

Four-Day School Week Adoption: The Case of Texas

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The four-day school week (4DSW) has been gaining popularity across the nation, most often adopted in rural areas, as is the case in Texas. As an important first step in understanding the student and teacher outcomes associated with 4DSW adoption in such a wide and varied state, this paper explores the various approaches to 4DSW adoption and the ways in which they vary. We begin by documenting the extent of 4DSW adoption in Texas through collecting and qualitatively analyzing school calendars. We then create a dataset of 4DSW school districts to explore the demographic makeup of the districts adopting 4DSW over time. Our findings suggest that two typologies of 4DSW have emerged in Texas, full 4DSW and hybrid 4DSW, and a vast majority of 4DSW school districts predominantly utilize their off days for teacher-centered activities, such as professional development (PD) and additional planning time. We also find that a large proportion of 4DSW school districts are primarily rural and small, have a higher proportion of White students and lower proportions of students of color and English learners compared to the statewide averages. The paper brings forth the nuances in 4DSW adoption and discusses future work necessary to explore such policy adoption in small and rural school districts.

Keywords: Four-day school week, school calendar, rural schools

Adoption of the 4DSW has gained traction as a potential solution to various educational challenges (Thompson et al., 2021). Especially popular among rural school districts, more than 1,600 schools across 24 states had adopted the 4DSW model as of 2021 (Thompson et al., 2022). In Texas, the shift toward 4DSWs began with the introduction of two bills passed in 2015 - House Bill (HB) 2610 and HB 1842 (84th Texas Legislature, 2015). Specifically, House Bill 2610 changed the instructional time requirement from a day-based to a minute-based system and set the minimum instructional minutes requirement to 75,600 per academic year. HB 1842 introduced the District of Innovation (DOI) program which allows eligible school districts to gain exemptions from certain state requirements that charter schools are not subject to follow. The flexibility afforded by allowing school districts to count instructional time in minutes rather than days and by providing waivers for certain statutory requirements paved the way for adopting innovations such as the 4DSW.

Research posits that school districts commonly point to three motivations driving 4DSW adoption: reducing operational costs, enhancing student attendance, and boosting teacher recruitment and retention

(Kilburn et al., 2021; Nowak et al., 2023; Thompson, 2021; Thompson & Ward, 2022). However, as of this writing, empirical studies have not found 4DSW adoption to consistently deliver these outcomes. For example, 4DSW adoption has been shown to reduce expenses by only a small margin (Griffith, 2011; Kilburn et al., 2021) while simultaneously reducing federal revenue (Morton, 2021). The majority of studies have found no significant association between 4DSW adoption and student absenteeism (Kilburn et al., 2021; Morton, 2023; Thompson et al., 2022), and a recent Arkansas study that did show an improvement in attendance after 4DSW adoption noted that the improvements declined over time (Barnes & McKenzie, 2024). Research findings exploring 4DSW adoption and teacher retention are mixed and caution against the adoption of 4DSW to improve teacher retention. Studies have demonstrated a wide variety of associations between 4DSW and teacher retention, including 4DSW adoption has no significant effects on teacher retention (Maiden et al., 2020), a negative effect (Ainsworth et al., 2024; Nowak et al., 2023), and modest positive effects (Camp, 2024; Camp et al., 2024). While 4DSW has been associated with increased teacher recruitment in rural districts in Missouri, statewide analysis shows no significant overall effect (Manion & Varkey, 2021).

Although the adoption of 4DSW is not typically driven by the goal of improving academic outcomes, the extended instructional time per day and the loss of one instructional day each week are likely to influence student outcomes. Several studies have explored these effects and reported a range of findings from no detectable effects (Daly & Richburg, 1984; Morton, 2021, 2023), positive effects (Anderson & Walker, 2015), and negative effects (Kilburn et al., 2021; Thompson, 2021; Thompson et al., 2023; Thompson & Ward, 2022). Despite the growing evidence on the effects of 4DSW, less is known about the nuances of 4DSW adoption or how districts implement the model. In this paper, we explore the extent to which 4DSWs have been adopted in Texas and suggest how future research is needed to better understand the differences in structure of 4DSW observed in school calendars.

As of the 2024-2025 school year, media outlets reported that approximately 103 school districts in Texas have adopted 4DSW (Adams, 2024). Since the Texas Education Agency (TEA) does not collect data regarding 4DSW adoption, conducting longitudinal research to understand the widespread adoption of 4DSW in Texas and the related outcomes has been challenging. To fill this gap in the literature and as a first step to ultimately understanding how the implementation of 4DSW shapes student, teacher, and school outcomes, this study aims to document the adoption of 4DSW in Texas and explore nuances among different types of 4DSW adopted. We began with a document analysis of the school calendars that Texas school districts post online. Then, information from school calendars was combined with publicly available school demographic data in order to answer the two research questions guiding our study:

1. To what extent have Texas school districts adopted 4DSWs, and how do the structures of 4DSW calendars vary?
2. What are the demographic and geographic characteristics of school districts adopting the 4DSW calendars in Texas?

Employing document analysis of school calendars from districts implementing 4DSW and state enrollment data, we first explore the extent of 4DSW adoption and nuance among 4DSW implementation. Then, we create a dataset that allows for descriptive analysis of the geographic and demographic characteristics of 4DSW districts. Our findings point to two main typologies of 4DSW calendars being adopted in Texas: full 4DSW and hybrid/modified 4DSW. We find that a larger proportion of 4DSW districts are rural, serve a smaller proportion of English Learners and students of color than traditional public schools statewide, and dedicate additional time to teacher-centered activities on the fifth day.

