

# CHAPTER 1

.....

## THE INVISIBLE HAND OF EQUITY

### WHY SCHEDULING MINDSETS MATTER

*The schedule should make possible the best educational program for each individual pupil.*

—Wilbur Devilbiss

It was years after he graduated from high school, and after he became an engineer, before Terrence was finally able to articulate that something wasn't right with his math placement in high school. In ninth grade, he was assigned to a Pre-Algebra class. He didn't know why, and his parents certainly didn't have time to find out. His parents were first-generation immigrants from Haiti living in a mid-sized urban area in the Northeast, were busy holding down multiple jobs to keep food on the table, and they trusted the school to schedule their son in the classes he needed to graduate on time and with options.

Terrence was a bright student, but he often found himself bored and not particularly engaged in his classes. The work was easy for him in the Pre-Algebra class, and he was earning good grades. Over the next two years, Terrence took Algebra 1 and Geometry, both of which he passed with ease, fulfilling his state's graduation requirement.

It was his senior year when Terrence suspected he was not on a four-year college track. His college-bound friends were all in Pre-Calculus, the minimum course needed to enroll in a business program in the type of four-year college he envisioned for himself. But his counselor hadn't even recommended he take math, since he was already done with his requirements. Because Terrence's transcript courses limited his options, he gave up on what he thought was a silly fantasy anyway.

For the next couple of years, Terrence bounced around through community college and a series of minimum-wage jobs. He eventually completed his basic courses and transferred to a state school. It was a few years later when he completed his MBA that he really started to understand how deeply scheduling had affected his life. He wondered, "How could a student who was able

to major in business and earn an MBA in finance be tracked into the lowest levels of math in high school?”

It's a good question, and it's why scheduling mindsets matter.

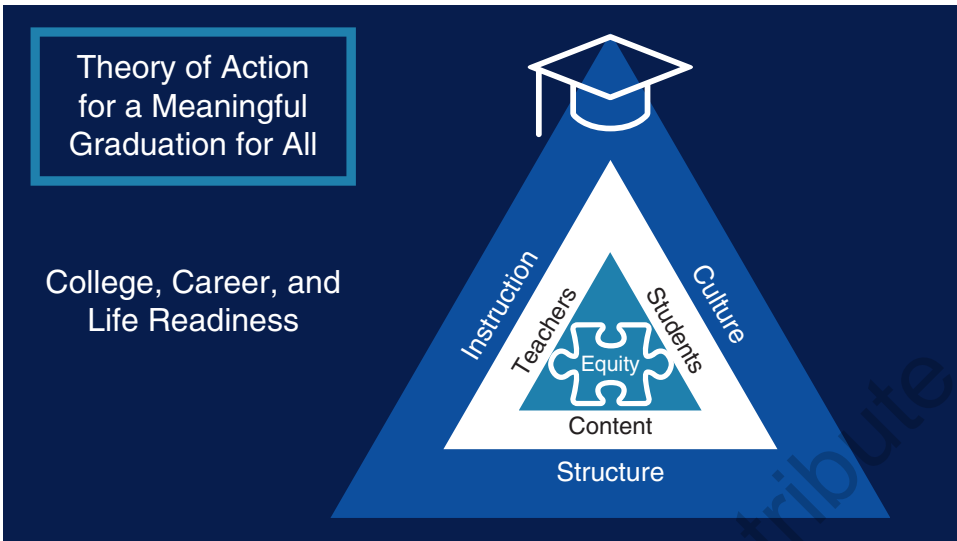
## THE PROBLEM

In 1991, Asa Hilliard asked, “Do we have the *will* to educate all children?” Consider how this would be answered today. Are all students being educated with the goal of high achievement levels to be successful in today's global economy? Are schools meeting the social and emotional needs of all students considering how they experience pandemics, climate change, school shootings, racial unrest, social justice movements, social media, and so on?

