

Pay, Planning Time, and Culture: A Trifecta Impacting the Texas Teacher Workforce Crisis



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Research Brief: Teacher Compensation



Introduction

Texas schools have faced a significant teacher shortage for a number of years, and current conditions are taking their toll on them and also pushing teachers out of the profession (Lopez, 2022). According to *The 2022 Texas Teacher Poll: Persistent Problems and a Path Forward*, 77% of Texas teachers are considering leaving the profession, and 72% have taken concrete steps to do so, paving the way to continued staff shortages and an urgent need to improve the teaching profession (Charles Butt Foundation, 2022).

According to teachers, pay is a major factor in their desire to leave. Among surveyed Texas teachers, 81% feel their pay is unfair, and 41% of teachers reported working an additional job due to financial need, most of whom work throughout the school year (Charles Butt Foundation, 2022). When asked what would encourage them to stay in the profession, almost all teachers -91% - said a significant salary increase would keep them as a teacher, and 59% said this was the most important strategy to keep them in the profession, higher than any other financial incentive listed (Charles Butt Foundation, 2022). Notably, a mere 1% of teachers said a onetime retention bonus was the most important retention strategy.

While recent research has already highlighted the importance of compensation as a teacher retention strategy, the guestion of how to increase teacher compensation has long been an issue among education policymakers, researchers, and advocates (Charles Butt Foundation Teacher Poll, 2022). Historically, since the early 20th century, the country has widely used a K-12 single salary schedule as the primary system of teacher compensation (Bowen & Mills, 2017). However, this system has received criticism over the past few decades due to challenges and inefficiencies with teacher recruitment (Bowen & Mills, 2017; Kolbe & Strunk, 2012). Consequently, there has been a push for new compensation systems that attempt to influence the composition and behavior of the teacher workforce, resulting in initiatives such as incentive pay (Bowen & Mills, 2017).

In this review, incentive pay is defined as any economic incentive that offers "monetary and nonmonetary rewards over and above teachers' typical wages," intended to "increase and differentiate teacher compensation in ways that affect teachers' decisions about whether and where to work" (Kolbe & Strunk, 2012, p. 780). Common terms such as performance-based pay, merit pay, and strategic compensation all fall under the broader umbrella of incentive pay. As Texas policymakers and education advocates consider retention strategies for the dwindling teacher workforce, it is imperative that rigorous academic research is reviewed to examine the impact of teacher compensation systems.

This review strives to answer the following primary research question:

• What is the impact of compensation systems on teacher retention?

And as a secondary research question:

• What is the impact of compensation systems on student achievement?

In addition to a review of academic literature, Appendix A will share findings from a multi-state analysis of teacher compensation strategies, and Appendix B will provide qualitative data on teachers' perceptions on incentive pay, both individual and campus-wide, from the 2022 Charles Butt Foundation Texas Teacher Forum.

Research Methodology

An analysis of academic literature on teacher compensation and incentive pay was done within the Elton B. Stephens Company (EBSCO) research database, and studies within the past 10 years or in the state of Texas were prioritized. Studies found were narrowed down to peer-reviewed articles that specifically addressed the research questions posed in this review. Unfortunately, research was limited. The overarching goal of this research brief was to examine how various compensation strategies impact teacher retention, but there is not a body of literature that examines the impact of general compensation increases. Instead, research had a heavy focus on incentive pay as a novel strategy and alternative to the traditional single salary schedules.

Findings

Incentive pay structures have been the primary method through which policies have attempted to increase or modify teacher compensation. Consequently, due to limited research on broader compensation systems and teacher retention, these findings will focus on incentive pay structures and their impact on teacher retention and student achievement.

Academic literature stresses the importance of designing and implementing incentive pay policy in direct alignment with teacher workforce needs. If the initiatives are not uniquely tailored to recruit and retain specific kinds of teachers, or they are not designed with dependable funding, they are unlikely to succeed (Strunk & Zeehandelaar, 2015). As financial incentive strategies often come with a costly price tag, reviewing empirical research on their effectiveness is critical to developing fiscally responsible policy.

Recent research on teacher incentive pay often identifies three overarching goals:

- 1. Improved student achievement;
- Improved recruitment of teachers to hard-tostaff positions; and
- **3.** Higher quality teacher workforce composition and retention.

It is important to note that overall teacher retention - maintaining a teacher workforce sufficient to staff schools - is not one of the goals for teacher incentive pay, yet a significant amount of literature often refers to "teacher retention" as an outcome of incentive pay. References to teacher retention in this body of literature stem from the third overarching goal - the desire to shift teacher workforce composition through incentives that strive to selectively retain teachers deemed "effective."

This review will examine the impact that incentive pay has on all three of these goals, with a heavier focus on its impact on teacher workforce composition and teacher retention. Types of incentive pay reviewed range from individual to group incentives, performancebased incentives, and market-based incentives.

Student Achievement

Across the board, all three goals of incentive pay strive to improve student achievement through recruitment and retention of high-quality teachers. However, recent studies show that the impact of teacher incentive pay on student achievement is mixed, and research is unclear on which types of incentive pay structures are effective, if any.

Atteberry & Lacour (2020) investigated the impact of Denver Public Schools' ProComp initiatives, which used a combination of individual, group, performance-based, and market-based incentives. When comparing student achievement trends between Denver Public Schools (DPS) and other comparable districts, DPS had larger achievement gains and more positive trends in almost all estimates and cases, suggesting that the onset of ProComp had resulted in improved student performance. Because ProComp utilized 10 different financial incentives at the same time, however, researchers were not able to distinguish between types of incentive pay and their individual impact.

Shifrer, Turley, & Heart (2017) examined the impact of teachers' receipt of individual, performance-based financial incentives on student achievement, finding mixed results. For student achievement metrics, researchers used both state math and reading scores as well as student performance on the Stanford Achievement Test series, which consisted of math, reading, language arts, social studies, and science tests. Teachers received either small or large financial awards based on value-added scores determined by student performance. Teachers with scores between the 50th and 75th percentile received a small award, and those with scores at or above the 75th percentile received a large award. Findings did not indicate any trend or overall conclusion on the impact of small or large financial awards on student scores for the seven

tests. The only distinguishable positive effects of both awards were on student performance on the state reading test and the Stanford language arts test; the rest of the tests were mixed, had no impact, and some even had a negative impact on student achievement.

