POLICY BRIEF

No. 1 | Summer, 2024 Updated July 2024

Amid Rising Number of Uncertified Teachers, Previous Classroom Experience Proves Vital in Texas

J. Jacob Kirksey, Ph.D., *Texas Tech University*

The Shift Away from Certification

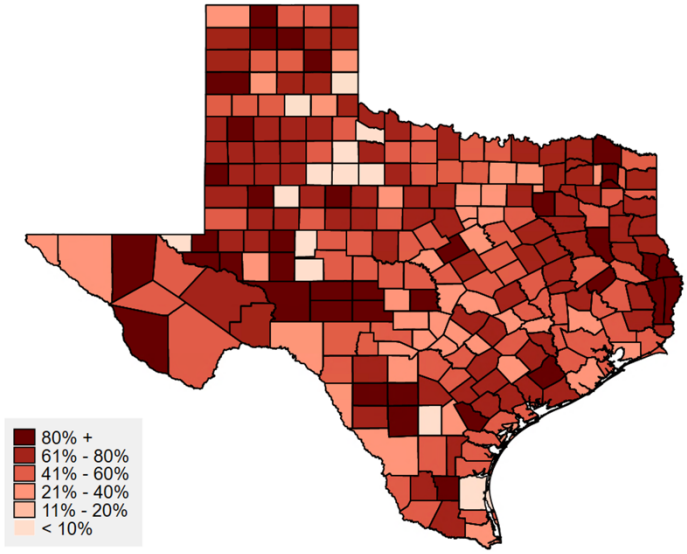
Since 2014, alternative certification programs have prepared most new Texas teachers. The concern now is that many new hires are not even taking that route. Instead, there's a staggering rise in the employment of uncertified teachers, driven by acute staffing shortages and the flexibility offered by the state's District of Innovation plans. This reliance on uncertified educators is raising alarms among educators and policymakers alike. Concerns are mounting over whether these teachers, often entering the classroom having never worked in public schools, are equipped to meet the demands of today's classrooms. This brief presents new evidence showing that uncertified teachers are linked to declines in student achievement.

This Study

Despite the rapid increase in uncertified new teacher hires- especially since the COVID-19 school closures- we know alarmingly little about these educators. This study examines the prevalence, backgrounds, and impacts of uncertified teachers on student achievement and draws attention to significant differences within this diverse group of educators. As schools continue to hire uncertified teachers to address staffing shortages, knowing the backgrounds of these teachers and how they shape student achievement helps stakeholders prioritize transition points, such as hiring individuals with previous classroom experience in non-teaching roles. This brief outlines findings from the 2021-22 and 2022-23 school years and provides recommendations for policymakers and stakeholder groups.

Figure 1

Percentage of Uncertified Teachers: 2022-23 School Year
45% of New, First-Time Teacher Hires Are Uncertified



Note: Data do not include charter schools.

HIGHLIGHTS

1. **Uncertified teachers made up over 80% of new hires in 40 counties.**
2. **72% of uncertified new teachers have no prior experience working in Texas public schools.**
3. **Nearly 1 in 5 uncertified new teachers do not hold a bachelor's degree.**
4. **Students with new uncertified teachers lose about 4 months of learning in reading and 3 months in math, unless the teacher has previous experience working in a public school.**
5. **Students with uncertified new teachers are significantly underdiagnosed for dyslexia and are more absent from school.**

TEXAS TECH UNIVERSITY
College of Education

CENTER FOR INNOVATIVE RESEARCH IN CHANGE, LEADERSHIP, AND EDUCATION

Part 1: Key Findings Statewide

1. **Nearly half of first-time new teacher hires are uncertified, substantially more so in rural districts:** Uncertified teachers make up 45% of full-time new teacher hires. Figure 1 above shows the geographic distribution of uncertified first-time teacher hires in the 2022-23 school year. Figure 2 shows new teacher hires by certification pathway.
2. **Rural Districts Rely Heavily on Uncertified Teachers:** Uncertified teachers are disproportionately concentrated in rural areas, where they are employed at a rate four times higher than in non-rural areas. Uncertified teachers made up over 80% of new hires in 40 counties across the state.
3. **Limited Prior Experience, Lower Qualifications, and Poor Certification Pathways:** Shown in Table 1, a striking 72% of uncertified teachers have no prior experience in Texas public schools in any role, and 16% are former paraprofessionals. Considering degree attainment, 18% of uncertified teachers do not have a bachelor's degree[i]. Looking at certification exam results for the last cohort of new teacher hires[ii], 1 in 3 uncertified teachers never attempt a certification exam required for initial certification in Texas. Compared to teachers who eventually become certified, uncertified teachers experience a much greater challenge passing the two required exams on their first attempt. Uncertified teachers who later receive certification tend to complete low-quality online programs, which have been linked to poor student outcomes.

