

- Uncertified Teacher Example 1: A District of Innovation hires an individual from the technology industry to teach high school CTE. This individual has a bachelor's degree but no valid teaching certificate. Because the District of Innovation education plan adopted by the school district contains an exemption from teacher certification requirements, this uncertified teacher is statutorily authorized to teach. Uncertified teachers statutorily authorized to teach under a District of Innovation 4.
- Uncertified Teacher Example 2: A public charter high school hires an art teacher with a bachelor's degree but no valid teaching certificate. This is allowed under flexibilities afforded by the charter school law. Uncertified teachers in public charter schools are detailed in Section 5.

Outside of Statute

- Uncertified Teacher Example 3: A school district retains an elementary physical education teacher whose probationary certificate expired the previous school year and no additional certification was obtained. The school district is not designated as a District of Innovation, and an extension for the probationary certificate was not granted nor was a standard teaching certificate attained before the start of the school year. Subsequently, this uncertified teacher is not statutorily authorized to teach.
- Uncertified Teacher Example 4: A school district retains a middle school science teacher whose standard teaching certificate expired in the previous year. Because the standard teaching certificate was not renewed prior to the beginning of the school year and the school district is not a District of Innovation, this uncertified teacher is not statutorily authorized to teach.

Attrition

Teacher attrition rates reported in this study are for first-year teachers. First-year teachers are defined as individuals who were assigned the role of teacher of record for the first time in the data set. The number of teachers in each cohort of first-year teachers is the denominator for the calculation. The numerator for the calculation is all the first-year teacher cohort members who did not serve as teachers of record in the following year. For example, if there were 100 first-year teachers in 2009–10 and 90 of them were teachers in 2010–11, the 2009–10 first-year teacher attrition rate would be 10%. It is important to note that this measure of attrition is one of *classroom* teacher attrition. Teachers who move into leadership roles, support roles, or school district-level positions are counted as attritted, as well as those who leave the field of education completely.

Mobility

Two mutually exclusive mobility rates are reported. *Campus mobility* is calculated by dividing the number of teachers who remained in the same school district but taught at a different campus than the previous year by the total number of teachers on the campus. *District mobility* is reserved for teachers who left one school district to teach in another district. Mobility is different from attrition in that to be counted as mobile, the individual had to remain in a teaching role. Teachers who moved from a teaching role in one campus to an administrative role in another campus were counted as attritted, not mobile. The mobility data reported may have excluded some teachers who moved during the middle of the school year or moved several times during the same school year. The denominator for the mobility calculation is a count of all the individuals who served as teachers of record for a campus or school district. The numerator for the calculation is the number of teachers who remained at the campus or school district in the following year. For example, if Campus 1 had 100 teachers in 2009–10 and 90 of them returned as teachers in 2010–11, the 2009–10 campus mobility rate would be 10%.

Community Type

The TEA uses the categorization of community type to group Independent School Districts in the state.¹⁷ The definition of each is provided below.

¹⁷ For more information, see the Texas Education Agency's Snapshot 2020: Community Type.

TABLE 2.1

Texas State Board for Educator Certification Teacher Certifications

Report Classification	Certification	Brief Description	Term
Standard	Standard	Standard teaching certificate	Five years
Standard	Provisional	Lifetime teaching certificate ¹	Lifetime
Probationary	Intern	Temporary credential for an educator working toward a standard certificate in an approved Texas Educator Prepa- ration Program (EPP) and serving in an acceptable, paid internship. Issued to educators who have passed the content area examination. (TAC §230.36)	One year with no renewal
Probationary	Probationary	Temporary credential for an educator working toward a standard certificate in an approved Texas EPP and serv- ing in an acceptable, paid internship. Issued to individuals who have passed the content area examinations and the Pedagogy and Professional Responsibil- ities test. (TAC §230.37)	One year with possible one-year renewal
Emergency	Emergency ²	Temporary permit requested by a school district experiencing hardship in hiring ³	One year
Extended Permit	Extended Permit	Renewed emergency or probationary certificates	One year

¹ In 1999, the SBEC mandated that standard teaching certificates needed to be renewed every five years to remain valid. Teachers who had been certified prior to that time were grandfathered into the new rule by converting their standard certificate to a lifetime teaching certificate.

² School district teaching permits are not included in this table as they are not issued by SBEC and, therefore, those educators teaching on them are considered uncertified for the purposes of this report.

³ See <u>Emergency Permit Information</u> for eligibility and district criteria.

FIGURE 2.1 Steps to Atta	FIGURE 2.1 Steps to Attainment of Different	_	Certification Statuses	ISES			
STATUS	STEP 1	STEP 2	STEP 3	STEP 4	STEP 5	STEP 6	STEP 7
Standard Certification: Pre- Baccalaureate	Undertake a bachelor's degree via an approved traditional' EPP	Complete the program, including student teaching/ teaching internship	Register for and complete all required examinations	Apply for and obtain standard certification	Obtain a teaching position		
Standard Certification: Post- Baccalaureate w/ Intern Certification	Completion of bachelor's degree, or in compliance with CTE requirements	Select an approved EPP, ² pass screening process, and develop a certification plan	Obtain a teaching internship through the EPP	Register for and pass content area examination; do not take or do not pass	Apply for and obtain an intern certification	Complete all requirements for and obtain a standard certificate	
Standard Certification: Post-Baccalaureate W/ Probationary Certification	Completion of bachelor's degree, or in compliance with CTE requirements	Select an approved EPP, pass screening process, and develop a certification plan	Obtain a teaching internship through the EPP	Register for and pass content area examination and PPR exam	Apply for and obtain a probationary certification	Complete all requirements for and obtain a standard certificate	
Standard Certification: Post-Baccalaureate w/ Probationary Certification and Extended Permit	Completion of bachelor's degree, or in compliance with CTE requirements	Select an approved EPP, pass screening process, and develop a certification plan	Obtain a teaching internship through the EPP	Register for and pass content area examination and PPR exam	Individual does not complete all requirements for a standard certificate	Apply for 12-month extended permit	Complete all requirements for and obtain a standard certification
Standard Certification: Out of State	Completion of teacher certification and one year of full-time teaching in another state	Apply for Texas teacher certification	Obtain a One-Year standard teaching certificate after credential review process	Submit all required documents and complete all required tests	Obtain a standard teaching certificate		
Emergency Permit	Districts cannot secure a certified and qualified individual to fill a vacancy	Districts identify candidates with bachelor's degrees (or, for CTE, appropriate alternatives)	Districts verify their own eligibility for an emergency permit and use it to hire individuals	The individual tea certification through	The individual teaches under an emergency permit while either 1) pursuing standard certification through an approved EPP or 2) completing additional missing certificates to add to certification	y permit while either 1) p mpleting additional missi fication	oursuing standard ing certificates to add
No Certification	1. An educator worl 2. An educator v 3. A district issues a Sch 4. An educator works requirement w	Policy-approved Pathways: Is for a District of Innovation and is exer works for a charter school and is exempt ool District Teaching Permit for an educt to teach a non-core academic subject for a campus or district that has receive vaiver from the Commissioner of Educati	 Policy-approved Pathways: An educator works for a District of Innovation and is exempt from certification An educator works for a charter school and is exempt from certification A district issues a School District Teaching Permit for an educator without a certification to teach a non-core academic subject An educator works for a campus or district that has received a teacher certification requirement waiver from the Commissioner of Education (TEC § 7.056) 		Outside of Statute: 1. Probationary, emergency, or extended permits lapse without obtaining standard certification, but individual remains employed as a teacher 2. Person without any valid certification is hired by a school not in a policy- approved pathway	Outside of Statute: ary, emergency, or extended permits lapse without obtaini certification, but individual remains employed as a teacher n without any valid certification is hired by a school not in approved pathway	nout obtaining standard as a teacher chool not in a policy-
Key. The figure uses crea teaching outside of appr ¹ Traditional EPP refers to ² Approved EPP refers to	<i>Key.</i> The figure uses cream to denote the process of certification, gray to represent teaching with a valid certification teaching outside of appropriate statutes. <i>Note:</i> Figure does not represent an exhaustive list of certification pathways. ¹ Traditional EPP refers to an approved university-based educator preparation pre-baccalaureate program. See <u>Becom</u> ² Approved EPP refers to an approved traditional, post-baccalaureate, or alternative certification pathway. See <u>Becom</u>	of certification, gray to re gure does not represent a based educator preparat post-baccalaureate, or al	epresent teaching with a an exhaustive list of certi ion pre-baccalaureate pro liternative certification pa	valid certification or poli fication pathways. ogram. See <u>Becoming a (</u> tithway. See <u>Becoming a</u> (gray to represent teaching with a valid certification or policy-approved "teaching while uncertified," and gold to :present an exhaustive list of certification pathways. preparation pre-baccalaureate program. See <u>Becoming a Certified Texas Educator Through a University Program</u> :ate, or alternative certification pathway. See <u>Becoming a Classroom Teacher in Texas</u>	hile uncertified," and gol hrough a University Prog	gray to represent teaching with a valid certification or policy-approved "teaching while uncertified," and gold to represent uncertified spresent an exhaustive list of certification pathways. • preparation pre-baccalaureate program. See <u>Becoming a Certified Texas Educator Through a University Program</u> sate, or alternative certification pathway. See <u>Becoming a Classroom Teacher in Texas</u>

20

Major Urban

A school district is classified as major urban if: (a) it is located in a county with a population of at least 1,050,000; (b) its enrollment is the largest in the county or at least 70% of the largest school district enrollment in the county; and (c) at least 35% of enrolled students are economically disadvantaged. A student is reported as economically disadvantaged if he or she is eligible for free or reduced-price meals under the National School Lunch and Child Nutrition Program.

Major Suburban

A school district is classified as major suburban if: (a) it does not meet the criteria for classification as major urban; (b) it is contiguous to a major urban school district; and (c) its enrollment is at least 3% of the largest contiguous major urban school district or at least 4,500 students. A school district also is classified as major suburban if: (a) it does not meet the criteria for classification as major urban; (b) it is not contiguous to a major urban school district; (c) it is located in the same county as a major urban school district; and (d) its enrollment is at least 15% of the largest major urban school district in the county or at least 4,500 students.

Other Central City

A school district is classified as other central city if: (a) it does not meet the criteria for classification in either of the previous subcategories; (b) it is not contiguous to a major urban school district; (c) it is located in a county with a population of between 100,000 and 1,049,999; and (d) its enrollment is the largest in the county or at least 70% of the largest school district enrollment in the county.

Other Central City Suburban

A school district is classified as other central city suburban if: (a) it does not meet the criteria for classification in any of the previous subcategories; (b) it is located in a county with a population of between 100,000 and 1,049,999; and (c) its enrollment is at least 15% of the largest school district enrollment in the county. A school district also is other central city suburban if: (a) it does not meet the criteria for classification in any of the previous subcategories; (b) it is contiguous to another central city school district; (c) its enrollment is at least 3% of the largest contiguous other central city school district; and (d) its enrollment is equal to or greater than the median school district enrollment for the state of 903 students.