Research on the impact of recruitment incentives, such as a financial bonus for National Board Certified teachers, has also shown no effect on student achievement (Cowan & Goldhaber, 2018). An incentive policy called the Challenging Schools Bonus (CSB) in Washington State attempted to increase the supply of effective teachers in high poverty schools, awarding a \$5,000 annual bonus to teachers who earned certification through the National Board for Professional Teaching Standards and worked in schools with a high proportion of students receiving free or reduced price lunch. Throughout the decade of implementation, researchers found no positive effects of the financial bonus on student achievement on math and reading assessments.

Finally, when evaluating the Governor's Educator Excellence Grant (GEEG), a Texas program that provided three-year grants to schools to design and implement performance pay plans, researchers found inconclusive evidence on its impacts on student achievement (Springer, Lewis, Podgursky, Ehlert, Taylor, Lopez, & Peng, 2009). Depending on the specific analysis and model, GEEG may have had a slightly positive, negative, or negligible effect on student achievement gains, but researchers were unable to find any significant associations between student performance and the performance-pay plans.

In a separate study, Springer & Taylor (2016) also examined whether different types of incentive pay used throughout the GEEG program had an impact on student achievement, also finding no differences between individual, group, or mixed incentives.

Teacher Recruitment

When incentive pay is used to attract teachers to specific certifications or hard-to-staff positions, research indicates that it is positively associated with improved recruitment efforts.

Results from Denver's ProComp program indicate that Denver Public Schools was able to recruit more effective teachers since the onset of the program: the study found statistically significant increases in teachers' median growth percentile scores (Atteberry & Lacour, 2020).

Research on the Washington State Challenging Schools Bonus (CBS), where teachers with national board certification were awarded a \$5,000 annual bonus, also found positive impacts on the likelihood of new hires having national board certification, estimating an increase of between 4% to 8% of National Board Certified teachers in high poverty schools over five years of implementation (Cowan & Goldhaber, 2018). Approximately half of this increase was explained by teachers in eligible schools becoming boardcertified, and the other half explained by changes in the composition of new hires.

Teacher Workforce Composition and Retention

Unlike recruitment, incentive pay has mixed impacts on teacher workforce composition and retention. As mentioned previously, incentive pay is often presented as a strategy for selective retention, where financial incentives are used to retain higher quality teachers and improve the overall quality of the teaching workforce over time.

Research has shown incentive pay to have no discernible impact on overall teacher retention, but some potential impacts on selective retention

(Atteberry & Lacour, 2020; Cowan & Goldhaber, 2018). When comparing Denver Public Schools to similar neighboring districts, Atteberry & Lacour (2020) did not find any differences in overall retention of teachers, suggesting that financial incentives in ProComp did not impact general retention efforts. However, the researchers did find a strong correlation between the size of a teacher's total incentive and the likelihood of returning to the district the following year, potentially demonstrating ProComp's effectiveness in retaining more "effective" teachers. Similarly, Cowan & Goldhaber (2018) found that Washington State's Challenging Schools Bonus program had reduced turnover among National Board Certified teachers throughout its implementation.

Other studies found mixed results. Shifrer et al. (2017) found that a small, performancebased award had a positive impact on retaining teachers, yet a large, performance-based award had a negative effect on retention. Evaluation of the Governor's Educator Excellence Grant discovered that the incentive pay plan had a significant but temporary association with teacher turnover for the first year of implementation, but no associations for the second or third year, with no differences between individual, group, or mixed incentives (Springer et al., 2009).

Finally, when examining the impact of a district's strategic compensation plan, Colson & Satterfield (2018) found no statistically significant differences between the retention rates for highly effective teachers who participated in the incentive program or did not participate. Similarly, they found no difference between retention rates for participants and nonparticipants of the program when it came to teachers in hard-to-staff positions.

Appendix A: Multi-State Analysis of Teacher Compensation

This appendix provides an overview of findings from a multi-state analysis of teacher compensation policies and will include examples of how states have attempted to address low teacher compensation. Overall, there are not many examples of statewide changes to overall teacher compensation or compensation systems: Many of these changes take place at the district level and would require more granular analysis.

Average Salary

According to a recent report released by the Learning Policy Institute, the average starting salary for Texas teachers in the 2019-20 school year was \$44,582, ranking 13th among all 50 states. The adjusted salary according to cost-ofliving was \$44,806, still ranking Texas as 13th in the nation. In addition to examining average salary, researchers also calculated a wage competitiveness index, which represents the average public school teacher's weekly wage as a percentage of the estimated weekly wage for other college-educated workers within each state. According to this metric, Texas ranked 35th in the nation, with teachers earning an average wage that is 78.1% of what other Texas collegeeducated professionals make.

State Examples: Base Salary

Over the past few years, several states have taken steps to increase teacher salaries overall.

South Dakota raised teacher salaries in 2016 when its legislature approved a half-cent sales tax to increase teacher compensation - the first sales tax increase since 1969. This change was projected to raise \$67 million and increase average teacher salaries by about \$8,500 to reach a total average of about \$48,500. Texas ranked 35th in teacher pay, with teachers earning an average wage that is 78.1% of what other Texas college-educated professionals make.

More recently, in 2021, **Florida** required each school district and charter school to use its share of the base Florida Education Finance Program allocation to increase the minimum base salary for full-time classroom teachers and certified pre-kindergarten teachers to at least \$47,500. As funding permitted, school districts were also required to use their share of the allocation to provide salary increases for full-time classroom teachers who did not receive an increase or who received an increase of less than 2% from the change in minimum base salary.

