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Were High-Poverty Districts in Texas Disproportionally Impacted by State Funding Cuts? School Finance Equity in Texas Following the Great Recession

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Policy Brief

WERE HIGH-POVERTY DISTRICTS IN TEXAS DISPROPORTIONALLY IMPACTED BY STATE FUNDING CUTS?

SCHOOL FINANCE EQUITY IN TEXAS FOLLOWING THE GREAT RECESSION

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EXECUTIVE SUMMARY

Facing a substantial budget shortfall, Texas legislators avoided significant cuts to education in 2009-10 and 2010-11 by drawing on federal stimulus funding. When stimulus funds diminished, the 82nd Legislature reduced spending for K-12 schools by over $4 billion. Policy makers were divided on whether to cut funding for all districts or whether to protect the state's highest-need districts from budget reductions. Legislators reached a compromise that involved across-the-board cuts for the 2011-12 school year and smaller, targeted reductions for property-wealthy districts in the 2012-13 school year.

KEY FINDINGS

- High-poverty districts in Texas receive 5.5% less funding than otherwise similar low-poverty districts.

- Without federal aid, the funding gap would be 11% or $1,352 per student.

- The Great Recession budget cuts expanded funding gaps in many states, but the gap expanded by more in Texas than in 43 other states.

- Unique features within the Texas school finance system prevented high-poverty districts from maintaining equitable funding levels, despite increasing tax rates at a faster rate than otherwise similar wealthier districts.

- If these gaps persist for 12 years of a child's education, research suggests this funding gap could lower students' likelihood of high school graduation by 6.3 percentage points and lower adult annual income by 14.5%.

- Providing equitable funding across Texas school districts, without lowering funding in wealthier districts, would require a 16.7% increase in state education funding and cost the state $9.1 billion.

Immediately following the 2011-12 austerity measures, school districts sued the state for violating two articles of the state constitution. Districts argued that the state school finance system does not provide an adequate and equitable education for all students and that, because so many districts charge the maximum local tax rate, the school finance system creates a de facto statewide property tax, which is prohibited in Texas. Although a district court ruled in favor of plaintiffs, the Texas Supreme Court overturned that decision and found the system to be constitutional, but severely in need of reform. The Court's opinion referred to the school finance system as antiquated, overly complex, and "byzantine." Texas legislators are now calling for further study of the school finance system ahead of the next legislative session which begins January 2017.

This policy brief examines how recessionary-budget cuts impacted high- and low-poverty districts in Texas and compares those impacts to other states nationally. Statistical models compare high-poverty districts to *otherwise similar* low-poverty districts by adjusting district funding rates for local cost factors that are outside the control of school districts.

The analyses show that high-poverty districts in Texas incurred a disproportionate amount of funding cuts following the Great Recession. Although this trend holds nationally, the funding gap between rich and poor districts expanded by more in Texas than in 43 other states around the country. High-poverty districts in Texas now receive less funding, spend less, have lower teacher salaries, and have fewer teachers per student than otherwise similar wealthier districts in the state.

This funding gap expanded as a direct result of the Great Recession spending cuts. After adjusting for local cost factors, high-poverty districts received only slightly less state and local funding than wealthier districts from 2005-06 to 2008-09. Federal funding generally removed any funding gaps during this period. However, beginning in the 2009-10 school year, when recessionary budget cuts began, average funding in the poorest school districts decreased in real dollar terms, while wealthier districts continued to see increases in state and local funding. By 2012-13, high-poverty districts received $1,350 less per student (about 11% fewer dollars) than otherwise similar wealthier districts. Even when federal dollars are included, the funding gap between high- and low-poverty districts is about 5.5% for 2012-13.

The policy brief then looks more closely at idiosyncrasies within the Texas school finance system that prevented higher-poverty districts from raising local revenues at the same rate as their wealthier counterparts. High-poverty districts increased their local tax rates at a faster rate than otherwise similar low-poverty districts following the Great Recession, but experienced slower growth in property values. Texas fully equalizes the tax base of local taxes for maintenance and operations for the first 1.06%, but does not provide the same level of aid for bond repayments. Not surprisingly then, wealthier districts passed more bonds following the recession, and also experienced greater increases in property wealth. Wealthier districts' reliance on bonds, coupled with relatively faster growing property values allowed these districts to raise enough local revenues to compensate for decreases in state aid. In contrast, high-poverty districts also increased their local revenues in the years following the Great Recession, but the increase was not sufficient to compensate for decreases in state aid despite greater efforts to increase local tax rates. As a result, the recessionary spending cuts expanded the funding gap in Texas between high- and low-poverty districts.

What does a 5.5% funding gap mean for students? Based on the results of a recent study from the National Bureau of Economic Research (Jackson et al., 2015), a student from a lower-income family who is exposed a 5.5% decline in funding for all 12 years of public schooling would experience a 6.3 percentage point decline in their likelihood of graduating high school, a decrease in adult earnings of about 14.5%, and an increase in their likelihood of living in poverty of about 5.4 percentage points. Without any legislative action to restore funding in the highest-need districts, the disparate impacts of the Great Recession school budget cuts will have real consequences on the lives of students.