To create a system in which all students achieve at high levels, learners must have access to highly qualified educators who hold high expectations. Educators must believe that each student can learn when provided an appropriate and relevant learning environment. Because this is not the current reality for all students, school leadership at all levels must take the necessary steps to reach a more ideal state. This book takes the approach that the first steps to achieve these goals can be implemented through highly structured and tightly held secondary school schedules. By confronting the status quo of how schedules are typically implemented at the secondary level and shifting scheduling team mindsets to make change, best practices in curriculum, instruction, and assessment can be implemented to produce equitable student outcomes.

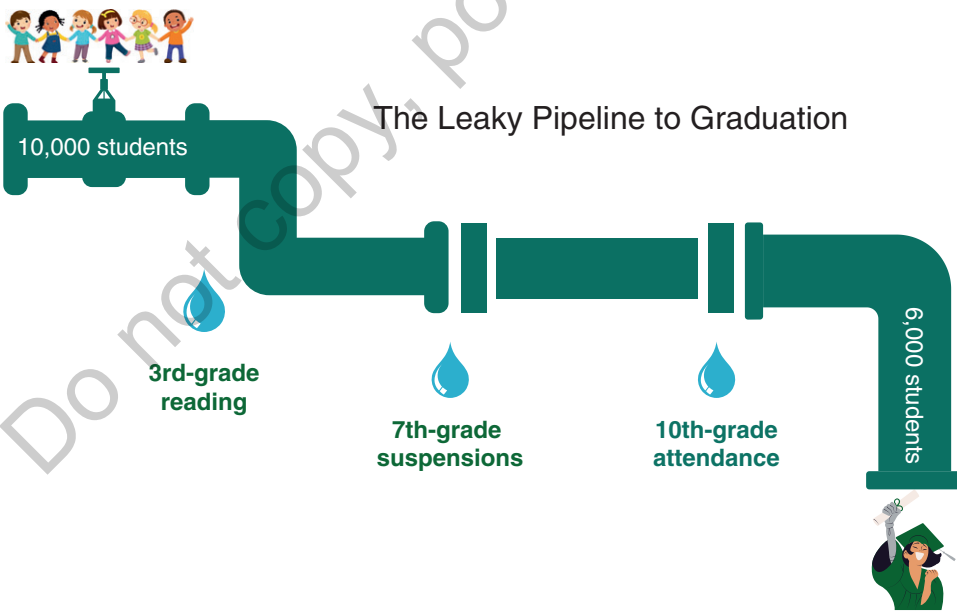
Traditional conversations about high school reform have focused on the importance of shifts in instructional practices as the greatest lever for more equitable student results (Bondie et al., 2019; Chetty et al., 2014). Yet, for over one hundred years, long-held practices in education have demonstrated that a focus on curriculum, instruction, and assessment in the absence of structure does not serve all students equally (Bae, 2017; Buczala, 2010; Chenoweth, 2016; Clay et al., 2021; Pisoni & Conti, 2019). Instructional changes in the absence of structural support put in place to protect the way teachers, students, and content interact are slow at best and futile at worst. This book is grounded in the belief that powerful instructional changes must be supported by effective structures that change the way students and teachers interact meaningfully with content (City et al., 2009). The by-product of a system that has aligned structural and instructional efforts is a school-going culture focused on postsecondary success for all, as shown in [Figure 1.1](#).

Reimagining a tightly structured schedule that prioritizes providing supports for all students is a strategy to avoid what has been described as the “Leaky Pipeline to Graduation” (see [Figure 1.2](#)). When schedules do not meet the needs of students, whether that be through targeted intervention, language



**FIGURE 1.1 THEORY OF ACTION**

This is a theory of action for schools that prioritize equity at the core. The triangle reflects the important balance among structure, instruction, and culture at a school site. When school leaders build structures that protect instructional strategies and allow students, teachers, and content to interact in meaningful ways, the result is a school culture where all students see themselves having a postsecondary future. School schedules act as powerful structures in this culture.