In early 2022, **New Mexico** passed Senate Bill 1, which raised minimum teacher salaries an average of 20%. New Mexico teachers are split into three levels of licensure, based on years of experience, performance evaluations, and other factors such as national board certification and additional education. Level 1 teacher minimum salaries were raised to \$50,000, and levels 2 and 3 were raised to \$60,000 and \$70,000, respectively.

Salary Growth

According to a recent report from the National Education Association, there is an average difference of about \$34,770 between average teacher starting salaries and top salaries in the nation. In Texas, this difference between average starting and top salaries drops to \$19,146 - well below the national average. Texas's current minimum salary schedule mirrors this difference, with the minimum starting salary for a beginning teacher of \$33,660 and a minimum salary for a teacher with over 20 years of experience set at \$54,540.

Apart from gaining experience, the only statewide salary advancement available to all teachers based on factors such as education or certification is through the Teacher Incentive Allotment, where any National Board Certified Teacher in the state is eligible for a "Recognized" designation. The salary increase for this designation would range from \$3,000 to \$9,000 a year. At the district level, additional increases may exist for teacher education and experience, or through local designation systems developed through the Teacher Incentive Allotment.

State Examples: Salary Growth

A few states across the country have attempted to build in opportunities for salary growth throughout teachers' careers through advanced licensure or teacher leadership pathways.

As mentioned in the previous section, **New Mexico** has three levels of licensure for teachers, all three of which have different minimum salaries. Standards for receiving higher levels of licensure are developed by the New Mexico Department of Education and are based on the number of years taught, annual evaluations, certification, and education. Teachers at a level 3 license also take on additional responsibilities such as curriculum development, peer intervention, and mentoring.

Iowa established a Teacher Leadership and Compensation (TLC) program with five tiers of the teacher career continuum: initial, career, model, mentor, and lead teacher. Model, mentor, and lead teachers have additional responsibilities, days worked, and salary stipends. Evaluation of the TLC program indicates that it is not only associated with improved teacher retention, but also improvements in instruction and professional climate. Based on these results, in 2017, Iowa funded TLC at \$150 million per year (approximately \$300 per student), which allowed all districts to voluntarily participate.

Recruitment Incentives

Financial incentives and strategies for teacher recruitment and retention also include options outside of teacher salary such as student loan forgiveness or scholarships. These are often geared toward recruiting teacher candidates, but loan forgiveness may also play a role in teacher retention.

Currently, Texas statute defines at least two loan repayment assistance programs that help recruit teachers to underserved schools and/or shortage subject areas, and another loan repayment assistance program that helps recruit teachers to specific shortage subject areas. The loan repayment assistance programs have varying eligibility criteria and limitations on the number of years that teachers can receive repayment assistance. There are currently no statewide scholarships or grants to recruit teachers to highneed schools and subject areas, nor does Texas have any statewide financial incentive program for teachers of color.

State Examples: Recruitment Incentives

North Carolina recently revived its North Carolina Teaching Fellows, which invested over \$6 million to provide scholarships to approximately 160 teacher candidates each year, beginning in the 2018-19 school year. In exchange for a scholarship of \$8,250 per year for four years (which totals out to \$33,000), candidates must commit to teaching special education or STEM for eight years in a North Carolina public school, or four years if teaching at a low-performing North Carolina public school. A longitudinal study was conducted on a previous version of the program, which was in place from 1986-2015. The initial program recruited almost 11,000 candidates into teaching. These teachers not only had higher rates of retention when compared to their peers, but they also were generally more effective when measuring student test score gains.

Tennessee has a Minority Teaching Fellows Program intended to encourage Tennesseans of color to enter the teaching field. The program awards \$5,000 per year for students who pursue a teacher certification at an eligible Tennessee college or university, and recipients must teach in a Tennessee PK-12 public school one year for each year the award is received.

Incentive Pay

Texas currently offers incentive pay through the Teacher Incentive Allotment (TIA), which allows school districts to create their own local designation system that classifies district teachers as "Recognized," "Exemplary," or "Master." Designation of teachers must, at minimum, be based on teacher observations based on a valid and reliable rubric, student growth measures, and other factors determined by the district. Districts also receive greater funding for designated teachers who teach at a rural and/or high-need campus. The range of salary increase from TIA when accounting for all available additional increases is from \$3,000 to \$32,000.

The TIA is a combination of two types of incentive pay (performance and recruitment), but it is, first and foremost, performance-based pay. Only teachers who receive a designation would be eligible for the additional incentives related to recruitment into rural or high-need campuses. Texas currently does not have statewide incentives to recruit teachers into high-need districts or areas that are available to all Texas teachers.

State Examples: Incentive Pay

In 2017, **Utah** passed legislation setting aside \$250,000 annually for bonuses for effective teachers who currently teach or move into one of the state's highest poverty schools. Teachers eligible for this program can receive a \$5,000 salary bonus, half of which is paid by the eligible teacher's school.

Louisiana does not have a statewide minimum salary schedule, but it requires local governing authorities of each school to establish salary schedules that are based upon teacher effectiveness (based on performance evaluation), demand (school need, certification, geographic area, subject area, or advanced degree levels), and experience.

Additionally, Louisiana has multiple programs that offer incentives for teachers. Teachers of exceptional children are eligible to receive additional pay equal to 10% of their base pay. Louisiana's Critical Teacher Shortage Incentive Program was created to provide each newly certified teacher in STEM or special education \$3,000 per year for the first four years. The Teach Louisiana First Program provides incentive payments to highly qualified teachers who teach a core subject in a low-performing school. The Qualified Teachers' Incentive Program offers incentives to teachers who agree to teach in a low-performing public school located in a disadvantaged and underserved geographical area of the state. Finally, Louisiana also offers the Louisiana Teachers' Homebuyer Program as a special home loan and loan closing assistance program for any eligible teacher in the state. This program aims to incentivize teachers to locate and teach in disadvantaged and underserved geographical areas of the state.

Appendix B: Teachers' Perceptions of Incentive Pay

Research shows that teachers typically have mixed perceptions toward incentive pay programs. In the 2022 Charles Butt Foundation Texas Teacher Forum, most teachers saw both advantages and disadvantages in incentive pay, while some held entirely negative views.