Closing the funding gap without reducing the budget of wealthier districts would require additional funding for the state's highest-need districts. Policy simulations show that providing an equitable level of funding for high- and low-poverty districts would cost $9.1 billion, requiring a 16.7% increase in state and local funding. While all regions in Texas would benefit, regions with the higher poverty rates would benefit most. For example, while districts in Fort Worth (Region 11) would receive an additional $1,523 per student, Edinberg (Region 1) would receive an average of $2,133 of additional funding per student. Because of their high poverty rates and lower relative funding levels, districts in El Paso (Region 19) would receive the largest increase in funding, totaling $2,258 per student on average.

Much of the policy discussion following the recent Texas Supreme Court school finance decision has centered on whether the current funding level is adequate and whether the system distributes funds equitably. In addition to highlighting the inequitable distribution of funding in Texas, this policy brief reveals an often overlooked issue in Texas and nationally: that recessionary budget cuts substantially expanded resource gaps between property rich and poor school districts. As the next legislative session nears, and Texas policy makers consider reforms to the school finance system, lawmakers may consider adding provisions that protect the highest need districts from future economic recessions.

Were High-Poverty Districts in Texas Disproportionately Impacted by State Funding Cuts? School Finance Equity in Texas Following the Great Recession

The Great Recession that began in 2008 led to an unprecedented cut in funding for public education. Although federal stimulus money helped alleviate some of the spending cuts, almost every state lowered its total K-12 funding from the 2007-08 school year to 2012-13.[i] Only recently have states begun to build back budgets and very few have restored funding to pre-recessions levels. When states reduce education funding, the burden of these cuts often falls most heavily on the districts that serve greater proportions of students in poverty and emergent bilingual students.[ii] At the same time, these "higher-need" districts face additional costs to provide compensatory educational programs for low-income students and bilingual instructional programs for emergent bilingual students.[iii]

Facing serious budget shortfalls following the Great Recession, Texas relied on federal stimulus aid to fill gaps in state funding during the 2009-10 school year. In 2011, when stimulus funding diminished, the 82nd Texas Legislature cut K-12 public education by $4 billion for school year 2011-12. The following year, over 600 school districts sued the state for violating the state constitutional mandate of providing an adequate education for all students. Ultimately, the Texas Supreme Court ruled the finance system constitutional in May of 2016; however, the court's opinion labeled the Texas educational finance system antiquated and urged the legislator to overhaul the state's school funding mechanism. While the state moved to restore the budget in 2012-13, legal battles and court mandates spanning over three decades have resulted in an overly complex and multilayered school finance system.

The Legislature has recently called for additional studies of the Texas school finance system in advance of the next Legislative session.[iv] Comprehensive school finance reform may thus depend on the Texas legislature's assessment of the potentially negative impact of the Great

Recession on the school finance system and whether its recent efforts to restore the education budget in the 2012-13 school year were sufficient. The situation in Texas is reflective of national trends, as many states are assessing the impact of the recession on their school finance systems and considering strategies for restoring budgets and reforming school finance systems.[v]

Research shows school finance reforms typically lead to increases in spending for low-income districts, thereby closing gaps in resources and increasing state school finance equity. More importantly, several studies link these increases in spending to greater educational and labor market outcomes for low-income students.[vi] However, there is little research examining the impact of recessions and state budget cuts on school finance systems, especially school resource equity, and no prior research looks specifically at the case of Texas. Moreover, the recent Texas Supreme Court opinion and the upcoming Legislative session in Texas make an analysis of Texas school finance particularly timely. This policy brief examines the following research questions: (a) *to what extent are school districts in Texas and nationally compensated for higher rates of student poverty, and how did resource and achievement gaps change during the Great Recession?* And (b) to *what extent did high- and low-poverty districts in Texas differ in their response to state funding cuts, if at all?*

<div align="center">**Policy Context**</div>

History of School Finance in Texas

Texas has a long history of court battles that has shaped the state's school finance system. The first school finance case argued that the primary reliance on local property taxes prevented students from receiving equal protection, as required under the Equal Protection Clause of the Fourteenth Amendment. The U.S. Supreme Court ruled in *Rodriguez v. San Antonio Independent School District (ISD)* that education was not a fundamental right and that the constitutionality of

state school systems should be judged on based on state constitutions. Over the past four decades, school districts have been challenging the Texas school finance system based on two state constitutional provisions. The state must "establish and make suitable provision for the state support and maintenance of an efficient system of free public schools," (Article 7, Section 1) and the state may not levy a statewide property tax (Article 8, Section 1e).

A total of four cases, referred to as *Edgewood I - Edgewood IV*, were argued in Texas courts over the next 15 years. The first two Edgewood decisions – both finding the finance system unconstitutional – led to increased funding and the creation of County Education Districts, but did not substantially change the finance system. In response to a similar decision in *Edgewood III*, Texas legislators passed Senate Bill 7 in 1993, which created much of the structure currently in place. The court declared the provisions set forth in Senate Bill 7 constitutional in *Edgewood IV*, but called on legislators to add additional state aid programs for facilities. In April 2001, four wealthy districts filed suit charging that the 1.5% maximum tax rate established through Senate Bill 7 constituted a statewide property tax because many districts had increased their local property taxes to this cap and were unable to increase funding beyond their current level (*West Orange Cove ISD v. Neeley*). After an additional 300 lower-wealth districts joined the suit, arguing that the finance system was neither adequate nor equitable, the court declared the system unconstitutional once again. In response, the Legislature passed House Bill 1, which lowered (or "compressed") the maximum tax rate from $1.50 to $1.00, but allowed all districts to raise local tax revenues to as much as $0.17 above $1.00, thus providing "meaningful discretion" over property taxes. Additional "hold harmless" provisions ensured that districts would not lose funding as a result of having their local taxes compressed.

