

Teacher preparation in the wild west: The impact of fully-online teacher preparation and uncertified teachers in Texas

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Boom in Online Teacher Preparation

In Texas, becoming a teacher has many paths, and lately, online teacher preparation programs are becoming really popular. Nearly all of these programs are run by for-profit companies that have expanded rapidly because Texas has a teacher shortage. However, there is growing concern among researchers and stakeholder groups that these online programs may not adequately prepare teachers for the realities of the classroom. With minimal state oversight, the quality of these programs can vary significantly, prompting questions about their overall effectiveness.

Students taught by teachers prepared online exhibit similar achievement to students taught by uncertified teachers

Why Our Study Matters

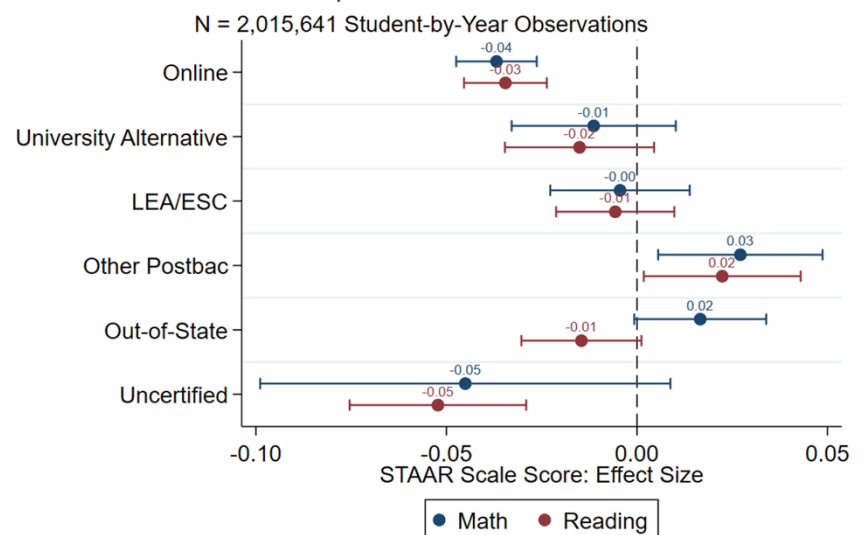
The teacher shortage remains a pressing issue in the state, and there is a temptation to look at online preparation programs as a quick fix. However, our study reveals important cautionary notes about this approach. While convenient, teachers prepared via fully-online programs do not perform as well in their first years, affecting students' reading and math scores. Moreover, these teachers leave the profession at a rate 2.5 times higher than their counterparts. This high turnover creates a cycle of shortages and rehiring, burdening school districts financially and academically.

Key Findings

Widespread Impact: 1 in 4 students in Texas are now being taught by teachers prepared via fully-online teacher preparation programs, highlighting the scale and potential consequences.

Lower Student Achievement: Students taught by teachers prepared via fully-online EPPs perform worse in math and reading compared to their counterparts. The size of the effect on achievement is equal to

Students with Teachers Prepared Online Exhibit Lowest Achievement



Models include school, year, and grade fixed effects. Effects are in reference to traditional university programs.

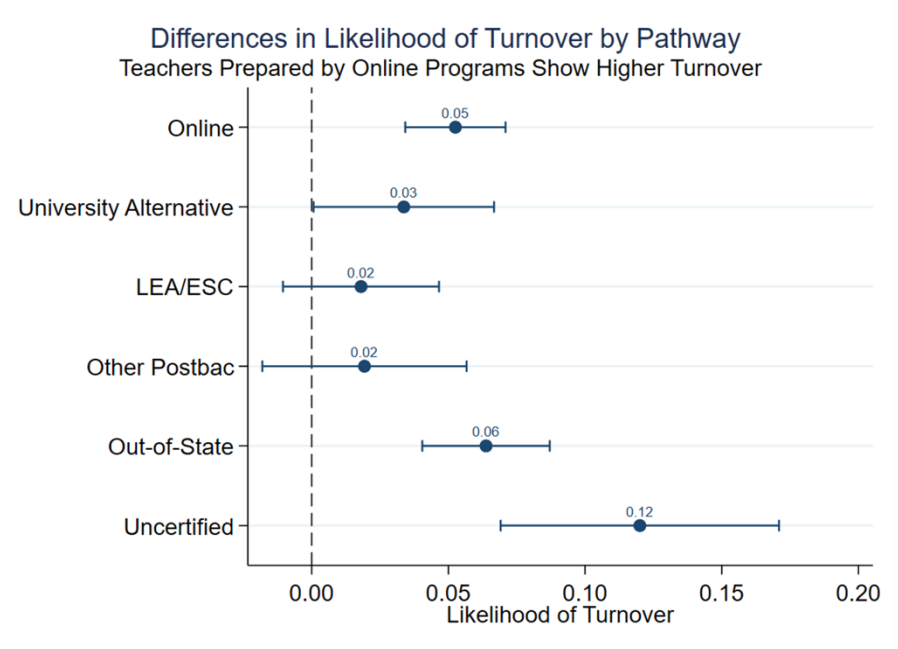
the gap in achievement between White-Latinx students and economically disadvantaged students and their peers.