Uncertified, New Teachers Cost Students 4 Months in Reading and 3 Months in Math

Figure 2

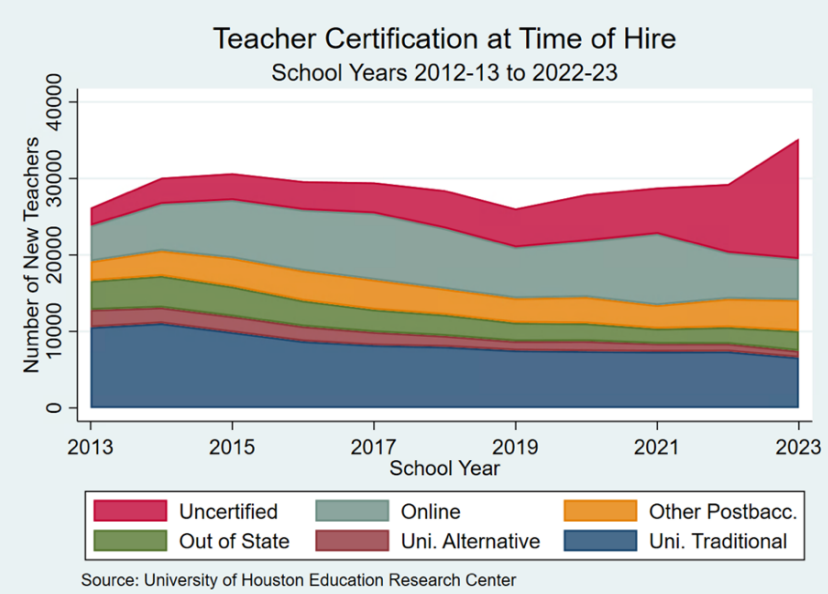


Table 1

Experience and qualifications of certified and uncertified new, first-time teachers

	Certified	Uncertified
Previous role in 2021-22		
Paraprofessional	14%	16%
Substitute teacher	3%	2%
Other classroom role	2%	1%
Non-classroom role	1%	1%
Never worked in a Texas public school	68%	72%
Highest education level in 2022-23		
No degree	4%	18%
Bachelor's degree	79%	70%
Master's degree or more	17%	12%
Certification exam results in 2022-23		
Never took exam	-	32%
Took exam: Never passed	-	11%
Took exam: Passed after 1 attempt	78%	37%
Took exam: Passed after 2 attempts	13%	11%
Took exam: Passed after 3+ attempts	9%	10%

4. **Most Uncertified, First-Time New Hires work in Secondary Subject-Areas:** Uncertified teachers are represented across grade and subject-areas, but they are more likely to teach in Career and Technical Education and less likely to teach elementary students. Table 2 displays the percentage breakdown of certified and uncertified teachers by subject.

5. **Negative Impacts from Uncertified Teachers with No Classroom Experience:** Students with uncertified teachers who had no prior classroom experience experienced learning losses equivalent to approximately 4 months in reading and 3 months in math compared to those with certified teachers[iii]. The blue dot in Figure 3 corresponds to the achievement declines shown by effect sizes, -0.11 for reading and -0.08 for math.