**FIGURE 1.2 THE LEAKY PIPELINE**

The leaky pipeline to graduation that prohibits many students from achieving their goals.

support, specialized programming, or advanced course work, the result is a pipeline from PK–12 that leaks students. The students lost are typically either not programmed to graduate on time or are denied access to the tier 1 mainstream environment through push-out strategies, and both actions are grounded deeply in mindsets about who can and can't learn.

Once students are pushed out of the tier 1 mainstream (general education) environment, it is very hard to re-enter, and historically push-out structures meet compliance regulations but don't regularly result in meeting grade-level mastery goals (Education Commission of the States, 2005; Kelly & Carbonaro, 2012; TNTP, 2018; Yonezawa et al., 2002). The result is a pipeline where students are lost and/or don't experience a meaningful graduation that leads to postsecondary success, and unfortunately these outcomes are disproportionately experienced by students of color and other marginalized student groups. Because of this, scheduling mindset shifts that lead to changing practices and improved outcomes are a moral and ethical imperative.

### Why Does This Problem Exist?

Secondary school schedules dictate how students and educators move through time and space, serving as powerful levers to help school and district leaders actualize their vision for student learning. Schedules are at their best when they intentionally align physical space, personnel, and curriculum toward equitable graduation and postsecondary outcomes. According to the National Association of Secondary School Principals (2011),

*The [Site] Schedule is to a school what grading policies are to teachers and classrooms. It reveals the true beliefs, attitudes, values, and priorities of the school. The school's [Site] Schedule is like looking at an MRI of the inner workings of a school. It is the window to the soul of the school. (p. 1)*

For over a century, scheduling in schools has been used as a sorting mechanism—a way to move students from one classroom to another, typically in isolation from each other and too often based on student age and (perceived) ability (Callahan, 1964; Education Commission of the States, 2005; Meyer, 1977; Spring, 2019). Jeannie Oakes (2005, 2008) defined student tracking as the process whereby students are divided into categories based on their perceived ability level so they can be assigned to groups. Whether this is intentional or incidental, students often find themselves placed in learning environments based on how others perceive their capabilities. Often entire demographic or socioeconomic groups are tracked whether they are college bound or not (Braddock & Slavin, 1992; Burriss & Garrity, 2008; Domina et al., 2016; Grissom et al., 2015; Kettler & Hurst, 2017; Yonezawa, 2000).

Even though the goal may be to provide all students in a school with the same learning experiences, research shows that tracking is harmful to students who

need more support and personalization (Domina et al., 2016; Kalogrides & Loeb, 2013; Nord et al., 2011; TNTP, 2018). These practices perpetuate the sorting of students and inequities that have existed in education for over a century. Schedules are seen as a logistical process and are routinely static from year-to-year, rolled over in a student information system or in online scheduling software with new courses pigeonholed into an already-existing structure.

Far from being an insignificant way to measure time throughout the day, school schedules matter because they represent the values and priorities of classrooms, schools, and systems. Whether it is the way a teacher organizes the daily flow of instruction, the way a high school principal organizes staff, students, courses, and periods over the school day, or the way a district-level director sequences the course of study, the policies and decisions around scheduling impact outcomes for underestimated students<sup>1</sup> in profound ways (Braddock & Slavin, 1992; Chetty et al., 2014; Grissom et al., 2015; Kalogrides et al., 2013; Kalogrides & Loeb, 2013; Kettler & Hurst, 2017).

