# **Stanford** SCALE Initiative Accelerator for Learning

The Key Resource of Time: Master Schedules and Effective Allocation of Students and Educators

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March 2025

# Introduction The Central Challenge

A central challenge facing education leaders is allocating limited resources in pursuit of their priorities. Three of their critical resources are time, money, and people. A school's master schedule reflects the allocation of all three of these critical resources and ultimately determines the educational opportunities available to students. A school's schedule dictates who will be teaching them, what they will be learning, where this learning will take place, and how much instruction they will receive.

Those who create master schedules, "schedulers", are attempting to optimize resources across a multitude of demands and constraints. An effective master schedule is essential for directing school operations that determine the course of the academic year. As a director of student support at Noble Schools, the largest charter school network in Chicago, described:

"It's literally the map of what we do. A master schedule is your plan, so if your schedule doesn't work, or if it's not working for a specific group, it's very obvious and in your face. And when it is working you don't notice it..."

Assistant Director of Student Support, Noble Schools

Recent changes have both highlighted the importance of the master schedule and provided new tools to more effectively and flexibly schedule. The COVID-19 pandemic reduced learning and led many students to disengage from school, both of which called for greater individualized attention to accelerate student learning and rebuild their overall well-being. Yet, these kinds of supports require complex scheduling. New scheduling tools—such as those utilizing AI optimization technology—allow educators to optimize these complex demands, though even with these tools, educators have to navigate external pressures and maintain focus on their strategic priorities.

In this brief, we identify the demands on school leaders when creating a master schedule, note the trade-offs present in trying to meet the needs of diverse student populations, and identify key capacities and supports for schedulers. We conclude by discussing the skills and tools that can help education leaders better navigate demands while allocating resources effectively to meet their strategic priorities.



## The importance of the master schedule

Strategic master schedules optimize instructional time and teacher effectiveness, accommodate the needs of protected student groups, and promote equitable access to high-rigor coursework for all students through iterative and collaborative design processes between administrators and teachers (Center for Public Research and Leadership, 2021; Education Resource Strategies, 2022). Recent research on master scheduling as a tool for promoting equity emphasizes schedule adaptability and flexibility, critiquing traditional technical approaches that mechanically sort students without adapting to changing student needs or student populations (Hibbeln, 2020).

Master scheduling has been a central driver of education reform in recent decades, and the role of the master schedule as a tool for reducing student achievement gaps continues to expand across U.S. school systems (Center for Public Research and Leadership, 2021). The implementation of Multi-Tiered System of Supports (MTSS) and Response to Intervention (RTI) has introduced more complex scheduling challenges, as schools must coordinate targeted interventions, progress monitoring, and data-driven decision-making across multiple tiers of support while ensuring minimal disruption to core instruction. Similarly, the COVID-19 pandemic catalyzed a shift to online learning that forced secondary schools to dismantle traditional schedules during the transition to virtual learning, drawing attention to the importance of centering student needs within block scheduling to combat higher absenteeism post-pandemic (Center for Public Research and Leadership, 2021; Education Resource Strategies, 2022; UConn Today, 2024).

While recognition of the importance of strategic scheduling has grown, as of 2020, 72% of U.S. secondary schools still used rigid traditional schedules despite proven alternatives (Unlocking Time, 2020). These traditional scheduling patterns are unsurprising given the complexity of assigning all the teachers and students in a school to the courses that they need within the limits of the school day. Yet, new technologies offer opportunities to optimize schedules and allow for flexible schedules without the time and skills traditionally needed for effective allocations.

## The shift from paper to software tools

Before the introduction of advanced scheduling tools, high school educators created master schedules through a labor-intensive, largely manual process that required balancing student needs, teacher availability, and course offerings using spreadsheets, whiteboards, or even paper charts. Often, schools collect course requests from students and manually determine demand for different classes. Administrators then assign teachers to specific courses while ensuring that classrooms are available, often relying on experience and trial-and-error adjustments. Using grid-based methods, staff work to arrange courses into periods or blocks while minimizing conflicts, and ensuring that students can take all required classes without overlaps. However, conflicts—such as a student needing two classes scheduled at the same time—have to be identified and resolved manually, requiring significant time and effort. Once a workable schedule is achieved, students are placed into classes, with counselors making final adjustments for those with conflicts or special needs. This iterative manual process is time-consuming, prone to errors, and inflexible when last-minute changes—such as staffing adjustments or unexpected enrollment shifts—occur.

In this era of rapidly expanding education technology (EdTech), innovative AI-driven scheduling tools have emerged as powerful solutions to the complex challenges of master scheduling. These tools not only reduce the manual workload for administrators but also introduce a data-driven, strategic approach to scheduling, ensuring that student needs, teacher availability, and institutional priorities are balanced more effectively than ever before (CFI Group, 2023; The Journal, 2025). By leveraging machine learning algorithms and predictive analytics, AI scheduling platforms can analyze historical enrollment patterns, optimize course placement, and anticipate scheduling conflicts before they arise.

Beyond automation, these tools promote the emerging concept of strategic scheduling, a student-centered approach that prioritizes equitable access to courses, intervention opportunities, and personalized learning pathways. For example, AI-driven systems can dynamically adjust schedules to accommodate multi-tiered interventions (MTSS), dual enrollment options, or flexible learning models—something that would be incredibly challenging, if not downright impossible, to manage manually at scale. Additionally, these platforms enable administrators to respond swiftly to unexpected staffing changes, new student enrollments, or evolving curriculum demands, ensuring that schedules remain adaptable and efficient throughout the school year.

The introduction of advanced scheduling tools marks a transformational shift in education planning, moving beyond traditional static schedules to adaptive, student-centric models that enhance both learning opportunities and operational efficiency. Advanced software algorithms and AI scheduling tools may help schools design strategic and efficient schedules that leverage the master schedule as a structural tool to center student needs while overcoming administrative and external constraints. In this brief, we use the introduction of such tools in multiple districts to better understand the goals that educators have in setting their master schedules, the tradeoffs they are willing to make, and the potential to better meet their goals when the allocation of the resource of time is in itself less time consuming and more easily optimized.



## **Data and Methods**

The data for this study includes 30-45 minute interviews via Zoom of sixteen educational leaders across four local education agencies (LEAs) involved in creating master schedules at the secondary school level. The four LEAs include three large school districts in Texas (Mesquite ISD, Richardson ISD, and Lubbock ISD) and a charter network of high schools in Chicago (Noble Schools). We chose these research sites because they are current users of Timely, an online software that leverages AI optimization along with strategic support from a team of educators to build secondary schedules that optimize resources across multiple levels of constraints. By interviewing school districts who have invested in advanced analytic tools, we are able both to learn about these leaders' scheduling priorities and to interrogate how tools may change master scheduling practices and implementation. Table 1 describes the demographics, student population, academic performance, and strategic priorities of the LEAs in our sample.