Background of 4DSW policy

Over the last five decades, state legislatures have gradually given school districts more operational flexibility, particularly during economic downturns such as the energy crisis in the 1970s and the 2008 Great Recession (Anderson & Walker, 2015). State legislatures have provided operational flexibility to school districts by allowing them to waive minimum instructional time requirements altogether (Thompson et al., 2021) and an opportunity for unconventional schedules by converting the minimum instructional time requirements from a particular number of days to a particular number of hours of instruction, such as the requirement in Colorado passed in 1985 (Dam, 2006) or to a particular number of minutes of instruction, such as codified in Texas in 2015 (Texas Education Code § 25.081, 2015).

In 2015, the Texas Legislature introduced and passed House Bill 2610 (84th Texas Legislature, 2015) which changed the instructional time requirement from 180 days to 75,600 minutes. This change allowed school districts more flexibility in creating their calendars and compensating for instructional time lost due to weather or other unforeseen circumstances. Each year, school districts must post their calendars on their websites and submit them to the Texas Education Agency (TEA), demonstrating how the operational minute criteria will be met (Texas Education Data Standards, n.d.). Also in 2015, HB 1842 allows school districts to implement 4DSW: the District of Innovation, a label that exempts eligible school districts from certain state requirements that charter schools are not subject to follow (Texas Education Code, Chapter 12A, n.d.).

School districts with a state accountability rating of A, B, or C are eligible to become a District of Innovation and thus can be deemed exempt from specific provisions of the Texas Education Code, including educator certification, teacher contracts, class size, specific purchasing and contract requirements, first and last day of school, and length of school day. The school district board of trustees oversees and approves (with a two-thirds majority vote) a comprehensive educational plan that outlines the specific innovations to be adopted (Templeton et al., 2022). With these flexibilities, school districts in Texas were able to implement 4DSW beginning in the 2016-2017 school year (Anglin, 2021).

Review of Literature

4DSW Implementation

Several versions of the 4DSW have been adopted across the United States. Many schools in the northern parts of the United States have adopted 4DSWs only during winter months to accommodate inclement weather, some schools have 4DSWs every other week so that students attend nine days with a tenth off, and others have 4DSWs each week for the entire school year (Donis-Keller & Silvernail, 2009). Typically, the 4DSW involves closure on Monday or Friday, with longer school days during the rest of the week to meet statutory requirements for instructional time (Kilburn et al., 2021). Despite the increased length of school days, students attending districts with 4DSWs have an average of 85 fewer hours per year than their peers in other districts (Thompson et al., 2021). While some school districts close completely on the fifth day of the week, some use the fifth day for extracurricular activities and sports, others for staff and teacher professional development, and other schools dedicate it to enrichment programs or tutoring for students in need of additional support (Anglum & Park, 2021; Donis-Keller & Silvernail, 2009).

Motivations for 4DSW Adoption

Schools across the nation that have chosen to adopt 4DSW often cite three main reasons for their choice: 1) for cost savings, 2) to improve student attendance, and 3) to increase teacher recruitment and retention (Kilburn et al., 2021; Thompson et al., 2022; Morton et al., 2024). Cost savings have been reported as possible by lowering the number of operational days, which then can lower transportation, utility, and maintenance personnel expenses. These cost savings could be especially beneficial for schools in rural areas and with limited funding due to declining state aid and other factors (Barnes & McKenzie, 2024). Schools also reported issues that often led to decreased attendance as one of the rationales for 4DSW adoption, such as lengthy travel time for school-sponsored athletic events or family/medical appointments. Thus, offering 4DSWs was expected to lower absences as students may be more likely to schedule appointments on the non-school day off, and schools can arrange the extracurricular activities or any other student-centered activities on the non-school day. Another rationale for 4DSW adoption reported was teacher recruitment and retention, as the shorter work week could be more attractive to teachers and allow districts to better compete in a competitive environment (Gottlieb et al., 2024; Nowak et al., 2023; Turner & Uribe-Zarain, 2024)

4DSW Outcomes

On Academic Achievement, Attendance and Disciplinary Incidents

Studies examining the effects of 4DSWs on student academic outcomes have yielded mixed results, with evidence more frequently indicating negative rather than positive results. The earliest known study on the impact of 4DSWs on students' academic outcomes dates back to 1984, when Daly and

Richburg (1984) examined five rural districts in Colorado and found that transitioning to a 4DSW had no impact on student academic performance. Other more recent studies have reported comparable findings. A study conducted by the Missouri Department of Elementary and Secondary Education found no statistically significant effects of 4DSWs on the overall achievement of English Language Arts (ELA) and Math (Missouri Department of Elementary and Secondary Education, 2023). In Oklahoma, the 4DSW was found to have no measurable effect on ELA and math scores for students in 3-8 grades (Morton, 2021), nor on high school students' ACT scores (Morton, 2023).