The most recent case, *Texas Taxpayer and Student Fairness Coalition et al. v. Morath et*

al, alleged that the finance system is unconstitutional because property wealthy districts can raise higher tax revenues at lower tax rates, the system provides an inadequate level of funding to meet the state's accountability standards, and because the $1.17 tax rate cap constitutes a state property tax. District Judge John Dietz ruled in February 2013 that the finance system was unconstitutional; however, the Texas Supreme Court overturned Judge Dietz's decision, finding that the Texas school finance system is constitutional, but severely in need of reform.[vii]

The Texas School Finance System

The Texas school finance system has three separate components designed to provide adequate and equitable funding for all districts. The first is a foundation program that allocates a base level of funding per "weighted" student for all districts. Students are given extra weight if they fall into certain categories such as low-income, special education, or emergent bilingual, thereby providing more funding for districts with more students in these categories. Districts raise revenues by levying a local property tax for the maintenance and operations of schools (called M&O taxes), and the state pays the difference between the revenues raised through M&O taxes and the foundation level of funding, which in 2013-14 was $4,950 per weighted student.

Districts can supplement the base level of funding through additional local tax increases. The second component of state aid equalizes the tax base for additional increases in the M&O tax rate. That is, the state ensures that each 1% increase in the local property tax (up to 1.06%) yields the amount of revenue raised in the Austin Independent School District, which was the district at the 95th percentile of property wealth when Senate Bill 7 passed in 1993. In school year 2014-15, this amount was $61.86 per weighted student. The state provides up to $31.86 per weighted student for each additional 1% M&O tax increase beyond to 1.06% up to the statutory maximum of 1.17%. The state also provides equalization funding for bond repayments, called

Interest and Sinking taxes (I&S), but only up to $35 and only for districts selected through an application process.

The third component of the Texas school finance system, called Chapter 41 recapture, redistributes local property tax revenues from high- to low-wealth districts. The policy is often referred to as the Robin Hood plan and is unique to Texas. Tax revenues generated from the first 1.00% of M&O taxes that exceed the foundation amount of $495,000 per weighted student are recaptured by the state. The revenues generated from taxes between 1.00% and 1.06% are not subject to recapture, but all revenues generated from additional tax increases from 1.07% to 1.17% that exceed $319,500 are also remitted to the state. Tax revenue raised through bonds (I&S taxes) are not subject to recapture. In 2013-14, there were 228 Chapter 41 districts and approximately $1.2 billion were recaptured and used for state aid programs for lower-wealth districts. A total of 37 districts have special provisions that reduce their Chapter 41 payments.

The finance system contains a second layer called the Target Revenue System. The Target Revenue System is a "hold harmless" clause that prevents districts from losing funding as a result of reforms implemented through House Bill 1. To ensure that no district lost funding as a result of the 2006 tax relief, House Bill 1 guarantees that districts receive at least the amount they would have received using the old formula system.

School Funding in Texas and Nationally

The Texas school system currently educates over 5 million students with a budget of approximately $54 billion for the 2012-13 school year. For both Texas and nationally, the 2009-10 school year was the first time in at least 15 years (i.e., as far back as data are available) that nominal state and local funding decreased from the prior year. Federal funding saw its largest increase that year, when stimulus funding was distributed. In the years prior to 1998-99, Texas

districts received approximately equal to or greater than the national average state and local funding per pupil. Since the 1999-00 school year, Texas has provided districts with less state and local funding than the national average, even as the average poverty rate has been 5-6 percentage points above the national average. Given the higher poverty rates in Texas compared to the rest of the country, the state has historically received more federal dollars per pupil than the average U.S. district (before applying cost adjustment to Texas districts).

Table 1 shows differences in average student demographics and resources in high- and low-poverty districts, in 2007-08 and 2012-13, for Texas districts and for all other districts in the country. In both Texas and the rest of the country, poverty rates and eligibility for the FRL program increased from before to after the recession. The bottom panel of Table 3 shows that in both Texas and nationally, resource advantages for higher poverty districts narrowed and resource gaps for higher poverty districts increased. For example, in 2007-08, districts in the bottom quartile of the poverty distribution (wealthier districts) received total per-pupil revenues (PPR) of $11,343 per student, whereas those in the top poverty quartile received $12,142, a difference of $799. By 2012-13, wealthier districts received $213 more in total revenues per pupil. Nationally, higher poverty districts received $640 more dollars per-pupil revenues before the recession, but $410 more after the recession. Finally, from 2007-08 to 2012-13, the wealthiest districts in Texas saw a 0.22 increase in the number of full-time equivalent (FTE) teachers per 100 students, while the highest poverty districts experienced a 0.13 FTE decline. These numbers provide cursory evidence that higher poverty districts incurred a disproportionate impact of recessionary budget cuts. These differences may also be due to changes in other cost-related factors such as enrollment, student demographics, or the cost of living. The following section describes the analytic approach used to explore this issue further.