	Table 1. Comparison of LEAs studied								
LEA	Location	Student Population	Demographics	Academic Performance (% Meet/Exceed grade-level expectations )	Strategic Priorities				
Mesquite ISD	Dallas-Fort Worth Metropolitan Area	~38,000	61% Hispanic/Latino, 25% African American, 10% White, 1% Asian	Math: 41% Reading: 44%	Allowing students to explore their personal interests.				
Richardson ISD	Dallas-Fort Worth Metropolitan Area	~38,000	37% Hispanic/Latino, 30% White, 22% African American, 7% Asian	Math: 46% Reading: 56%	That every student, teacher, and leader will meet or exceed their academic growth goal.				
Lubbock ISD	Texas Panhandle South Plains Region	~25,000	60% Hispanic/Latino, 21% White, 14% African American, 2% Asian	Math: 40% Reading: 51%	To nurture, develop, and inspire every child, every day.				
Noble Schools	Chicago Charter Network	~12,000	90% Black/Hispanic, 90% low-income	College Enrollment: ~100%	College preparedness, anti-racism initiatives, and equitable outcomes.				

Within each LEA, we interviewed leaders who oversee the scheduling process at the district/charter management organization (CMO) level and school leaders who oversee scheduling at the site-level. Table 2 describes the breakdown of interviews between research sites and the roles that interviewees serve in each site. We interviewed a mix of district/CMO leaders, school leaders, and school counselors.

	Table 2. Interviewee Sample								
School District	#	Interviewees	Supt/ President	CAO/ Academic Lead	Other Central Admin	Principal/ Dean	School Staff		
Lubbock ISD	5	2 Middle School Principals, Chief Academic Officer, Chief Operations Officer, Executive Director of Human Resources	1	1	2	2			
Mesquite ISD	4	Dean of Academics, Executive Director in Administrative Services, Middle School Principal, Director of Data Management		1	2	1			
Noble Schools	4	President, Assistant Director of Student Support, 2 Deans of Students	1		1	2			
Richardson ISD	3	Executive Director of Counseling and Prevention Services, Middle School Counselor, Chief of Staff			2		1		
Total	16		2	2	7	5	1		

We asked interviewees about the following topics:

- How their district builds the master schedule;
- How priorities and constraints shape the master schedule;
- How stakeholder input affects the master schedule;
- What is required in order to change the master schedule, especially when implementing new policy mandates or strategic initiatives;

- How scheduling processes and tools can be improved from the status quo; and
- How an effective (or ineffective) schedule affects administrators, teachers, students, and families.

We transcribed interviews verbatim and thematically coded them to identify findings. Appendix A provides a list of codes. We focus our analyses on: (A) how schedulers learn to create a master schedule that aligns with district and school-level strategies; (B) how schedulers prioritize the needs of special student populations; and (C) how new analytical tools can help schedulers manage priorities and external demands. We report the results for each of these areas below.

# **Findings**

## Part A: How Schedulers Learn How to Create a Master Schedule That Aligns with District and School-Level Strategies

Master scheduling is a skill gained by doing. Most of the schedulers we interviewed reported being taught by their supervisors or the schedulers that came before them. Though often the scheduling process remains consistent from year to year, schedulers acquire their intuition about managing conflicts and resources through trial and error. One district leader from Mesquite ISD describes the iterative learning process:

"Building a master schedule when you're first learning how to do it is really a trial by fire. In my experience, there are very few people that really understand how to build a master schedule. And so there tends to be a select few people in districts ... it is just hands-on trial and error and really teaching yourself amongst some peers that have also done it. So there's very little training on how to build a master schedule. And I used to think, why is that? A lot of it's because every school is so different. There are overarching principles for building a master schedule, but there are so many different variables between districts and campuses that there's not a one size fits all. So a lot of it is learning about experience."

Director of Data Management, Mesquite ISD

While common student information systems offer support with scheduling, schedulers usually determine the matrix of courses offered and the teachers who will teach these courses by hand. Our interviewees named tools ranging from spreadsheets to paper and pen to large magnetic boards to accomplish these tasks:

"So there were thousands of magnets, and every magnet had a teacher name and class name and those types of things. And so really, one of the early lessons was benefiting from the power of the collective. A department chair can see things in the math department schedule that I might not see ... an assistant principal might see something that I don't, and all those kinds of things, so ultimately you learn by doing. You celebrate your successes. You try not to repeat the same error ... I just try and make a different mistake every time."

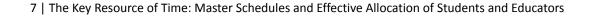
Chief of Staff, Richardson ISD

While traditional tools allow for collaboration, the scheduler recognizes the limitations of these tools. No single person can identify every potential error or inefficiency within a schedule, making external input essential for creating an effective plan. While schedulers can gather feedback and refine their approach over time, their ability to account for every critical factor remains inherently limited. The network leader of Noble Schools also surfaced this tension:

"We sort of started looking at it from an efficiency perspective and from an equity perspective. Are our students getting an equitable experience at our schools based on the schedules that are set at the beginning of the year? And then, how much vulnerability do we have as day one approaches with not having schedules done? And I just remember thinking, well, there's got to be a better way to do this, and after doing a little digging and looking at the history of all this, it's like, no, there actually aren't. Nope. Nobody's really mastered this thing, people are still using post-it notes, they're still using Google Sheets."

President, Noble Schools

This quote surfaces how the typical tools that school leaders use are insufficient for helping schedulers infuse their priorities into the schedule itself. This creates larger implementation issues for strategic initiatives that would require the reallocation of personnel, resources, and time. If changes to the master schedule require restructuring the timing and staffing of course offerings, then schedulers are forced to start the entire process over. Thus, the lack of proper tools to create strategic master schedules before a school year begins is a "vulnerability" for schools that might cause them to revert back to prior scheduling practice, instead of trying new approaches that could be beneficial for both students and schedulers.