As of this writing, a growing number of empirical studies have identified more negative effects of 4DSWs on academic outcomes. For instance, research has shown that 4DSWs are associated with declines in math and ELA performance among students in grades 3-8 (Nowak et al., 2023; Thompson, 2021; Thompson & Ward, 2022) and math achievement among high school students (Thompson et al., 2022). In examining the long-term effect of 4DSWs on both ELA and math achievement, Kilburn et al (2021) found a persistent negative trend, indicating that learning losses may accumulate up to eight years after the adoption. Thompson et al (2023) found minimal overall differences in academic performance between students in 4DSW and five-day school week settings. The researchers, however, identified negative effects among certain subgroups, particularly students who had scored above the median on kindergarten assessments (Thompson et al, 2023). Anderson and Walker (2015) identified a positive relationship between 4DSW and elementary students' performance in reading and math. While qualitative studies have frequently reported perceived benefits of the 4DSW on student outcomes (Kilburn et al., 2021; Turner et al., 2019; Turner et al., 2017), empirical evidence supporting its positive academic impact remains limited (Anderson & Walker, 2015).

Studies have also examined the relationship between 4DSWs and student attendance. In Missouri, the adoption of 4DSWs was not associated with any significant change in overall student attendance, while in Arkansas, a more recent adopter, modest significant improvement in attendance following the implementation of 4DSWs was found (Barnes & McKenzie, 2024). However, these improvements tend to decline over time, which seems to suggest that the impact of 4DSWs on attendance may subside as the novelty of the 4DSW model wains. Similar patterns were observed in other contexts, such as in Oklahoma (Morton, 2023) and Oregon (Thompson et al., 2022), which reported no detectable effects of 4DSWs on student attendance. Additionally, a mixed-methods study by Kilburn et al. (2021) found no statistically significant difference in absenteeism between students on a 4DSW and five-day school week schedule. Additionally, evidence on the impact of 4DSWs on disciplinary incidents has been limited and conflicting. A study in Colorado, for example, suggests that the adoption of 4DSWs is associated with an increase in juvenile crime by almost 20% (Fischer & Argyle, 2018). A more recent study, however, reported that 4DSWs led to notable reductions in disciplinary incidents by approximately 39% for bullying incidents and 31% for fighting incidents (Morton, 2023).

On Teacher and Staff Outcomes

Research exploring the impact of 4DSWs on teacher retention and recruitment has also produced mixed results. Some studies have found no significant impact on teacher retention (Maiden et al., 2020a) while others reported a negative effect (Ainsworth, et al., 2024; Nowak et al., 2023). Other studies, however, reported a modest positive effect of 4DSWs on teacher recruitment (Manion & Varkey, 2021) and teacher retention (Camp, 2024; Camp et al., 2024). Despite these varying findings, each of these studies cautions against using 4DSWs as a strategy to improve teacher retention. Other than the impact of 4DSWs on teacher retention, studies have also explored the relationship between 4DSWs and other associated outcomes. Some studies assert the positive influence of 4DSWs on morale, quality, and content of classroom instruction (Kilburn et al., 2021; Plucker et al., 2012; Turner et al., 2017). Adoption of 4DSWs is also associated with common markers of teacher performance – the teachers at 4DSW schools are 5.9 percentage points more likely to hold an advanced degree than new hires in nearby schools (Camp, 2024).

On Finances

The evidence to support the cost savings of 4DSW remains limited, and many studies caution against the adoption for purely financial purposes (Griffith, 2011; Morton, 2021). For example, although some estimate potential savings of up to 5.4%, the actual savings are often lower, especially for smaller districts (Griffith, 2011). Other reported savings generally range between 4% and 12% and primarily come from cost reductions in transportation and food, as well as decreased spending on substitute teachers and hourly employees (Kilburn et al., 2021). Morton (2021) found that 4DSW led to reductions in non-instructional per-pupil expenditures by approximately 2.03% of the average district budget while at the same time reducing the district's average federal revenue by 5.62%.

Summary of 4DSW Outcomes

These existing studies, taken together, paint a far-tempered picture of 4DSW. Cost savings are modest at best. Evidence on teacher recruitment and retention is mixed but not harmful, and evidence on attendance is found to be neither positive nor negative. When compared to their initial motivations for adoption, the 4DSW does not appear to be a transformative intervention. Furthermore, studies have reported concerning findings on the impact of 4DSW on student outcomes. These mixed findings on the outcomes of 4DSW suggest that 4DSW does not offer a clear advantage over the traditional five-day school week and questions remain about the impact of 4DSWs on student academic achievement. Thus, it seems more useful to view 4DSW as a context-dependent approach that works variably, rather than as an evidence-backed practice.

Data and Methods

Data

Due to the absence of official statewide data on 4DSW districts, we first conducted an identification of districts adopting the 4DSW model by reviewing all calendars posted on the websites of the 1,021 independent school districts listed in the Texas Education Directory.¹ School calendars for all available school years were downloaded along with other relevant documents tied to the 4DSW adoption, such as parent and caregiver 4DSW surveys and teacher recruitment flyers. This initial exploration resulted in the identification of 190 districts that were initially identified as 4DSW school districts as of 2024-2025. This initial list was then reviewed and cross-validated among researchers and resulted in a final list of 185 districts. To explore how 4DSW calendars are structured, we focused on the 2024-2025 school calendars, coding them for total daily instructional minutes, and how the fifth day off is used for both teacher and student-centered activities.

To explore the demographic and geographic characteristics of the adopting 4DSW districts, we combined our final 185 4DSW districts dataset with publicly available demographic and administrative data from the Texas Education Agency (TEA) and the National Center for Education Statistics (NCES) for the 2017-2018 through 2024-2025 academic year to create a panel dataset. District-level data included the geographic locale² and the proportion of student enrollment by race and ethnicity, socio-economic status, English language learner status, and students served in the special education program.