TABLE 1

Average characteristics for school districts with equal to or below the 25th percentile of poverty rate and equal to or above the 75th percentile (within state and year), 2007-08 and 2012-13

	Texas school districts				All other U.S. school districts[a]			
	2007-08		2012-13		2007-08		2012-13	
	≤ 25th	≥ 75th	≤ 25th	≥ 75th	≤ 25th	≥ 75th	≤ 25th	≥ 75th
Average district characteristics and student demographics / outcomes								
% Poverty	9.4%	32.9%	12.5%	35.9%	7.2%	24.9%	10.8%	29.8%
% FRL	32.7%	56.7%	39.3%	74.3%	22.3%	56.6%	30.9%	62.5%
% LEP	2.9%	7.4%	4.9%	12.6%	2.6%	6.4%	2.8%	6.3%
% SPED	10.7%	11.5%	8.8%	9.5%	13.0%	15.1%	12.8%	15.0%
% URM	24.9%	63.9%	32.5%	66.8%	12.8%	32.3%	18.8%	36.3%
Grade 3 ELA	0.314	-0.761	0.112	-1.022	0.590	-0.418	0.549	-0.542
Grade 3 Math	0.330	-0.583	0.316	-0.594	0.529	-0.388	0.470	-0.503
Num. of dist.	248	265	247	262	3004	3074	3164	2924
School inputs (unadjusted outcome measures)								
Total PPR	11,343	12,142	12,420	12,206	12,653	13,293	13,617	14,027
St./local PPR	10,702	10,677	11,719	10,636	12,156	11,833	12,940	12,458
Per-pup. Exp.	8,792	10,195	9,230	10,041	10,463	11,336	11,448	12,003
Avg. Salaries	39,095	36,804	42,362	39,963	50,466	46,069	52,398	49,576
Staff per 100 students								
All Staff	12.77	14.64	12.96	14.21	14.88	17.74	14.25	16.28
Teachers	6.84	7.64	6.96	7.51	7.99	8.84	7.79	8.14
Guid. Coun.	0.28	0.33	0.30	0.33	0.32	0.38	0.26	0.30
Sup. Staff	0.51	0.62	0.64	0.72	0.44	0.54	0.44	0.56

[a] Hawaii, the District of Columbia, charter districts, and outlier districts that receive extremely high per-pupil revenues are also excluded from the analytic sample.
Note: FRL, free/reduced price lunch; LEP, limited English proficiency; SPED, special education; URM, underrepresented minority; Grade 3 ELA is the average grade 3 achievement in standard deviations on statewide assessment, adjusted to allow for comparisons across states (Reardon et al., 2016); PPR, per-pupil revenue.

Data and Analytic Approach

The analyses combine district-level finance and child poverty data from the U.S. Census Bureau, student demographic data from the National Center of Education Statistics Common Core of Data, data provided by the Texas Education Agency, Public Education Information Management System (PEIMS), and grade 3-8 achievement data from the Stanford Education Data Archive (Reardon et al., 2016). The analytic dataset includes a total of 248,331 district-year observations over 19 years (19,318 in Texas) including 12,723 district observations in 2012-13 nationally and 1,004 in Texas. The sample excludes outlier districts with $70,000 or more in total

per-pupil revenues in any particular year (a total of 23 in 2012-13 and 0.2% of all districts that would otherwise have been in the sample).

Statistical models are used to adjust funding rates for local cost factors. For example, research suggests lower enrollment levels, greater population sparsity, and higher average salaries in the local labor market all increase the cost of education.[viii] Districts with greater proportions of students enrolled in special education, classified as limited English proficient (LEP), or from low-income families also face greater costs. These adjustments allow for comparisons of high-poverty districts to otherwise similar low-poverty districts.

<div align="center">**Findings**</div>

Changes in Resources and Outcomes across Districts Following the Great Recession

The first portion of the analysis shows how recessionary funding cuts were distributed across high- and low-poverty districts. Figure 1 shows that in the three years leading up to the 2009-10 school year, districts in Texas with a 30% poverty rate (approximately the 90th percentile) received slightly less state and local funding than otherwise similar low-poverty districts (with 10% poverty rates, approximately the 10th percentile). Federal funding balanced out the funding gap during that period. Beginning in 2009-10 and up to 2012-13 (the most recent year in which national data are available), high-poverty districts in Texas received about 6% less total funding ($725 per pupil)) and 11% less state and local funding ($1,352 per pupil) than their wealthier counterparts in Texas. On average, high-poverty districts incurred a disproportionate share of funding cuts around the country. However, the extent to which high-poverty districts were disproportionately harmed by recessionary budget cuts was greater in Texas than in 43 other states.