In terms of positives, teachers said they would (or already do) appreciate increased income in the form of incentive pay. They also saw incentive pay as potentially attracting people to the profession, encouraging classroom performance and improving retention.

- My campus currently uses the MTI (Master Teacher Initiative) which provides incentive pay based on STAAR data to see if growth is occurring. The MTI doesn't motivate me, although I'll gladly accept any incentive pay. The incentive pay right now would be the greatest benefit because of the inflation we are currently dealing with. – Rob, middle school teacher, South/Southwest Texas
- I have been a recipient of incentive pay my entire teaching career because I teach math. In my entirely biased opinion, I do think incentive pay is necessary to get qualified individuals in the door because if they are qualified to teach math well, they are likely also qualified to do something else that pays a lot better and is infinitely less stressful. Jessica, middle school teacher, South/ Southwest Texas

 I think incentive pay should be utilized and is a good idea. The pros would be that strong teachers would be compensated for preparing their students during the year. Incentive pay could very possibly be a determining factor for a teacher thinking about leaving the profession. – Rob, middle school teacher, South/Southwest Texas

A few said incentive pay should be focused on high-needs subjects or schools.

- I believe that incentive pay should be for teaching a high-need area such as a content area or even Title I school, and/or filling a role that has been left unfilled after some time. I think these are great ways to try to fill empty positions and keep teachers. – Ruby, middle school teacher, Dallas/Fort Worth
- Many schools already provide special education teachers a stipend. Mine does not and from talking with other teachers, now more than ever, it's becoming an issue. Special education is exploding, and with it comes more paperwork, more parent contacting, more behaviors, etc.
 Teachers are beginning to look at which districts acknowledge this new workload and are willing to compensate for it. Mary, high school teacher, Dallas/Fort Worth

Others voiced concerns about incentive pay focused on certain subjects or schools – namely that it may breed animosity, be unfair, and lead to poorly distributed resources.

- I've never been a fan of incentive pay. I think it takes away from teachers who might not be in the regular classroom but that do have a direct impact on the students that are in the regular classroom. – Courtney, elementary school teacher, Houston area
- One position or retention bonus that I feel should be changed is the special education retention bonus because gen ed teachers cannot get that bonus and they cannot get it because they are not in a SPED position, which in my opinion is not fair. – Brianna, elementary school teacher, Central Texas
- We had a meeting a few months ago where admin introduced incentive pay for special classes. AP/CTE/Pre-AP teachers would see a modest increase in pay as a result of taking on extra responsibilities for these classes. The problem is that teachers don't get to elect what they will or won't teach. To make matters worse, this introduces politics into assigning classes and doesn't prioritize what (read: who) would be best for students. – David, high school teacher, Central Texas
- Pay based on school performance (most likely academic) would lead to terrible results in the school community. It would lead teachers to advanced courses and away from less privileged districts. I also think pay disparity between subjects will not benefit students. I believe it will lead teachers into subjects they don't know well for financial motivation. – Alice, high school teacher, Dallas/Fort Worth

While there were concerns of equity, a few teachers described ways to implement incentive pay appropriately, such as measuring students' growth in addition to their test scores.

- I think there must be a way to even the playing field. For my district, the teacher incentive allotment has to do with both how the students do but also growth. This may be a good way to make it a bit fairer than just on scores. – Sarah, middle school teacher, Central Texas
- Teaching is more than just checking boxes. Incentive pay should include student feedback as well since they are the ones on the receiving end. Incentive pay needs to take everything into account – not just how your lessons fare and student success on state tests. Do students feel safe in this classroom? Are there clear relationships between teacher and student? Does the teacher make their presence known on campus and in campus activities? – Imani, middle school teacher, Central Texas

Among other concerns associated with incentive pay, teachers identified difficulties in measuring performance, an undesirable reliance on testing, competition with other teachers, decreased morale and collaboration, and concerns about cheating. One said incentive pay can lead to hiring teachers focused on compensation rather than the students.

 I am on the fence about incentive pay just because some things cannot be measured.
 We do so much in the classroom and we see our students progress in areas that will likely not even be noticed. I am sure incentive pay will focus on test scores and test scores do not present an accurate picture of what students learn and excel in for the whole year. – Shanice, middle school teacher, Dallas/Fort Worth - Sadly, I have heard from other teachers who have experienced this change that it can create a weird and competitive culture with teachers which causes them to be very secluded and hurts teacher relationships with each other because they want to out-perform each other. – Cindy, elementary school teacher, Dallas/Fort Worth

Several teachers said they simply don't think incentive pay works – as a motivating tool, a retention strategy, or a tactic to improve student success.

- Incentives only work if done across the board and in addition to the normal pay structure, not to replace it. It also has to be substantial enough to matter. ... If the money isn't worth it, people are not going to do it. It's something my current district is proposing, that if you hit certain benchmarks as a teacher you would get a pay raise, but the raise is fairly small and the workload needed to meet the standards isn't worth it. This had caused most teachers to ignore it and not care. – Zachary, high school teacher, Houston area
- Most significantly, the major con for me is I do not think the data on incentive pay supports positive impacts on student outcomes. – Stephen, middle school teacher, East Texas

A few favored a campus-wide incentive initiative, while others saw potential problems such as decreased morale, heightened pressure, and unfair benefits to certain campuses in a district.