Methods

We utilized qualitative document analysis to analyze the 2024-2025 school calendars of the adopting 4DSW in Texas and to explore the various ways school districts structure their off days (Bowen, 2009). By utilizing document analysis, we aimed to discover the themes and patterns within our data beyond the numerical frequencies (Altheide et al., 2008). We inductively coded the school calendars on the duration of the 4DSWs in a school year, instructional minutes per day, and frequency and duration reserved on the fifth day for teacher-centered activities (e.g., professional development, workday, collaborative planning) and student-centered activities (e.g., tutorials/intervention). To ensure credibility, we engaged in investigator triangulation by comparative analyses of researchers' codes and related findings and engaged in multiple collaborative discussions (Stahl & King, 2020). After the codes were created, we collated them under 4DSW typologies to characterize the distinctions and nuances of 4DSW calendars.

In the second stage of the coding process, the researchers divided the 185 school districts alphabetically to examine school districts' calendars for the 2024-2025 school year. The codes were generated both inductively and deductively. Bingham and Witkowsky (2022) argue that using both inductive and deductive coding iteratively for data analysis provides a basis for a more organized, rigorous, and

¹<https://tealprod.tea.state.tx.us/tea.askted.web/Forms/Home.aspx>

²<https://nces.ed.gov/programs/edge/Geographic/LocaleBoundaries>

analytically sound study. For example, school calendars were coded for the day of the week taken off, the number of instructional minutes per day, and whether or not the fifth day was reserved for teacher-focused activities. However, as we started to code, other codes, such as the month 4DSW began and ended and whether or not student tutorials were noted on the fifth day were included as patterns were noticed in the school district calendars. As we continued to code, the typologies of 4DSW were discovered. We started coding the two types of 4DSWs separately. The distinction between the two typologies is described below.

The school districts were considered full 4DSW districts if they had the four-day weeks starting at least in September, and lasting until May, with an exception made for the month of April. Generally, the month of April is designated as the standardized testing month in Texas, therefore many school districts had full five-day weeks scheduled in April. With the start of a four-day week in September, almost all consecutive weeks were 4DSW in full 4DSW districts, excluding government-designated holidays. Based on the number of weeks from September to May, with the exception of holiday weeks and weekends, and the month of April, we calculated that a full 4DSW districts would have at least 30 four-day weeks. There were many full 4DSW districts with more than 30 four-day weeks, as some began 4DSWs in August and some had four-day weeks in April as well. The hybrid/modified 4DSWs were easier to identify, as many started their 4DSWs in the spring semester. Others would start their 4DSW mid-fall and end in mid-spring. Furthermore, some hybrid/modified 4DSW districts had every alternate week as a four-day week throughout the school year, therefore, the count of four-day weeks was always well below 30 weeks.

Importantly, the researchers paid close attention to how each school district coded their calendars for four-day weeks, versus other kinds of days off, excluding public holidays. For instance, many school districts across the typologies labeled teacher in-service/professional development days/teacher workdays, which were recurring on the fifth-off day and planned around the four-day week policy, differently from other professional development/in-service days, which were planned to fulfill other state-level requirements. Hence, for a full 4DSW district, even excluding the weeks with other professional development/in-service days would result in thirty plus 4DSW, and a hybrid/modified 4DSW will be under 30 weeks of 4DSW. The researchers also did not count weeks with half-instructional days as a four-day week because, as a half day is not an off day. After the first round of coding was completed independently by each researcher, the researchers exchanged their notes and codes. After the discussion, a final list of codes emerged, against which all school districts were coded again.

The final list of codes included typology, instructional minutes, day off, PD/in-service, and tutorials, and resulted in 147 full 4DSW and 38 Hybrid/modified 4DSW. Once coding was completed for all 4DSW school districts, we combined codes with the panel dataset created using publicly available directory and demographic data and summarized characteristics of each type of 4DSW district. Using school calendars and publicly available data does create some limitations in our analysis. First, school districts could host activities throughout the school year that are not reflected on the school calendar or could make changes throughout the school year that alter the school calendar. Second, we use the classifications and descriptions provided by school district calendars to code the typologies and the use of the day off, which

can omit nuance in our understanding of 4DSW structure. Finally, publicly available data is captured as a snapshot of school districts at one point (Fall) during the school year and does not reflect changes the districts undergo throughout the school year. Though our analysis is limited in these ways, a first look of 4DSW adoption can be provided with confidence using these data and future research can provide more nuance of the 4DSW school districts operations and implementation. The following section details the types of 4DSW district adopted across the state and reports the demographic characteristics of those school districts.

Findings

This study aimed to explore the extent to which 4DSW has been adopted across Texas and to describe the demographic and geographic characteristics of 4DSW school districts in Texas. The findings section begins with qualitative findings on the adopting 4DSW districts, their typologies, and the ways districts utilize their off days. It then follows with the description of the demographic and geographic characteristics of the adopting 4DSW districts.