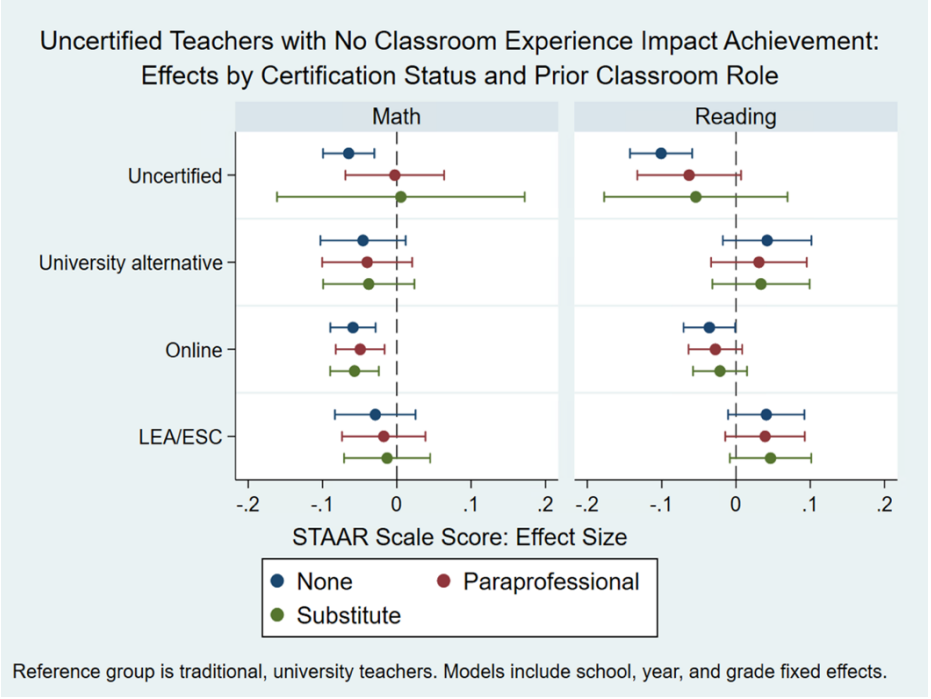
6. **No Impacts from Uncertified Teachers with Classroom Experience:** Student achievement effects differ based on whether an uncertified teacher worked in a non-teaching position as a paraprofessional, substitute teacher, or another classroom role. These make up 28% of the uncertified teacher population.

Table 2

Certification status of new, first-time hires by subject area

2022-23 School Year	Certified	Uncertified
Early Childhood	10%	10%
Elementary	36%	33%
Secondary Math	9%	9%
Secondary English Language Arts	9%	9%
Secondary Social Studies	6%	6%
Secondary Science	6%	7%
Career and Technical Education	5%	10%
Physical Education	3%	3%
Fine Arts	4%	3%
World Languages	1%	2%
Special Education	11%	8%

Figure 3



Reference group is traditional, university teachers. Models include school, year, and grade fixed effects.

Part 2: Early Warning Signs about Lasting Effects of Uncertified Teachers on Young Students

The high prevalence of uncertified first-time hired teachers in early childhood education- kindergarten and pre-kindergarten grade levels (Table 2)- raises significant concerns. While student achievement data for recent cohorts of early childhood students is not available, preliminary data show troubling disparities in several key indicators for first graders[iv] who had an uncertified, first-time teacher in 2020-21.

One implication is the disparity in rates of dyslexia diagnoses for students who had new uncertified teachers in early grades. Texas requires students to be screened for dyslexia in kindergarten and first grade, and a child's teacher is often the adult conducting the screening. Qualified teachers are trained to recognize early signs of dyslexia, administer screening instruments, and understand the importance of accurate and timely diagnoses for early intervention and support. As shown in Table 3, the hiring of uncertified teachers has likely resulted in significant underdiagnoses of dyslexia. These data reflect the 2020-21 cohort of first graders in Texas. Students who had an uncertified, first-time teacher in first grade were much less likely to receive dyslexia services by third grade. Compared to students who had certified, first-time teachers in first grade, where 7.91% received dyslexia services in third grade, only 3.56% of students with uncertified, first-time teachers received these services.

Table 3

Dyslexia Services and Absenteeism by 1st Grade Teacher Certification Status

Had Certified, New Teacher	**Overall**	**Rural**	**Suburban**	**Urban**
Dyslexia services, 3rd Grade	7.91%	8.32%	8.10%	7.00%
Absence rate, 1st Grade	5.52%	5.36%	4.43%	3.57%
Absence rate, 2nd Grade	6.47%	6.61%	6.12%	6.77%
Had Uncertified, New Teacher	**Overall**	**Rural**	**Suburban**	**Urban**
Dyslexia services, 3rd Grade	3.56%	4.00%	4.34%	2.59%
Absence rate, 1st Grade	6.56%	5.55%	4.56%	5.99%
Absence rate, 2nd Grade	6.88%	6.62%	6.61%	7.10%