#### District-Level Supports of the Strategic Scheduling Process

We found that districts often offer guidance to their school leaders to ensure scheduling quality. District leaders might want to centralize master scheduling practices when they have a district-level priority, need, or value that they want infused within the schedule. Given declining enrollments in many school districts, for example, districts could utilize strategic scheduling to effectively allocate reduced resources across school sites. One district leader in Lubbock ISD, which is grappling with declining enrollment, describes the need to instill values of efficient resource use in school leaders:

"Principals become magicians when it comes to hiding staff in their master schedule ... I can't say that all principals did it on purpose, but they didn't know any better and so that's how they worked. They grew up in the system, and so that's how I was trained too as an assistant principal to do it and therefore that's how I do it as a principal. Nothing's ever changed, and so we just keep relearning what we've learned as a baby assistant principal ... So mentoring our new assistant principals that are coming into the system and saying ... we don't take last year's schedule and tweak it, we literally start from the ground up."

Chief Operations Officer, Lubbock ISD

Instead of defaulting to the previous year's schedule, the districts we spoke with overwhelmingly believed that the master schedule should be built from scratch every year. One administrator in Mesquite ISD gave us a simple reason: "Everything changes." By building the capacity to revisit and restructure master schedules each year, districts strive to use personnel and resources efficiently while adapting the schedule to prioritize changing student needs. When scheduling practice remains stagnant, districts face greater difficulty effectively allocating resources for maximum productivity.

Districts might choose to decentralize decision making in order to allow schools to offer special programming and courses. The district-level schedulers we interviewed often gave school leaders decision-making authority over course offerings and school models that would allow them to include unique educational offerings for the students and families they serve. Portfolio districts, in particular, wish to offer a vast array of high-quality school models to families, making school-level input important for their district-level goals. Strategic scheduling for specialized school models requires that school leaders have clarity around their strategic visions. The President of Noble Schools, who oversees a variety of school models within the charter network, explains:

"The school leader has to be exceedingly clear on what the academic and extracurricular strategy and vision is for their school ... It all has to start with clarity from the principal as to what your school is going to be. And your schedule is then built around that vision ... I've seen when a principal lacks the vision for what they want their school to be ... it makes the scheduling much more complicated."

President, Noble Schools

This insight identifies a mutually-reinforcing dynamic between a leader's vision and a strategic schedule. Strategic clarity from a leader is necessary to create a master schedule that reinforces a district leader's vision and the school's goals.

### Part B: How Schedulers Prioritize the Needs of Special Student Populations

A large part of the scheduler's task is accommodating the needs of special student groups while meeting legal compliance standards for legally-protected groups. The work is challenging because so many groups are both important and in need of special consideration. One middle school counselor in Richardson ISD describes the challenge and the populations that she is most concerned about while creating schedules:

"It's so hard because there's so many special populations: there's your newcomers, there's your special education students, there's your GT (gifted and talented) kids ... Honestly, if you had to pick a schedule to work around, it would be your lower level learners or your newcomers, because if you can't get them to learn correctly and get them the right supports that they need, they're the ones who aren't going to have the opportunities to grow elsewhere."

Middle School Counselor, Richardson ISD

This counselor names several groups that come to mind who have particular needs that schedulers must consider when developing a master schedule. Often, schools have to make choices about who to schedule first. Students with individualized education programs (IEPs) often get first priority because of the legal requirement to ensure they are receiving their accommodations and instructional supports. A student support specialist from Noble Schools describes this prioritization:

"The first one for us is students with IEPs, because there are legal requirements in terms of settings where students need to be, and then legal requirements for all of our courses to be in compliance based on the State of Illinois ... That for us is a group that we often build schedules around first... before then moving to other groups"

Assistant Director of Student Support, Noble Schools

Within these groups, students' needs vary. Multiple schedulers made distinctions between the needs of English learners and those of newcomers to the United States. Additionally, students with IEPs are far from a monolithic group:

"Yes, it's one of the hardest groups to schedule. It's because there's such a huge range of needs. You have everything from medically fragile, self-contained students who are essentially in the same room every day, but still get scheduled ... and then you have your higher functioning students who are possibly sitting in [a general education] class. And then you've got students with autism and students who just need a little bit of push-in support. So scheduling for special ed is one of the hardest things that there is to do simply because of the variety and the degree of need for support ... you almost have to build the special ed schedule first, and then that becomes its own constraint to your overall school master schedule."

Executive Director in Administrative Services, Mesquite ISD

Managing both the legal requirements of IEPs and providing the support for individual student success accounts for a significant amount of the labor that schedulers put into a master schedule each year. The process of creating inclusion classes is especially demanding. Students who require push-in services are slotted into courses and then assigned learning specialists. When not done properly, the process can create massive inefficiencies and affect instructional quality when learning specialists are misallocated or assigned outside of their content area of expertise.

Better scheduling tools helped two of our school sites improve instructional delivery to special populations. According to <u>Internal research from Timely</u>, Mesquite ISD and Richardson ISD were able to schedule educational learning specialists within their own subject areas instead of spreading them across multiple subjects—a common challenge due to complex scheduling needs. This change could

lead to improved staffing efficiency and more manageable workloads for special education teachers, ultimately improving instructional support for students.

Schedulers we interviewed in Texas are required by state law to create learning acceleration plans for students who perform below a certain level on state assessments. The Chief Operations Officer of Lubbock ISD explains their approach to learning acceleration of having separate intervention rooms:

"Intervention rooms are also becoming very popular to create spaces where the kiddos can meet an instructor or tutor and get their tutoring without having to interrupt a classroom or anything like that."

Chief Operations Officer, Lubbock ISD

Scheduling individual tutoring and learning recovery time in the master schedule can be challenging, requiring cross-stakeholder collaboration and communication to execute effectively. The Assistant Director of Student Support at Noble Schools describes this challenge:

"I think that our campuses that have intervention blocks for all, so our middle school and then there's one of the high schools ... it takes a lift because you have to have something for everybody to do, not just the students that are in the intervention. There needs to be, essentially, extension work. But then, when it's something that everybody, every kid is benefitting from, if you can pull it off, it can be really good. It takes a lot, and it takes a lot of experienced staff members to be able to pull that off."

Assistant Director of Student Support, Noble Schools

This scheduler from Noble Schools notes that carving out time for intentional intervention requires intention for the rest of the student body during that time as well. The best outcome is when this time can be used for something meaningful for all students, which requires collaboration and planning.

Specialization that students might want or need in their educational offerings requires scheduling capacity, flexibility, and strategy. These specializations can range from offering special magnet programs, AP programs, targeted remediation, individualized learning support, and career and technical education. Schedules must be able to negotiate and reconcile these needs given other constraints.