Typology

We observed different approaches among districts in implementing the 4DSW calendar. In our attempt to code the utilization of off days, we also coded the instructional time per day of each 4DSW district and the way they structured their 4DSW calendar. We found two main typologies of 4DSW being implemented in Texas: full 4DSW and hybrid/modified 4DSW. The majority (79.5%, 147 districts) of 4DSW adopt the 'full 4DSW' model – they start their four-day week in late August or September and continue until late April or May. Other districts (20.5%, 38 districts) adopt a slightly different structure. Some districts limit the four-day week to a single semester (Fall or Spring), while others fluctuate the 4DSWs and the fifth day off throughout the year – these are called a 'hybrid/modified 4DSW' model. Districts adopting the full 4DSW model tend to have longer school hours, from 470 minutes to 530 minutes per day, or an average of 502.7 minutes per day. This means that school hours are increased by at least 50 minutes to 110 minutes per day, compared to the daily instructional minutes at five-day school week districts. Districts adopting the hybrid model have relatively shorter school hours at around 460 to 515 minutes or an average of 487.5 minutes per day, meaning that they extend their instructional time by 40 to 95 minutes per day. Table 1 shows that most of Texas school districts follow a full 4DSW model, with daily instructional time ranging from 460 to 530 minutes.

Table 1*Schedule structure of 4DSW in Texas, 2024-25*

Typology	4DSW Districts (<i>n</i>)	% of 4DSW Districts	Instructional mins. (min.)	Instructional mins. (max.)	Instructional mins. (avg.)	Instructional mins. (<i>SD</i>)
Full 4DSW	147	79.46%	470	530	502.71	11.14
Hybrid/Modified	38	20.54%	460	515	487.50	14.88
Grand Total	185	1	460	530	499.58	13.45

Source: National Center for Education Statistics and UH ERC primary data collection and analysis.

Note: The average extended minutes per day is calculated by subtracting 420 minutes of instruction from the average institutional minutes.

Utilization of the Fifth Day

As with typology, we also identified patterns in how 4DSW school districts use their off days to improve teacher, student, and school outcomes. As shown in Table 2, our comprehensive analysis of school calendars revealed that 92.4% of school districts implementing 4DSWs reserved the fifth non-school day for teacher-centered activities such as professional development, in-service training, collaborative planning, or individual workdays. Many of these school districts, 70.8% (131 districts), plan teacher-centered activities regularly, such as all off-days (1.08%, two districts), once a month (61.1%, 113 districts), once to twice a month (5.9%, 11 districts), or twice a month (2.7%, five districts). Another 21.6% of 4DSW school districts have a flexible approach to scheduling their teacher-centered activities. These districts tend to have fewer days allocated for teachers/staff on the off days, varying between one day to six days a year, and are planned throughout the year. Additionally, a small percentage of 4DSW school districts (7.6%, 14 school districts) do not allocate any of the fifth day off for teacher/staff-focused activities on their calendars.

Table 2*Fifth-Day Usage among 4DSW School Districts*

Professional Development and Planning	4DSW School Districts	Percentage of 4DSW School Districts
None	14	7.6%
Irregularly Scheduled	40	21.6%
Regularly Scheduled	131	70.8%
All off days	2	1.08%
Once a month	113	61.1%
Once to twice a month	11	5.9%
Twice a month	5	2.7%
Total	185	100%

Source: UH ERC primary data collection and analysis.

We also examined how 4DSW school districts structure their schedules to support students academically. As shown in Table 3, most school districts operating the 4DSW model (83.8%, 155 districts) offer no academic support for students on their off days. The remaining percentage (15.7%, 29 school districts) offer services for some students on some off days, with variations in the timing and duration of the services and the student population being served. Some 4DSW school districts reserve this tutorial time for selected students, typically for students at-risk of dropping out or those seeking extra help to enhance their curriculum. Of this percentage, 8.1% or 15 4DSW school districts provide their tutorials more regularly, such as once a month or twice a month, with variations on the durations of the tutorials (full day or half day). Another 7.6% (14 districts) have a more flexible tutorial schedule and offer relatively fewer tutorials, typically fewer than five off days in the 2024-2025 academic year. In addition to those academic services, one 4DSW school district provides a paid childcare option on the off days.

Table 3*Fifth-day Services Provided by 4DSW School Districts*

Student Tutorials and Enrichment	4DSW School Districts	Percentage of 4DSW School Districts
None	155	83.8%
Irregular/Fewer	14	7.6%
Regular	15	8.1%
Once a month	8	4.3%
Once a month/half day	1	0.5%
Twice a month	4	2.2%
Twice a month/half day	2	1.1%
Paid Childcare option	1	0.5%
Total	185	100.00%

Note: The professional development and planning, student tutorials, and enrichment included here are limited to those conducted on the designated off days.