*Note 3rd Grade attendance is not currently available for the 2020-21 cohort of 1st graders

Another alarming statistic is the increased rate of student absenteeism observed for students who had new uncertified in first grade. Regular attendance is crucial for academic success, and absenteeism is often linked to lower academic performance and disengagement from school. Qualified teachers play a key role in creating engaging and supportive classroom environments that encourage consistent attendance in early childhood grades. Table 3 displays statistics that indicate that students who have uncertified new teachers exhibit higher rates of absenteeism compared to students with certified new teachers. Specifically, students with uncertified new teachers experienced higher absence rates: 6.56% in first grade compared to 5.52% for those with certified teachers, and 6.88% in second grade compared to 6.47% for those with certified teachers. Disparities in attendance rates persist into later grades, indicating the potential for long-term disengagement.

Recommendations

1. **Leverage Current and Former Classroom Staff with Grow Your Own Programs:** Former paraprofessionals, long-term substitute teachers, and other classroom staff were not linked to the same student achievement decline as uncertified teachers with no prior classroom experience. Districts should take advantage of Texas's Grow Your Own programs, which provide grants and support the transition of candidates serving in classroom roles- paraprofessionals, instructional facilitators, and long-term substitutes. This finding supports the idea that this could be a promising model for developing new teachers. Policymakers should consider additional investments in these programs, explicitly focusing on rural districts.
2. **Support for High-Quality, Alternative Certification:** Simply filling vacancies is not enough. People with no classroom experience whatsoever- uncertified teachers and teachers prepared entirely through online programs- hurt student achievement and ultimately leave districts with the very vacancies they were hired to fill. The state has made recent progress in investing in high-quality alternative certification programs, ensuring teachers are well-prepared and stay in the profession. To balance the ease of certification often sought through online preparation programs with the need for in-classroom experience, policymakers should couple accountability measures with incentives for educator preparation programs to partner with high-need districts. For example, they could financially incentivize the development and implementation of residency components in educator preparation programs or partnerships between school districts and online programs to provide curriculum and logistical support for certification.
3. **Enhanced Data to Increase Transparency on New Teachers:** Recent legislative changes allow districts to exempt themselves from a 1999 Texas law requiring notification to parents when their children are taught by uncertified teachers, with nearly 400 districts taking this exemption. Policymakers could remove this exemption. Alternatively, TEA could enhance its capacity to produce accessible information from multiple data sources already reported by districts. Specifically, TEA could improve its current certification lookup platform. This improved platform could include detailed information not only about certification status and dates but also about a teacher's preparation program, years of classroom experience, and other in-service qualities, such as whether they are designated under the Teacher Incentive Allotment. These easy-to-navigate tools would ensure parents, districts, and other stakeholders have access to this relevant information.

Researcher Bio

J. Jacob Kirksey, Ph.D., is an assistant professor in the College of Education and associate director of the Center for Innovative Research in Change, Leadership, and Education at Texas Tech University. His research is broadly focused on issues at the nexus of education and other areas of public policy, which includes student absenteeism and truancy, inclusion and special education, immigration and education, and the teacher workforce.

Contact

Jacob Kirksey, Ph.D.
Jacob.Kirksey@ttu.edu

Relevant Prior Work

Kirksey, J. J., & Gottlieb, J. J. (2024). *Teacher preparation goes virtual in the wild west: The impact of fully-online teacher preparation in Texas* [Brief no. 4]. Texas Tech University. Center for Innovative Research in Change, Leadership, and Education. https://hdl.handle.net/2346/95586

Edwards, W., Kirksey, J. J., Burden, K., & Miller, A. (2024). Teaching close to home: Exploring new teachers' geographic employment patterns and retention outcomes. *Teaching and Teacher Education*, *145*. [Link]

Kirksey, J. J., & Torres, L. G. (2023). *Shifting the rhetoric: Maximizing the Teacher Incentive Allotment to improve schools. Report and recommendations from the Texas Education Research-Practice-Policy Partnership Network*. University of Texas at Austin. College of Education. https://rp3.education.utexas.edu/.