## Part C: How New Technology-Enabled Tools Can Help Schedulers Manage Priorities and External Demands

Optimizing master schedules is not easy. It not only has to meet the needs of students, but it also requires coherence for other interested parties, including teachers, counselors, and interventionists among others. The Chief Operations Officer of Lubbock ISD summarizes the challenge for administrators in a single question: "How can we most effectively and efficiently make sure that we educate our kiddos and make the best use of those resources?" The schedulers we interviewed were mindful of their duty to use public funds well. They noted that they are often being asked to do more with less. For instance, one administrator in Richardson ISD discussed how funding constraints in the state makes scheduling increasingly difficult, especially given the many changes in the educational landscape since the pandemic.

Educational leaders may be able to identify their strategies and their constraints, but they might not be able to negotiate all of these dimensions in the master schedule itself. This affects the educational offerings available to students. As a district leader in Mesquite ISD explains:

"Students can do anything, but they can't do everything, and that is the reality ... There's only so much a student can do, and the goal is to do as much as possible. But of course, there's just some things that just don't work out, and then at that point you have to prioritize – this is the greatest need. To do this (other activity) would be great, but it's not as important or necessary."

Director of Data Management, Mesquite ISD

The scheduler above names a simple truth: time is not infinite for doing everything that might be of value to each student, and, as a result, schedulers often work from a hierarchy of priorities. Ultimately, what schedulers accommodate in the master schedule determines the opportunities students will have in their schooling experiences.

Increasing school district leaders' ability to meet the multiple needs of students and other interested parties can meaningfully impact the educational experiences available to students. The districts in our sample have all recently implemented Timely, an AI-powered online software that helps districts to optimize their schedules. Implementing a product with increased analytic power allowed districts to restructure and reframe their processes, and also enabled them to hone in on priorities rather than



simply navigating constraints and compliance. The Chief Academic Officer at Lubbock ISD discusses how using Timely helped school leaders understand the implications of declining enrollment:

"It was a big mindset shift for our campuses, because what they were used to is you have 40 staff members go work it out the way you want to ... And so Timely gave us an opportunity ... And now, instead of just looking at you get this many teachers ... it's very granular what we look at. And we really are now in a collaborative part of a conversation together. I think it took a mindset shift for our principals to understand we weren't saying that they were ineffective. We were saying that, as a district, we had to figure out where to better save our resources."

Chief Academic Officer, Lubbock ISD

By increasing the analytic power of the scheduling tools that districts employ, schedulers can more efficiently use their time. One district reported that using the scheduling tool collectively saved their employees up to 100 hours of work, creating time for district and school leaders to focus on their strategic priorities. Instead of simply trying to produce a workable schedule, districts can reallocate their efforts to strategic scheduling to meet district-level priorities.

"Timely finally created a space and a place for us to work within that has got rigor inside ... it changes the way a scheduler approaches scheduling. I think quite often the scheduler approaches scheduling as, I need to get to that goal post, I need to get to that finish line. And there's just a lot of messy tactical work I need to do. Whereas, Timely is now going to do a lot of that calculating for you, allowing you to do the smart, higher-level, higher-leverage thinking and strategic work around your schedule ... it's essentially doing the lower-level tasks. It's doing the calculations and it's just, it's giving you this whole different place to start from."

President, Noble Schools

When districts have higher-powered scheduling tools, schedulers can reclaim the time spent on scheduling technicalities for district-level strategic improvement. Technological support has helped districts with the following:

- Saving 50-100 hours of administrative labor in creating master schedules, which in turn allows school leaders to focus on school year openings.
- Identifying staffing inefficiencies and potential budget savings.
- Creating better instructional delivery for special student populations, especially inclusion settings, to ensure that instructional specialists can focus on their content areas.
- Enabling academic interventions by grouping students and assigning them to targeted instructional supports (e.g. MTSS and learning acceleration strategies).
- Supporting strategic priorities by building in professional learning communities or common planning time (e.g. professional development blocks for first-year teachers and common planning periods with their mentor teachers).

These examples represent a few of the common challenges and needs in districts across the country that could be addressed with better scheduling tools. New scheduling tools offer a meaningful step towards strategic systems change and educational improvement.

# Conclusion

## Elevating The Master Schedule's Role in Systems Change and Improvement

Schedulers are tasked with properly and equitably allocating public resources to meet student needs throughout the school day. When master schedules work, "kids are in the classes that they actually chose. Parents are happy because kids are happy and they're getting classes they want. The counselors feel empowered because they can pay attention to their full scope of duties, those types of things" (Chief of Staff, Richardson ISD). Schedules that are not strategic create undue strain on people and resources, preventing students from receiving beneficial educational offerings.

Studying the work of schedulers allows us to understand the many and evolving constraints on the resources in the school system, including one of the most important resources, time. We find that:

- Scheduling involves allocating the scarce resource of time and making tradeoffs across educational goals.
- Scheduling is complicated by the needs of special student groups; and, as a result, schedulers make decisions about which groups of students to prioritize that impact students' educational opportunities.
- Schedulers get idiosyncratic training, mainly learning their skills from people who formerly held their duties.
- Schedulers often use dated tools that constrain their ability to optimize across many different sources of time and resource constraints.

Better scheduling tools can help schedulers strategically meet their priorities; schedulers who
employed AI-optimization technology reported that the tools saved time and allowed them to
use their own capacity for higher-order thinking about resource allocation strategies and
priorities.

Education leaders often have both good intentions and opportunities to enact thoughtful learning interventions, but designing schedules that address the diverse, multidimensional priorities for students and teachers is complex—often too intricate for even trained educators to complete effectively by hand. They frequently struggle to effectively target all students with the right services and support during implementation. Empowering schedulers with tools that have higher analytic capabilities may increase educational productivity and allow educators to address their competing goals more effectively, benefiting the students they serve.