Demographic and Geographic Characteristics of Texas 4DSW School Districts

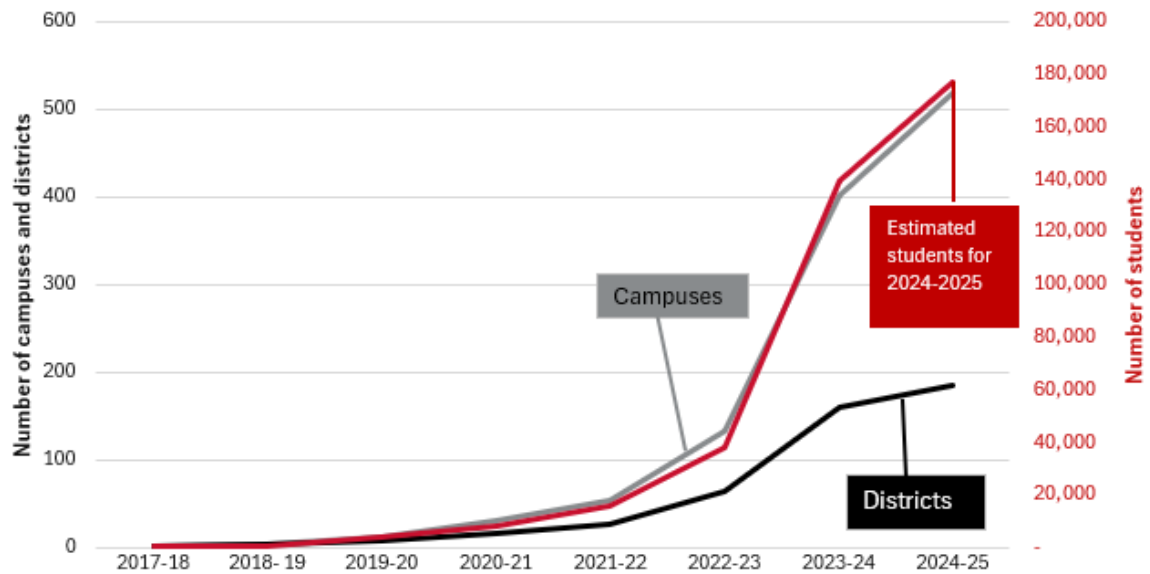
Our examination of the school calendars of 1,021 independent school districts across Texas showed that, as of the 2024-2025 academic year, 185 districts with 519 campuses serving 139,486 students adopted 4DSWs. Figure 1 demonstrates how the number of school districts adopting 4DSWs grew quite substantially from just two districts with two schools serving 244 students in 2018 to 185 school districts with 519 schools, serving more than 170,000 students³ in 2024-25. From the 2017-2018 to 2021-2022 school year, the 4DSW adoption was slow, with only one district adopting 4DSWs in 2018-19, five in 2019-

³ At the time of this report, enrollment figures for 2024-25 had not yet been released.

20, eight in 2020-21, and an additional eleven districts in 2021-22. The peak of 4DSW adoption occurred in the 2023-24 school year when an additional 95 school districts with 270 schools serving 101,320 students adopted 4DSWs for the first time.

Figure 1

Increases in 4DSW Adoption by Districts, Campuses, and Students, 2017-18 through 2024-25



Source: Texas Education Agency publicly available data and UH ERC primary data collection and analysis.

Notes: Districts, campuses, and students enrolled as of last Friday in October (snapshot date), as reported in Texas Academic Performance Reports. Student enrollment for 2024-25 was not released at the time of publication of this report.

Table 4 shows the numerical trends reflecting 4DSW adoption. While at the time of this publication, the student enrollment data had not been published, an additional 25 school districts adopted 4DSWs in the 2024-25 school year. During the 2023-24 school year, those districts served 37,720 students, which would put the estimated total number of students in a 4DSW in 2024-25 at more than 170,000.

Table 4*4DSW Adoption by Districts, Campuses, and Students, 2017-18 through 2024-25*

Counts per School Year	2017–18	2018–19	2019–20	2020–21	2021–22	2022–23	2023–24	2024–25
Districts	2	3	8	16	27	65	160	185
Campuses	2	3	13	30	54	132	402	519
Students	244	329	4,131	8,387	15,795	38,166	139,486	Not applicable

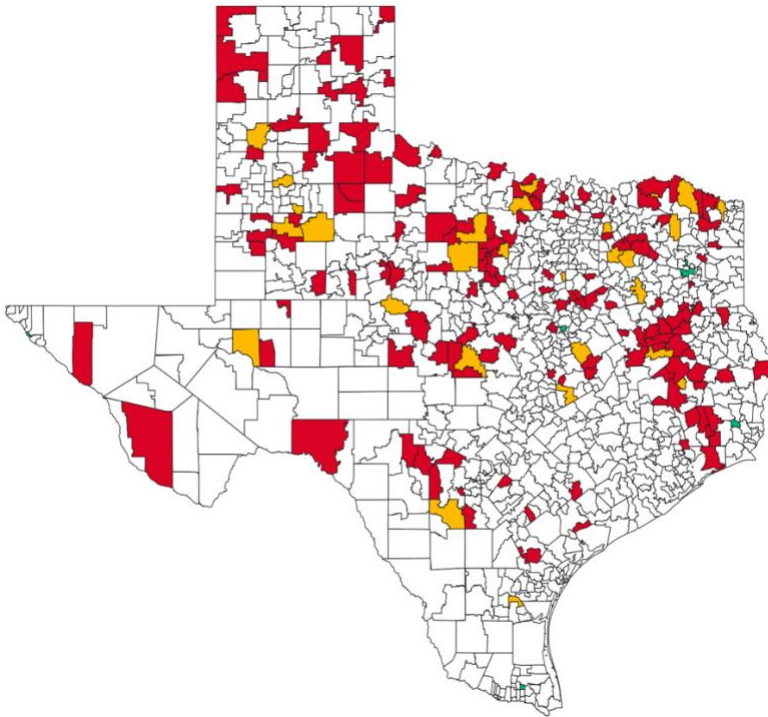
Source: Texas Education Agency publicly available data and UH ERC primary data collection and analysis.

Notes: Districts, campuses, and students enrolled as of last Friday in October (snapshot date), as reported in Texas Academic Performance Reports. Student enrollment for 2024-25 was not released at the time of publication of this report.

