### **UNIVERSITY of HOUSTON**

#### COLLEGE OF EDUCATION

**Education Research Center** 

# **POLICY BRIEF**

**JULY 2020** No. UHERC 004

# Evaluating Educator Preparation Programs in the State of Texas

By Dr. James Van Overschelde, Texas State University

#### Introduction

reparing and retaining new teachers is critical to the long-term success of Texas schools because the quality of teachers is the strongest school-related factor shown to improve student learning and achievement (e.g., Hanushek, 2011). This study was designed to describe in greater detail the educator preparation program (EPP) environment in Texas, as well as examine factors that impact the preparation and retention of new Texas educators.

#### Methodology

This study required education and employment data housed at the University of Houston Education Research Center (UH ERC). These administrative data were provided by the Texas Education Agency and the State Board for Educator Certification and were used to analyze EPPs in Texas as well as the impact employment environments have on teachers once they are employed in classrooms.

This five-year study allowed us to answer a number of important research and policy questions including:

- 1. What employment environment factors are associated with teachers' intentions to stay versus leave their school?
- 2. Which teachers prefer traditional versus alternative preparation programs?
- 3. How has federal education policy affected teaching out-of-field rates?
- 4. How do principals rate new teachers who are assigned to teach out-of-field?
- 5. What are the school psychologist preparation and workforce trends?

#### **KEY TAKEAWAYS**

#### The quality of the educational leadership

at a teacher's school and the amount of time a teacher spends teaching are strongly predictive of the teacher's desire to stay at their current school.

- **Male teachers and teachers of color** are more likely to be prepared through alternative certification programs (ACPs).
- **The retention of teachers** who completed traditional preparation programs (TPPs) is significantly greater than that of teachers who completed ACPs.
- The strongest predictors of teachers being assigned to teach out-of-field are that they work in a charter school or completed an ACP.

  Black teachers and Black students are most likely to teach and take courses out-of-field.

#### Principals give lower ratings to new

**teachers** they assigned to teach out-of-field classes. Given that ACP and Black teachers are assigned more out-of-field classes, these results strongly suggest that principal surveys are biased against ACP and Black teachers.

#### Although the number of licensed specialists

in school psychology (LSSP) grew by 85% from 2006-2007 to 2016-2017, Texas would need to increase the number of LSSPs by an additional 175% (3,408 more) to meet the recommended ratio of students to LSSPs.

#### **Teacher Employment Environment**

A school's environment can be either conducive to teaching and learning or detrimental to both. It is important for EPPs and policymakers to understand the employment environment factors that affect teachers' employment decisions and consider them when placing teacher candidates in schools or making policy changes. In Van Overschelde and Wiggins (2017), we conducted validity and reliability analyses of the Texas Teaching, Empowering, Leading and Learning (TELL) employment environment survey to determine how best to summarize teachers' responses. We computed statewide descriptive statistics for the 12 key employment factors for the main survey questions and the four factors for the new-teacher questions, and we examined the relationship between employment environment factors and teachers' future employment intentions.

According to the TELL survey results, teachers say that the quality of their school's *Educational Leadership* and the amount of *Time Spent Teaching* are strongly and positively predictive of their desire to stay at their current school, and the amount of *Time Spent Not Teaching* is similarly predictive of their desire to leave their current school.

Texas policymakers have the ability to create sound, data-informed policies so school environments are safe and conducive to teaching and learning. Policymakers could use TELL data in the context of other teaching and learning data, such as principal and teacher effectiveness, student achievement, and budget allocations, in drafting new policies. As *Educational Leadership* is consistently shown to

#### 12 Key Employment Factors

- 1. Educational Leadership
- 2. Instruction Practice and Support
- 3. Facilities and Resources
- 4. Effective Professional Development Provided
- 5. Community Support
- 6. Time Spent Teaching
- 7. Teacher Leadership
- 8. Hours Spent on Professional Development
- 9. Managing Student Conduct
- 10. Need for Professional Development
- 11. Time Spent Not Teaching
- 12. Time Spent After-Hours

