

# EXECUTIVE SUMMARY

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Improving teacher quality has long been a focus of policymakers. In recent years, most reform efforts include strategies to improve the quality of teachers overall and/or create a more equitable distribution of teachers within schools, districts, and states. Indeed, the federal No Child Left Behind Act of 2001 mandated that all states assess the distribution of teacher quality, develop and implement plans to improve overall teacher quality and create a more equitable distribution of teacher quality. Yet, as noted by The Education Trust (2006), few states have taken this mandate seriously, with most states not even assessing the distribution of teacher quality, much less implementing plans to address the issues associated with teacher quality.

This study examined the distribution of teacher quality in Texas public schools by creating several Teacher Quality Indices based on different measures of teacher quality. Each Teacher Quality Index (TQI) provides a single measure of teacher quality based on a larger number of teacher quality measures such as teacher experience, certification status, academic ability, or even stability at a school. Although there is ongoing debate about whether objective measures of teacher quality (such as experience, certification status, quality of the preparation, and teacher stability) accurately identify teacher effectiveness in improving student achievement, recent research has found statistically significant relationships between these objective measures of quality and gains in student achievement. Importantly, this study focuses on those measures found in previous research to be associated with improvements in student achievement and how these measures are distributed across Texas public schools.

## Major Findings

The major results of this study are as follows:

- Even after controlling for prior achievement, student demographics, and geographic location, teacher quality at the school level is associated with student achievement—especially at the secondary level.
- At the elementary-school level, teacher quality appears to be more equitably distributed than at the secondary-school level, but this is more likely a result of the combination of a lack of detailed data and the greater supply of elementary teachers than the result of any state or district policies to equalize teacher quality across schools.
- Students in lower-performing schools have substantially less access to teacher quality than students in higher-performing schools.
- At all school levels, but particularly at the middle- and high-school levels, students in high-poverty and predominantly minority schools have far less access to teacher quality than students in low-poverty and predominantly White schools.

More generally, the results of this study unambiguously reveal a substantial inequitable distribution of teacher quality across the state at the middle- and high-school level. Clearly, students in low-performing schools as well as in high-poverty and predominantly minority schools have far less access to the same levels of teacher quality as students in high-performing, low-poverty, and predominantly White schools. Moreover, this finding holds true for schools that are within driving distance of one another—both within the same district and across district lines between contiguous districts.

## Policy Recommendations

The differences in teacher quality across schools and districts in Texas are substantial. If Texas is going to increase overall achievement and prepare a greater percentage of students to graduate from high school and be well-prepared for life after high school, we must address the inequitable distribution of teacher quality. To do so, Texas policymakers and educators should explore a number of recommendations. State policy recommendations are described below as well as at the end of the report. In addition, district-level policy recommendations are included after the state-policy recommendations at the end of the report.

The following recommendations are targeted to state policymakers in the Governor's Office, Legislature, State Board of Education, State Board for Educator Certification, the Texas Education Agency, and the Texas Higher Education Coordinating Board.

**Fund and support the gathering of input from teachers and administrators on improving teacher quality and more equitably distributing teacher quality.**

The state should hire a group of education experts (some of whom should have experience as teachers, principals, and central office administrators in Texas public schools) to travel the state and convene groups of educators in order to gather their input on how to best improve teacher quality and lessen the inequitable distribution of teacher quality. The results of this effort should drive state policy. An excellent model for such an effort is the Teacher Leaders Network organized by Dr. Barnett Berry of the Center for Teaching Quality (<http://www.teacherleaders.org/>). This effort brings together teacher leaders from across the nation in a virtual network to share best practices, provide support, and push for policy changes that support teachers.

**Create an annual statewide report that analyzes the aggregate TQI and the individual TQI components, and provide the overall results to the public and the individual school reports to district personnel.**

Unfortunately, the state has not highlighted the distribution of teacher quality and the trends in teacher quality over time. Unless the state publicly raises the issue, the issue will remain low on the priority list of state and district policymakers. One important step that state leaders could take is to start a conversation with district administrators about the difference between highly qualified teachers and teacher quality.

According to TEA (2010), a highly qualified teacher is a teacher that meets the following requirements:

- Has obtained full Texas teacher certification, including appropriate special education certification for special education teachers;
- Holds a minimum of a bachelor's degree; and
- Has demonstrated subject matter competency in each of the academic subjects in which the teacher teaches.