- I do think the campus-wide initiative could work because we are all working towards a common goal. The collaboration will have to be there in order to ensure a school-wide success. – Mateo, elementary school teacher, Dallas/Fort Worth

- I do feel incentive pay based on the collective performance of teacher teams and cooperating teachers has been effective, despite the high pressure and competitive environments they create. – Stephen, middle school teacher, East Texas
- Campus-wide incentives can lead to resentment when one or two teachers feel like they have done more to ensure the success of the students.... It would definitely have a negative impact on our campus. Right now we all work towards a common goal of student success, but throw in some incentive pay and the whole game changes. – Stephanie, elementary school teacher, West Texas
- My district participates in STAAR performance incentives. Some teachers care and some don't. It is always going to be hard to make things like that work at a campus level because we are all in such different boats when it comes to personal circumstances. Personally, I think STAAR performance incentives are a horrible idea because 1) some kids just don't test well and 2) it can encourage cheating. I have seen teachers feed answers to kids because they felt pressure to get their incentive. – Jessica, middle school teacher, South/Southwest Texas
- On a campus level, each campus has such different needs. A universal grading scale that does not take into account these differences puts many campuses at a disadvantage and may make recruiting strong teachers even more difficult than it already is. In the long run, I think this is something that may look possible on paper and sounds good, but in reality would not be effective. – Hayley, elementary school teacher, Central Texas

 Our campus outperformed all other campuses and many districts, so I would have loved it.
 I do not think it's fair, though, because other districts have a different SES than mine. Per peer-reviewed documents, low SES has been proven to cause discrepancies between district assessment scores. – Mary, high school teacher, Dallas/Fort Worth

Rather than incentive pay, several teachers said that they'd like to see increased pay for all teachers or based on tenure, rather than for teaching deemed effective or in certain highneeds subjects or schools.

Incentive pay is nice, but I think overall teachers need increased salary across the board. The starting salary for some can be very close to the salary of a veteran teacher that has been there for years. This needs to be corrected! Texas is a mess with making a system to pay teachers. Each school has their own policies and regulations or scales. It's quite disorganized. I worked in one district that based raises off student performances; at a low-income school, the performance is not great, so the raises were terrible. – Rachel, elementary school teacher, Dallas/Fort Worth

- It is frustrating to be basically making the same as a first-year teacher even though I have many more years' experience. I think instead of incentive pay, veteran teachers should be shown they are valued by increasing their step pay and actually giving these steps annually. – Hayley, elementary school teacher, Central Texas
- If there is money available for an incentivebased pay, it should be equally distributed between everyone instead of prioritizing teachers who may have different class makeups and student abilities within their room. – Courtney, elementary school teacher, Houston area

Impact on Student Outcomes	N/A	No impact. No detectable effects on student achievement.	No impact. Insignificant differences in student outcomes across pay structures.	Mixed impact. Small and large financial awards resulted in a mix of positive, negative, and null effects.	N/A	Positive impact. Found larger gains and more positive trends than comparison groups.	No impact. No detectable effects on student achievement.
Impact on Teacher Recruitment	N/A	N/A	N/A	N/A	N/A	Positive associations. Found associations with modest to moderate positive changes in effectiveness of arriving teachers.	Positive impact. Improved hiring and increased certification rates of incumbent teachers.
Impact on Teacher Retention	Mixed associations. Group-based merit pay caused higher turnover among both underqualified and overqualified teachers.	Mixed associations. Significant reduction of retention during the first year, but no significant impacts throughout the rest of the program.	Mixed associations. Significant but temporary associations with teacher turnover, with varied results across beginning and experienced teachers.	Mixed impact. Positive effect of a small reward, but negative effect of a large reward.	No impact. There was no statistically significant difference between the retention rates for highly effective or hard-to-staff teachers who participated or did not participate in the incentive pay program.	No impact. Retention throughout the onset of incentive pay was not statistically different when compared to other districts.	Positive impact. Reduced turnover among board certified teachers.
Type of Incentive Pay	Group performance incentive pay	Individual performance-based pay	Individual & group performance-based pay	Individual performance-based pay	Individual performance-based pay: recruitment incentive	Individual & group incentives; recruitment incentives	Individual incentive pay; recruitment incentive
Research Methodology	Regression analysis	Regression analysis	Quasi- experimental	Quasi- experimental	Quasi- experimental	Quasi- experimental	Quasi- experimental
	Ryu & Jinnai (2021)	Springer et al. (2009)	Springer & Taylor (2016)	Shifrer et al. (2017)	Colson & Satterfield (2018)	Atteberry & Lacour (2020)	Cowan & Goldhaber (2018)

Appendix C: Overview of Incentive Pay Literature

Research Brief: Teacher Planning Time



Introduction

Data from *The 2022 Texas Teacher Poll: Persistent Problems and a Path Forward* foreshadows continued staff shortages in Texas public schools and an urgent need to improve the teaching profession (Charles Butt Foundation, 2022). Responses from teachers in the poll indicate this crisis is likely to be on-going as 77% of Texas teachers are considering leaving the profession, and a significant number have already taken steps to do so.

When asked why they were seriously considering leaving in an openended response, one of the primary themes that arose was excessive workload, where teachers felt burned out and stressed with noninstructional tasks on top of insufficient planning time (Charles Butt Foundation, 2022). On average, Texas teachers reported working 57 hours a week, far more than the standard 40-hour work week; over half of Texas teachers reported working more than 60 hours a week. The findings of the 2022 Texas Teacher Poll are mirrored by academic research, where researchers have documented high levels of stress, exhaustion, and burnout for public school teachers, even compared across occupations (Viac & Fraser, 2020; Johnson et al., 2005). Excessive working hours, high work intensity, and a lack of recovery time have been shown to impair teachers' own well-being and, consequently, their ability to provide high-quality instruction (Viac & Fraser, 2020).

This review explores one potential lever that could alleviate teachers' excessive workloads: planning time. With large amounts of work and a high-intensity career, building protected time into teachers' schedules, whether for planning, conferences, or recovery, may mitigate teacher burnout and their decisions to leave.

According to teachers, planning time is crucial, for both their students and their sustainability in the profession. Not having enough planning time is a significant barrier to teachers being effective according to 82% of teachers polled, and 85% said a schedule with more planning time would be extremely or very important in encouraging them to stay (Charles Butt Foundation, 2022). On average, Texas teachers reported working 57 hours a week, far more than the standard 40-hour work week; over half of Texas teachers reported working more than 60 hours a week.

This review seeks to answer the following research question:

• What is the impact of planning time on teacher retention?

For the purpose of this paper, "planning time" refers to time for teachers to plan individually or with teams of educators or administrators, have conferences, and reflect and recover.