		Арре	ndix A	: Coding Scheme
Code ID	<b>Code Name</b> (Code Type: Parent, Child, Grandchild <b>)</b>	Code Description	Code Count (Child Sum)	Example Quote
01.0	Challenges (Parent)	Encompasses the various obstacles and difficulties encountered during the master schedule creation process.	91	"I think one of the biggest challenges that I think school districts face is siloed work. So that would be a systematic issue, siloed work. So if I am over counseling and we're working through preregistration, but the people who are working on the master schedules are not talking to the people choosing the courses and helping the kids choose the courses, then we are not going to be on the same page and we are not going to have an efficient working master schedule."
01.1	Budgeting (Child)	Comments referring to the financial considerations that impact the allocation of resources for scheduling, including staffing and program offerings.	31	"I mean the funding alone. You know, public education in Texas is - we're not in a good place. We've not had an increase in funding since the 17/18 or 18/19 school year. We're still operating on the same amount of money per student that we did 6 years ago."
01.2	<b>Conflicts</b> (Child)	Comments that highlight issues arising from overlapping course selections or resource limitations that hinder the effective scheduling of classes.	23	"We want to be careful - our students who are in modified English are often also in modified math, so we don't want those to overlap. And obviously, if they're in a modified English or math, they're probably getting some inclusion support in science or social studies. And so we want to make sure those don't just all overlap with each other."
01.3	Covid-19 Impact (Child)	Addresses challenges introduced by the pandemic, such as switching to virtual learning and the need for flexible scheduling to accommodate health protocols.	15	"One thing that I feel like we dealt with that was a big piece of the conversation that first comes to mind was, like, we just didn't have responses I think we did course requests virtually that year, and then, like, 60% of kids filled out the form, right? So, like, we didn't know where to put 40% of the kidsIt felt like we were making decisions sometimes without having the full picture, right."
01.4	Declining Enrollment (Child)	Discusses the implications of reduced student numbers on scheduling decisions, including class size, staffing, and course availability.	6	"Again, we are a declining enrollment district. We're going through some really tough things right now trying to figure out is there a need for us to consolidate schools, pair schools, we're calling it pairing schools so it doesn't sound as awful. But we're trying to go through that process right now to figure out is that the best way for us to make best use of our resources?"
02.0	Collaboration (Parent)	Refers to the cooperative communication efforts and interactions between different stakeholders involved in developing the master schedule.	25	"I'll name that our campus always had a scheduling team, so I was not completely alone. There was a lot of other expertise and experience in our team that I could lean on, from my principal, from deans of instruction, deans of operations. etc. That was really helpful, and it definitely was a team approach."
03.0	Equity Concerns (Parent)	Addresses issues related to fairness and equal access to educational opportunities within the master schedule.	63	"We always have to keep those factors in mind to ensure that every student is served, not just to meet the requirements of the state Texas Education Association or agency, it's to make sure that the kids are actually getting served the best they can educationally. And so we're looking at student requests, building the master schedule, keeping all of the needs in mind of our students, in order to make sure that all students are equitably served with the master that's being built."
03.1	Accelerated Learning Programs (Child)	Comments that focus on ensuring equitable access to advanced courses for all students, particularly those from underrepresented backgrounds.	8	"Yeah, what we've tried to do in a couple ways - with just intensive acceleration in general - is we've tried to use some key figures on our campus to kind of overlap in that. So some of that looks like, for our sixth and seventh graders, we double up in math and reading. So the master schedule has helped us do that."
03.2	Integrated SPED Model (Child)	Describes strategies to include special education students within mainstream classes while maintaining support services and its impact on master scheduling.	7	"Yeah, so here's what I staff with: the assumption that every student, regardless of population or program, is going to go into a classroom. We mainstream most of our students that receive special ed services and they have a spot in the classroom."
03.3	Pull-Out SPED Model (Child)	Discusses the practice of pulling special education students out of general education classes for targeted instruction and its impact on master scheduling.	1	"We also have MTI SPED, and they are not inclusive so it is just a SPED section. And so I have to spread those out because a lot of kiddos, if they're in MTI for one class, they're in MTI for another."
04.0	Flexibility (Parent)	Pertains to both the adaptability and rigidity of the master schedule to changing needs and circumstances.	181	"But, you know, I've built it at the high school level, built it at the middle school level, and basically, it just comes down to trying to be as flexible as you can."
04.1	Adjustments/ Tweaking (Child)	Refers to the ongoing modifications made to the master schedule based on real-time feedback and changing needs throughout the school year.	14	"So, master scheduling really starts, you know, pretty quick after the school year begins, it starts. You know, you already started thinking of, hey, you know, it's all in theory until kids arrive. And then you try to figure out, okay, well, this needs tweaking. This needs a little bit of tweaking as well, just for some unforeseen things."
04.2	Changing (Child)	Addresses major alterations to the schedule structure or approach.	40	"And every year, and through no fault of anyone, your demographics change, your student needs change, your finances change, your staff changes. Everything changes."
04.3	<b>Constraints</b> (Child)	Identifies both external and internal factors that restrict scheduling options, such as state mandates or facility limitations.	98	"Between the singleton classes, and your big programs, and then student choice that drives the bulk of where you're going to be able to have flexibility within it."