Independent Town

A school district is classified as independent town if: (a) it does not meet the criteria for classification in any of the previous subcategories; (b) it is located in a county with a population of 25,000 to 99,999; and (c) its enrollment is the largest in the county or at least 70% of the largest district enrollment in the county.

Non-Metro: Fast Growing

A school district is classified as non-metropolitan: fast growing if: (a) it does not meet the criteria for classification in any of the previous subcategories; (b) it has an enrollment of at least 300 students; and (c) its enrollment has increased by at least 20% over the past five years.

Non-Metro: Stable

A school district is classified as non-metropolitan: stable if: (a) it does not meet the criteria for classification in any of the previous subcategories; and (b) its enrollment is equal to or greater than the median school district enrollment for the state.

Rural

A school district is classified as rural if it does not meet the criteria for classification in any of the previous subcategories. A rural school district has either: (a) an enrollment of between 300 and the median school district enrollment for the state and an enrollment growth rate over the past five years of less than 20%; or (b) an enrollment of less than 300 students.

Charter School Districts

Charter school districts are open-enrollment school districts authorized by the commissioner of education with final approval for operation provided by the State Board of Education. Established by the Texas Legislature in 1995 to promote local initiative, charter school districts are subject to fewer regulations than other public school districts. Generally, charter school districts are subject to laws and rules that ensure fiscal and academic accountability but do not unduly regulate instructional methods or pedagogical innovation. Like other public school districts, charter school districts are monitored and accredited under the statewide testing and accountability system.

Limitations

All data made available through the UH ERC are ultimately derived from the PEIMS. Therefore, any data integrity issues (e.g., keystroke error on entry) would be included in this report unless otherwise corrected. Similarly, other data cannot be independently verified. Given the large amount of data—and that these are the most comprehensive data available—we do not expect this to substantively bias our findings.

The teacher certification data available at the time of this report is limited to the 2019–20 school year, thus the sections reporting teacher certification are restricted to 2019–20. Additionally, the data set does not contain an exhaustive list of policy exemptions or waiver statuses that were active and implemented for the assignment of each teacher in each school district or charter school for each year. Thus, it was not possible for researchers to determine the exact number of uncertified teachers assigned to positions allowed under different policy options.

For this report, performance of uncertified teachers is limited to a discussion of attrition and mobility. The small number of uncertified teachers in charter schools and traditional public schools in recent years is not large enough to support the statistical power necessary for a comprehensive analysis of student performance. Performance data was limited to areas in which Texas requires state standardized testing, thus limiting the data set further.

Section 3: Overview of the Texas Teacher Workforce

In this section, we present findings on the teacher workforce in Texas. We examine the number and demographic characteristics of teachers, the distribution of teachers year on year across school levels and community types, the attrition and mobility of teachers, and certification status. The purpose of this section is to describe the Texas teacher workforce in its entirety, including teachers at traditional public schools and charter schools.

Total Teacher Population

Figure 3.1 displays the total number of traditional public school and charter school teachers in the Texas workforce. With the exception of 2011–12, when there were state education budget cuts, the teacher workforce grew by an average of 1% each year, from 338,190 in 2009–10 to 375,068 in 2020–21. For reference, the state student population has grown by an average of 1% per year from 4,824,778 in 2009-10 to 5,359,040 in 2020-21.¹⁸

FIGURE 3.1

Total Texas Public School Teachers, 2009–10 through 2020–21



Source. University of Houston Education Research Center

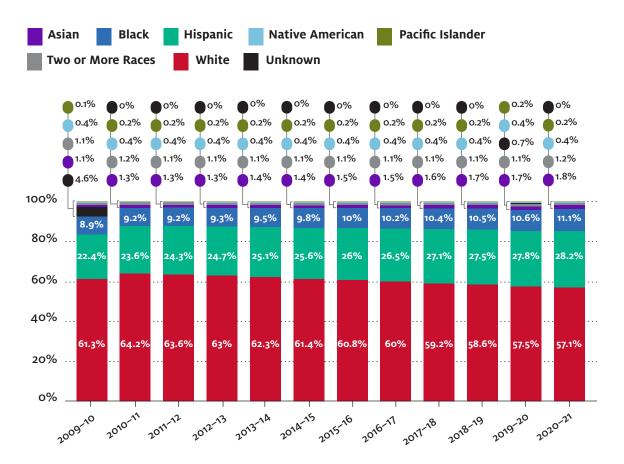
18 See Texas Academic Performance Reports

Teacher Characteristics

Since 2009–10, the Texas teacher workforce, both traditional public school and charter school teachers, has had little demographic change. The workforce remains largely female (76%), with only 24% of teachers identified as male. The race/ethnicity of teachers in Texas is shown in Figure 3.2. There has been some increase in the representation of Hispanic teachers, from 22.4% of all teachers in 2009–10 to 28.2% of all teachers in 2020–21, but the teacher workforce remains majority White (57.1%) with consistent representation from Black (11.1%) and Asian (1.8%) teachers.

FIGURE 3.2

Race and Ethnicity of Texas Public School Teachers, 2009–10 through 2020–21



Source. University of Houston Education Research Center

Note. Percentages calculated as proportion of total teachers (charter school and traditional public school) per year.

TABLE 3.1

Texas Public School Teachers by School Grade Level, 2009–10 through 2020–21

ī.

	Eleme Scho	-	Mic Sch		Hi: Sch	-		Grade School	Total
	Count	%	Count	%	Count	%	Count	%	Count
2009-10	163,363	48%	48,876	14%	86,139	25%	39,812	12%	338,190
2010-11	163,423	48%	49,298	14%	90,546	27%	37,014	11%	340,281
2011-12	157,853	48%	47,498	14%	87,866	27%	36,135	11%	329,352
2012-13	158,979	48%	48,502	15%	86,440	26%	38,666	12%	332,587
2013-14	161,668	48%	49,439	15%	90,360	27%	38,184	11%	339,651
2014-15	165,483	48%	51,070	15%	92,168	27%	38,748	11%	347,469
2015-16	166,851	47%	52,313	15%	95,253	27%	38,214	11%	352,631
2016-17	168,951	47%	53,321	15%	97,667	27%	38,574	11%	358,513
2017-18	169,494	47%	53,955	15%	98,834	27%	39,906	11%	362,189
2018-19	167,254	46%	55,860	15%	98,988	27%	41,879	12%	363,981
2019-20	169,412	46%	57,261	16%	100,243	27%	41,261	11%	368,177
2020-21	172,046	46%	59,300	16%	103,073	27%	40,649	11%	375,068

Source. University of Houston Education Research Center

Note. Percentages calculated as proportion of total teachers (charter school and traditional public school) per year.

Both charter schools and traditional public schools require teachers to hold a bachelor's degree, and 99% of all teachers hold at least a bachelor's degree.¹⁹ The percentage of teachers with master's degrees has increased from 21% in 2009–10 to 25% in 2020–21.

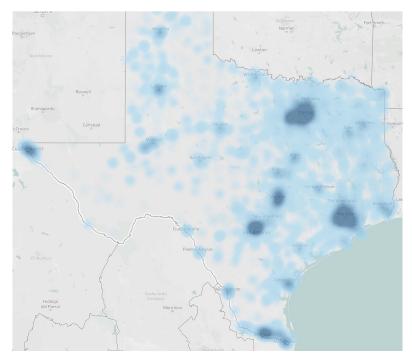
School Characteristics

Nearly half of all teachers in Texas public schools (traditional public schools and charter schools) are working in elementary schools, a trend that has been consistent over time. As shown in Table 3.1, in the

¹⁹ Many courses classified as CTE do not require teachers to have bachelor's degrees (see <u>TAC 233.14</u>), and charter schools may employ individuals without bachelor's degrees in residential centers for non-core vocational classes (see <u>TEC 12.129</u>).

FIGURE 3.3 Map of Texas Teachers, 2019–20

This map shows the concentrations of total teachers (charter school and traditional public school) across the state. Darker areas indicate higher concentrations of teachers.



Source. University of Houston Education Research Center

2020–21 school year, 46% of all public school teachers were in elementary school, 16% were in middle school, 27% were in high school, and 11% were at mixed grade level schools.

The map in Figure 3.3 displays the location of Texas teachers across the state for the 2019–20 school year. Darker areas indicate higher concentrations of teachers, like those surrounding the more highly populated areas of San Antonio, Austin, Dallas/Fort Worth, and Houston.

The TEA categorizes school districts according to the community served (see Section 2 for a full description of community types). Table 3.2 shows the number and percentage of teachers by community type. School districts in major suburban communities employ the largest number of teachers (34% of all teachers in 2020–21), while school districts in non-metropolitan fast-growing communities employ the smallest number of teachers (1% of all teachers in 2020–21).

Charter schools stand alone as a separate community type, though they are located throughout the state. While the percentage of teachers in charter schools remains under 10%, the number of teachers at charter schools has increased steadily over the past decade. This is due largely to the proliferation of charter schools over that time. In the 2009–10 academic year, 207 different charters operated 463 charter schools in Texas and employed 7,113 teachers, which represented 2% of the Texas public school teacher workforce. In the 2020–21 school year, 185 charters operated 836 charter schools that employed 21,732 teachers, representing 6% of the Texas teacher population.

27

TABLE 3.2

Texas Public School Teachers by Community Type, 2009–10 through 2020–21

			Independent	Ident	Majo	or	Major	r	Non-Metro	etro	Non-Metro	etro	Other	r.	Other Central	r a		
	Rural		Town			rban %			Fast Growth	owth %	Stable		Central City	City	Suburban	oan °	Charters	ers
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
2009-10	17,709	%9	17,607	%9	104,551	33%	61,458	20%	2,155	1%	21,752	7%	51,615	16%	47,368	15%	7,113	2%
2010-11	17,391	%9	17,406	%9	103,542	33%	61,118	19%	2,149	1%	21,611	7%	52,008	17%	47,464	15%	8,292	3%
2011-12	16,338	5%	16,668	6%	98,361	33%	58,288	19%	2,098	1%	20,600	%2	50,106	17%	45,376	15%	9,188	3%
2012-13	15,951	5%	16,291	5%	97,924	33%	57,249	19%	2,186	1%	20,372	7%	49,924	17%	45,351	15%	10,099	3%
2013-14	16,030	5%	16,095	5%	98,270	33%	57,318	19%	2,161	1%	20,559	%2	50,079	17%	45,451	15%	11,588	4%
2014-15	15,701	5%	16,366	5%	98,900	33%	57,574	19%	2,170	1%	20,329	%2	49,704	16%	45,612	15%	12,711	4%
2015-16	15,722	5%	16,058	5%	96,381	32%	56,608	19%	2,211	1%	20,247	7%	50,018	17%	46,461	15%	13,703	5%
2016-17	15,079	5%	15,838	5%	94,638	32%	55,477	19%	2,278	1%	19,721	7%	49,183	16%	45,657	15%	15,667	5%
2017-18	14,921	5%	15,586	5%	92,341	32%	53,058	18%	2,179	1%	19,045	%2	47,645	16%	44,896	15%	17,371	%9
2018-19	14,728	5%	15,374	5%	88,682	31%	49,353	17%	2,268	1%	18,392	%9	46,553	16%	44,410	16%	18,028	%9
2019-20	15,091	5%	15,232	6%	86,021	31%	47,140	17%	2,320	1%	18,025	%2	44,720	16%	42,818	16%	19,437	7%
2020-21	15,776	5%	16,963	5%	113,741	34%	57,637	17%	2,860	1%	19,833	%9	54,356	16%	50,776	15%	21,732	6%

27

Attrition and Mobility

Over the past decade, the statewide average experience of all teachers in traditional public schools and charter schools, regardless of certification status, has remained near 11 years. Each year, an average of 7% of the entire teacher workforce are beginning teachers. Teacher attrition,²⁰ defined as leaving the classroom teacher role, is shown in Table 3.3. For this report, teacher attrition is measured through the 2020–21 school year. Since the 2015–16 school year, teacher attrition after the first year of teaching has increased, oscillating between 11% and 13% in the past four cohorts. The same applies to attrition after Year 2, which has been consistent at 8% starting with the 2016–17 cohort.