In addition to a review of academic literature, findings from an international and state analysis of teacher workload and planning time are included in Appendix D.

Research Methodology

Searches were conducted in the Elton B. Stephens Company (EBSCO) research database with search terms related to the impact of planning time on teacher retention. Studies on the impact of planning time on teacher retention were limited, and a wider net was cast for research relating to international comparisons of the specific policy levers of planning time and student support staff. Results of this search will also be included in this review.

Findings

Research is limited regarding the impact of planning time on teacher retention: We were not able to find studies that directly linked the amount of planning time to teachers' decisions to stay or leave the profession. Much of the research regarding planning time focused instead on the following two topics:

- 1. Teachers' perceptions of planning time; and
- **2.** The impact of planning time structures and strategies on teacher effectiveness.

Teachers' Perceptions of Planning Time

Teachers have to complete a plethora of duties throughout their school day. One of these duties is preparing and planning for the classroom lessons and activities they facilitate to promote student learning. Research reveals teachers' need for designated time during their school day to prepare for lessons without distractions (Barney & Deutsch, 2012), as well as time to learn about new technology initiatives and how to confidently incorporate them in the classroom (Powers & Musgrove, 2020). Teachers perceive planning time as a necessity and many use the time allotted for varying purposes, ranging from taking a small break away from students to regroup and preparing for classroom activities (Barney & Deutsch, 2012).

Barney and Deutsch (2012) administered a survey to 219 elementary school classroom teachers from three states in the United States for data collection on their attitudes and perspectives regarding physical education (PE) and its impact on teachers' planning time. The findings revealed that elementary school classroom teachers value the planning time that they are allotted when their students attend PE. It allows for classroom teachers to have undistracted time away from their students to complete other classroom work tasks, and takes the responsibility off of the classroom teachers from having to incorporate physical education in their classroom lessons. A majority of the teachers from all three states felt that when their students are in PE, it allows the teacher the time to attend to other matters. Certain words or phrases used by the teachers were, "lets me regroup,""extremely valuable for planning,""my only time besides lunch and recess to plan," and "my planning time is priceless."

Powers & Musgrove (2020) investigated the impact of the availability of planning time on elementary school teachers' rollout of the adoption of 1:1 computing for individualized instruction. The findings revealed teachers' perceptions of the ease and usefulness of utilizing 1:1 affects how they actually use the technology in their classrooms. The findings also indicated that availability of planning time strongly impacted the way teachers felt about using new strategies for classroom instruction. The more time teachers had to prepare for integration and implementation, the better they felt about the process.

The Impact of Planning Time Structures and Strategies on Teacher Effectiveness

Although teachers are tasked with planning for their classroom lessons, many receive little to no designated time without interruptions to prepare for their students. Research reveals that even in schools that attempt to provide teachers with time to collaboratively plan, many teachers are unable to use the time for planning (Nordgren et al., 2021).

Nordgren et al. (2021) facilitated a study in Sweden to learn about teachers' perceptions of the working conditions that they operate in regarding the planning and preparation of their lessons, specifically honing in on their collaboration with other teachers. The study's findings reveal a correlation between infrastructures that are supportive for teacher planning and collaboration and the way in which teachers experience validation of their working conditions and teaching. Findings also show that there are shortcomings in schools' infrastructures as they tend not to be set up to support collaborative teacher planning and preparation. Teachers need more time during the workday to complete their tasks; However, schools often do not provide teachers with scheduled planning time, and when they do, teachers experience disruptions during their planning time or struggle to engage in planning due to working on other tasks at the time.

Appendix D: International and Multi-State Analysis on Teacher Workload and Planning Time

This appendix details findings from an international and state analysis on teacher workload and planning time. Similar to academic literature, findings are limited – most likely due to the local nature of educational systems in the United States. A review of district policies might provide more insight into how issues of workload and planning time are being addressed.

International Comparison

The Organisation for Economic Co-operation and Development (OECD) examined results of the 2018 OECD Teaching and Learning International Survey to examine various countries' approaches to teachers' time, both teaching and non-teaching.

On average, among full-time secondary teachers, work hours ranged from 32 to 59 per week, with an overall average of 41 hours a week among all OECD countries. The average for teachers in the United States was above the OECD average: approximately 50 hours a week. Reminder: On average, Texas teachers reported working 57 hours a week (Charles Butt Foundation, 2022).

Researchers also examined teachers' average class size as well as the proportion of working hours that teachers spent in direct instruction with students. For both of these metrics, the United States fell above average among OECD countries, with an average class size of over 25 and over 60% of working hours spent teaching; The OECD average was a class size of about 24 and less than 55% of working hours spent on direct instruction. When examining the ratio of planning time to teaching hours, the United States fell below average across OECD countries, placing it as the educational system with the second highest teaching load among all countries analyzed.

State Comparisons

From a 2019 analysis of state statutes, Texas is one of 12 states that require an established portion of a teacher's work day or week be designated exclusively for planning. Within an instructional day, every Texas teacher is entitled to 45 minutes, or 450 minutes within a two-week period, dedicated to planning, preparation, and/or parent conferences, as well as a duty-free lunch of no less than 30 minutes. For some districts earning District of Innovation status, this is not required.

Other states that required planning time for teachers mandated similar or fewer minutes per week, ranging from 150 to 250 minutes of planning time per week.

Research Brief: Work Culture and Support



Introduction

Amidst an ongoing statewide teacher shortage, Texas teachers are leaving the profession in droves (Lopez, 2022). Data from *The 2022 Texas Teacher Poll: Persistent Problems and a Path Forward* (Charles Butt Foundation, 2022) shows an immediate need to improve the profession. Teachers also report their workplace culture and the current degree of campus support both have an impact on their decision to continue teaching as their profession. Teachers' working conditions are a strong predictor of teacher retention and have been shown to impact their ability to teach (Podolsky et al., 2019). Researchers have identified issues of school culture, such as school leadership and administrative support and opportunities for collaboration and shared decision-making, as the working conditions most highly related to teacher retention (Podolsky et al., 2019). Additionally, research has shown that teachers with strong induction and mentoring support have improved retention rates (Podolsky et al., 2019).