In Figure 2, a map of Texas school districts displays the 4DSW school districts color-coded by the geographic locale. Rural school districts (red) are the most common school districts to adopt 4DSWs, followed by town school districts (yellow) and suburban school districts (green). Notably, 4DSWs have been adopted across every major region of the state.

Figure 2

Map of Texas Four-Day School Week School Districts by Locale as of 2024-25



Note: Locales in red are rural. Locales in green are suburban. Locales in yellow are towns.

Source: National Center for Education Statistics (NCES) publicly available data and UH ERC primary data collection and analysis.

Table 5 shows the distribution of 4DSW districts across the state as of the 2023-24 school year, the latest year available for the school enrollment numbers. The largest number of districts, campuses, and students are in rural areas of Texas: 88,190 students served in 288 campuses and 132 districts. The locale with the second largest number of 4DSW school districts was towns, which NCES defines as a territory inside an urban cluster. In 2023, 40,884 students were served in 93 campuses and 24 school districts in towns. Finally, four school districts adopted 4DSW in suburban areas, with 21 campuses serving 10,412 students as of the 2023-24 school year.

Table 5

Count of Four-Day School Week Districts, Campuses, and Students by Locale, 2023-24

Locale	Districts	Campuses	Students
Rural	132	288	88,190
Suburban	4	21	10,412
Town	24	93	40,884
Total	160	402	139,486

Source: Texas Education Agency publicly available data and UH ERC primary data collection and analysis.

Notes: Districts, campuses, and students enrolled as of last Friday in October (snapshot date), as reported in Texas Academic Performance Reports.

Table 6 shows the demographics of the 4DSW districts by race, ethnicity, and locale based upon the latest data available at the time of this report, data from the 2023-24 school year. School districts that adopted the 4DSW served a majority White student population. The average 4DSW district served 55.5% White students, 34.4% Hispanic students, 5.7% students who identified as another race or ethnicity, and 4.1% Black students. School districts in rural settings that adopted 4DSW served on average, a student population that was more White (59.2%) than 4DSW school districts located in towns (40.4%). In 2023-24, four school districts in a Suburban setting adopted 4DSW, and they served more Hispanic students (61.9%). Table 6 also shows that 4DSW districts in different regions serve very different student populations.

Table 6

Average Student Race/Ethnicity Served in 4DSW by Locale, 2023-2024

Locale	Another Race or Ethnicity	Black	Hispanic	White
Rural	4.3%	5.06%	31.4%	59.2%
Suburban	2.7%	9.3%	61.9%	26.1%
Town	4.6%	8.9%	46.1%	40.4%
Total	4.4%	5.7 %	34.4%	55.5%

Source: Texas Education Agency publicly available data and UH ERC primary data collection and analysis.

Notes: Student program participation is calculated as an average percentage of students served in districts, as reported in the 2024 Texas Academic Performance Reports.

Table 7 shows the distribution of 4DSW students by socioeconomic status, special education, and English proficiency based on the latest data available at the time of this report, data from the 2023-24 school year. In 4DSW districts, an average of 63% of students were classified as economically disadvantaged, an average of 15.8% received special education services, and an average of 8.8% had limited English proficiency. The average percentages of students receiving special education services and students classified as having limited English proficiency vary greatly within different locales, highlighting the variation in student populations served in each region.

Table 7

Average Percentage of Economically Disadvantaged, Special Education, and Limited English Proficient Students Served in 4DSW by Locale, 2023-24

Locale	Economically Disadvantaged	Special Education	Limited English Proficient
Rural	61.2%	15.9%	7.1%
Suburban	75.6%	14.9%	24.9%
Town	70.9%	15.6%	15.4%
Total	63%	15.8%	8.8%

Source: Texas Education Agency publicly available data and UH ERC primary data collection and analysis.

Notes: Student program participation is calculated as the average percentage of students served in districts, as reported in the 2024 Texas Academic Performance Reports.

Overall, our descriptive analysis of 4DSW reveals that 4DSW districts are primarily rural and small-sized, a trend also shared in other states (Barnes & McKenzie, 2023; Manion & Varkey, 2021; Thompson et al., 2022). Additionally, 4DSW districts represent a diverse population whereabout 63% come from low socio-economic backgrounds, 8.8% have limited English proficiency, 5.7% of the students identify as Black or African American, 34.4% as Hispanic/Latino, and 55.5% identify as White. However, if we compare the 4DSW student populations to the state-wide student populations, we find that 4DSW school districts have a higher proportion of economically disadvantaged students (63% vs. 61.2% statewide), smaller proportion of English learners (8.8% vs. 26.6%) and higher proportions of students who identify as White (55.5% vs. 26.7% statewide) (Templeton et al., 2024). Statewide, Hispanic/Latino students make up the highest majority at 52%, and about 12.5% of students identify as Black. Contrastingly, in the 4DSW districts, the largest proportion of students identify as White at 55.5%, and Black students make up about 5.7% of all students. This is an interesting finding as it suggests that the school districts adopting 4DSW calendars are predominantly located in rural areas, are more White, and serve a lower proportion of students of color compared with the statewide averages.