TABLE 3.3

Texas Public School Teacher Attrition Rates by First-Year Teacher Cohorts, 2009–10 through 2020–21

Teacher Cohort Year	First- Year Teachers	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
2009-10	24,750	8%	7%	6%	5%	5%	4%	4%	4%	4%	4%	4%
2010-11	23,744	10%	7%	6%	4%	5%	4%	4%	4%	4%	4%	
2011-12	16,505	9%	7%	5%	5%	5%	5%	5%	5%	5%		
2012-13	26,230	8%	6%	6%	5%	5%	5%	5%	5%			
2013-14	30,158	9%	6%	6%	5%	6%	6%	5%				
2014-15	30,811	9%	7%	6%	6%	6%	4%					
2015-16	29,894	10%	7%	7%	6%	6%						
2016-17	29,694	11%	8%	7%	6%							
2017-18	28,624	12%	8%	7%								
2018-19	26,709	13%	8%									
2019-20	28,039	12%										

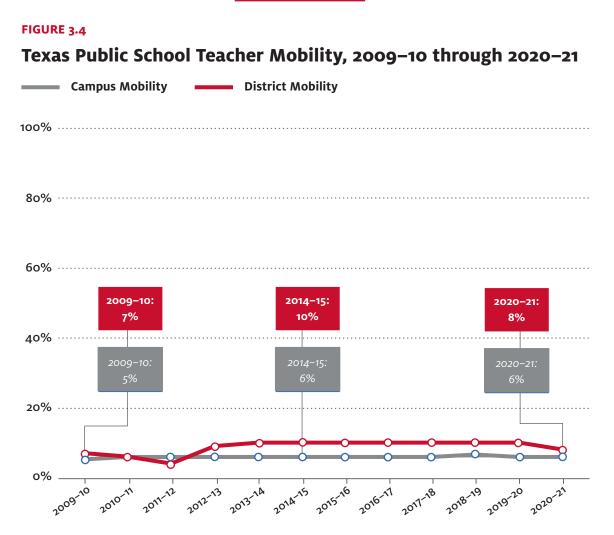
Source. University of Houston Education Research Center

Note. Percentage calculated as proportion of total first-year teacher cohort (charter schools and traditional public schools) per year.

²⁰ The TEA regularly publishes the <u>Teacher Retention by Preparation Route</u> report. Retention can be seen as the opposite of attrition. While the report is complementary to the attrition percentages reported in this study, the TEA has defined retention differently over the years, and the most recent version of the report considers a teacher retained if they "maintain continuous employment as a teacher in Texas public schools on a half-time or more basis." The differences in definition of retention and attrition contribute to the differences in attrition and retention between this study and the data published by the TEA.

Teacher mobility at both the campus and school district levels is shown by year in Figure 3.4. Teachers who taught at a different campus within the same school district the previous year are counted under the campus mobility category. Campus mobility is calculated by dividing the number of teachers who remained in the same school district but taught at a different campus than the previous year by the total number of teachers on the campus. Teachers who taught in a different district than the previous year are counted in the district mobility category. District mobility is reserved for teachers who left one school district to teach in another school district. In 2019–21, 6% of teachers moved to a new campus within the same school district than they taught in during the 2019–20 school year. Only individuals in teaching roles during both years were included in the mobility rates displayed in Figure 3.4.

Though campus mobility has remained relatively stable over the past decade, district mobility has been more volatile. Prior to state education budget cuts during the 2011–12 school year, district mobility was decreasing, meaning more teachers were remaining in the same school district year over year. In the two years following the budget cuts, district mobility increased as teachers who were released from schools during budget cuts relocated after resources were gradually restored by the legislature. After that time, district mobility remained constant.



Source. University of Houston Education Research Center

Note. Percentages calculated as proportion of total teachers (charter schools and traditional public schools) per year.

Certification

As described earlier in Table 2.1, Texas offers several types of certifications for classroom teachers. Table 3.4 displays the types of certifications held by classroom teachers from 2009–10 through 2019–20, including the number of teachers in Texas public schools (traditional and charter) teaching without a teaching certificate of any kind. Teachers with each certification type were counted and percentages were calculated by dividing the count by the total number of teachers in the given year.

Over the past decade, the percentage of Texas public school teachers with a standard teaching certificate has increased from 80% of teachers in 2009–10 to 92% of teachers in 2019–20. The percentage of teachers with no teaching certification has decreased markedly, from 19% of teachers in 2009–10 to 7% of teachers in 2019–20. Each year, less than 2% of teachers had either an emergency, probationary, or extended permit certification.

TABLE 3.4

Certification Status of Texas Public School Teachers, 2009–10 through 2019–20

	No Certifica		Emerg Certifie		Exter Peri Certific	nit	Probat Certific	-	Standa Certifica		Total Teachers
	Count	%	Count	%	Count	%	Count	%	Count	%	Count
2009-10	63,307	19%	360	0.1%	1,248	0.4%	2,609	0.8%	270,666	80%	338,190
2010-11	56,813	17%	285	0.1%	845	0.2%	2,357	0.7%	279,981	82%	340,281
2011-12	49,141	15%	352	0.1%	776	0.2%	1,541	0.5%	277,542	84%	329,352
2012-13	43,272	13%	688	0.2%	545	0.2%	2,596	0.8%	285,486	86%	332,587
2013-14	38,525	11%	922	0.3%	746	0.2%	3,292	1.0%	296,166	87%	339,651
2014-15	34,979	10%	978	0.3%	1,001	0.3%	4,138	1.2%	306,373	88%	347,469
2015-16	31,805	9%	957	0.3%	1,146	0.3%	4,322	1.2%	314,401	89%	352,631
2016-17	29,091	8%	98.5	0.0%	1,021	0.3%	4,076	1.1%	323,340	90%	358,513
2017-18	27,254	8%	1,072	0.3%	682	0.2%	4,076	1.1%	329,105	91%	362,189
2018-19	25,550	7%	1,163	0.3%	125	0%	3,864	1.1%	333,279	92%	363,981
2019-20	24,511	7%	1,175	0.3%	108	0%	5,152	1.4%	337,231	92%	368,177

Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as proportion of total teachers (charter schools and traditional public schools) per year. Probationary Certification includes both probationary and intern certifications.

As described in Section 2 of this report, Texas teacher certifications are authorized by the SBEC, which also approves organizations as educator preparation programs. The different organizations serving as EPPs are categorized into two groups: traditional university-based programs and alternative certification programs. Any program affiliated with a university, either public or private, is categorized as a traditional university-based programs are those affiliated with education service centers, community colleges, school districts, charter schools, certification by exam programs, and for-profit alternative pathway providers.

TABLE 3.5

Texas Public School Teacher Preparation Pathways by First-Year Teacher Cohorts*, 2009-10 through 2019-20

	First-Year Teachers*	Traditional University-Based Program	Alternative Certification Program
2009-10	24,750	42%	58%
2010-11	23,744	39%	61%
2011-12	16,517	45%	55%
2012-13	26,241	46%	54%
2013-14	30,163	42%	58%
2014-15	30,820	37%	63%
2015-16	29,895	24%	66%
2016-17	29,702	32%	68%
2017-18	28,632	32%	68%
2018-19	26,709	32%	68%
2019-20	28,040	31%	69%

Source: University of Houston Education Research Center

Note: *First-year teacher cohorts include teachers associated with a traditional university-based or alternative certification program in their first year of teaching.

Figure 3.6 displays the teacher certification preparation pathways for certified first-year teachers by cohort. In 2009-10, a total of 24,750 certified first-year teachers were teaching in Texas public schools. Of those, 42% were prepared through a traditional university-based program and 58% were prepared through an alternative certification program. Over the last decade, the percentage of certified first-year teachers prepared through traditional university-based programs has decreased. In 2019-20, only 31% of the total 28,040 certified first-year teachers were prepared through traditional university-based programs.

TABLE 3.6

Texas Public School Teacher Attrition Rates by First-Year Teacher Cohorts* Certified through Traditional University-Based Programs, 2009–10 through 2020–21

Teacher Cohort Year	First- Year Teachers	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
2009-10	10,453	5%	4%	4%	4%	5%	5%	4%	5%	5%	4%	4%
2010-11	9,175	5%	4%	4%	4%	5%	4%	4%	5%	5%	4%	
2011-12	12,099	3%	4%	4%	4%	5%	5%	5%	5%	5%		
2012-13	12,626	4%	4%	4%	4%	5%	5%	5%	5%			
2013-14	11,488	4%	4%	4%	5%	5%	5%	5%				
2014-15	10,149	4%	4%	4%	5%	6%	5%					
2015-16	10,149	4%	5%	5%	5%	6%						
2016-17	9,420	5%	5%	6%	6%							
2017-18	9,021	5%	6%	5%								
2018-19	8,566	6%	6%									
2019-20	8,595	6%										

Source. University of Houston Education Research Center

Note. *First-year teacher cohorts include teachers associated with a traditional university-based program in their first year of teaching. Percentage calculated as proportion of total first-year teacher cohort (charter schools and traditional

Generally, reviewing the attrition rates of first-year teacher cohorts over the last decade, teachers prepared by traditional university-based programs have lower rates of attrition than those of alternative certification programs. Comparison of Table 3.6 and Table 3.7 shows that the attrition of first-year teachers prepared by traditional university-based programs has remained between 3% and 6% over the last decade, while attrition of first-year teachers prepared by alternative certification programs ranged from 11% to 16% over the same time period. Attrition rates of teachers prepared by traditional university-based programs remain lower until the sixth year of teaching, when teachers prepared by alternative certification programs have attrition rates more similar to their peers prepared by traditional university-based programs.

