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Using the School Schedule To Improve Special Education Instructional Delivery & Staffing Efficiencies



How Richardson Independent School District and Mesquite Independent School District leveraged the master schedule to improve delivery of special education instruction while enhancing staffing efficiencies



Executive Summary



“It is critical with special education staffing, especially with how our budget is, to find a way to serve kids effectively and in the most efficient way possible”
– Brandon Musgrove, Director, Mesquite ISD (and former academic counselor)

Designing quality, dedicated, and individualized support for special education and emergent bilingual students (or multilingual learners) presents significant challenges for school districts, made even more complicated by budget pressure. One of the most critical components of special education planning is the development of the master schedule based on specific student needs and the availability of learning specialists while integrating with general education classes. Legal and compliance mandates with individualized education plans (IEPs) add to the degree of difficulty faced by district and charter leaders.

What’s more, federal data shows that 21% of public schools were not fully staffed in special education at the start of the 2023–2024 school year¹—higher levels of reported shortages than any other teaching specialty. Districts across the country are concerned about the churn of teachers moving in and out of special education roles, looming teacher retirements, and positions left unfilled due to a lack of candidates or funding.

Two Texas districts — **Richardson Independent School District** and **Mesquite Independent School District** — partnered with Timely and leveraged strategic scheduling to tackle these and other unique challenges for their special populations.

Rather than developing schedules for special education and emergent bilingual (EB) students manually and separately from the master scheduling process, a common practice that can lead to significant inefficiencies, both Richardson and Mesquite partnered with Timely, leveraging its AI optimization technology, to proactively build improved, efficient schedules for students and staff.



¹National Center for Education Statistics



As a result, these two districts achieved goals they previously weren't able to accomplish:

Staffing Efficiencies

- Both Richardson ISD and Mesquite ISD **increased staffing efficiencies for their special education teachers**, significantly reducing the risk of inevitable hiring needs driven by attrition or an influx of new students.
- Mesquite ISD, which implemented a pilot with Timely across two middle schools in 2023–24, **identified, on average, an excess of 2.0 FTEs of special education teachers at each campus**. This means if more students with IEPs enroll during the school year, they could serve those students with existing staff. Or, if there were a staff separation (e.g., retirement, resignation), they could continue meeting student needs with the remaining teachers.

Better Delivery of Services

- Learning specialists are less likely to be stretched across content areas. Instead, there is a greater dedication of learning specialists within their content expertise, allowing teachers to become more familiar with student learning needs while providing support as indicated by the IEP.

Time Savings

- Richardson and Mesquite were able to finalize their schedules in a fraction of the time – on average, both districts **saved 50–100 hours per campus** compared to prior years. For many administrators and counselors, this is the equivalent of getting their summer back!



Saved 50–100 hours per campus



Why Scheduling Matters

Scheduling is one of the most complex responsibilities of a school system. It's no wonder school leaders struggle to develop schedules within their already constrained time and resources. And their counterparts within central offices are often not equipped to support them nor have visibility into the staffing and budget implications of the master schedule.



"It's honestly one of the hardest things we have to do every year."
– *District Chief Academic Officer*

Yet, as evidenced by Richardson and Mesquite Independent School Districts, scheduling shouldn't be a process district and school leaders suffer through, but rather one that enables academic, staffing, and budget priorities.

The school schedule reflects values and priorities. With 75 to 85% of a district budget dedicated to personnel, there are few questions more paramount than how your staff and students spend their time every day, how many teachers you will hire, and how students will interact with them. Equitable resource allocation across schools, proper access to core courses and electives, and dedicated support to sub-groups begin with the development of a school schedule. And perhaps the most overlooked aspect of scheduling is the ability to develop innovative staffing and budgeting solutions.



There are often significant inefficiencies within a school schedule, particularly in middle and high schools. Perhaps the biggest driver of these inefficiencies is the common practice of simply rolling over the prior year's schedule. This is an understandable approach given it's the path of least resistance, but over time it can inadvertently calcify both inefficiencies and inequities.

Often, student course offerings don't align with the needs and requests of students, there is an overall mismatch of resources across schools, certain classes are under-enrolled while others are over-subscribed, and students from historically marginalized groups can be disproportionately impacted. As a result, schools may find themselves unintentionally allocating resources in a manner that goes against their own goals and objectives, with the lowest class sizes in advanced classes, electives, and/or upper grades.



In order to address these complexities, it's critical that schools build a ground-up schedule predicated on student needs. And in order to build strategic schedules, education leaders need both support *and* more sophisticated implementation tools that are powered by technology.

In a **report** by the **Center for Public Leadership and Research** (CPRL) at Columbia University, researchers write:

“The master schedule, an undoubtedly strategic tool, gets treated as a logistical one. This has disastrous consequences for students because it (1) masks the weight of the choices at hand, and (2) limits what is possible.

In every case, the shift from technical to strategic scheduling was accompanied by a shift from limited to more sophisticated tools. As schools and systems sought to do more with their schedules, they stumbled over difficult-to-use tools and were pushed to find alternatives.”

In other words, current solutions – clunky SIS-embedded schedulers, messy spreadsheets, whiteboards, magnet tiles – are insufficient. Education leaders, by accessing sophisticated, technology-enabled tools and support, can leverage strategic scheduling to address critical priorities with student achievement, staffing, and budgeting.