In this definition, full state certification does not mean that a teacher is fully certified in the sense that the teacher holds a standard certificate but rather any type of certificate other than a permit that is granted by the State Board for Educator Certification. The analysis in this study relied on a full standard certificate. In fact, when serving as the Co-Directors of Research at the State Board for Educator Certification, Alexander and Fuller (2004) found that Texas middle school mathematics teachers who had obtained a full standard certificate in mathematics were more effective at increasing student achievement than teachers with other "full" state certificates.

Further, this definition requires teachers to demonstrate subject-matter competency through either a major in the field of study or a passing score on a Texas state certification examination for a particular content area. This leaves open the possibility that a person could demonstrate competency by correctly answering 70% of items correct on a certification examination that arguably could be passed by an honors Algebra II student in a high-performing high school in Texas. In addition, alternative certification teachers are only required by the state to have 12 hours of undergraduate coursework in a content area to be considered highly qualified, and the counting of these hours is left to the discretion of those working in alternative certification programs.

Because these requirements are so lax, almost every teacher in Texas (and the nation) is considered "highly qualified," but this measure is not based on any empirical evidence related to student achievement. Unfortunately, district leaders rarely acknowledge that they have a problem with their distribution of teacher quality because all schools have nearly 100% highly qualified teachers. The state should impress upon district leaders the need to focus on the measures in this report rather than highly qualified teacher status.

**Provide monetary incentives for districts to address TQI inequities across their respective schools, and increase the flexibility districts have in addressing their unique needs.**

This effort holds great promise if districts design and implement programs in thoughtful ways that address the issues brought forth by this study. TEA should provide incentives for a district to specifically address inequities in teacher quality across its schools. Further, TEA should allow districts greater flexibility in the spending of money to improve the distribution of teacher quality across campuses.

This could be accomplished by restructuring the District Awards for Teacher Excellence (DATE) grant incentives or creating an alternative program that exists alongside the DATE grant program. As currently configured, the DATE program could allow districts to create an incentive program that actually exacerbates rather than ameliorates inequities in the distribution of teacher quality.

**Adopt and fund a new cost-of education index.**

The cost-of-education index (CEI) was created in the early 1990s to provide funding to districts that had difficulty in hiring well-qualified teachers due to factors outside the control of district leaders, such as the percentage of economically disadvantaged students. The CEI has never been updated despite repeated efforts by some policymakers and researchers to do so. Thus, some districts receive far more money than they should while other districts do not receive nearly the amount they deserve based on an updated CEI. The primary hurdle to updating the CEI is cost. The state should construct a new school finance system with an updated CEI and implement the changes over time so that no district loses a substantial amount of money in a short period of time.

**Support the creation of “urban teacher academies” in the 10 largest metropolitan areas across the state.**

Urban teacher academies provide opportunities for newly certified teachers to learn how to be effective teachers of low-performing and economically disadvantaged students under the guidance of master teachers. These programs have been shown to be quite effective in building on the training provided by high-quality teacher preparation programs. For more information, see [http://www.ncate.org/documents/news/UTR\\_IHE\\_Aug122008.pdf](http://www.ncate.org/documents/news/UTR_IHE_Aug122008.pdf).

**Support the creation of “urban leader academies” in the 10 largest metropolitan areas across the state.**

Urban leader academies would be similar to urban teacher academies but focus on preparing newly certified principals to be effective leaders attuned to increasing and equalizing teacher quality within schools. The University of Texas at Austin, through the University of Texas Collaborative Urban Leadership Program (UTCULP), has initiated a pre-service program to accomplish this goal, but the effort is limited to three districts and focuses only on pre-service components of training.

**Create an incentive program for preparation programs to produce teachers that meet the demand for teachers in their local labor market.**

Currently, there is no incentive for programs to produce a high school mathematics teacher as opposed to an elementary teacher, even though there is a shortage of mathematics teachers and a surplus of elementary teachers.

**Increase the requirements to enter teacher preparation programs in Texas, especially alternative certification programs that tend to have lower entrance requirements than traditional university-based or post-baccalaureate programs.**

Although recent additions to the accountability system for educator preparation have dramatically improved the measures used to identify effective preparation programs, there is still room for improvement. For example, the entrance requirements for many alternative certification programs are still abysmally low. Further, some individuals can enter and complete an alternative certification and become employed as a middle or high school teacher with as little as 12 undergraduate credit hours in the subject area in which they obtained certification. Yet, individuals from traditional certification programs must complete a major in the subject area in which they obtain certification. Perhaps the state should require a minimum of 24 hours and allow programs to decide on additional content requirements. Finally, the state should require a closely supervised field experience for all teachers, even those from alternative certification programs.