FIGURE 1

Adjusted total revenue per pupil (federal, state, and local) and state and local revenue per pupil in Texas, for low-poverty school districts (10% poverty rate) and high poverty school districts (30% poverty rate), 1994-95 to 2012-13
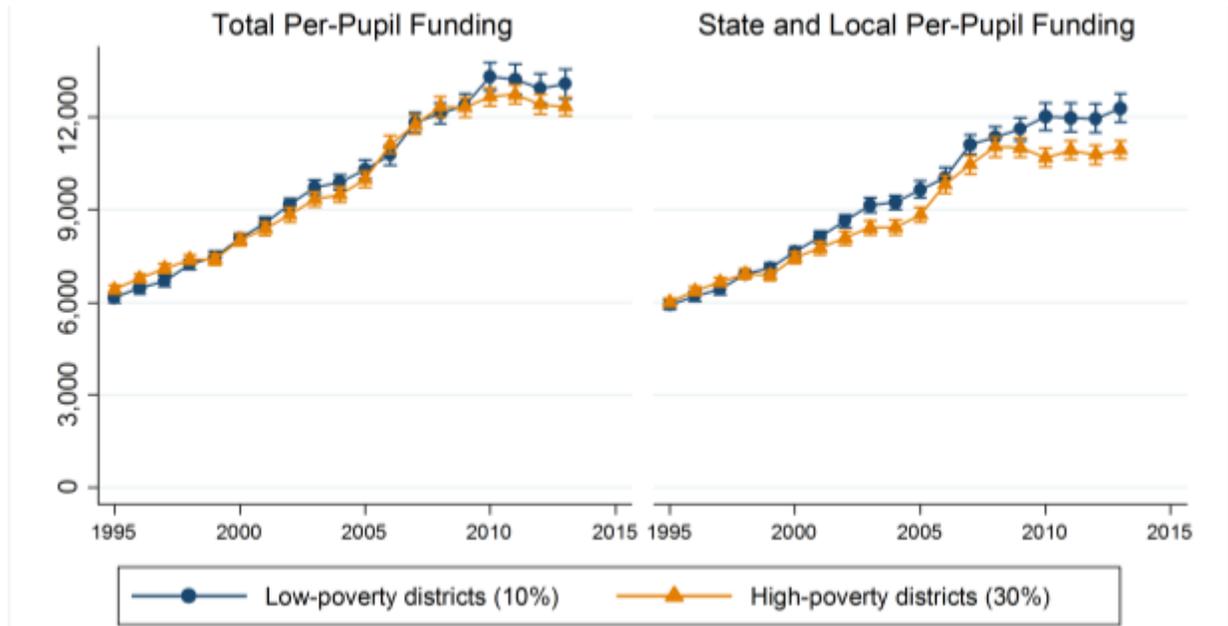
Note: revenue per pupil is adjusted for the cost of labor, districts size, population density, and the proportion of students enrolled in special education and with limited English proficiency. Districts with 10% and 30% poverty rates fall at roughly the 10th and 90th percentile.

Additional analyses show that from 2007-08 to 2012-13, the gap between high- and low-poverty districts in per-pupil expenditures grew went from an $884 per student advantage for high-poverty districts to a $518 disadvantage. Before the recession, high-poverty districts in Texas had 1.8 more staff members per 100 students than otherwise similar low-poverty districts, but had 0.9 fewer after the recession. The state also experienced an increase in the achievement gap between high- and low-poverty districts from 2008-09 to 2012-13 (data are only available for this five-year period). In 2008-09, low-poverty districts scored between 0.049 and 0.054 standard deviations (SD) lower in English Language Arts on standardized statewide assessments and between 0.044 and 0.062 SD lower in Math. By 2012-13, the gap for English Language Arts had increased by between 0.005 and 0.018 SD and the gap in Math achievement also increased in several grade levels.

Exploring Mechanisms for Funding Changes

Why were high-poverty districts in Texas relatively more vulnerable to recessionary spending cuts than in most other states? The second portion of the analysis explores idiosyncrasies in the Texas school finance system that contributed to the disproportionate impact of budget cuts on the neediest districts. First, Figure 2 shows that low-, middle-, and high-poverty districts all experienced decreases in state funding, but managed to increase their local funding from 2007-08 to 2012-13 (the years displayed in Figure 2 and in this discussion refer to the spring semester, so 2008 refers to 2007-08).

FIGURE 2

Per-pupil revenues by funding source for low-, middle-, and high-poverty districts