Mesquite ISD

Like many districts across the country, Mesquite Independent School District (ISD) experienced a growing population of students with disabilities and resulting demand for special education support. Historically, creating inclusion classes proved technically challenging and was often siloed and relegated to the latter stages of the scheduling process due to its complicated nature. Consequently, there were significant inefficiencies in how students and staff were assigned throughout the year leading to inconsistent teacher caseloads with diverse student needs and a high potential for teacher burnout. Additionally, Mesquite, like so many other school districts, struggled to recruit, hire and retain special education teachers. Thus, the prospect of teacher retirements loomed large as any reduction in staff would wreak havoc on staffing.



“Anything we can do to maximize special education resources is a win. A win for our administration, for our staff, and most importantly, for our students.” – Valerie Mayad, Executive Director of Administrative Services & Data Management

Before Timely, Mesquite ISD built their inclusion classes as a separate process alongside the overall master schedule development. “We would be using a piece of paper and pencil trying to slot in our students with an IEP into pre-existing sections we created through the master schedule process,” said Valerie Mayad, who oversees the scheduling process.

After assembling a cross-functional implementation team, Mesquite ISD proactively created their total inclusion sections, a cap for the number of students with an IEP in each section, and assigned co-teachers *before* the master schedule was developed. Timely’s optimization technology then generated a master schedule based on these unique constraints. This ultimately allowed students to be grouped strategically to support their needs articulated in the IEP while also meeting compliance requirements.

And, critically, Mesquite ISD was able to identify, on average, an excess of 2.0 FTEs of special education teachers per participating campus. As a result, the district is now in a significantly better position to support both current and future students.



If each school were to receive new students during this school year, they could serve them with existing staff. And given the challenges with retention of special education, if a school were to lose a special education teacher to retirement or resignation, they would still be able to serve their students without needing to scramble and hire a new teacher.

“There’s a huge shortage of teachers, particularly special education,” said Valerie Mayad. “And because of strategic scheduling with Timely, we are now in a better position with this high-need staffing position.”

What’s more, the Mesquite school-based scheduling teams were able to build a master schedule that led to (1) a significantly higher percentage of students fully scheduled, and (2) substantial time savings in the process.

Better Schedules

- Before Timely, the lead scheduler (an academic counselor) at participating schools would, on average, get their students to ~70% fully scheduled before hand-scheduling. And with Timely, they achieved >90%.

Time Savings

- Before Timely, on average, each participating school would typically spend between 125 to 175 hours on scheduling each year. And with Timely, they were able to save 75 to 100 hours, per participating school throughout the scheduling process.



Richardson ISD

In 2021, the Richardson Independent School District (ISD) Board of Trustees approved a shift to transition from junior high schools (which serve grades 7 to 9) to a middle school model (grades 6 to 8), aligning with 95% of Texas districts. This decision was driven by the need to address overcrowded classrooms due to a growing elementary population, and to expand opportunities in academics, fine arts, and athletics. The transition also offered high potential for cost savings by consolidating junior high and elementary campuses.

However, it also introduced complex scheduling challenges for both general and special populations, such as course offerings, staffing and resource allocation, and space utilization, making efficient resource management and strategic teacher planning vital.

And critical to this grade-level transition was how the district would accommodate its special education and emergent bilingual students.



“When scheduling, we would build special education independently – it was siloed when it shouldn’t have been.”

– Summer Martin, Executive Director of Counseling & Prevention Services (oversees the district’s scheduling process)

Summer Martin, Richardson ISD’s leader of the master scheduling process, describes how special education inclusion classes and those serving emergent bilingual (EB) students were created *after* the master schedule was already developed. She states, “Once we fit the general education classes (by department) into the master schedule, we would look at special education and EB students along with staffing and see where we can fit them into available sections. You end up with students and staff being too spread out. There was no rhyme or reason to these schedules.”

Thanks to Timely’s AI optimization technology, Richardson ISD has, for the first time, strategically built inclusion classes that are optimized to ensure both efficient staffing and effective service delivery. As a result, students are more likely to be served by learning specialists in their content specialty as opposed to teachers providing services across multiple content areas, allowing teachers to become more familiar with student learning needs while providing support as indicated by the IEP.



Conclusion

Through the use of strategic scheduling, the Richardson and Mesquite Independent School Districts significantly revamped their staffing and delivery of instruction for special education and emergent bilingual students. As a result, they were able to build schedules that created efficiency and coherence in how learning specialists were assigned to students.

Critically, this shift to strategic scheduling required a partnership with Timely, a technology-enabled implementation tool that helped enable these two districts' priorities.

Researchers from the **Center for Public Leadership and Research** (CPRL) state: "The master schedule, an undoubtedly strategic [process], gets treated as a logistical one. This has disastrous consequences for students because it (1) masks the weight of the choices at hand, and (2) limits what is possible."

This report aims to showcase how the leadership of Richardson and Mesquite Independent School Districts, through their careful and intentional partnership with Timely, are exemplars of how to utilize strategic scheduling as a vehicle to improve the delivery of instruction to special populations.

About

Timely

About **Timely**: Timely is your home for middle and high school scheduling featuring AI optimization technology and support from a team of educators who know and have lived scheduling.



About **Richardson Independent School District**: Richardson Independent Schools District is located in Texas, serving 36,900 students across 50 schools, led by Superintendent Tabitha Barnum.



About **Mesquite Independent School District**: Mesquite Independent School District is located in Texas, serving more than 38,000 students across 52 schools, led by Superintendent Dr. Angel Rivera.



About **The Commit Partnership**: The Commit Partnership is a collective impact nonprofit organization dedicated to improving educational outcomes for Dallas County.