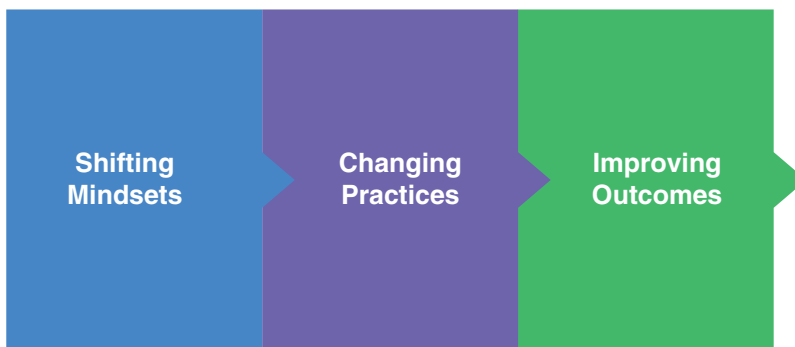
Schedules have traditionally been approached logistically and in secrecy. Hidden from view, a few select staff solve a complex puzzle with the goal of balancing student “butts in seats” and providing teaching assignments that meet the “druthers” of staff. The result is that secondary schedules do the job they were designed to do—sort students toward the same predictable outcomes each year. Too often this sorting is the result of gatekeeping, which can happen at many levels and can affect students at so many points in their academic careers. The gatekeepers create sections, set prerequisites, and assign teachers—all of which can preclude and exclude certain students from classes they need to set them up for success (Clay et al., 2021).

*The policies and decisions around scheduling impact outcomes for underestimated students in profound ways.*

It is through the schedule that students gain access to course work, teachers, and opportunities that define the difference between graduation and a meaningful graduation. Viewed in this light, the school schedule is the invisible hand of equity. Scheduling teams that operate *without* a growth mindset are the greatest barriers to achieving educational equity. Thus, the question facing the school system at its very core is, “**How does a shift in scheduling team mindsets result in scheduling practices that produce equitable student outcomes?**”

---

<sup>1</sup>“Underestimated students” refers to those students who have the potential to do great things, but may not be given the opportunity to achieve to their potential for many reasons, among those being stereotypes, place of birth or residence, lack of resources, unchallenged paradigms, they don’t know what they don’t know, and so on (Sammy Ortiz, published in *Micro is the New Macro*, March 13, 2020).



**FIGURE 1.3 SCHEDULING THEORY OF ACTION**

The steps of the theory of action to create a schedule with equity at its core.

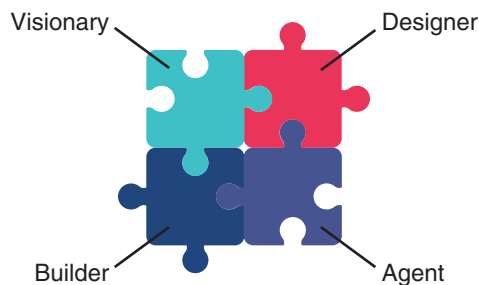
Turning this essential question into a theory of action (see [Figure 1.3](#) and chapter 2), the focus of this book is on shifting scheduling team mindsets, which leads to changed practices, and ultimately improves outcomes for all students. This book will not teach the reader the technical and logistical aspects of scheduling. There are websites and resources available for this more detailed and specialized work within the student information system (College & Career Alliance Support Network, 2018). Rather, this book will lead scheduling teams through the process of confronting the status quo to shift mindsets to employ strategic scheduling design that leads to improved outcomes for students. These scheduling teams will become the **Architects of Equity**.

## DESIGNING SCHEDULING TEAMS THAT ARE ARCHITECTS OF EQUITY

*Sometimes administrators construct schedules as if schools were created for the convenience of teachers rather than the instruction of pupils.*

—Wilbur Devilbiss

Leithwood et al. (2004) state that leadership is second only to classroom instruction in terms of impact on student learning. Leaders must use their positions to right the wrongs of past practice with the school schedule, first by bringing together an equity-focused team with a student-centered mindset. Scheduling teams composed of a diverse cross-section of stakeholders from a school site or district can use their positions to view the schedule holistically and in support of access and opportunity for all students. These teams must prioritize equitable practices focused on eliminating tracking and sorting that typically benefit only students who are recognized as motivated, and college bound. Traditional scheduling team practices have created “agents of



**FIGURE 1.4 ARCHITECTS OF EQUITY**

The four major roles involved in creating an equitable schedule.

compliance” (Clay et al., 2021), whereas scheduling teams operating with a growth mindset can be Architects of Equity.