Online vs. Uncertified: Students taught by teachers prepared online exhibit comparable levels of achievement to those taught by uncertified teachers.

Delayed Effectiveness: For those who remain in the teaching profession, it takes three years for teachers from fully-online programs to show effectiveness to that of first-year teachers from traditional university pathways.

Internship vs. Clinical: Teachers selecting the clinical option within otherwise fully online programs did not show the same decline in academic performance observed among those opting for the internship pathway.

High Turnover Rates: Teachers trained in fully-online programs leave the teaching profession at a rate 2.5 times higher than teachers who completed other programs.



Policy Implications

Better Alternatives Exist: As the state contemplates solutions to teacher shortages and aims for educational excellence for all Texas students, we should prioritize quality and long-term effectiveness over convenience and expediency. Texas is home to many effective alternative pathways to teaching.

Reconsider Funding: The high turnover rate among online-program teachers has financial implications for school districts, exacerbating the teacher shortages.

Recommendations

- Strengthen Oversight:** Texas's educational authorities should increase oversight of fully-online programs to ensure they meet quality standards.
- Performance Monitoring:** Continuously monitor and assess the effectiveness of teachers from online programs as well as other preparation pathways.
- Transparency:** Programs should be required to publicly disclose performance outcomes for their graduates, including student achievement scores, to better inform potential students and employers. Current audit reports contain missing information needed to assess effectiveness of programs.

1 in 4 students are being taught by teachers prepared by online programs

Methodology

We examined the effectiveness of teachers in their first four years of teaching who were prepared via fully-online teacher preparation programs on student achievement in Texas. To identify which programs were fully-online, we individually verified the status of every teacher preparation program in the state. We also confirmed that the participating teachers completed their training online using information provided by the State Board of Educator Certification. We use data from the University of Houston's Education Research Center (ERC), which contains information on all students attending Texas public schools and their teachers. We categorize teacher preparation pathways into seven groups: Online, Traditional University/College, Alternative University/College, Education Service Center/Local Education Agency, Other Postbaccalaureate, Out-of-State, and Uncertified. We define each pathway using the following criteria:

- Online Pathway: A teacher preparation pathway where candidates complete all coursework online without student teaching. Candidates opting for the internship option within this pathway engage in a minimum of 30 hours of classroom observation, with 15 hours conducted asynchronously and virtually.
- University Alternative Pathway: Alternative certification programs housed at universities. Candidates in this pathway typically complete coursework and field experiences under the guidance of university faculty.
- LEA/ESC Pathway: Teachers prepared through their local school district or education service center. This pathway typically involves a combination of coursework and practical experience within the district or center.
- Other Postbaccalaureate Pathway: All other alternative pathways not falling under the aforementioned categories. This includes non-university residency programs, nonprofit programs, for-profit programs that are not fully online, community college programs, among others. Candidates in this pathway pursue alternative routes to teacher certification that may involve various combinations of coursework and practical experiences.
- Out-of-State Pathway: Teachers prepared through teacher preparation programs located outside of Texas. These programs may vary in structure and requirements.
- Uncertified Pathway: This pathway refers to individuals who do not possess a teaching certificate or have not completed a state-approved teacher preparation program. These individuals do not have any certification record from the State Board of Educator Certification data.

Our analysis spanned eight years, from 2014 to 2023, and included 2,015,641 student-by-year observations in grades 4-8. The study focused on student performance on STAAR reading and math assessments. We exclude 8th grade math students and the 2021 STAAR testing year. We accounted for student demographics, school characteristics, time trends in achievement, other teacher characteristics, and classmate characteristics. We also incorporated prior student achievement levels, using previous STAAR scores, to control for initial disparities in student performance.

Research Team 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.

Jessica J. Gottlieb, 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. Her work focuses on science, technology, engineering and mathematics (STEM) education policy, teacher education, and policy design, with an eye toward understanding how policy can expand access to high quality learning experiences for all students.

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