Gottlieb, J. J., & Kirksey, J. J. (2022). *Innovations in university-based teacher preparation: Comparing the 'Grow Your Own' alternative to the traditional program at Texas Tech.* [Brief no. 2]. Texas Tech University. Center for Innovative Research in Change, Leadership, and Education. https://hdl.handle.net/2346/90346

Kirksey, J. J., & Lloydhauser, M. (2022). Dual certification in special and elementary education and associated benefits for students with disabilities and their teachers. *AERA Open*, *8*(1), 1-11. [Link]

Appendix

Additional Findings

Uncertified Teachers without Bachelor's Degrees by Subject Area

There is no doubt a concern about the number of newly hired uncertified teachers who do not have a bachelor's degree. While it could be the case that most of these teachers are content experts in subject areas like Career and Technical Education, the data show a broader and more concerning trend. Table 4 presents the percentage of new uncertified teachers without bachelor's degrees across various subject areas over four academic years (2019-20 to 2022-23).

Table 4

Uncertified, new first-time hires without bachelor's degrees by subject area

School Year	2019-20	2020-21	2021-22	2022-23
Early Childhood	5%	3%	6%	12%
Elementary	18%	18%	20%	31%
Secondary Math	5%	6%	5%	6%
Secondary English Language Arts	4%	4%	4%	7%
Secondary Social Studies	2%	2%	3%	5%
Secondary Science	2%	2%	4%	5%
Career and Technical Education	48%	48%	42%	19%
Physical Education	3%	4%	3%	2%
Fine Arts	3%	3%	3%	3%
World Languages	3%	2%	2%	2%
Special Education	7%	8%	8%	8%

- **Early Childhood and Elementary Education**: The percentage of uncertified teachers without bachelor's degrees in early childhood and elementary education has increased noticeably, reaching 12% and 31%, respectively, by the 2022-23 school year. This trend is concerning, as these years are foundational for students' long-term academic success.
- **Career and Technical Education (CTE)**: The percentage of newly hired uncertified teachers without bachelor's degrees who taught CTE courses was 48% in 2019-20. While it might be assumed that this trend continues, the data shows a decline in the overall representation of these teachers in CTE courses compared to other subject areas. This suggests that an increasing number of newly hired uncertified teachers without bachelor's degrees are now teaching in other subjects, such as early childhood and elementary education, rather than predominantly in CTE.
- **Special Education**: Although the percentage of uncertified teachers without bachelor's degrees in special education has remained stable, fluctuating between 7% and 8% over the four years, this stability is still concerning. It indicates that a significant portion of newly hired uncertified teachers without proper qualifications are being placed in special education classrooms.

Differences by Region

Table 5 highlights the certification status of first-time, new-hire teachers across regions for the 2022-23 school year. Notable findings include:

- **High Proportions of Uncertified Teachers**: Certain regions exhibit alarmingly high proportions of uncertified teachers among new hires. For instance, 70% of new teacher hires were uncertified in Region 3 (Victoria), 60% in Region 8 (Mount Pleasant), and 61% in Region 17 (Lubbock).
- **Regions with More Certified Teachers**: Conversely, some regions have higher proportions of certified new-hire teachers. In Region 19 (El Paso), 77% of new, first-time hires were certified.
- **Regional Disparities**: These findings underscore significant regional disparities in the certification status of new teachers, indicating that certain areas may face more challenges in attracting certified educators. This corresponds to the county-by-county differences highlighted in Figure 1.

Table 5

Certification status of first-time, new hire teachers by region

2022-23 School Year	Certified	Uncertified
Region 1 - Edinburg	68%	32%
Region 2 - Corpus Christi	57%	43%
Region 3 - Victoria	30%	70%
Region 4 - Houston	60%	40%
Region 5 - Beaumont	56%	44%
Region 6 - Huntsville	62%	38%
Region 7 - Kilgore	44%	56%
Region 8 - Mount Pleasant	40%	60%
Region 9 - Wichita Falls	52%	48%
Region 10 - Richardson	54%	46%
Region 11 - Fort Worth	70%	30%
Region 12 - Waco	52%	48%
Region 13 - Austin	59%	41%
Region 14 - Abilene	47%	53%
Region 15 - San Angelo	59%	41%
Region 16 - Amarillo	45%	55%
Region 17 - Lubbock	39%	61%
Region 18 - Midland	34%	66%
Region 19 - El Paso	77%	23%
Region 20 - San Antonio	58%	42%