TABLE 3.7

Texas Public School Teacher Attrition Rates by First-Year Teacher Cohorts Certified through Alternative Certification Programs, 2009–10 through 2020–21

Teacher Cohort Year	First- Year Teachers	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
2009-10	14,297	13%	9%	7%	5%	5%	4%	4%	4%	4%	4%	4%
2010-11	14,569	14%	9%	7%	5%	5%	4%	4%	4%	4%	4%	
2011-12	9,159	13%	9%	7%	5%	5%	4%	4%	4%	4%		
2012-13	14,142	11%	8%	7%	5%	5%	5%	5%	5%			
2013-14	17,537	12%	8%	7%	6%	6%	5%	5%				
2014-15	19,332	12%	8%	7%	6%	6%	5%					
2015-16	19,746	13%	8%	8%	6%	6%						
2016-17	20,282	14%	9%	8%	6%							
2017-18	19,611	15%	9%	8%								
2018-19	18,143	16%	8%									
2019-20	19,445	15%										

Source. University of Houston Education Research Center

Note. *First-year teacher cohorts include teachers associated with an alternative certification program in their first year of teaching. Percentage calculated as proportion of total first-year teacher cohort (charter schools and traditional

Conclusion

This section provided an overview of the Texas public school teacher workforce over the past decade. It is intended to provide context to best understand the information presented throughout the report. The following sections detail the uncertified teacher populations in traditional public schools and public charter schools.

Section 4: Uncertified Teachers in Traditional Public Schools

The following section details information about uncertified classroom teachers and the traditional public schools that employ them. For this section, charter schools have been removed, as they are subject to different provisions related to teacher certification. See Section 5 for information on uncertified teachers in charter schools.

Certification Status of All Teachers in Traditional Public Schools

The certification status of teachers in traditional public schools is shown in Table 4.1. Traditional public school teachers in each category were counted and percentages were calculated by dividing the count by

TABLE 4.1

Certification Status of Traditional Texas Public School Teachers, 2009–10 through 2019–20

	No Certification		Emergency Certification		Extended Permit Certification		Probationary Certification		Standard Certification		Total Teachers
	Count	%	Count	%	Count	%	Count	%	Count	%	Count
2009-10	60,884	18%	357	0.1%	1,180	0.4%	2,235	0.7%	265,770	80%	330,426
2010-11	54,390	16%	283	0.1%	778	0.2%	1,967	0.6%	273,843	83%	331,261
2011-12	46,873	15%	350	0.1%	713	0.2%	1,196	0.4%	270,317	85%	319,449
2012-13	40,858	13%	685	0.2%	495	0.2%	2,164	0.7%	277,317	86%	321,519
2013-14	35,720	11%	920	0.3%	686	0.2%	2,718	0.8%	287,155	88%	327,199
2014-15	31,739	10%	972	0.3%	924	0.3%	3,433	1.0%	296,467	89%	333,535
2015-16	28,202	8%	950	0.3%	1,065	0.3%	3,530	1.0%	303,873	90%	337,620
2016-17	24,808	7%	976	0.3%	948	0.3%	3,363	1.0%	311,740	91%	341,835
2017-18	22,117	6%	1,066	0.3%	642	0.2%	3,215	0.9%	316,764	92%	343,804
2018-19	19,907	6%	1,156	0.3%	116	0.0%	2,976	0.9%	320,424	93%	344,579
2019-20	18,199	5%	1,159	0.3%	97	0.0%	3,978	1.1%	324,079	93%	347,512

Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as proportion of total traditional public school teachers per year. Probationary Certification includes both probationary and intern certifications.

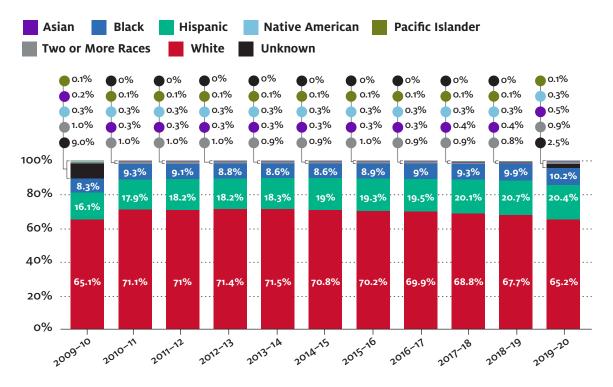
the total number of traditional public school teachers for a given year. As traditional public school teachers make up the overwhelming majority of the Texas teacher population (93% of the teacher workforce in 2019–20), the trends in certification status previously described for the total teacher workforce hold. The percentage of certified teachers in the classroom increased from 80% in 2009–10 to 93% in 2019–20, while the percentage of uncertified teachers in the classroom decreased from 18% to 5% in the same time period. While the percentage of probationary certifications and emergency certifications increased over time, they collectively remained under 1.5% over the past decade.

Teacher Characteristics

The racial and ethnic makeup of uncertified traditional classroom teachers is shown in Figure 4.1. Uncertified teachers identified in each racial/ethnic group are counted and percentages are calculated by dividing the count by the total number of uncertified teachers in a given year. From 2009–10 to 2019-20, the uncertified teacher population in Texas traditional public schools decreased dramatically—to 18,199 teachers (5% of the total traditional public school workforce) in 2019–20—but changed little demographically. The uncertified teacher workforce in traditional public schools remains largely female (76%), with only 24% of teachers identified as male. There was some increase in the representation of uncertified Hispanic teachers, from 16.1% of all uncertified teachers in 2009–10 to 20.4% of all uncertified teachers in 2019–20. The representation of White uncertified teachers experienced a decline, from 71.5% in 2013–14 to 65.2% in 2019–20, and the representation of Black uncertified teachers increased from 8.3% in 2009–10 to 10.2% in 2019–20.

FIGURE 4.1

Race and Ethnicity of Uncertified Texas Traditional Public School Teachers, 2009–10 through 2019–20



Source. University of Houston Education Research Center

Note. Data broken down by certification were unavailable for 2020-21. Percentage calculated as a proportion of total traditional public school uncertified teachers per school year.

School Characteristics

Table 4.2 displays the number and percentage of uncertified teachers in traditional public schools by school type. All uncertified teachers in each school type are counted and percentages are calculated by dividing the count by the total number of uncertified teachers in the indicated school year. While the number of uncertified teachers in each school type decreased since 2009–10, the proportional representation of uncertified teachers among some school types increased. High schools and mixed grade level schools employed larger proportions of uncertified teachers from 2009–10 to 2019–20. For example, of the total number of uncertified teachers, the proportion teaching in high schools increased from 30% in 2009–10 to 42% in 2019–20. At the same time, the proportion of uncertified elementary schools and middle schools decreased. Elementary schools are the best example of this decline, dropping from 43% to 32% from 2009–10 to 2019–20.

TABLE 4.2

Uncertified Texas Traditional Public School Teachers by School Grade Level, 2009–10 through 2019–20

	Elementary School		Middle School		Hi: Sch	-	Mixed Grade Level School		Total
	Count	%	Count	%	Count	%	Count	%	Count
2009-10	26,419	43%	8,509	14%	18,501	30%	7,455	12%	60,884
2010-11	23,182	43%	7,785	14%	17,584	32%	5,839	11%	54,390
2011-12	19,592	42%	6,648	14%	15,483	33%	5,150	11%	46,873
2012-13	16,901	41%	5,799	14%	13,383	33%	4,775	12%	40,858
2013-14	14,525	41%	4,969	14%	12,095	34%	4,131	12%	35,720
2014-15	12,748	40%	4,405	14%	10,952	35%	3,634	11%	31,739
2015-16	10,961	39%	3,900	14%	10,127	36%	3,214	11%	28,202
2016-17	9,356	38%	3,329	13%	9,222	37%	2,901	12%	24,808
2017-18	8,003	36%	2,941	13%	8,560	39%	2,613	12%	22,117
2018-19	6,684	34%	2,697	14%	8,007	40%	2,519	13%	19,907
2019-20	5,882	32%	2,389	13%	7,572	42%	2,356	13%	18,199

Source. University of Houston Education Research Center

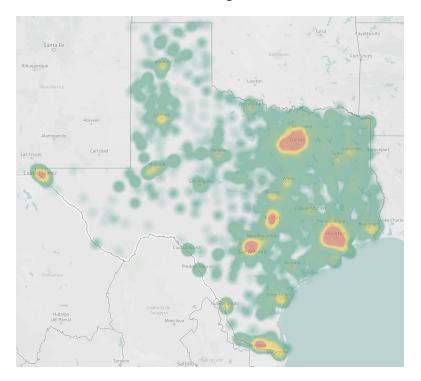
Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as proportion of total number of traditional public school uncertified teachers per school year.

The map in Figure 4.2 provides a more detailed examination of the location of uncertified teachers in traditional public schools in 2019–20. The map displays the uncertified teachers on a green-to-red scale of concentration. Green areas indicate smaller numbers of uncertified teachers, and red areas indicate higher numbers of uncertified teachers. When compared with the map of all Texas teachers in Figure 3.3, the distribution appears to be relatively constant across schools in the state.

FIGURE 4.2

Map of Uncertified Texas Traditional Public School Teachers, 2019–20

This map shows the location of uncertified teachers in traditional public schools. Green areas indicate smaller numbers, and red areas indicate higher numbers.

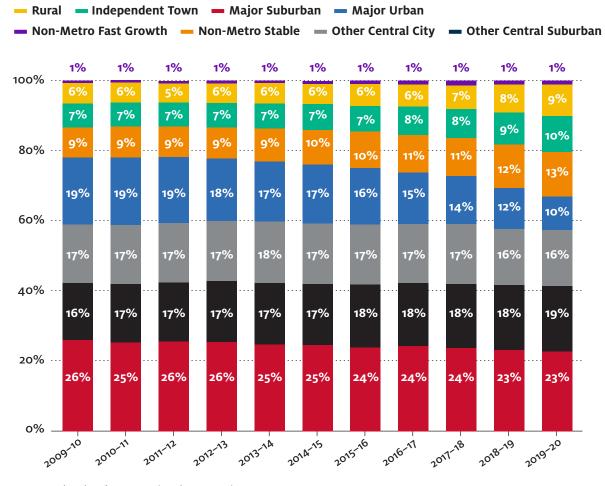


Source. University of Houston Education Research Center

An additional way of analyzing the geographic location of uncertified teachers is to examine the distribution among the school district community types in which they are employed (see Section 2 for a full description of each community type). Figure 4.3 displays the percentage of uncertified teachers for schools in each community type. Following the statewide trend, the percentages of uncertified teachers in traditional public schools in all community types have decreased. In 2019–20, the proportion of uncertified teachers is least in schools in non-metro fast growth areas (1%), while it is highest (23%) in major suburban communities. In rural communities, 9% of teachers were uncertified in 2019–20.

FIGURE 4.3

Uncertified Texas Traditional Public School Teachers by Community Type, 2009–10 through 2019–20



Sources. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as percentage of total traditional public school teachers per community type per year.

Attrition and Mobility

Teacher attrition,²¹ defined here as traditional public school teachers leaving the classroom teacher role, is shown for teachers grouped by their first year of teaching in Table 4.3. Attrition of first-year uncertified teachers in traditional public schools increased from 40% in 2009–10 to 44% in 2019–20, and the attrition rate was more than three times that experienced by the total Texas teacher workforce (all teachers in traditional public schools; see Table 3.3). However, it is notable that by Year 3, the attrition

²¹ The TEA regularly publishes the <u>Teacher Retention by Preparation Route</u> report. Retention can be seen as the opposite of attrition. While the report is complementary to the attrition percentages reported in this study, the TEA has defined retention differently over the years, and the most recent version of the report considers a teacher retained if they "maintain continuous employment as a teacher in Texas public schools on a half-time or more basis." The differences in definition of retention and attrition contribute to the differences in attrition and retention between this study and the data published by the TEA.

rates of uncertified teachers were about the same as teachers with similar years of experience in the total Texas teacher workforce (see Table 3.3). The attrition rates for uncertified teachers displayed in Table 4.4 are based upon teachers that were uncertified as first-year teachers. Some teachers in the table could have obtained a teachers certificate sometime after their first year of teaching.