**Fund a statewide working conditions study, and encourage all schools to participate in the study.**

Recent research has found that teacher working conditions have a significant impact on teacher effectiveness as measured by gains in student achievement and are the primary factor in improving teacher retention. Without addressing the issue of teacher working conditions, all other efforts to increase the degree of equity in the distribution of teachers will surely fail. Thus, the state needs to fund a high-quality working conditions survey from an organization that can ensure valid and reliable results for schools, districts, and the state. The data should be provided back to schools and districts and training be provided on the use of such tools to improve working conditions and the equitable distribution of teacher quality.

**Improve the training of school and district leaders.**

Research on the relationship between working conditions and teacher turnover has consistently found that school leadership behaviors are the primary factor affecting teachers' decisions to stay at or leave a particular school. These behaviors are

the underlying force behind the powerful effect that working conditions have on teacher retention. In fact, leadership behavior is a stronger predictor of teacher retention than either student demographics or student achievement. Better training of school leaders—concomitant with other changes—can increase the likelihood that more schools will have the type of school leader that attracts well-qualified and effective teachers regardless of the school characteristics.

Because district personnel have a great deal of influence on the hiring and distribution of teachers, superintendent programs should be required to teach prospective superintendents about the distribution of teacher quality and strategies to equalize teacher quality.

#### **Improve data collection and dissemination efforts.**

Although Texas used to be recognized for having one of the best education data systems in the country, Texas has fallen behind a number of states. The state has invested additional money and effort into upgrading data systems, including matching students to teachers in every school in the state, yet TEA has not addressed some substantial issues regarding existing and missing data related to teacher quality. The state should bring researchers and data system experts together to identify weaknesses and potential solutions for improving the current data on educators. Researchers need better data and greater access to data on the background characteristics of all teachers employed, such as undergraduate institution, grade point average, SAT/ACT scores, certification scores, type of master's degree, and the major/minor for the undergraduate degree. Although the state should facilitate the use of such data by researchers, the state also needs to ensure that such data is not available to the general public in order to protect the confidentiality of individual teachers. In sum, the data should be made available to researchers to guide policymakers but still be protected to ensure its confidentiality and the privacy of individual teachers.

Further, the state needs to invest in creating more accurate data on teacher experience and certification status. Some of this data is currently available through the Education Research Centers at the University of Texas at Austin, the University of Texas at Dallas, and Texas A&M University. However, the state could create more efficient and effective ways to make this data accessible without violating the confidentiality of individuals.

#### **Provide school-level value-added data.**

The general consensus of researchers on the accuracy of teacher-level value-added efforts is that such systems are generally not accurate and stable enough for use when making high-stakes decisions about teachers. However, the state should provide useful school-level value-added information for each grade level and subject area for which information is available so that school and district personnel can identify areas of strengths and weaknesses. Moreover, the state should model appropriate use of this data and provide training on correct interpretation and appropriate use of such information. If the state does begin to provide such data, an oversight team of researchers and practitioners should be created to ensure that the data is used and dominated in ways that meet the best practices as established by experts in the field.

#### **Improve the school accountability system.**

Currently, the state's school accountability system provides a disincentive for well-qualified and effective teachers to move to low-performing schools. The primary driver of this disincentive is the absence of an accurate barometer and recognition of student growth. Teachers are often fearful of seeking employment in low-performing schools because of the increased scrutiny, the added pressure, and the belief that they will be punished for low levels of achievement even if their students make large gains.

Although the state has implemented "Required Improvement" and the "Texas Projection Measure" in an effort to reward student growth, both measures have serious methodological flaws and are clearly inferior to having an actual measure of student growth as one component of the school accountability system.

#### **Develop a statewide campaign designed to increase the prestige of the teaching profession.**

Currently, many prospective teachers do not view the teaching profession as a prestigious one. A statewide campaign—coupled with more stringent entrance requirements for preparation programs that increase the overall quality of teachers—can increase the prestige of the profession and increase the supply of better-qualified entrants into the profession.

Importantly, no one strategy will be sufficient in ameliorating the inequitable distribution. Indeed, a multi-pronged, multi-year strategy at the state, district, and school levels is necessary to ensure that all students have access to a well-qualified teacher.