Scheduling teams that act as Architects of Equity are composed of four important roles (see Figure 1.4). This does not mean teams are necessarily composed of only four people or that one person cannot assume more than one role, but rather that these four positions must be filled for balanced and successful collaborative scheduling practices. The work described below includes technical aspects of scheduling, but the focus is on the relational work that must be done to enact a truly inclusive and collaborative process. Ultimately, neither the technical nor the relational can occur successfully without a strategy.

The first role is that of the **visionary**, or the school leader. The schedule of a school is the site leader’s road map to excellence. It is a map that is not static but is rather adjusted each year as student populations and needs ebb and flow with each new group of students. The visionary supports the scheduling team to see the connections between how fiscal and human resources for the upcoming year will support intentional structural and instructional strategies that will lead to desired student outcomes over the next 10 months. The visionary must communicate clearly and strategically how students and staff exist within the schedule to meet these goals.

The next role belongs to the **designer**. This person deeply understands the vision and knows which resources are necessary and available to enact what the school leader has communicated. The designer works with staff and community members to ensure that all students have access to the courses they need for postsecondary success. The designer is not afraid to collaborate with a broad coalition of stakeholders to create a scheduling blueprint consistent with the school’s vision and desired outcomes. The designer does not see boxes, easy rollovers, or barriers, but rather manifests what the leader envisions for all students.

The **builder** is responsible for exporting the designer’s blueprint into the student information system (SIS). The builder is an expert on finding

creative (and legal) ways to ensure that the SIS does not become a barrier to implementing desired life-changing strategies for students. Once the builder completes a draft of the blueprint, the entire scheduling team is invited into a cycle of review to discuss any potential barriers and/or challenges that may arise due to changing factors like attendance, grades, compliance, and so forth.

Finally, the **agent** is a critical member of the scheduling team because he or she is an ongoing advocate who ensures that each student has the appropriate courses needed for a meaningful graduation. Typically, agents are the counselors in this ecosystem. They are adept at relational work, as they navigate the world between students and teachers regularly.

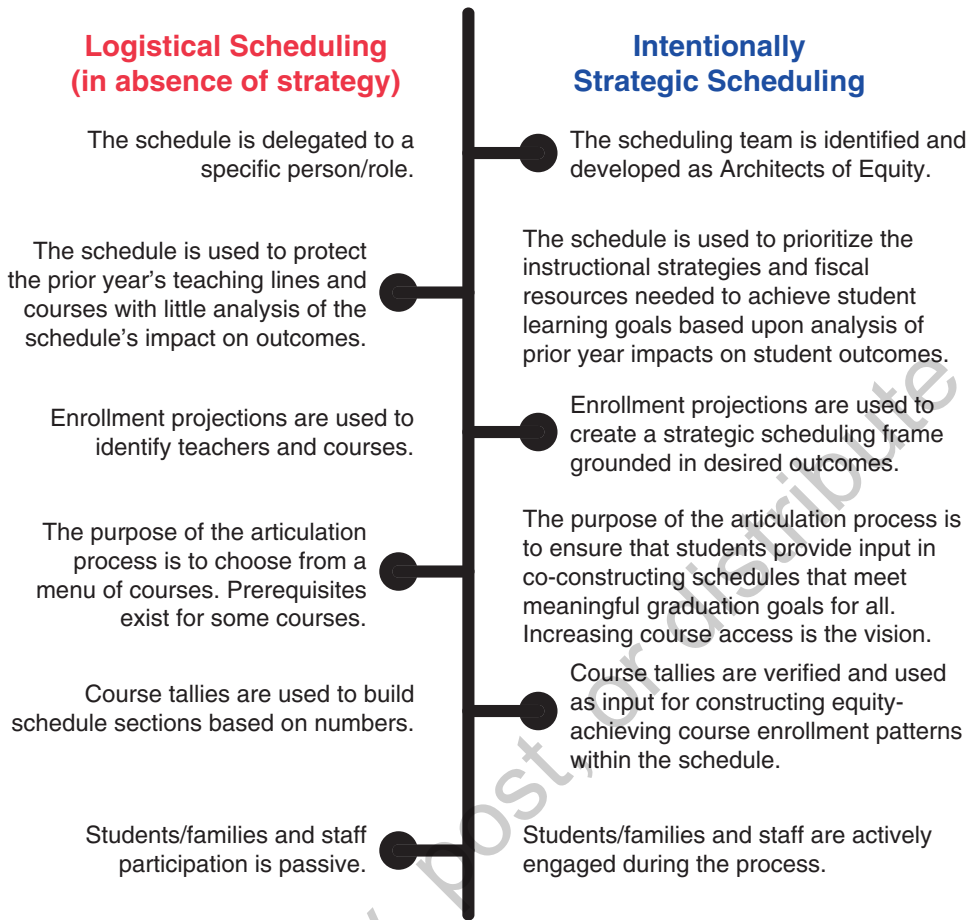
**Architects of Equity do not work in isolation.** Scheduling is a highly collaborative and interactive process between members of the scheduling team, as well as with internal and external stakeholders. It is an iterative and fluid process that includes new ideas, revisions, and epiphanies. To achieve scheduling goals focused on equitable outcomes, these four scheduling roles must develop a cadence of team accountability that is grounded in a growth mindset.