TABLE 4.3

Uncertified Texas Traditional Public School Teacher Attrition Rates by First-Year Teacher Cohorts, 2009–10 through 2020–21

Teacher Cohort Year	First- Year Teachers	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
2009-10	1,157	40%	8%	7%	4%	3%	4%	2%	3%	2%	2%	2%
2010-11	1,112	36%	13%	5%	5%	3%	3%	3%	3%	3%	3%	
2011-12	938	42%	10%	7%	4%	4%	4%	2%	2%	3%		
2012-13	966	44%	9%	6%	5%	4%	4%	4%	4%			
2013-14	1,154	39%	9%	9%	5%	4%	4%	2%				
2014-15	1,166	39%	9%	7%	7%	4%	3%					
2015-16	1,232	42%	10%	8%	5%	5%						
2016-17	1,428	42%	12%	6%	7%							
2017-18	1,660	43%	11%	8%								
2018-19	1,951	40%	14%									
2019-20	1,951	44%										

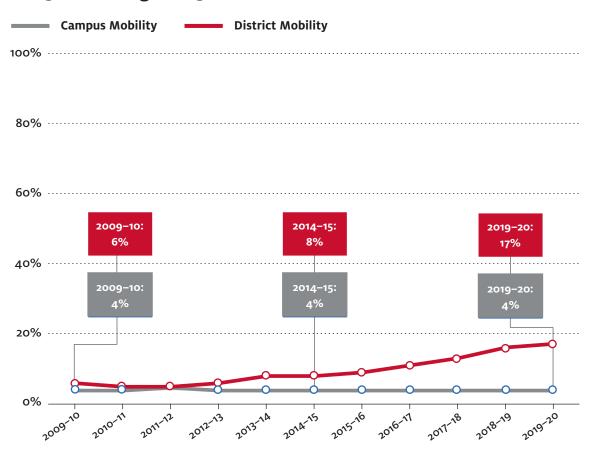
Source. University of Houston Education Research Center

Note. Percentage calculated as proportion of traditional public school first-year uncertified teacher cohort per year.

Teacher mobility for uncertified teachers at both the campus and school district levels at traditional public schools is shown by year in Figure 4.4. After the 2011–12 school year, when the state education budget experienced extensive cuts and campus mobility and district mobility both hovered at 5% for uncertified teachers, campus mobility returned to and remained constant at 4%—the pre-2011–12 level—while district mobility increased steadily for nearly all years. In 2019–20, 4% of uncertified teachers moved to a new campus within the same school district they taught in during the 2018–19 school year, and 17% of uncertified teachers moved to a new campus in a different school district than the one in which they were teaching during the 2018–19 school year.

FIGURE 4.4

Uncertified Texas Traditional Public School Teacher Mobility, 2009–10 through 2019–20



Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Uncertified traditional teachers who taught in a different campus within the same district the previous year are counted under the campus mobility category. Campus mobility is calculated by dividing the number of teachers who remained in the same district but taught at a different campus than the previous year by the total number of teachers on the campus. Teachers who taught in a different district than the previous year are counted in the district mobility category. District mobility is reserved for teachers who leave one district to teach in another district. Percentages calculated as proportion of traditional public school uncertified teachers per year.

District of Innovation

As described in Section 1, traditional public school districts that have been designated as Districts of Innovation can employ uncertified teachers as a part of their education plans. Districts of Innovation can apply for certain exemptions, including exempting new hires from meeting the certification requirement, exempting new hires who are certified from the requirement to only teach in their certification area, and allowing new district hires with multiple years of experience the opportunity to teach on a probationary contract for more than one year (TEC § 12A). In 2017–18 and 2018–19, 83% of uncertified traditional public school teachers were employed by Districts of Innovation. In 2019–20, the percentage of uncertified teachers employed by Districts of 84%.

Subject Area

Table 4.4 shows the percentage of teachers who taught a subject²² in which they were not certified from 2011–12 to 2018–19. In each year from 2011–12 to 2018–19, the subject with the greatest proportion of uncertified teachers was CTE. In the past three years, physical education/health and fine arts were tied for the second subject with the most uncertified teachers. Prior to that, special education joined physical education/health and fine arts as the subjects with the most uncertified teachers after CTE.

²² CTE programs are composed of courses that provide students with coherent and rigorous content that is intended to address academic standards while also imparting the relevant technical knowledge and skills needed to prepare for further education and careers. Technology applications is geared toward imparting "critical digital knowledge and skills." Special education teachers deliver instruction in an inclusive classroom with both students who are classified as special education and those who are not, while self-contained special education teachers provide instruction for all academic subjects to just special education students. For more information see the <u>TEA site on Subject Areas</u>.

Certification 2022	
Teacher (
Classroom	
Texas	

TABLE 4.4

42

Uncertified Texas Traditional Public School Teachers by Subject, 2011–12 through 2018–19

	Special Education Self- Contained	English Language Arts	Math	Science	Social Studies	Physical Education /Health	Foreign Language	Fine Arts	Technology Applications	Career & Technology	Special Education
2011-12	10%	12%	12%	12%	12%	17%	12%	17%	12%	18%	10%
2012-13	%6	10%	10%	10%	10%	15%	10%	15%	10%	16%	20%
2013-14	8%	8%	%6	8%	%6	13%	%6	13%	%6	14%	13%
2014-15	%9	7%	7%	7%	7%	11%	8%	12%	7%	13%	11%
2015-16	5%	6%	6%	6%	6%	10%	%2	10%	7%	11%	10%
2016-17	4%	5%	5%	5%	5%	%6	%9	%6	6%	11%	8%
2017-18	3%	4%	5%	4%	4%	8%	6%	8%	5%	11%	6%
2018-19	3%	3%	4%	4%	4%	%2	6%	7%	5%	11%	5%
	-					-			-		

Source. University of Houston Education Research Center

Note. Percentages calculated as proportion of total traditional public school teachers assigned to a subject area. Foreign Lanugage refers to languages other than English.

Section 5: Uncertified Teachers in Public Charter Schools

The following section details information about uncertified classroom teachers and the public charter schools that employ them. As discussed in Section 1 of this report, since their creation in the state, charter schools have been granted flexibility in teacher certification. Per Texas statute, charter school teachers must have a bachelor's degree but are not required to hold a teacher certification (TEC § 12.129).²³ For this section, traditional public schools have been removed, as charter schools are governed by different provisions related to teacher certification. See Section 4 for information on uncertified teachers in traditional public schools.

Certification Status of Teachers in Public Charter Schools

The certification status of teachers in public charter schools is shown in Table 5.1. Public charter school teachers in each category were counted and percentages were calculated by dividing the category count by

TABLE 5.1

Certification Status of Texas Public Charter School Teachers, 2009–10 through 2019–20

	No Certific		Emerg Certifie	, ,	Exter Peri Certific	nit	Probat Certific	-	Stand Certific		Total Teachers
	Count	%	Count	%	Count	%	Count	%	Count	%	Count
2009-10	2,423	31%	<5	<1%	52	0.7%	374	4.8%	4,896	63%	7,745
2010-11	2,423	27%	<5	<1%	68	0.8%	390	4.3%	6,138	68%	9,019
2011-12	2,268	23%	<5	<1%	67	0.7%	342	3.5%	7,225	73%	9,902
2012-13	2,414	22%	<5	<1%	63	0.6%	432	3.9%	8,169	74%	11,078
2013-14	2,805	23%	<5	<1%	50	0.4%	574	4.6%	9,011	72%	12,440
2014-15	3,240	23%	6	0.0%	60	0.4%	705	5.1%	9,906	71%	13,917
2015-16	2,603	19%	7	0.0%	77	0.5%	792	5.7%	10,528	75%	14,007
2016-17	4,283	26%	9	0.1%	81	0.5%	713	4.3%	11,600	70%	16,686
2017-18	5,137	28%	6	0.0%	73	0.4%	861	4.7%	12,341	67%	18,418
2018-19	5,643	29%	7	0.0%	40	0.2%	888	4.6%	12,855	66%	19,433
2019-20	6,312	31%	16	0.1%	9	0.0%	1,174	5.7%	13,152	64%	20,663

Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as proportion of total public charter school teachers per year. Probationary Certification includes both probationary and intern certifications.

²³ Many courses classified as CTE do not require teachers to have bachelor's degrees (see <u>TAC §233.14</u>), and charter schools may employ individuals without bachelor's degrees in residential centers for non-core vocational classes (see <u>TEC § 12.129</u>).

the total number of public charter school teachers for a given year. Given that there is no statute mandating certification for classroom teachers in public charter schools, the percentage of uncertified teachers is higher than that of traditional public school teachers. The percentage of uncertified teachers in the charter school classroom decreased to a low point of 19% in the 2015–16 school year but increased to a high of 31% in 2019–20.

Teacher Characteristics

The racial/ethnic makeup of uncertified classroom teachers in public charter schools is shown in Figure 5.1. Uncertified teachers identified in each racial/ethnic group are counted and percentages are calculated by dividing the count by the total number of uncertified charter school teachers in a given year. While the proportion of White and Black teachers increased from 2009–10 to 2010–11, since 2010–11, the representation of White and Black uncertified teachers has decreased (39.6% to 25.3% and 34.5% to 27%, respectively). The representation of Hispanic uncertified teachers has increased from 20.6% in 2010–11 to 37.6% in 2019–20.

FIGURE 5.1

Black Hispanic Native American 🛛 Pacific Islander Asian **Two or More Races** White Unknown 0.1% 0% 0% 0.3% 0% 0% <u>0%</u> **0%** 0% 0% 0% 0.2% 0.2% 0.4% 0.2% 0.5% 0.3% 0.3% 0.4% 0.3% 0.4% 0.4% 0.3% 0.6% 0.6% 0.8% 0.4% 0.7% 0.4% 0.6% 1.0% 0.9% 1.0% 0.9% 1.0% 1.0% 1.0% 1.0% **h** 1.1% 1.0% 0.9% 2.9% 2.2% **1.1%** 2.9% 3.0% 4.3% 15.6% 3.2% 2.9% 3.1% 2.9% 2.8% 4.1% 5.5% 100% 80% 20.6% 23.1% 23.8% 27.2% 27.2% 29.8% 32.8% 37.6% 37.6% 37.2% 17.7% 60% 32.4% 34.5% 34.5% 33.9% 32.3% 32.7% 30.9% 29.1% 27.6% 40% 29.2% 27% 20% 31% 39.6% 37.6% 35.8% 34.6% 32.9% 28.6% 27.5% 25.3% 37.7% 35.3% 0% 2015-16 2010-11 2011-12 2012-13 2013-14 2014-15 2016-17 2017-18 2018-19 2019-20 **^**O 2009

Race and Ethnicity of Uncertified Texas Public Charter School Teachers, 2009–10 through 2019–20

Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as a proportion of total public charter school uncertified teachers per school year.