Discussion and Implications

This research examines the adoption of 4DSWs in Texas and explores the nuances of 4DSW schedules and the demographic characteristics of districts that have adopted the model. We found that the majority of school districts adopting the model are located in rural areas and, when compared to school districts statewide, have a larger proportion of White students and lower proportions of limited English proficient students and students of color. Our qualitative analysis of school calendars reveals that the model seems to be more teacher-centered, evidenced by the notable difference in the number of districts offering planned teacher-centered activities (92.8%) as compared to the student-centered activities (15.5%) on the fifth day. Furthermore, we find that while most school districts had a full 4DSW calendar (79.4%), which means that more than 30 weeks in the academic calendar were four-day weeks, a significant number of school districts (20.5%) had hybrid/modified 4DSW calendars. These findings are critical to future evaluations of 4DSW districts. This evidence informs future research, as the outcomes of students and teachers in 4DSW districts can ostensibly vary greatly depending on how 4DSW calendars are structured, how the 4DSW districts choose to utilize the day off, and the populations being served by the school district.

Although the literature on 4DSWs across the nation mentions several goals that are driving the increasing adoption of 4DSW, our review of school calendars suggest that adoption could largely be driven by the motivation to improve teacher recruitment and retention. This assumption is supported by the significant number of rural districts that have adopted 4DSWs (rural schools in Texas have reported larger teacher shortages), with a larger proportion focusing on providing planned professional development and planning for teachers rather than direct interventions for students on the fifth day. Additionally, the 4DSW schedule implementation further suggests that one of its primary goals could be to improve teacher working conditions by providing additional planning time, additional time off, and additional support to teachers. A recent examination of Texas teacher workforce trends across the last decade suggests that, compared to a decade ago, the Texas teacher workforce has less pre-classroom preparation and fewer standard teacher certifications, teaches courses across more subjects, earns less, and is more likely to leave the classroom for a different career (Templeton et al., 2024). Given the increasingly precarious working conditions for teachers across Texas and limited preparation and certification of the workforce, a four-day workweek may act as an incentive for teachers to join smaller and more rural school districts, where teacher shortages are greatest, and provide additional support and training for those with no certification or little preparation (Showalter et al., 2019; Gottlieb et al., 2024; Nowak et al., 2023; Turner & Uribe-Zarain, 2024).

Studies have shown that the impact of 4DSW on teacher recruitment and retention has yielded mixed results (Ainsworth et al., 2024; Camp, 2024; Maiden et al., 2020; Manion & Varkey, 2021; Nowak et al., 2023). However, it is also found that 4DSW positively influences teachers' morale, the quality and content of classroom instruction (Kilburn et al., 2021; Plucker et al., 2012; Turner et al., 2017). A recent study indicates that 4DSW is linked to higher quality teachers, with 4DSW schools having a 5.9 percentage point greater likelihood of hiring teachers with advanced degrees (master's or higher) compared to new hires in schools located at least 25 kilometers from a 4DSW school (Camp, 2024). Additionally, media

outlets in Texas have reported that school districts in Texas adopted 4DSW to recruit and retain highly qualified teachers (Adams, 2024). Our findings, which show that the majority of 4DSW districts are located in rural areas and that the majority (92.8%) of school districts reserved their day off for teacher-centered activities, suggest a similar goal – offering a four-day workweek may help recruit and retain highly qualified teachers in these districts. Future research is needed to explore the motivations and goals associated with the adoption of 4DSW models, as the activities and resources dedicated to those goals will drive outcomes (W. K. Kellogg Foundation, 2004).

The growing adoption of the 4DSW model in Texas is both exciting and concerning. On one hand, 4DSWs seem to be serving as a solution to address teacher shortages in Texas by offering to improve teacher working conditions and attracting teachers to rural and small districts. On the other hand, the broader implications of 4DSWs remain unclear. Evidence suggests that the effects on student academic performance tend to be negative, the influence on teacher recruitment and retention is mixed, and the potential cost savings are modest. This research is the first in Texas to examine how 4DSWs are being implemented and thus contributes to the growing literature on 4DSW in Texas and across the U.S. Our study also serves as a guide for policymakers and educators to survey the current variations in 4DSW calendars to better inform future decision-making. Future research on student and teacher outcomes as they relate to 4DSW in other U.S. states may employ a similar approach to first understand the nuances of the 4DSW approaches before evaluating and treating all 4DSW districts on the same scale. Additionally, future research can also examine students' activities on the fifth day when school is not in session for tutorials, as such variations and nuances could significantly impact outcomes and whether childcare concerns are raised regarding the school closure. In this paper, we demonstrate that not all 4DSW districts are similar in their design, the demographics they serve, and perhaps in goals motivating the adoption. Future research informed by this study can provide a more nuanced understanding of 4DSW districts across the nation and more conclusive evidence to support 4DSW adoption.

Conclusion

This study, which focused on exploring the demographic makeup of Texas 4DSW school districts and the various manifestations of the 4DSW schedule, found that districts adopting the 4DSW models are primarily rural, and on average, serve a higher proportion of White students and a lower proportion of limited English proficient students. The varying structures of 4DSWs characterized under two typologies- full vs. hybrid/modified 4DSW- provide caution for future evaluations of 4DSWs by demonstrating that not all 4DSW calendars are similar. Hence, the study of associated outcomes should consider this variety. The consistent use of the off days for planning and professional development suggest that 4DSW adoption is largely motivated by recruiting and retaining teachers. By offering an understanding of the conditions and inputs associated with 4DSW adoption in Texas, our study informs future research that aim to more conclusively explore how 4DSW adoption shapes teacher and student outcomes.

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