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04.4	<b>Tradeoffs</b> (Child)	Identifies scheduling decisions related to limited resources and student needs.	13	"So yeah, people resign or whatever, and they wait till the deadline to do that in July. Well, now I've got to try to flip the schedule and figure out, what am I gonna do? Are we gonna find a replacement for them? Or am I now taking the class size from 25 to 30 or 32 because I've got to now find a place for these 180 kids to go to a different teacher?"		
05.0	High School (Parent)	Addresses the master schedule creation processes specific to high schools.	11	"That makes high impact tutoring very easy to make happen, because there's already designated time in the school day. Not all, but the majority of our high schools do not have that designated time. And that's because they're prioritizing other pieces."		
06.0	Implementin g Policies/ Mandates (Parent)	Considerations of how local and statewide mandates and policies impact master scheduling structures and processes.	49	"So I think the first one for us is students with IEPs, because there are legal requirements in terms of settings where students need to be, and then legal requirements for all of our courses to be in compliance based on the State of Illinois, how they how they structure that, and that varies So that for us is a group that we often build schedules around first."		
07.0	Individualize d Learning (Parent)	Identifies how individualized learning and high impact tutoring requirements and needs are accounted for within the master schedule.	37	"In as far as tutoring, it's been our philosophy that adult human interaction is more effective at any time to support kids than in computer adapted tutoring. We believe that that has greater power. Well, that falls into master scheduling."		
08.0	Information and the Tools (Parent)	Identifies relevant information and tools that inform master scheduling processes.	300	"Another big piece of it is that kids have to meet a graduation requirement. That's another part of the conversation. The conversation, especially at the high school of like, hey, they have to have these amount of things, and then we have to balance that out."		
08.1	Factors to Consider (Child)	Key factors taken into consideration during master schedule creation.	95	"How many kids [who] can fit in the classroom varies."		
08.11	Curriculum/ Course Projections (Grandchild)	Refers to the curriculum and course projections that inform master scheduling of courses within the bell schedule.	23	"So I think one of the first things we do is just try to get the actual course projections. So like, [where] are kids projected to go: 9th, 10th, 11th, 12th? What is the course catalog?"		
08.12	Enrollment (Grandchild)	Refers to how student numbers impact master scheduling considerations and processes.	15	"The process starts kind of right after the new year, once 5th graders have begun to put in applications for transfers and see where they're gonna go. Then we get, you know, kind of our overall projection of who's gonna be at school?"		
08.2	Scheduling Tools (Child)	Identifies the various tools master schedule builders use to create the master schedule, including magnet boards, paper and pencil, student information systems, spreadsheets, and Timely.	40	"Yeah, so that first year was literally on a magnetic whiteboard."		
08.3	Student Information – Courses (Child)	Identifies the required and elective courses accounted for in the creation of the master schedule.	40	"For the most part, it's not set in stone year after year, but you're gonna need this many classes of orchestra and this many classes of band and those types of things. So for the most part, I mean, the only thing that's gonna change around is going to be individual classes based on when the kids have time in their schedule to take English or to take art, those types of things."		
08.4	Student Needs (Child)	Refers to the essential requirements that must be addressed within the master schedule to facilitate effective learning and overall development of students.	56	"Then, inside the building, at high school now it starts with getting on the same page about what we're going to put on the page, right. Here's what we're going to say are options for our students and who can do it and when they can do it based on their wants and their needs. Then we're going to put that in front of the students as options."		
08.41	<b>Rigor</b> (Grandchild)	Refers to the high standards of academic rigor in Honors and Advanced course options that must be considered when tracking and scheduling individual students.	6	"And then, sometimes, a kid might be like, hey, I want to go from Geometry to Honors Geometry, and then that's when we'll reach out to that Algebra 1 teacher from last year like, hey, this scholar just requested to go ahead and switch from Geometry to Honors Geometry, can you give us more context of how was this scholar last year? How was the math competency last year with the scholar? And then they'll provide an explanation for us."		
08.5	Teachers and Staffing (Child)	Refers to how teacher and staffing considerations and requests inform master schedule creation.	69	"My German teacher came to me, in a previous district, and she was like, okay, I need to make sure I have last period off. And I was like, well, tell me why you need last period off. She goes, I have to go feed my horses. I was like, oh no, but kids need German the last period of the day. So I'm so sorry, but you're gonna have to wait to go feed your horses."		
08.51	Teacher Turnover (Grandchild)	Refers to master scheduling in relation to teacher attrition.	5	"So the first thing we do is we figure out what, if any, changes are going to be in staffing. So do we know if any teachers are leaving and does that mean anything for the classes that we're offering?"		
09.0	Local/State Context (Parent)	Identifies local and state contexts that impact master schedule creation.	50	"And then, on top of that, there's curricular models. The State has come out with some curriculum that they are financially incentivizing districts, for want of a better term - that's an oversimplification - but basically, if you choose Bluebonnet, which is the curriculum that they are endorsing, then you get greater funding per student as opposed to if you don't."		

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09.1	District Demographic s (Child)	Identifies district-specific demographics.	24	"Noble has 17 schools. We operate as a high school operator. 16 of our schools are purely high school, meaning 9 through 12. One of our schools is a 6 through 12, so it's got a middle school component to it. We have got 17 schools, 12,000 students, 1,600 staff. We operate almost exclusively in the underserved, most underserved communities in Chicago. And 90% of our students qualify for a free or reduced rate lunch."
09.2	School Demographic s (Child)	Identifies school-specific demographics.	9	"I'm the principal of a middle school of about 780 kids. We're a Title I school like most schools are in our region. We serve grades 6th, 7th and 8th."
10.0	Master Schedule Quality (Parent)	Comments that consider the value of a strong master schedule and the implications for when a master schedule is not working.	123	"A master's schedule is your plan, so if your schedule doesn't work, or if it's not working for a specific group, it's very obvious and in your face. And when it is working you don't notice it."
10.1	Efficiency (Child)	Comments that refer to the importance of efficiency of the master schedule and within master scheduling processes, including when schedules are not efficient.	40	"I would say there's a few times where I've definitely not met timelines and deadlines where I'm left with having to do all those pieces, because ultimately, the buck has to stop somewhere, and if we hadn't done a good job of getting everything collected in an effective way, your two options are either just to skip it and hurt students and potentially staff in the process, or to do it yourself."
10.2	Value for Administrato rs (Child)	Identifies the value of a strong master schedule for administrators.	23	"So I don't think it's ever going to be perfect, because there are so many different constraints that are a part of the conversation, but I think an effective master schedule helps the campus work. I mean, I just think it helps it work together. There are daily conversations based on the document that is now our master schedule on a piece of paper - we're constantly looking at it and having conversations. When's this person off? How are they off? When are we going to meet? When's the next set time? I mean, the final product is used as a resource constantly."
10.3	Value for Students (Child)	Identifies the value of a strong master schedule for students.	36	"Yeah, I think some general rule of thumb is we want to try to honor what students want, right? That's the purpose of a master schedule."
10.4	Value for Teachers (Child)	Identifies the value of a strong master schedule for teachers.	16	"It's not just, you know, do we have a teacher to teach this? But it's also, how can we support the teachers that we have in the confines of this master schedule to provide time for coaching opportunities? It would be great if we just had an army of staff members that could come in and work with teachers, but we just don't have the staff for that. So we have to find a way for teachers on campus, veteran teachers, to work."
11.0	Middle School (Parent)	Addresses the master schedule creation processes specific to middle schools.	18	"And so a lot of the schedules are driven by constraints. In a middle school - and again, I'm answering the question, I think eventually - but in middle school, what I've noticed is you make the schedule and then you add the constraints in."
12.0	Personal Introductions (Parent)	Introduces the master schedule builders who were interviewed, including their current and/or past roles in master scheduling.	17	"My role, the official title is Chief Operations Officer, I like to call myself the head custodian, because I tend to show up and clean up messes where they occur and try to make sure that everything's operating the way it should be operating for us."
13.0	Roles in Master Scheduling (Parent)	Identifies the roles and responsibilities of various stakeholders in master schedule creation.	152	"And so, as the spring semester went through where you've got a team of people: your department chairs like we talked about, your counselors, you've got assistant principals, you've got your associate principal at the high school - large high schools have a second in command, we refer to them as an associate principal - so that committee continues to work and whittle away at those types of things."
13.1	Central Office (Child)	Identifies the roles and responsibilities of central office personnel in relation to master schedule creation.	44	"So making sure that we [central office personnel], through the lens of teachers, that we're creating master schedules that are friendly for them to be able to get the work done that they need to get done and still be able to receive the support that they need when they need it."
13.2	Counselors (Child)	Identifies the roles and responsibilities of school counselors in relation to master schedule creation.	23	"But then, you know, mid to late July your counselors come back, and so I would try to get as many conflicts done as I could, but then I needed my team of counselors to jump in and they would work their kids. They knew their kids. So they, you know, knew better than me."
13.3	<b>Principals</b> (Child)	Identifies the roles and responsibilities of school principals in relation to master schedule creation.	57	"One of the assistant principals does it [master schedule creation] primarily and then I [the principal] assist with that as needed."
13.4	SPED Teachers (Child)	Identifies the roles and responsibilities of special education teachers in relation to master schedule creation.	3	"And then, in those cases where we do have high need, we also have a learning specialist that will be with, a certified learning specialist, that will be in those classrooms as well. So typically for us, what it means is we are creating schedules that have an extra instructor in the class for our high needs students."
13.5	<b>Teachers</b> (Child)	Identifies the roles and responsibilities of teachers in relation to master schedule creation.	22	"It's just a matter of who's going to teach what level? Who's going to teach AP? Who's going to teach Honors? Who's going to teach dual credit? And how many sections are we going to have? Pretty cut and dry for the most part."