Findings from a recent representative statewide survey of Texas teachers support this assertion with 97% of teachers cited having a positive work culture and environment as highly important in encouraging them to stay in the profession (Charles Butt Foundation, 2022). Despite nearly all teachers saying this was important, only 51% said that they had a positive work culture and environment at their current position (Charles Butt Foundation, 2022). Only 55% of teachers feel valued by administrators, but that number jumps up to 78% if they report having a positive work culture or environment. Additionally, 80% of teachers stated that input into school and district decision-making would be extremely or very important in encouraging them to remain in the profession, but a scant 16% said they felt they had input in their current position (Charles Butt Foundation, 2022).

As policymakers approach addressing teacher vacancies across the state, examination of work culture and support within schools may provide insight into how district and campus administrators might influence teachers' decisions to stay in or leave the profession.

This review will examine two specific components of work culture and support – administrative support and mentorship – and strive to answer the following research questions:

- 1. What is the impact of administrative support on teacher retention?
- **2.** What is the impact of mentorship on teacher retention?

In addition to a review of academic literature, findings from a state analysis of policies related to work culture and environment are included in Appendix E.

Research Methodology

An analysis of academic literature on teacher compensation and incentive pay was done within the Elton B. Stephens Company (EBSCO) research database, and studies within the past 10 years or in the state of Texas were prioritized. Studies found were narrowed down to peer-reviewed articles that specifically addressed the research questions posed in this review.

Administrative Support

Several studies indicate that principal and school leader support is one of the best predictors of teacher attrition (Podolsky et al., 2018; Boyd, Grossman, Ing, Lankford, Loeb & Wyckoff, 2011; Kraft, Marinell, & Yee, 2016). The studies reviewed overwhelmingly support this assertion and provide additional evidence on specific types of administrative support that impact teacher retention.

Researchers define administrative support in a variety of ways. For the purpose of this review, types of administrative support will be categorized into the following:

- 1. Emotional and psychological support; and
- 2. Shared leadership and decision-making.

Emotional and Psychological Support

A variety of terms are used in academic literature to describe the type of emotional and psychological support that administrators can provide for teachers. The research reviewed in this section will focus on intangible, yet critical supports that research has proven to improve teacher retention.

Ford, Olsen, Khojasteh, Ware, and Urick (2019) examined the impact of administrators' support for teacher psychological needs (STPN) on teacher burnout, commitment, and intent to leave. STPN conceptualizes administrative support as a cohesive combination of interpersonal, intrapersonal, and organizational strategies – a combination of principal-teacher relationships, teachers' perceptions of administrative support, and a supportive work environment, respectively. The researchers found that both principal-teacher relationships and supportive work environments had demonstrated relationships with organizational commitment among teachers, indicating that the emotional and psychological supports provided by administrators, in both one-on-one and group interactions, played a significant role in teacher retention. Actions principals took in supporting teacher psychological needs included intentional conversations, supporting teachers' autonomy, developing a trusting school environment, and providing teachers with opportunities to build on existing knowledge and skills.

Other studies with similar conceptualizations of emotional and psychological support align with these findings. Hughes, Matt, and O'Reilly (2015) identified emotional and environmental support as the highest rated factors in retaining teachers in hard-to-staff schools: Teachers with less positive interactions with administrators were more likely to leave the field than those with positive interactions. Similarly, Torres (2016) found negative communications and lack of trust from administrators were cited as common contributors to New York teachers deciding to leave their teaching positions.

Research has also provided more insight into how administrative support improves teacher retention. In an analysis of 25 charter schools' teachers, Torres (2014) found that teachers' perceptions of principal support and the effectiveness of their schools' professional development mitigated the impact that workload had on attrition rates. While administrators might not have necessarily reduced the workload, their support provided teachers with emotional and psychological resources needed to continue in the profession.

Shared Leadership and Decision-Making

Teachers who perceive they have more influence over school policies are more likely to remain in the profession and in their specific school, while principals' ratings of their own influence are associated with increased likelihood that teachers would leave (Jackson, 2012). Their connectedness to a team and input into decision-making contribute to teacher job satisfaction and, consequently, career decisions (Johnson, Kraft, & Papay, 2012; Futernick, 2007).

A principal's leadership style is associated with teachers' decisions to leave a school or the profession entirely (Podolsky et al., 2019; Thibodeaux, Labat, Lee, & Labat, 2015). In a study of 45 urban schools, the majority of leaders in schools with low attrition rates described their responsibilities as facilitators, collaborators, team leaders, or a leader of leaders, rather than traditional, top-down administrators (Brown & Wynn, 2009). These principals often used leadership teams, interview teams, or site-based management teams to make school-based decisions, valuing the opinions of all teachers, regardless of experience.

Urick (2020) examined the extent to which different types of leadership predict teacher retention. Overall, teachers who experienced lower levels of school leadership were more likely to leave teaching as a profession than stay at their current school, while those with higher levels of school leadership were more likely to stay. However, when disaggregated further, among teachers who experienced higher levels of school leadership, those who had principals who used shared leadership strategies were even more likely to stay than those who experienced administrative support but were not included in decision-making. Teachers who perceive they have more influence over school policies are more likely to remain in the profession

Mentoring

Mentoring is a common tool education stakeholders have used to support the retention of teachers. While the impact of mentorship has shown a positive impact on teacher retention and student achievement, there is still some uncertainty regarding the types of mentorship programs that have the greatest impact. This section of the report will discuss the impact of the quantity and program structure of mentorship on teacher retention.

Overall, the reviewed research indicates mentorship programs improve teacher retention, particularly for novice teachers (Ingersoll & Strong, 2011). Early career teachers have attributed success in their first year of teaching due to mentorship support they received from the North Dakota Teacher Support System, where teachers attributed their first-year success to the mentorship program (Jacobson et al., 2020). Studies show, in conjunction with its impact on student achievement, mentorship is a costeffective retention strategy, with exploratory analysis suggesting such programs could yield a return on investment that may pay back the program's annual cost more than 15 times over through increased student earnings over time (DeCesare, McClelland, & Randall, 2017).