School Characteristics

Table 5.2 displays the number and percentage of uncertified public charter school teachers per school type. All uncertified teachers in each school type are counted and percentages are calculated by dividing the count by the total number of uncertified public charter school teachers in the indicated year. The number of uncertified teachers in each school type has increased since 2009–10, and the proportional representation of uncertified teachers among school types has shifted. Elementary schools are employing larger proportions of uncertified teachers; the percentage of uncertified teachers in elementary public charter schools has increased from 19% in 2009–10 to 30% in 2019–20. While the proportion of uncertified teachers in mixed grade level schools has decreased from 56% in 2009–10 to 46% in 2019–20, these schools still employ the greatest number of uncertified teachers across all school types—a trend that is consistent across all years.

TABLE 5.2

Uncertified Texas Public Charter School Teachers by School Grade Level, 2009–10 through 2019–20

_	Eleme Sche	-		idle Iool	Hi: Sch	-		Grade School	Total
	Count	%	Count	%	Count	%	Count	%	Count
2009-10	452	19%	152	6%	453	19%	1,366	56%	2,423
2010-11	491	20%	124	5%	474	20%	1,334	55%	2,423
2011-12	469	21%	104	5%	442	19%	1,253	55%	2,268
2012-13	489	20%	112	5%	448	19%	1,365	57%	2,414
2013-14	648	23%	152	5%	532	19%	1,473	53%	2,805
2014-15	843	26%	206	6%	534	16%	1,657	51%	3,240
2015-16	882	24%	297	8%	586	16%	1,838	51%	3,603
2016-17	1,138	27%	401	9%	663	15%	2,081	49%	4,283
2017-18	1,613	34%	183	4%	589	12%	2,352	50%	4,737
2018-19	1,654	29%	456	8%	748	13%	2,785	49%	5,643
2019-20	1,924	30%	617	10%	847	13%	2,924	46%	6,312

Source. University of Houston Education Research Center

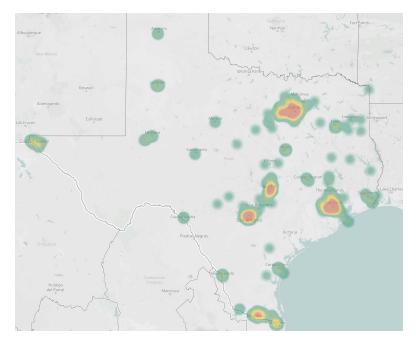
Notes. Data broken down by certification were unavailable for 2020-21. Percentage calculated as proportion of total number of public charter school uncertified teachers per school year.

A map of the uncertified teachers in public charter schools is shown in Figure 5.2. The map displays the uncertified teachers on a green-to-red scale of concentration. Green areas indicate smaller numbers of uncertified teachers in public charter schools, and red areas indicate higher numbers of uncertified teachers. The concentrations of uncertified teachers appear to largely align with the more highly populated areas of the state, with the strongest clusters around Houston, Dallas, San Antonio, and Austin. Again, it is important to note here that the map in Figure 5.2 indicates where there are geographic concentrations of uncertified teachers in charter schools. As there are more charter schools in urban centers (e.g., Houston, San Antonio, and Dallas), the concentration of uncertified teachers is larger in those areas. This is different from the community type metrics referenced in Tables 3.2 and 4.3, which examine the proportion of uncertified teachers teaching in schools assigned to different community types.²⁴

FIGURE 5.2

Map of Uncertified Texas Public Charter School Teachers, 2019–20

This map shows the location of uncertified teachers in public charter schools. Green areas indicate smaller numbers, and red areas indicate higher numbers.



Source. University of Houston Education Research Center

²⁴ Regardless of geographic location, charter schools are assigned a community type of "charter school" by TEA.

Attrition and Mobility

Teacher attrition,²⁵ defined as leaving the classroom teacher role, is shown for uncertified public charter school teachers grouped by their first year of teaching in Table 5.3. Of the uncertified first-year teachers in charter schools in 2009–10, 5% left after their first year and 3% left after their second year. In 2019–20, 3% of first-year uncertified teachers left teaching after their first year. Moreover, the attrition rates of uncertified charter school teachers were comparatively lower than those of the total teacher workforce, which averaged 12% over the past five years. The attrition rates for uncertified teachers displayed in Table 5.4 are based upon teachers that were uncertified as first-year teachers. Some teachers in the table could have obtained a teachers certificate sometime after their first year of teaching.

TABLE 5.3

Uncertified Texas Public Charter School Teacher Attrition Rates by First-Year Teacher Cohorts, 2009–10 through 2020–21

Teacher Cohort Year	First- Year Teachers	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
2009-10	2,009	5%	3%	1%	2%	1%	1%	1%	1%	1%	1%	1%
2010-11	2,320	3%	2%	2%	1%	1%	1%	1%	1%	1%	1%	
2011-12	2,195	4%	2%	1%	1%	1%	1%	1%	1%	1%		
2012-13	2,755	3%	2%	1%	1%	1%	1%	1%	1%			
2013-14	3,267	3%	2%	2%	1%	2%	1%	1%				
2014-15	3,397	3%	2%	2%	2%	2%	2%					
2015-16	3,553	3%	3%	2%	2%	2%						
2016-17	3,713	5%	3%	2%	2%							
2017-18	4,139	4%	3%	2%								
2018-19	3,656	4%	3%									
2019-20	4,000	3%										

Source. University of Houston Education Research Center

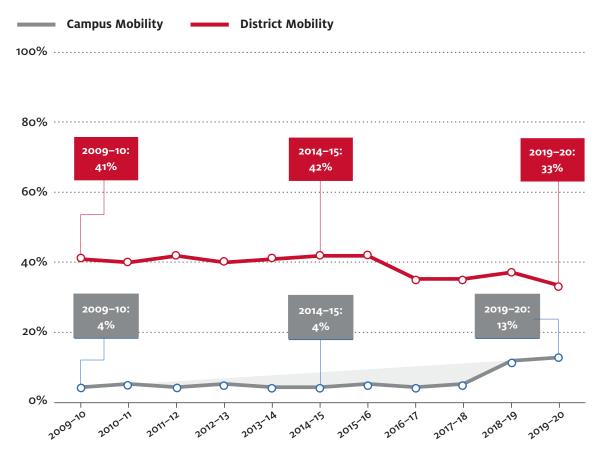
Note. Percentage calculated as proportion of public charter school first-year uncertified teacher cohort per year.

²⁵ The TEA regularly publishes the <u>Teacher Retention by Preparation Route</u> report. Retention can be seen as the opposite of attrition. While the report is complementary to the attrition percentages reported in this study, the TEA has defined retention differently over the years, and the most recent version of the report considers a teacher retained if they "maintain continuous employment as a teacher in Texas public schools on a half-time or more basis." The differences in definition of retention and attrition contribute to the differences in attrition and retention between this study and the data published by the TEA.

Teacher mobility at both the campus and school district levels at public charter schools is shown by year in Figure 5.3. From 2009–10 to 2017–18, the campus mobility rate of uncertified teachers at public charter schools hovered around 5%. In 2018–19, the rate escalated to about 12% and can be seen leveling off at 13% in 2019–20. The district mobility rate has been on a decline since peaking around 43% in 2015–16. In 2019–20, 33% of teachers moved to a new campus in a different school district than they taught in during the 2018–19 school year.

FIGURE 5.3

Uncertified Texas Public Charter School Teacher Mobility, 2009– 10 through 2019–20



Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. Uncertified teachers who taught in a different campus within the same district the previous year are counted under the campus mobility category. Campus mobility is calculated by dividing the number of teachers who remained in the same district but taught at a different campus than the previous year by the total number of teachers on the campus. Uncertified traditional teachers who taught in a different campus within the same district the previous year are counted under the campus mobility category. Teachers who taught in a different district than the previous year are counted in the district mobility category. District mobility is reserved for teachers who leave one district to teach in another district. Percentages calculated as proportion of uncertified teachers per year.

Subject Area

Table 5.4 shows the percentage of uncertified charter school teachers by the subject²⁶ area in which they taught. For each year, the subjects with the greatest proportion of uncertified charter school teachers were foreign language, special education, and CTE. In 2018–19, foreign language had the highest percentage of uncertified teachers, followed by special education; in both cases, nearly 50% of charter school teachers in the subject area were uncertified. CTE had the third most uncertified charter school teachers assigned to teach the subject.

²⁶ CTE programs are composed of courses that provide students with coherent and rigorous content that is intended to address academic standards while also imparting the relevant technical knowledge and skills needed to prepare for further education and careers. Technology applications is geared toward imparting "critical 21st Century digital knowledge and skills." Special education means teachers are delivering instruction in an inclusive classroom with both special education and non-special education students, while self-contained special education teachers are responsible for teaching all academic subjects to just special education students. For more information see the <u>TEA site on Subject Areas</u>.

tification 2022
Cer
Teacher (
Classroom
Texas

TABLE 5.4

50

Uncertified Texas Public Charter School Teachers by Subject Area Taught, 2011–12 through 2018–19

	Special Education Self- Contained	English Language Arts	Math	Science	Social Studies	Physical Education /Health	Foreign Language	Fine Arts	Technology Applications	Career & Technology	Special Education
2011-12	14%	16%	16%	19%	16%	31%	36%	24%	24%	32%	*
2012-13	16%	15%	16%	17%	16%	29%	39%	23%	26%	33%	39%
2013-14	20%	16%	17%	18%	16%	30%	38%	24%	23%	33%	43%
2014-15	25%	17%	17%	19%	18%	31%	39%	27%	27%	34%	42%
2015-16	25%	18%	19%	20%	19%	31%	40%	27%	28%	36%	50%
2016-17	28%	19%	19%	20%	20%	32%	43%	29%	35%	35%	46%
2017-18	35%	21%	20%	22%	21%	33%	45%	27%	28%	33%	46%
2018-19	28%	21%	21%	24%	22%	33%	48%	29%	28%	36%	47%
Source. Unive	rsity of Houston	Source. University of Houston Education Research Center	rch Center								

Source. University of Houston Education Research Center

Notes: Percentages calculated as proportion of total traditional public school teachers assigned to a subject area. Foreign Lanugage refers to languages other than English. A * indicates a value masked due to small numbers. Subject area data was limited to 2018–19 due to data availability. Percentages calculated as proportion of total public charter school teachers by subject area taught.

Section 6: Discussion

The purpose of this study was to understand the ways in which flexibilities in hiring uncertified teachers granted by Texas policy contributed to uncertified teachers in public school classrooms. Overall, despite increased flexibility in teacher certification requirements granted by state policy, the percentage of certified teachers in Texas public school classrooms has increased since the 2009–10 school year. The percentage of Texas public school teachers with a standard, five-year teaching certification increased from 80% in 2009–10 to 92% 2019–20, and each year, less than 2% of teachers were temporarily certified for a one-year period with an emergency, probationary, or extended permit certification. Inversely, the percentage of teachers with no teaching certification decreased from 19% in 2009–10 to 7% 2019–20.