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14.0	Skill Acquisition (Parent)	Addresses the various ways master schedule builders learn how to create a master schedule.	45	"I came from Illinois and so with that district is when I learned how to master schedule, and it really was just passed on from the person who did it before me. I actually created that master schedule before I had training on how to make a master schedule."
14.1	Formal Duties (Child)	Relates to the specific responsibilities assigned to staff members involved in creating and managing the master schedule.	6	"It's not necessarily in their job description, other than other duties as assigned, but they do take it on So I do think it's important that [assistant principals] know how to enter [classes into our student information system]."
14.2	Formal Training/ Professional Development (Child)	Discusses opportunities for training that equip staff with necessary skills for effective scheduling practices.	11	"Noble, in general, has very designated professional development days quarterly, and that's for all roles. That's not unique to anything specific, the whole calendar is structured around it. We have just started offering for scheduling leads."
14.3	Pass-on from Previous Person (Child)	Refers to knowledge transfer processes where experienced schedulers mentor newcomers in best practices.	9	"I learned scheduling from other schedulers in our building."
14.4	Trial and Error; Learn by Doing (Child)	Emphasizes experiential learning where staff acquire and refine their scheduling skills through practice and experimentation.	17	"Building a master schedule when you're first learning how to do it is really a trial by fire So a lot of it is just hands on trial and error and really teaching yourself amongst some peers that have also done it. So there's very little training on how to build a master schedule."
15.0	Special Programs (Parent)	Covers the integration of specialized educational offerings and initiatives within the master schedule.	52	"You know, one piece in Texas, our CCMR - college, career, military readiness of students - is definitely important. And so one piece of that is that students have to be a four year completer in an area to meet that requirement to be CCMR ready. And if they are CCMR already, then you get a point towards accountability in the process that kind of all plays together. And so because of that, that really now relies upon the high schools to be very strategic in keeping students in specific areas that the student, as an eighth grader, has said that they want to do."
15.1	Co-Teaching Models (Child)	Explores collaborative teaching arrangements and accommodations within the master schedule.	0	N/A
15.2	Dual Enrollment (Child)	Addresses scheduling complexities and structures associated with Dual Enrollment programs that allow high school students to take college courses for credit concurrently.	8	"So we have some schools that do dual enrollment and some that do dual credit right at the campus, and it is worth it, and it's a lot to pull it off."
15.3	Electives (Child)	Discusses the incorporation and placement of diverse elective offerings within the master schedule to cater to student interests.	13	"So again, for Choir, Orchestra, and Band, you have to know where they are going to play students. If you just had a generic Band class, for example, you could just throw them anywhere, but that's just not how it works. They need those students in a specific place because that's how those students are served within those programs to make those programs work efficiently and to be the best they can. Without that type of information, you basically would be building a master that eventually just wouldn't work at all, because at some point those kids need to be somewhere and you can't build that master without that information."
15.4	<b>IB/AP</b> (Child)	Focuses on scheduling Advanced Placement (AP) and International Baccalaureate (IB) courses for students within the bell schedule and related approaches to staffing and efficient teacher allocation.	12	"Student want, what it tells us is, if we overfill with an IB program, we need to create another high school that has the same program or find a way to make that available somewhere else."
15.5	PLCs (Child)	Incorporates collaborative planning time for educators into the schedule. Professional Learning Communities (PLCs).	12	"For example, here's what I have seen here in Texas recently. We're too big to do this, but smaller school districts in more rural parts of the State, they're shifting to 4 day work weeks. And some of them are doing literally 4 days of school and nothing on the off day, and some of them are doing 4 days of kids and then one day of PLC. And that's how they're getting their planning time in: they have an entire day dedicated just for that so that they have no kids, but that's the time that they give their teachers to plan and do the things that they need to do."
16.0	Special Student Populations (Parent)	Focuses on accommodating the requirements of diverse student groups with specific needs in the master schedule.	75	"The third group, I would say is, we have students who don't promote year to year. We call them non promoters. So students that are at risk, that have been at risk, and that continue to be at risk, they often might need a differentiated schedule in order to be able to meet the graduation or promotion requirements that they didn't previously meet. And so that involves some individualization that potentially is different than the grade level group."
16.1	English Learners (Child)	Addresses scheduling needs and approaches for students learning English as an additional language.	12	"As I mentioned, like our ML population is growing, and we're also seeing more newcomers. So students coming that have greater need in terms of their language acquisition, which means a more specific schedule, whereas not all students who are