Early career teachers have attributed success in their first year of teaching due to mentorship support they received

The Amount of Mentoring

Research indicates that, while simple exposure to mentorship programs have an impact on teacher retention, effects increase with the amount of mentoring provided (Hanita et al., 2020). The Teacher Education and Mentoring (TEAM) program, a state-run program in Connecticut, found that teachers who only completed 25% of the program still experienced positive effects from mentoring (Hanita et al., 2020). This impact increased for participants who had completed more of the program's requirements. DeCesare, et al. (2017) conducted a randomized, controlled study of a Colorado program's use of retired mentors to support teachers in their first three years in the classroom, finding that teachers in the treatment group who had higher amounts of mentoring hours had higher retention. The odds of a mentee teacher staying in the district doubled with each additional 10 hours of mentoring, with the sharpest increases in retention occurring with each extra hour above 25 over the course of the two years.

Mentor Program Structure

In a mixed methods study comparing schoolbased and university-based mentorship, Warsame & Valles (2018) found that more teachers reported school-based support as a better fit for their needs. Teachers who were still in the classroom had positive comments about school-based supports such as administration, classroom, and mentoring. The overall findings of the study suggest that strong school-based support can potentially compensate for lack of universitybased support, but strong university-based support cannot compensate for a lack of schoolbased support. These findings are indicative of the fact that a school-based approach to mentorship allows mentors to address the unique needs of teachers based on their school site and available resources, bringing in context that is crucial to high-quality mentoring (Ingersoll & Strong, 2011).

Appendix E: Multi-State Analysis on Administrative Support and Mentoring

This appendix provides an overview of policies related to administrative support and mentoring across the country. Texas has a mentor program allotment available to participating districts, but it is not required. Some states require mentoring for new teachers and others utilize retired teachers as mentors.

Administrative Support

Texas currently offers a Principal Residency Grant which, as of the 2022-23 school year, will be in its fifth cycle of implementation. It can be used by districts to implement a full-time, yearlong residency for aspiring principals and cover associated preparation and certification costs. The Principal Residency Grant is funded by the U.S. Department of Education, and the Texas Education Agency serves as the pass-through entity that awards subgrants to local education agencies (Texas Education Agency, 2021).

State Examples: Administrative Support

North Carolina established the North Carolina Principal Fellows Program in 1993. It provides competitive, merit-based scholarship loans to candidates seeking a master's degree in School Administration and a principal position in North Carolina public schools. In the first year, fellows receive \$30,000 to assist with tuition, books, and living expenses while studying full-time. In their second year, they receive an amount equivalent to the first-year salary of an assistant principal, an educational stipend, and an internship in a school under the supervision of a veteran principal. Research on the effectiveness of this program has shown that fellows had more positive impacts on student absences, teacher retention, and school working conditions than other graduates and all other North Carolina principals.

North Dakota has used its ESSA funds to develop multi-tiered leadership support for its principals. Part of its support includes a leadership academy to ensure North Dakota principals have access to professional support, professional development, career ladder opportunities, assistance with administrator shortages, and support to address administrator retention. Another tier of support also includes the implementation and expansion of a first-year principal mentorship program, with the ultimate goal of providing a mentor to all new administrators. Mentors are trained and assigned to new principals, conduct a minimum of two site visits during the school year, and have weekly meetings.

Mentoring

Texas does not have a statewide requirement for mentoring for new teachers. However, House Bill 3 (2019) established the mentor program allotment, which entitles school districts that implement mentoring programs for new classroom teachers (less than two years of experience) a funding allotment. The formula to determine the amount each district receives is decided by the state education commissioner, and the funding provided to districts from the allotment can only be used for mentor teacher stipends, scheduled release time for mentor and classroom teachers for mentoring activities, and mentoring support through providers of mentor training.

State Examples: Mentoring

Delaware has implemented a multi-year teacher induction program with the goal of supporting and retaining excellent educators. The state requires that all new teachers participate in a 4-year induction and mentoring program - the Comprehensive Induction Program (CIP) - to advance their license. This program was first piloted in the 1994-95 school year. Ten years later, it was redesigned and expanded statewide, with an annual appropriation for CIP of \$300,000.

The statewide program requires multiple activities characteristic of high-quality induction, including:

- Weekly meetings between mentor and novice teachers;
- 2. Eight lesson observations; and
- 3. Participation in evidence-based professional learning each year of the program, including professional learning communities for new teachers (Delaware Department of Education, n.d.).

Delaware's induction and mentoring program is associated with improved teacher practice and retention. According to a 2017 statewide survey of teachers, 78% agreed or strongly agreed that the additional support they received as a new teacher improved their instructional practice, 79% agreed or strongly agreed that the additional support helped impact their students' learning, and 71% agreed or strongly agreed that the induction supports were important in their decision to continue teaching at their current school. **Iowa** has also prioritized teacher induction for decades, beginning with its Teacher Quality Act in 2001 that expanded teacher induction statewide and made it a requirement for secondtier teacher licensure. Since then, its Mentoring and Induction (M&I) program has grown, and by 2017, it involved approximately 3,000 firstand second-year educators across the state. Successful completion of an induction program was a requirement for lowa teachers to advance to the career-level teaching certificate.

Iowa supported this program by distributing \$1,300 to districts and Area Education Agencies for each first- and second-year educator. From that allotment, \$1,000 of each payment went toward mentor stipends, and the remainder to program costs.

In **Alaska**, the Alaska Statewide Mentor Project recruits and compensates retired teachers to provide individualized support to first- and second-year teachers. Mentors use formative assessment tools to guide the activities with new teachers, and the program has demonstrated success in improving retention of early career teachers. Prior to the program, historical retention rates averaged about 68% over five years, and the most recent data has a five-year average retention of over 78%.

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