With the exception of increased attrition among first-year teachers in recent years, the attrition pattern of Texas public school teachers remained constant over the past decade. Each year, first-year teachers made up an average of 7% of the entire teacher workforce (traditional public schools and charter schools combined). Nine percent of the 2014–15 cohort of first-year teachers left teaching, compared with 12% of the 2019–20 cohort of first-year teachers, reflecting an increase in the rate of departure over the past decade. Notably, teachers prepared by traditional university-based programs have lower rates of attrition than teachers prepared by alternative certification programs.

Except for the 2011–12 school year immediately following legislative cuts to education funding, mobility among Texas public school teachers also remained constant over the past decade. Each year, roughly 10% of teachers moved to another campus in the same school district, and roughly 6% of teachers moved to a campus in a different school district.

Due to the different statutes governing the hiring of uncertified teachers in traditional public schools and charter schools, this report examined the two types of schools separately. Generally, the landscape of uncertified teaches in traditional public schools and charter schools looks quite different.

Uncertified Teachers in Traditional Public Schools

In traditional public schools, the number of uncertified teachers has diminished over the past decade, and very few uncertified teachers exist. The percentage of uncertified teachers in the classroom has decreased from 18% to 5% of teachers from 2009–10 to 2019–20. The small number of uncertified teachers in classrooms are employed by schools across the state, with no clear concentration of uncertified teachers in any one geographic locale. Uncertified teachers are largely teaching high school CTE, fine arts, and physical education/health courses in school districts designated as Districts of Innovation. Uncertified teachers are substantially more mobile than teachers with standard certifications, both in their likelihood of leaving the profession after the first year and their likelihood of moving to a different school district.

Uncertified Teachers in Public Charter Schools

Over the past decade, charter schools statewide have continued to exercise the ability to hire uncertified teachers granted in statute. Uncertified teachers account for roughly one-third of all classroom teachers in public charter schools and are most highly concentrated in teaching foreign language and special education subjects. Uncertified teachers in charter schools are less likely to leave the teaching field but more likely to move from one school district to another.

Limitations

The teacher certification data available at the time of this report is limited to the 2019–20 school year, thus the sections reporting teacher certification are restricted to 2019–20. During March 2020, schools began to be affected and closed due to the COVID-19 pandemic. While this report depicts the teacher workforce prior to the pandemic, the Teacher Vacancy Task Force²⁷ has since been established by the Texas Education Agency to understand the effects of the pandemic on the teacher workforce.

For this report, performance of uncertified teachers is limited to a discussion of attrition and mobility. The small number of uncertified teachers in charter schools and traditional public schools in recent years is not large enough to support the statistical power necessary for a comprehensive analysis of student performance. Performance data was limited to areas in which Texas requires state standardized testing, thus limiting the data set further. Robust analysis to appropriately link student performance to teacher certification would require much larger populations so that necessary controls for variance among and between groups could be included.²⁸

Implications

Over the past decade, certification of the Texas teacher workforce (charter school and traditional public school) has increased substantially, particularly driven by increases in certified teachers in traditional public schools. Even though the state granted schools the flexibility to hire uncertified teachers in recent years, more than 90% of traditional public school teachers and more than 60% of charter school teachers were certified. With the nascent development and implementation of new policies allowing flexibility in teacher certification—like Districts of Innovation—additional research and analysis within the next few years could illuminate the rationale behind traditional public schools and charter schools increasingly hiring certified teachers. Additional research is also needed into the uncertified teachers assigned to positions that are subject to federal regulation. This includes the prohibition on exemptions for certification in a bilingual/English as a Second Language or special education assignment (Hoover, 2021; Texas Association of School Boards, 2018). The employment of uncertified teachers in these areas aligns with national and state trends in teacher shortages and could be manifestations of the documented shortage of teachers in those areas (U.S. Department of Education, 2017).

²⁷ At the time this report was written, the Teacher Vacancy Task Force was being developed and beginning work to investigate causes of and solutions for teacher vacancies in the state. By the end of 2022, the task force is scheduled to publish reports and information vital to the teacher vacancy discussion.

²⁸ See Section 2 of this report for more detail on limitations.

References

- Allegretto, S., & Mishel, L. (2018). The teacher pay penalty has hit a new high: Trends in the teacher wage and compensation gaps through 2017. Economic Policy Institute. <u>https://files.eric.ed.gov/fulltext/ED593401.pdf</u>
- Anglin, K. L. (2021). The role of state education regulation: Evidence from the Texas Districts of Innovation statute. EdWorking-Paper No. 21-479. Annenberg Institute for School Reform at Brown University.
- Association for Supervision and Curriculum Development. (2016). What educators need to know about ESSA. *Educational Leadership*, 73(9). <u>https://www.ascd.org/el/articles/what-educators-need-to-know-about-essa</u>
- Chetty, R., Friedman, J. N., & Rockoff, J. E. (2014). Measuring the impacts of teachers II: Teacher value-added and student outcomes in adulthood. *American Economic Review*, 104 (9), 2633-79.
- Darling-Hammond, L. (2019, November 17). Burdensome student loan debt is contributing to the country's teacher shortage crisis. *Forbes*.
- García, E., & Weiss, E. (2020). A policy agenda to address the teacher shortage in U.S. public schools: The sixth and final report in the 'perfect storm in the teacher labor market' series. Economic Policy Institute.
- Goldhaber, D., Lavery, L., & Theobald, R. (2015). Uneven playing field? Assessing the teacher quality gap between advantaged and disadvantaged students. *Educational Researcher*, 44(5), 293–307
- Hanushek, E. A. (2011). The economic value of higher teacher quality. Economics of Education Review, 30(3), 466-479.
- Hoover, C. (2021). Teacher certification: Part 2–DOI flexibility and school district teaching permits. HRX. <u>https://www.tasb.org/services/hrse</u>
- Jiménez, D., & Glater, J. D. (2020). Student debt is a civil rights issue: The case for debt relief and higher education reform. *Harvard Civil Rights—Civil Liberties Law Review*, 55(1), 131.
- Klein, A. (2019). Answering your ESSA questions. Education Week, 38(27).
- Luo, M., & Mongey, S. (2019). Assets and job choice: Student debt, wages and amenities (Working Paper 25801). National Bureau of Economic Research.
- Martin, E. C., & Dwyer, R. E. (2021). Financial stress, race, and student debt during the Great Recession. Social Currents, 8(5), 424-445.
- National Commission on Excellence in Education. (1983). A nation at risk: The imperative for educational reform: A report to the nation and the Secretary of Education, United States Department of Education. Washington, D.C.: National Commission on Excellence in Education: [Superintendent of Documents, U.S. Government Printing Office distributor].
- Pennsylvania State Education Agency. (2016). The Every Student Succeeds Act: The "highly qualified teacher" requirements. PSEA Professional Learning Exchange. <u>https://www.psea.org/globalassets/for-members/psea-advisories/advisory-essa-highlyqualifiedteacherreqs.pdf</u>
- Podolsky, A., Kini, T., Bishop, J., & Darling-Hammond, L. (2016). Solving the teacher shortage: How to attract and retain excellent educators. Learning Policy Institute. <u>https://files.eric.ed.gov/fulltext/ED606767.pdf</u>
- Rivkin, S. G., Hanushek, E. A., & Kain, J. F. (2005). Teachers, schools, and academic achievement. *Econometrica*, 73(2), 417-458.

- Rothstein, J., & Rouse, C. E. (2011). Constrained after college: Student loans and early-career occupational choices. *Journal of Public Economics*, *95*(1-2), 149–163.
- Saultz, A., White, R. S., Mceachin, A., Fusarelli, L. D., & Fusarelli, B. C. (2017). Teacher quality, distribution, and equity in ESSA. *Journal of School Leadership*, 27(5), 652–674.
- Smith, E., & Gorard, S. (2007). Improving teacher quality: lessons from "America's No Child Left Behind." Cambridge Journal of Education, 37(2), 191–206.
- Spillan, S. (2017). Question & answer regarding licensing and certification requirements for teachers in charter schools under ESSA. *Elementary and Secondary Education Act (ESEA) Network*. <u>https://www.eseanetwork.org/news-and-re-sources/blogs/others/question-answer-regarding-licensing-and-certification-requirements-for-teachers-in-charter-schools-under-essa</u>
- Sutcher, L., Darling-Hammond, L., & Carver-Thomas, D. (2019). Understanding teacher shortages: An analysis of teacher supply and demand in the United States. *Education Policy Analysis Archives*, 27(35). <u>http://dx.doi.org/10.14507/epaa.27.3696</u>
- Templeton, T., Lowrey, S., Horn, C. L., Alghazzawi, D., & Bui, B. (2020a). Assessing the effectiveness of teacher educator preparation programs. University of Houston. <u>https://www.uh.edu/education/research/institutes-centers/erc/re-ports-publications/deans-report-epp-july-2020.pdf</u>
- Templeton, T., Lowrey, S., & Horn, C.L. (2020b) A review of Texas Educator Preparation Program policy. *TxEP: Texas Educator Preparation,* Consortium of State Organizations for Texas Teacher Education, (4), 57–80.
- Texas Association of School Boards. (2018). Districts of Innovation: Policy guidance for after the plan. <u>https://www.tasb.org/services/legal-services/tasb-school-law-esource/governance/districts-of-innovation/documents/doi_policy_guidance_after_plan.aspx</u>
- Texas Education Agency. (2021). Texas academic performance reports. <u>https://rptsvr1.tea.texas.gov/perfreport/tapr/2021/</u> index.html
- Texas Education Agency. School district teaching permits. <u>https://tea.texas.gov/texas-educators/certification/school-dis-trict-teaching-permits</u>
- Texas Higher Education Coordinating Board. (2021). *Texas public higher education almanac, 2021*. <u>https://reportcenter.</u> <u>highered.texas.gov/agency-publication/almanac/2021-texas-public-higher-education-almanac/</u>
- U.S. Department of Education. (2002). Meeting the highly qualified teachers challenge: The Secretary's annual report on teacher quality. <u>https://files.eric.ed.gov/fulltext/ED513876.pdf</u>
- U.S. Department of Education. (2017). *Teacher shortage areas nationwide listing 1990–1991 through 2017–2018*. Office of Postsecondary Education. <u>https://www2.ed.gov/about/offices/list/ope/pol/bteachershortageareasreport201718</u>. <u>pdf</u>
- Van Overschelde, J. P., & Wiggins, A. Y. (2017). Planting seeds in fertile soil: Assessing teacher employment environments in Texas. *TxEP: Texas Educator Preparation*, 1, 7–20.

Appendix A: An Exploration of Teacher Salary and Certification

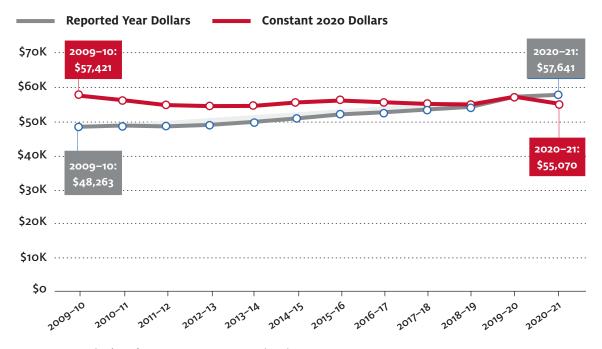
This exploration of teacher salary and teacher certification provides an initial review of data for the development of further research into school district and charter school teacher salaries and teacher certification.