Panel A: Low-poverty (10%)   Panel B: Mid-poverty (20%)   Panel C: High-poverty (30%)
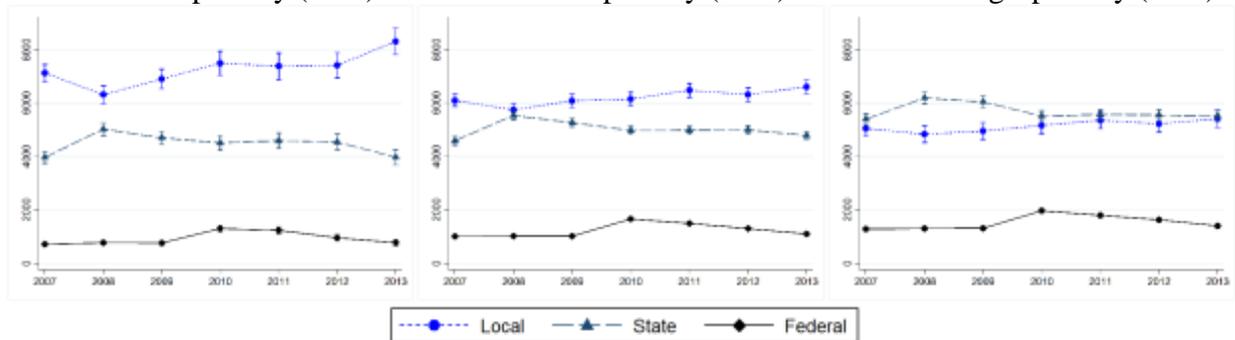
In 2010 and 2011, federal funding was significantly higher than in 2009 because of the stimulus funding and Texas used this money in place of state funding. From 2009 to 2010, state funding decreased by 4.1% ($192 per pupil) in low poverty districts and 8.7% ($526 per pupil) in otherwise similar high-poverty districts. The decline in state funding in 2012 and 2013 resulted from the budget cuts established in the 82nd Texas Legislative session, but the state protected high-poverty districts in these years, particularly in 2013. While low-poverty districts lost 1.2% ($54 per pupil) and 12.5% ($568 per pupil) of state funding in 2012 and 2013, respectively, compared to 2011 funding, high-poverty districts saw a decline of only 0.3% ($18) and 0.5%

($27) in those years, relative to 2011 funding. Over the course of the recessionary period, from 2008 to 2013, state funding decreased by 20.9% ($1,052 per pupil) in low-poverty districts and by 10.8% ($670 per pupil) in high-poverty districts.

However, over that same period, low-poverty districts increased local per-pupil funding by $2,000 (31.6%), whereas high-poverty districts increased local funding by only $576 per pupil (11.9%). Thus over the course of the recession, from 2008 to 2013, the poorest districts saw a modest decline in nominal state and local funding of $94 per pupil (0.8%), while the richest districts experienced an increase in state and local funding of $947 per pupil (8.3%), which resulted in a $1,352 per pupil gap in state and local funding. Because federal funding was relatively stable over this period, the increase in total per-pupil funding from 2008 to 2013 was $948 (7.8%) for low-poverty districts and only $4 (0.3%) for high-poverty districts, leaving a $725 gap for school year 2012-13. As noted earlier, these *relative* decreases in funding for high-poverty districts had real effects on resources, resulting in relative declines in teacher salaries and the number of total staff and teachers per student.

The results shown in Figure 2 suggest that low-poverty districts were unable to increase local revenues to make up for declines in state tax revenues. Analysis of changes in local tax rates and property values explains why this may have occurred. As described earlier, high-poverty districts face greater incentives for increasing M&O tax rates because of the state equalization, whereas I&S taxes are not fully equalized. Wealthier districts benefit more from increases in I&S taxes because these revenues are not subject to Chapter 41 recapture. The trends in from 2008 to 2013 are therefore not surprising. First, high-poverty districts increased their M&O tax rates at a faster rate than wealthier districts (0.24% increase compared to 0.015%) and had a greater likelihood of districts reaching the statutory maximum M&O tax rate than

otherwise similar wealthier districts. However, wealthier districts increased I&S tax rates at a faster rate and experienced a $127,074 greater increase in per-pupil property values compared to high-poverty districts. In summary, wealthier districts were able to compensate for decreases in state aid by increasing I&S tax rates, which are not subject to recapture, and by experiencing significant growth in their local property values. Conversely, high-poverty districts were unable to increase local revenues by enough to compensate for decreases in state funding, despite increasing M&O tax rates at a faster rate than their wealthier counterparts.

Discussion

This study finds that the Great Recession inequitably impacted higher-need districts in Texas, and these impacts were more disproportionate in Texas than in most other states across the country. High-poverty districts in Texas increased their local tax rates at a faster rate than otherwise similar wealthier districts, and a greater proportion reached the statutory maximum. Given the slow growth in property values for these districts, the increases in taxes were not enough to compensate for decreases in state aid. In contrast, wealthier districts sufficiently counteracted decreases in state funding by issuing bonds, which are not subject to recapture and which the state does not fully equalize for high-poverty districts. Although legislators reached a compromise between cutting funding evenly for all districts protecting high-poverty districts, given the complexities and multiple layers embedded in the Texas school finance system, the highest-need districts were inequitably impacted by the funding cuts. The result was an 11% funding gap between districts at the 10th and 90th percentile of poverty rate. Even when including federal funding, the gap is about 5.5%.

What does a 5.5% funding gap mean for students? Based on the results of a recent study from the National Bureau of Economic Research,[ix] a student from a lower-income family who is

exposed a 5.5% decline in funding for all 12 years of public schooling would experience a 6.8

percentage point decline in their likelihood of graduating high school, a decrease in adult

earnings of about 14.8%, and an increase in their likelihood of living in poverty of about 5.4

percentage points. Without any legislative action to restore funding in the highest-need districts,

the disparate impacts of the Great Recession budget cuts will have real consequences on the lives

of students.