## FLIPPING THE SCRIPT: LOGISTICAL SCHEDULING VERSUS STRATEGIC SCHEDULING

As students advance to secondary schools, student placement in courses becomes progressively more complex and tracked, creating intricate schedules often separating entire groups of students in large schools. These tracks are seen across such groups as English learners, students with disabilities, and advanced placement students, resulting in isolation along racial, ethnic, linguistic, and economic lines (McFarland et al., 2018; Oakes, 2005, 2008; TNTF, 2018; U.S. Department of Education, 2014). Continuing these practices and rolling over schedules are exactly the shortcuts that must be avoided if students' needs are going to be met.

Too often, schedules are determined for teacher convenience, teacher seniority, and teacher requests. Many times, excellent teachers are not equitably distributed among students and classes (Bruno et al., 2019; Chetty et al., 2014; Darling-Hammond, 2002; Goldhaber, 2023; Kalogrides et al., 2013; Levitan et al., 2022). Teachers with the most experience are typically in leadership positions and can secure the sections of courses with higher-achieving and/or older students. Luschei and Jeong (2019) found that inequitable teacher sorting and assignment patterns emerged most often with veteran teachers less likely to teach at-risk students. In lower-income and more transient neighborhoods, students are often in schools with higher teacher vacancy rates and are placed in low-track courses (Oakes, 2005, 2008). These students too often receive lower-quality instruction and have lower graduation rates (Alhadabi & Li, 2020; Chetty et al., 2014).





**FIGURE 1.5 LOGISTICAL VERSUS STRATEGIC SCHEDULING**

What happens when logistics are prioritized over strategy when scheduling.<sup>2</sup>

To better serve all students, site and district leaders must consciously decide to disrupt the reality of schools upholding and participating in the structural inequalities so well documented in education. This can be done by creating schedules grounded in equitable practices. Figure 1.5 demonstrates flipping the script on traditional scheduling by prioritizing being intentionally strategic over merely being logistical.

High levels of educational attainment, including the minimum high school diploma, are correlated strongly with positive results in life, such as better overall health, higher earnings, family stability (Hahn et al., 2015; Wilson & Tanner-Smith, 2013; Zajacova & Lawrence, 2018). The schedule can be used by scheduling teams to expose students to excellent teachers and increase

<sup>2</sup>One of the authors of the book was interviewed for *About Time: Master Scheduling and Equity*, a report published by the Center for Public Research and Leadership at Columbia Law School (Clay et al., 2021). The report frames scheduling work as logistical and strategic for much of the discussion. We credit the report for contributing to our work.

academic gains through targeted sequencing of courses and student placement. By intentionally disrupting past logistical practices and strategically scheduling students to increase high school graduation rates and create a strong foundation for postsecondary college and career readiness, equity-driven schedule design creates access and opportunity for each student.