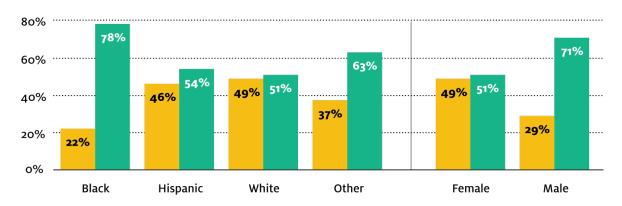
Source: Planting seeds in fertile soil: Assessing teacher employment environments in Texas (2017)

be the most important factor in retaining teachers, policies could be tailored to reflect the state's focus on principal preparation and the recruitment and retention of high-quality principals who can create empowered school environments.

As Educational Leadership is consistently shown to be the most important factor in retaining teachers, policies could be tailored to reflect the state's focus on principal preparation and the recruitment and retention of high-quality principals who can create empowered school environments.

### Comparison of Teacher Demographics by Preparation Pathway





Source: Teacher preparation pathways: Differences in program selection and teacher retention (2019)

#### **Teacher Preparation Pathways**

A comparison of population and employment projections shows the gap between teacher supply and demand growing through 2025 (Van Overschelde & Wiggins, 2019). Alternative certification programs (ACPs) were created to increase teacher production, but research on who selects ACPs versus traditional preparation programs (TPPs) shows mixed results, as does research on new-teacher attrition. We analyzed data from more than 225,000 new Texas teachers (56% ACP) and found that male teachers and teachers of color were more likely to have been prepared by ACPs. Using survival analysis, we found that TPP teachers were significantly more likely to remain in the classroom than ACP teachers over 10 years. We also found that teachers of color were more likely to stay teaching after accounting for preparation differences, and Latinx teachers from TPPs were most likely to stay teaching.

Taken together, these findings have important policy implications. First, if we want Texas public school classrooms in 2025 to be staffed by high-quality, di-

verse teachers who will not leave, then changes to Texas educator preparation accountability and accreditation policies are needed. For example, these policies need to reduce the barriers future teachers face when applying for TPP admission and allow more flexibility in the ways teachers are prepared — while using research-based measures to simultaneously hold programs accountable for preparing high-quality teachers.

Texas has increased the barriers to entry and completion of EPPs. This move is counterproductive and likely to hurt students enrolled in the hardest-to-staff schools (e.g., low-income, rural).

#### **Out-of-Field Teaching**

When teachers are assigned to teach classes for which they are not certified, they are teaching out-of-field (du Plessis, 2005; 2015; Ingersoll, 2000; 2019; Monk, 1994). Out-of-field teaching is not a characteristic of the teacher but a description of the misalignment of the teacher's qualifications and the class subject being taught. For example, a teacher certified to teach chemistry and assigned

to teach a chemistry class is teaching this class *infield*, whereas this same teacher assigned to teach Algebra II would be teaching this class *out-of-field*. Ingersoll (1999) argued that assigning teachers to teach out-of-field was equivalent to requiring "cardiologists to deliver babies, real estate lawyers to defend criminal cases, chemical engineers to design bridges, or sociology professors to teach English" (pg. 34).

The federal Every Student Succeeds Act (ESSA) requires states to ensure the equitable distribution of out-of-field teachers. Using more than 180 million student-course-teacher records from Texas between the academic years 2011-2012 and 2017-2018, Van Overschelde and Piatt (2020) found that out-of-field teaching rates increased dramatically after ESSA became law. We also found vast inequities in which teachers are assigned to teach out-of-field and which students take out-of-field courses. The strongest predictors of teachers being assigned to teach out-of-field are that they work in a charter school, completed an ACP or are a Black teacher. Latinx teachers are least likely to teach out-of-field. Similarly, Black students are also most likely to take courses out-of-field and Latinx students are least likely.