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				multilingual learners need a specific schedule because of that designation. So that's another group that we're prioritizing from the start."			
16.2	Gifted/ Talented (Child)	Focuses on ensuring that gifted/talented students have access to appropriately challenging Gifted/Talented (GT) classes within their schedules to remain on the GT track.	8	"You know, if I'm gifted and I'm being put in a gifted course, and I can't make that work - or at least you're at the bare minimum, your core classes. That is such a huge disservice to take someone who should be in a gifted course and they end up in a pre AP or an advanced, not pre AP, an advanced course, or sometimes just a regular course, that's not good. We really try not to make that happen."			
16.3	Special Education (Child)	Addresses scheduling needs and approaches to meet the unique needs of students with disabilities, including individualized education program (IEP) compliance.	24	"I've done it in a couple different ways, likewith our special ed population in particular When I first started, I was told, hey, you always start with your special ed population because it's smaller group, and you got to make sure it works for them. So I've done it that way. I've also done it in the way of, hey, we're going to create the big picture first, and then we're going to go in and hand schedule our special ed students that way to match the big picture. I honestly don't know which one is better."			
17.0	Stakeholder Input (Parent)	Identifies various feedback mechanisms for various stakeholders involved in master schedule creation.	133	"It should be an ongoing conversation between everyone involved so everyone knows exactly the trajectory of where the master schedule is headed, versus being surprised by it or having no one know about their important input because no one had any communication about it. I would say it's a cultural norm of open communication throughout the process and we meet as needed."			
17.1	Central Office Guidance/ Input (Child)	Identifies feedback mechanisms, guidance, and input from central office personnel related to master scheduling practices.	17	"So we would have an official staffing meeting in the spring based on, you know, because the principal will get the number of teaching units that they're going to have from Central Office."			
17.2	Counselor Input (Child)	Identifies feedback, guidance, and input from school counselors related to master scheduling practices.	3	"I always send it to admin first so that they can see any glaring issues and then I will send it to my head counselor - she works all year round like I do - so she's kind of in the process because she's in charge of the student requests, so she'll check it over."			
17.3	Parent Input (Child)	Identifies feedback mechanisms, guidance, and input from parents and families related to master schedule creation.	14	"Then we're going to put that in front of the students as options, which then they have to have a conversation with their parent about, right, and talk to them and get approval and thoughts."			
17.4	Principal Input (Child)	Identifies feedback mechanisms, guidance, and input from school principals related to master scheduling practices.	18	"So the first thing is the school leader. The school leader has to be exceedingly clear on what the academic and extracurricular strategy and vision is for their school. We do not force all of our schools to be the same It's like, you as a principal, it all has to start with clarity from the principal as to what your school is going to be. And your schedule is then built around that vision."			
17.5	Student Input/ Preferences (Child)	Identifies feedback mechanisms, guidance, and input from students related to master schedule creation.	36	"What drives the scheduling is the student choice sheets. And so the students obviously have to take math, science, social studies and reading, but then they choose their electives based off of that. And so that drives how we build it: based on what the kids want their electives to be. And then, whenever we need the core classes to be so that they can take the classes that they want."			
17.6	Teacher Input (Child)	Identifies feedback mechanisms, guidance, and input from teachers related to master scheduling decisions.	35	"And then I spend a lot of time with teachers. Especially department chairs going through, okay, now we know how many sections of English we need, who's gonna teach these sections? And you know, prioritizing their wants with kind of the direction of the admin team on any given campus, and kind of their feel for who should be teaching what course."			
18.0	<b>Timely</b> (Parent)	Comments referencing the use of Timely for master schedule creation processes and quality.	94	"So what we had to do this year with Timely is we had to get it to a place where, by a certain date, you were done in Timely. And there was like a week-long freeze on it, where Timely and our PowerSchool team worked together to transfer all of that over to PowerSchool. And so they just took everything in Timely and put it into PowerSchool."			
18.1	Benefits to Using (Child)	Identifies specific benefits to using Timely.	39	"We, as we start the year, always have students needing schedule changes for a variety of things. With Timely's work, that really reduced the amount of errors because of the built in in their system, the amount of manual checking, just reduced. And so it's more accurate."			
18.11	Innovation (Grandchild)	Refers to the innovative aspect of Timely software on master schedule creation.	6	"And Timely, this is where Timely has been helpful. On this side, once we establish the numbers, and really that spreadsheet, Timely turns around and creates section blocks, and we call them tiles here at Lubbock ISD What they do on their end is that they just, they really create everything that we need, and it matches our thresholds, and they allow the principals and admin team to play with, with the met with what the master schedule could possibly look like."			
18.2	Process Restructuring (Child)	Identifies the role and impact of using Timely on process restructuring during master schedule creation.	45	"Now, with Timely, we actually go through and say, here's your enrollment and here's the course selections that kids have actually selected, which was not a factor in my formula that I had done before. And so we actually can, with the tiles, they can determine okay, well, you need this many sections of English 2 Pre AP or AP, and then only 3 sections of regular English. And you've got a teacher that can do that so there's no need to have 2 teachers, that teacher can just have 2 preps. So it allows us to do that."			

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19.0	Transitioning Between Years (Parent)	Addresses the various perspectives stakeholders have about how to approach transitioning the master schedule between academic years.	57	"What I see is that a lot of things are plug and play in terms of year to year. People don't make larger changes or it takes a lot to make a larger change: to move from a 5 period day to a 6 period day, or vice versa, or adding a new course. It takes resources, it takes time to think those pieces through, and there has to be good motivation, I guess, is really what it comes down to."
19.1	<b>Communicati</b> on (Child)	Identifies various communication strategies between master schedule builders and stakeholders as the new master schedule is created and distributed.	12	"So for me, there was always transparency and communication. And, you know, that's kind of a person dependent thing, but I would say, in general, I think that's something that we try to impress upon all of our staff that are involved in the master schedule: to communicate often and openly with everyone as early as possible. You don't want to wait till the last minute."
19.2	<b>Hybrid</b> Approach (Child)	Refers to practices where aspects of previous years' schedules are retained in or inform new schedules, balancing continuity with necessary adjustments.	18	"I mean, things are gonna change year in and year out. Just again, because student interest and student choices drive the programming so much. And so, for the most part, it's not set in stone year after year, but you're gonna need this many classes of orchestra and this many classes of band and those types of things. So for the most part, I mean, the only thing that's gonna change around is going to be individual classes based on when the kids have time in their schedule to take English or to take art, those types of things."
19.3	Roll Over (Child)	Refers to practices of copy and pasting the previous year's master schedule for the next year, emphasizing the time-saving aspect of this approach.	8	"And when I did it 15 years ago, we didn't have the nice computer programs that we have now, that'll tell us who those kids are that have the tricky ones whose schedules aren't working. It was really just: how have we done it in the past? What from last year hadn't worked well that we might shift around? And then, once school started, you figured out what didn't work well this year. And sometimes we make changes throughout the year."
19.4	Start from Scratch (Child)	Emphasizes a fresh approach each year, building schedules anew based on current student needs and course offerings rather than simply modifying previous years' schedules.	10	"The schedule has to be scrapped and you start fresh every year. There was not one year that I did this that I rolled a schedule forward. There is no way that this year's kids need exactly what last year's kids needed. That's just impossible. And then you end up with a worse schedule."

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