Trends in Charter Schools

While the findings of this brief highlight significant challenges associated with uncertified teachers in traditional public schools, it is important to note that these trends do not hold for charter schools. Charter schools in Texas are exempt from the requirement to hire certified teachers, yet they often employ different hiring practices that mitigate some of the negative impacts observed in traditional public schools. For instance, the data indicate that only 4% of newly hired uncertified teachers in charter schools are reported as not holding a bachelor's degree, compared to a

significantly higher proportion in traditional public schools. Moreover, preliminary data suggest that absenteeism and underdiagnosis of dyslexia are less pronounced issues in charter schools. This contrast suggests that charter schools may be implementing additional supports or hiring practices that address some of the deficiencies associated with uncertified teachers.

Technical Notes and Methodology

Defining Full-Time, New Teachers in Traditional Public Schools
This study's data differs from what has been previously reported on the proportion of new teachers who are uncertified. This study excludes charter schools, which are exempt from teacher licensure requirements. This study focuses on students' primary teachers in teachers' first few years of experience. These teachers were in their first year as teachers of record and spent the greatest proportion of time with students compared to other teachers they may have in that class during the year. Consistent with the definition of the Texas Education Agency (TEA), uncertified teachers are newly hired teachers who do not hold a certification issued by the State Board for Educator Certification by the last Friday of October each academic year. Additionally, the study considers teachers who appear in the winter roster snapshot (occurring after the last week of October) and do not have a certification recorded in SBEC as "new hires" and categorizes them as uncertified. This ensures that the data presented captures the full composition of newly hired first-time teachers within the academic year.

Achievement Analysis
Data for this project came from the University of Houston's Education Research Center, which contains information on all students attending Texas public schools and their teachers. Based on prior research, I categorized teacher preparation pathways into seven distinct groups: Online, Traditional University/College, Alternative University/College, Education Service Center/Local Education Agency, Other Postbaccalaureate, Out-of-State, and Uncertified. The analysis covers the 2018-2023 academic years, when the notable increase in uncertified teachers occurred. The analytic sample included 1,009,123 student-by-year observations in grades 4-8. The focus was on student performance on the STAAR reading and math assessments, excluding 8th grade math students. To control for potential selection bias, I include student demographics, school characteristics, time trends in achievement, other teacher characteristics, and classmate characteristics. Based on previous STAAR scores, prior student achievement levels were also incorporated to address initial disparities in student performance. This analytic approach follows best practices for estimating causal effects using a value-added modeling framework.

July 2024 Update
A data error distorted original county-level reporting of the percentage of new hires that were uncertified. Figure 1 and associated highlights and key takeaways have been updated as of July 8, 2024. This error only affected county-level statistics. Statistics reported overall and by region are unchanged.

[i] The data concerning teachers' degree status is self-reported by school districts to the Public Education Information Management System (PEIMS). There are instances of reporting discrepancies, such as teachers who have completed their degrees being reported as not holding a bachelor's degree. This may happen due to administrative issues, such as a school district not having access to a teacher's college transcript at the time of reporting. While these discrepancies exist, the significantly higher proportion of uncertified teachers reported as not holding a bachelor's degree suggests that these errors are unlikely to fully account for the observed trends. This data concern is mitigated when considering that just 4% of newly hired uncertified teachers in charter schools are reported as not holding a bachelor's degree.

[ii] Note these data reflect the 2021-22 cohort of new hire teachers. These teachers could have taken their certification exams in the 2021-22 school year or the 2022-23 school year. Moreover, these teachers may still be uncertified in 2022-23 if they did not pass the requirements of a teacher preparation program.

[iii] To calculate the months of learning loss, I first identified the effect sizes from the data, which were 0.11 for reading and 0.08 for math. I then used a standard conversion method where the average yearly learning gain is measured across the sample in terms of standard deviations. I divided the effect sizes by the average yearly learning gain and then multiplied by nine, the number of months in a school year. While no effect size conversion is perfect, this provides an estimate of the gaps in achievement caused by the hiring of new, first-time teachers without certification.

[iv] 1st graders are not considered early childhood in Table 2, but as the first compulsory year of schooling in Texas and the first group of students for whom dyslexia data is available, I focus on findings from this cohort of students until more data is made available in future years.