Given the negative impact out-of-field teaching has on student academic achievement and academic achievement gaps (Chaney, 1994; Clotfelter et al., 2010; Dee & Cohodes, 2008; Goldhaber & Brewer, 2000; Ingersoll et al., forthcoming; Raudenbush et al., 1999; Riordan, 2009), our results indicate that ESSA and Texas' Districts of Innovation are likely to be negatively impacting student achievement and making it so that many children in Texas, especially Black children, are not receiving a "fair, equitable, and high-quality education" (ESSA, Sec. 1001) or "equal educational services or opportunities" (Texas Education Code, Sec. 1.002). Texas EPP accountability (Standard 3) also requires EPPs to be held accountable for the academic growth of students taught by new teachers — as indicated by academic growth scores. However, extensive research shows that teaching out-of-field results in lower student academic achievement. Therefore, the EPP accountability system using growth scores

Policymakers should require that Texas principals assign teachers only to the classes in which they are certified to teach — in the fields they were trained and prepared for.

will not be equitable — it will be biased against ACPs and EPPs at historically Black colleges and universities (HBCUs). An EPP accountability that is racially and/or systematically biased against any group of EPPs is not equitable or fair and is therefore detrimental to Texas teachers, students and EPPs.

Policymakers should require that Texas principals assign new teachers only to the classes in which they are certified to teach — in the fields they were trained and prepared for.

#### **Principal Ratings of New Teachers**

Texas principals are required to complete a survey about new teachers to assess their quality and effectiveness. This survey data is then used as part of each EPP's accountability. Because Van Overschelde and Piatt (2020) found that Black teachers and ACP teachers were significantly more likely to be assigned by their principals to teach out-offield, we examined whether principals' ratings of new teachers are associated with out-of-field teaching rates.

Analyzing principal survey data between 2012 and 2018, Van Overschelde (2020) found that principals give lower ratings to teachers to whom they assign out-of-field classes. Given that ACP and Black teachers are assigned more out-of-field classes, these results show that principal surveys are biased against ACP and Black teachers. Because the principal survey results are used for EPP accountability, ACPs and EPPs in HBCUs will be negatively impacted by the high out-of-

field assignment rates by the employer.

Policymakers should require the Texas Education Agency to implement a survey that is less biased or analyze the principal data for EPP accountability in a way that reduces these biases.

#### **School Psychologists**

Educator preparation also includes the preparation of principals, superintendents, master teachers and school psychologists. Recent concerns about the psychoeducational needs of children and adolescents have drawn increased attention to the importance of psychological services in public schools. In particular, media reports on issues related to school safety, special education supports and appropriate service delivery for culturally and linguistically diverse students have underscored the need for school psychologists to address these critical concerns. This need is compounded by the fact that, for many years, there have been documented shortages of school psychologists. For the most part, reporting on shortages has been either anecdotal or based on surveys.

In this article, we identify trends in graduate preparation and workforce data to better understand current and future needs by analyzing pub**175**%

The amount by which Texas public schools would need to increase its licensed specialists in school psychology (LSSPs) to meet the recommended ratio of students to LSSPs.

lic data on Texas graduate students, public school employees and workforce records.

Using the UH ERC data, we analyzed Texas public school employment data for all individuals working as school psychologists during the academic years 2006–2007 through 2016–2017 (Van Overschelde & Lasser, 2019). Our results show that although the number of licensed specialists in school psychology (LSSP) grew by 85%, Texas would need to increase the number of LSSPs by an additional 175% (3,408 more LSSPs) to meet the recommended ratio of students to LSSPs.

#### **KEY RECOMMENDATIONS**

**State policies need to reduce the barriers** that future teachers face when applying for TPP admission and allow more flexibility in the ways teachers are prepared — while using research-based measures to simultaneously hold programs accountable for preparing high-quality teachers.

**Policymakers should require that Texas principals** assign new teachers only to the classes in which they are certified to teach — in the fields they were trained and prepared for.

**Policymakers should require the Texas Education Agency** to implement a survey for principals about new teachers that is less biased or analyze the principal data for EPP accountability in a way that reduces these biases.