For this exploration, salary is defined as the total actual salary amount in pay for regular duties only and does not include supplemental pay. For teachers who also have nonteaching roles, only the portion of time and pay dedicated to classroom responsibilities is factored into the salary calculation.

Figure A.1 displays the average teacher salary. The average salary data is reported in two ways: first, as report-year dollars (e.g., the 2018 average salary is reported in 2018 dollars, and the 2019 average salary is reported in 2019 dollars) and second, in constant 2020 dollars. The Consumer Price Index is used to convert the reported salaries into constant 2020 dollars so that the value can be assessed equally across years. Average salaries are reported per full-time equivalent unit and are used to calculate an annual salary dollar amount for each individual. Average salaries were calculated by averaging the annual salary dollar amount for all teachers each year. As Figure A.1 illustrates, while the average salary by reported year has increased slightly over time, the average salary in constant dollars has remained about the same from 2009–10 to 2020–21.

FIGURE A.1

Average Teacher Salaries in Reported Year and Constant 2020 Dollars, 2009–10 through 2020–21



Source. Texas Academic Performance Reports, 2009-10 though 2020-21

Note. The average salary data is reported in constant 2020 dollars. The Consumer Price Index is used to convert the reported dollars into constant 2020 dollars so that the value can be assessed equally across years. Average salaries are reported per full-time equivalent unit and are used to calculate an annual salary dollar amount for each individual. Average salaries were calculated by averaging the annual salary dollar amount for all teachers each year.

Texas Traditional Public School Teacher Salary Per Certification Status

Table A.1 displays the average teacher salary for teachers in traditional public schools by certification status. The average salary data is reported in constant 2020 dollars. The Consumer Price Index is used to convert the reported dollars into constant 2020 dollars so that the value can be assessed equally across years. Average salaries are reported per full-time equivalent unit and are used to calculate an annual salary dollar amount for each individual. Average salaries were calculated by averaging the annual salary dollar amount for all traditional public school teachers each year. In constant dollars, only traditional public school teachers each year. In constant dollars, only traditional public school teachers each year in constant 31,900. However, even with the increase in average salary for traditional public school teachers with standard and emergency certifications and the decrease in average salary for uncertified teachers in traditional public schools, uncertified teachers in traditional public schools except those with emergency certifications. Uncertified teachers in traditional public schools earned nearly \$62,300 in 2019–20, while certified teachers in traditional public schools earned nearly \$57,400.

TABLE A.1

Average Texas Traditional Public School Teacher Base Salary Per Certification Status, 2009–10 through 2019–20

	No Certification	Emergency Certification	Extended Permit Certification	Probationary Certification	Standard Certification
2009-10	\$66,832	\$65,705	\$51,638	\$50,204	\$55,859
2010-11	\$65,391	\$66,863	\$49,558	\$48,777	\$54,852
2011-12	\$63,608	\$66,159	\$48,335	\$47,797	\$53,574
2012-13	\$63,490	\$67,934	\$51,167	\$48,996	\$53,551
2013-14	\$63,670	\$69,764	\$48,882	\$50,079	\$53,851
2014-15	\$64,117	\$71,112	\$51,260	\$51,598	\$55,103
2015-16	\$64,436	\$71,674	\$52,264	\$53,934	\$55,785
2016-17	\$62,698	\$70,612	\$50,391	\$50,373	\$55,496
2017-18	\$61,093	\$69,178	\$50,176	\$48,444	\$55,050
2018-19	\$59,537	\$70,513	\$46,980	\$47,304	\$55,009
2019-20	\$62,252	\$67,564	\$50,515	\$50,021	\$57,392

Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. The average salary data is reported in constant 2020 dollars. The Consumer Price Index is used to convert the reported dollars into constant 2020 dollars so that the value can be assessed equally across years. Average salaries are reported per full-time equivalent unit and are used to calculate an annual salary dollar amount for each individual. Average salaries were calculated by averaging the annual salary dollar amount for all teachers in traditional public schools with each certification type each year.

Texas Charter School Teacher Salary Per Certification Status

Table A.2 displays the average salary for charter school teachers by certification status. The average salary data is reported in constant 2020 dollars. The Consumer Price Index is used to convert the reported dollars into constant 2020 dollars so that the value can be assessed equally across years. Average salaries are reported per full-time equivalent unit and are used to calculate an annual salary dollar amount for each individual. Average salaries were calculated by averaging the annual salary dollar amount for all charter school teachers each year. In constant dollars, the average charter school teacher salaries across all certification statuses increased from 2009–10 to 2019–20. However, even with the increases across the board, charter school teachers with standard certifications had the highest average salary at nearly \$54,500 a year. Charter school teachers with emergency certifications received the second highest average salary; uncertified charter school teachers received the third highest average salary, approaching \$51,000.

TABLE A.2

Average Texas Charter School Teacher Base Salary Per Certification Status, 2009–10 through 2019–20

	No Certification	Emergency Certification	Extended Permit Certification	Probationary Certification	Standard Certification
2009-10	\$47,415	\$46,620	\$46,611	\$45,708	\$49,719
2010-11	\$46,649	\$46,522	\$44,650	\$46,276	\$48,851
2011-12	\$47,021	\$58,694	\$44,397	\$47,437	\$49,540
2012-13	\$48,586	\$48,941	\$45,460	\$44,928	\$49,699
2013-14	\$46,083	\$43,623	\$46,012	\$46,347	\$51,371
2014-15	\$47,621	\$46,193	\$47,853	\$45,846	\$50,804
2015-16	\$47,517	\$54,235	\$48,385	\$48,876	\$52,079
2016-17	\$49,769	\$44,553	\$47,353	\$54,942	\$52,112
2017-18	\$48,450	\$47,214	\$47,142	\$47,717	\$51,761
2018-19	\$51,764	\$59,457	\$49,977	\$48,548	\$51,853
2019-20	\$50,979	\$52,438	\$49,800	\$50,589	\$54,491

Source. University of Houston Education Research Center

Notes. Data broken down by certification were unavailable for 2020-21. The average salary data is reported in constant 2020 dollars. The Consumer Price Index is used to convert the reported dollars into constant 2020 dollars so that the value can be assessed equally across years. Average salaries are reported per full-time equivalent unit and are used to calculate an annual salary dollar amount for each individual. Average salaries were calculated by averaging the annual salary dollar amount for all charter school teachers with each certification type each year.

Appendix B: An Exploration into Texas Teacher Earnings and Student Loan Debt

This exploration considers the student debt burden and the first-year salary of Texas public school teachers as possible barriers to entry into the teaching field. The low first-year salary offered to teachers is prohibitive to those who accrued student loan debt during their undergraduate degrees. Further, the increased financial burden of some race/ethnic groups prevents further diversification of the field. The following narrative describes teacher education requirements, student loan debt, and teacher salary.

Teacher Education Requirements

The minimum requirement to receive a standard teaching certificate in Texas is the completion of a bachelor's degree. Undergraduate students seeking teacher certification through traditional university-based programs receive a one-year probationary certificate to complete their student teaching and only receive the five-year standard certificate upon successful completion of their bachelor's degree and the certification program requirements. Individuals seeking teacher certification through an alternative education program or a post-baccalaureate program must show proof of bachelor's degree completion before admittance into the program.¹

Teacher Student Loan Debt

The Texas Higher Education Coordinating Board (THECB) monitors student loan debt as part of the state's higher education strategic plan, 60x30TX. The THECB annually publishes a public higher education almanac monitoring progress toward the goals set in 60x30TX. Ideally, the state has a goal of average student debt not exceeding 60% of a graduate's first-year wages. The 2021 almanac reported that 56.4% of all 2020 bachelor's degree graduates from Texas public institutions graduated with student loan debt and these graduates had an average of \$25,101 in loan debt (THECB, 2021).

The amount of debt carried also varied widely among students of different races/ethnicities. The 2021 almanac reported that for Black students, student loan debt amounted to 85% of first-year wages. Hispanic students (56%), White students (51%), and other student groups (51%) had student debt equal to roughly half of their first-year wages—much closer to the state's higher education goal (THECB, 2021). Beyond the race/ethnicity of the graduates, the average student debt varied widely among Texas public institutions. The lowest amounts of average student debt could be found at Sul Ross State University Rio Grande College, where 56% of bachelor's graduates had student loan debt, and their debt averaged roughly \$20,000 per graduate. The lower debt amounts were in part due to the college's low annual tuition and fee cost of \$5,833 per year (THECB, 2021). The highest amounts of debt were found at Texas Southern University, where more than 70% of bachelor's degree recipients graduated with student loan debt that averaged more than \$30,000 per graduate. Despite the moderate annual tuition and fee cost of \$9,570, this high debt is due in large part to the fact that 70% of its students are Pell-eligible, meaning they have a low expected family contribution for their education costs (THECB, 2021).

First-Year Teacher Salary

For first-year teachers in Texas public schools, the average first-year salary in the 2020–21 school year was \$50,849 (Texas Education Agency, 2021). Like the variety of student debt across institutions, beginning teacher salaries ranged widely. Campuses in the bottom 10th percentile of the salary range paid beginning teachers \$38,300, while campuses in the top 90th percentile paid beginning teachers \$57,172 (Texas Education Agency, 2021). Thus, the ability of a teacher to repay student loan debt could be dependent

¹ See the <u>TEA's Certification site</u> for more detailed information on pathways for certification and specific requirements.

upon their economic status entering college, where they attended college, and the campus where they were hired.

Conclusion

Over the past two decades, the burden of increasing tuition and associated education costs has shifted from state and federal government to students and their families, which are much more susceptible to the economic recession and crisis that the nation has experienced (Martin & Dwyer, 2021). And the burden of increasing debt in economic downturns disproportionately harms Black and Latinx graduates (Jiménez & Glater, 2020). To mitigate the negative influence of increasing student debt, graduates more often seek out and accept jobs with higher wages to offset the burden of student debt (Luo & Mongey, 2019; Rothstein & Rouse, 2011). This is especially salient in teaching, where the pay gap between teachers and similarly educated professionals has escalated since the mid-1990s (Allegretto & Mishel, 2018). Because the teaching profession requires a bachelor's degree, the wages of a teacher should be sufficient to repay student loan debt acquired to obtain the degree.

As the gap between teacher pay and pay for other professionals with similar levels of education has escalated and contributed to the decline in teachers generally and specifically among historically marginalized groups (Darling-Hammond, 2019; García & Weiss, 2020), many have called for increases in teacher pay and other remedies to attract and retain talented individuals to the profession (García & Weiss, 2020; Podolsky et al., 2016). Scholarships and loan forgiveness, the use of federal funds to offer financial incentives, and housing incentives have been suggested to improve the recruitment and retention of teachers (García & Weiss, 2020; Podolsky et al., 2016). Policymakers should consider the barriers created by student debt in the creation or improvement of policies aimed at strengthening the supply of well-qualified teachers for Texas public school classrooms.