One of the key takeaways from this study is that high-poverty districts levy higher local

taxes than otherwise similar low-poverty districts, but receive less state and local funding, and

these gaps expanded following the Great Recession. Thus a clear challenge facing Texas

education policy makers is to reform the school finance system such that high-poverty districts

receive at least as much funding as otherwise similar low-poverty districts at the same tax rates.

To estimate the cost of this policy reform and show which regions in Texas would benefit, a

school finance reform policy is simulated that equalizes state and local funding across the

poverty distribution in Texas. The current relationship between poverty and funding is shown in

Panel A of Figure 3. The estimated per-pupil funding for districts with poverty rate of 2.5% is

$13,247, whereas otherwise similar districts with 30% of students in poverty receive $10,945 and

districts with a 40% poverty rate receive $10,914. The simulated policy thus adds $2,302 for

districts with between 30% and 32.5% poverty rates, adds $2,333 for districts with poverty rate

between 40% and 42.5%. Similar calculations are made for districts in each range of poverty

level. The relationship between poverty rates and the simulated per-pupil funding is shown in

Panel B of Figure 3. As is clear, this simulated policy would provide, on average, approximately

$13,247 to otherwise similar districts, across the poverty distribution.

FIGURE 3

Marginal effect of poverty rate on state and local per-pupil funding, holding constant other district cost factors, actual (Panel A) and simulated policy (Panel B)

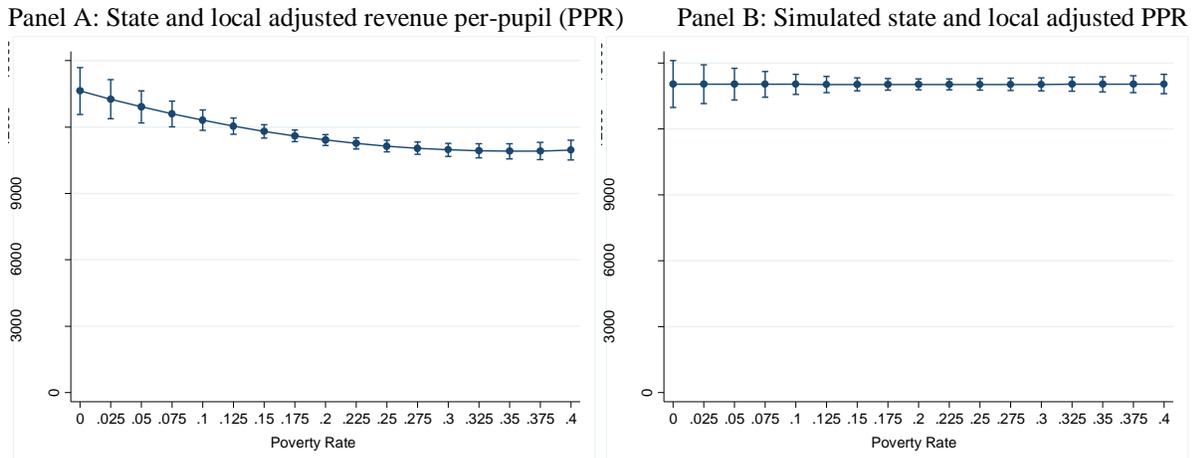Panel A: State and local adjusted revenue per-pupil (PPR)   Panel B: Simulated state and local adjusted PPR

FIGURE 4

Change in average per-pupil funding under a simulated policy that provides all districts with the average amount received by districts with less than 5% poverty
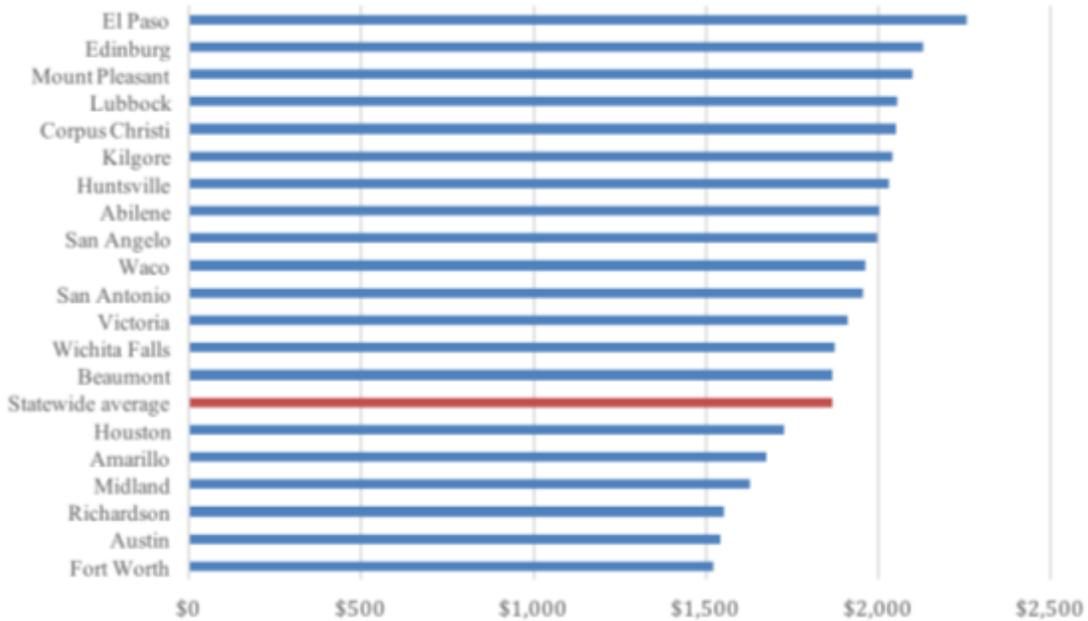