#### References

- Chaney, B. (1994). *The accuracy of teachers' self-reports on their postsecondary education.* Washington, DC: U.S. Department of Education, National Center for Education Statistics.
- Clotfelter, C. T., Ladd, H. F., & Vigdor, J. L. (2010). Teacher credentials and student achievement in high school: A cross-subject analysis with student fixed effects. *The Journal of Human Resources*, 45(3), 655–681.
- Dee, T. S., & Cohodes, S. R. (2008). Out-of-field teachers and student achievement: Evidence from matched-pairs comparisons. *Public Finance Review*, *36*(1), 7–32.
- du Plessis, A. E. (2005). The implications of the out-of-field phenomenon for school management (Master dissertation). University of South Africa (UNISA), Pretoria.
- du Plessis, A. E. (2015). Effective education: Conceptualising the meaning of out-of-field teaching practices for teachers, teacher quality and school leaders. *International Journal of Educational Research*, *72*, 89–102.
- Goldhaber, D. D., & Brewer, D. J. (2000). Does teacher certification matter? High school teacher certification status and student achievement. *Educational Evaluation and Policy Analysis*, 22(2), 129–45.
- Hanushek, E. A. (2011). The economic value of higher teacher quality. Economics of Education Review, 30(3), 466-479.
- Ingersoll, R. M. (1999). The problem of underqualified teachers in American secondary schools. *Educational Researcher*, 28(2), 26–37. https://doi.org/10.3102/0013189X028002026.
- Ingersoll, R. M. (2000). Out-of-field teaching. ERIC Digest, 1-6.
- Ingersoll, R. M. (2019). Measuring out-of-field teaching (pp. 21–52). In Linda Hobbs & Günter Törner (Eds.), Examining the Phenomenon of "Teaching Out-of-field": International Perspectives on Teaching as a Non-specialist. Singapore: Springer.
- Ingersoll, R., Perda, D., & May, H. (forthcoming). The relationship between teacher qualifications and student performance.
- Monk, D. H. (1994). Subject area preparation of secondary mathematics and science teachers and student achievement. *Economics of Education Review, 13*(2), 125–145.
- Raudenbush, S., Fotiu, R., & Cheong, Y. (1999). Synthesizing results from the trial state assessment. *Journal of Educational and Behavioral Statistics*, 24(4), 413–438.
- Riordan, J. (2009). Do teacher qualifications matter? A longitudinal study investigating the cumulative effect of NCLB teacher qualifications on the achievement of elementary school children. Retrieved from ProQuest.
- Van Overschelde, J. P. (2020). Flawed educator preparation accountability: Using biased principal ratings of new teachers in Texas. Manuscript in preparation.
- Van Overschelde, J. P., & Lasser, J. (2019). School psychology workforce trends: Recommendations for graduate preparation and policy. *Contemporary School Psychology, 1–9.* https://doi.org/10.1007/s40688-019-00237-0.
- Van Overschelde, J. P., & Piatt, A. N. (2020). Every Student Succeeds Act: Negative impacts on teaching out-of-field. Research in Educational Policy and Management, 2(1), 1-22. https://doi.org/10.46303/repam.02.01.1.
- Van Overschelde, J. P., & Wiggins, A. (2017). Planting seeds in fertile soil: Assessing teacher employment environments in Texas. *TxEP: Texas Educator Preparation*, 1, 7–20.
- Van Overschelde, J. P., & Wiggins, A. (2019). Teacher preparation pathways: Differences in program selection and teacher retention. *Action in Teacher Education*, 1–17. https://doi.org/10.1080/01626620.2019.1656116.

**Disclaimer:** This policy brief is a result of approved research conducted using data through the University of Houston Education Research Center (UH ERC). Results, opinions, recommendations or points of view expressed in this policy brief represent the work and consensus of the authors and do not necessarily represent the official position or policies of the University of Houston, the UH ERC and/or its funding organizations.