Figure 4 shows that each of the 20 educational service regions in Texas would experience increases in their average per-pupil funding across districts, but some would benefit more than others. On average, districts in Fort Worth would receive an additional $1,523 per student, whereas the 12 districts in El Paso would receive $2,258 in additional funding per pupil on

average. This policy would cost the state $9.1 billion, representing a 16.7% increasing in state and local funding. While this policy change would increase funding equity across the poverty distribution, it would come at considerable cost. Whether the current or simulated funding levels represent an adequate level of funding is beyond the scope of this study.

Conclusion

Although the Texas Supreme Court's recent decision declared the finance system constitutional, the court's opinion made clear that substantial reforms were needed to fix the outdated and overly complex system. In addition to distributing state and local funding inequitably across high and low-poverty districts, the funding system is not recession-proof. The combination of the guaranteed tax base, foundation formula, and Chapter 41 recapture payments did not successfully protect high-poverty districts from experiencing a disproportionate impact of the recessionary budget cuts, despite their relatively greater effort to increase local tax rates. As the state considers reforming its school finance system, it may benefit from including provisions to protect the highest-need districts from the next major state budget cut.

The failure of the Texas school finance system to protect high-need districts is not specific to the state. The analyses described here found that across the country, state funding cuts disproportionately harmed high-poverty districts. Other states may therefore look to Texas as a leader in designing a new school finance system designed to both provide an equitable level of funding and to withstand the negative impacts of future economic recessions.

Endnotes

[i] Leachman, M., Albares, N., Masterson, K. & Wallace, M. (2016). Most states have cut school funding, and some continue cutting. Washington, D. C.: Center on Budget and Policy Priorities.

[ii] See for example, Baker, B. D. (2014). Evaluating the recession's impact on state school finance systems. *Education Policy Analysis Archives, 22*(91). http://dx.doi.org/10.14507/epaa.v22n91.2014

[iii] Darling-Hammond, L. (2013). Inequality and school resources. In P. L. Carter & K. G. Welner (Eds.) *Closing the opportunity gap: What America must do to give every child an even chance*. (pp 77-96). New York, NY: Oxford University Press; Duncombe, W., & Yinger, J. (2008). Measurement of cost differentials. In H.F. Ladd & E. Fiske (Eds.). *Handbook of research in education finance and policy* (pp. 203-221). New York, NY: Routledge; Ladd, H. F. (2012). Education and poverty: Confronting the evidence. *Journal of Policy Analysis and Management, 31*(2), 203-227.

[iv] Collier, K. (2016, June 2). Straus orders Texas House to study school finance. *The Texas Tribune*. https://www.texastribune.org/2016/06/02/straus-orders-house-study-school-finance/.

[v] Bunting, L., Kueneman, A, Louttit, M., Park, H. & Parker, D. (2014, January 28). State of the States. New York Times. http://www.nytimes.com/interactive/2014/01/28/us/28-stateofstates.html.

[vi] Murray, S. E., Evans, W. N., & Schwab, R. M. (1998). Education-finance reform and the distribution of education resources. *American Economic Review, 88*(4), 789-81; Card, D., & Payne, A. A. (2002). School finance reform, the distribution of school spending, and the distribution of student test scores. Journal of public economics, 83(1), 49-82; Jackson, C. K., Johnson, R., & Persico, C. (2014). The effect of school finance reforms on the distribution of spending, academic achievement, and adult outcomes. Working Paper No. w20118. Cambridge, MA: National Bureau of Economic Research link funding increases to short and long-term student outcomes.

[vii] *Texas Taxpayer and Student Fairness Coalition et al. v. Morath, Hegar, The Texas State Board of Education, and The Texas Education Agency,* No. 14-0776.

[viii] Adams, J.E., & Foster, E.M. (2002). District size and state educational costs in Kentucky: Should consolidation follow school finance reform. *Journal of Education Finance, 27*, 833-855; Gronberg, T. J., Jansen, D. W., Taylor, L. L., & Booker, K. (2005). School outcomes and school costs: A technical supplement (report prepared for the Texas Joint Select Committee on Public School Finance, Austin). http://www.tlc.state.tx.us/roadmap/tsfp/reports.htm; Hanushek, E. A., Kain, J. F., Markman, J. M., & Rivkin, S. G. (2003). Does peer ability affect student achievement? *Journal of Applied Econometrics, 18*(5), 527-544; Ladd, H. F. (2012). Education and poverty: Confronting the evidence. *Journal of Policy Analysis and Management, 31*(2), 203-227.

[ix] Jackson, C. K., Johnson, R., & Persico, C. (2014). The effect of school finance reforms on the distribution of spending, academic achievement, and adult outcomes. Working Paper No. w20118. Cambridge, MA: National Bureau of Economic Research.

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