## Addressing Change: The Elephant in the Room

The word *change* can mean to alter or modify, to make different in form, and to replace or exchange with something else. School site leaders are often called on to lead change while being sensitive to the many reasons why change in programs or procedures are needed and becoming more urgent. Despite the difficulties often encountered when attempting significant change in education, change seems to have become or is at least perceived to be a way of life in schools and districts, especially in a post-COVID-19 world.

In *The Principal*, Michael Fullan (2014) writes about resistance to change in schools. The fear of the unknown is not something new to humans. It is much easier to maintain the status quo since the outcome (like it or not) is known, which is more comfortable for most than what might be lost with the unknown. Often those who are most against change are the loudest in the room, and those who might be in favor of change are reluctant to express their support because they are timid or fear it will upset their colleagues. Yet, we also know that schools are not serving all students and the only way to change the outcome is to change the narrative, which means disrupting the status quo. As Fullan (2014) states, this is where it takes real courage as a leader to be a proponent of change and help others through the process.

Strong scheduling teams are needed when a school or district is considering a new schedule. The school schedule gives many people the structure and comfort needed to plan their lives, commutes, breaks, and so forth. For some, the schedule provides identity, purpose, and belonging. Acknowledging that disrupting inequity can be very scary for some people, even when it is understood that the schedule is not meeting the needs of every student in the school. This is an important step in the process, but should not be a barrier to change.

*The only way to change the outcome is to change the narrative, which means disrupting the status quo.*

## MAINTAINING FOCUS

Aligning a school's vision and mission within the schedule is the key to equity. School leadership must be supportive and creative, allowing time and space for the staff to grow into their own with the school schedule. By maintaining this focus, teacher time and assignments, and student time and course work can be arranged to serve the learning and developmental needs of all students (Bae, 2017).

The schedule is a road map that reveals the connection between a vision for learning and the human and fiscal priorities committed to those strategies (Clay et al., 2021). If some students benefit from co-requisite support, then funds must be allocated for those classes. If personalization and interdisciplinary work are critical to the mission and goals, then courses and collaborative planning must be provided. If the administration believes in equity, then the schedule and the allocation of resources will reflect the equitable distribution of resources and access.

*The schedule is a road map that reveals the connection between a vision for learning and the human and fiscal priorities committed to those strategies.*

The way schools organize the schedule has a significant effect on how students progress through schools, what expectations have been established for different groups of students, and how much time teachers spend interacting directly with students. The collaborative, equitable scheduling process helps leadership teams avoid the typical tracking and sorting model by providing an excellent experience for each student. The traditional system has failed to provide access and opportunity for all students. Those who have been served by the traditional way of scheduling are those for whom it was designed—college-bound students who are tracked to take college preparatory courses. Only by implementing an intentional, strategic, equitable system can those historically underserved be given access to the same opportunities including career readiness courses.

The next chapter will unpack the theory of action. It will explore how the status quo serves to maintain systemic and institutional barriers to equity in educational practices, specifically through the schedule in secondary schools. A framework will be offered to support scheduling teams as they confront the status quo and get their mindsets ready to refine their personal equity lens prior to attempting technical scheduling changes.



## Chapter 1 Self-Reflective Questions

### Chapter 1 Individual Reflective Questions

- How does scheduling currently take place at your district/school?
- What is your role in the scheduling process?

*(Continued)*

(Continued)

- What is your mindset when it comes to creating the schedule?
- In what ways might you assess your values, beliefs, and assumptions about constructing the schedule?

### **Chapter 1 Team Reflective Questions**

- How does scheduling currently take place at your district/school?
- How are responsibilities divided among the team in the scheduling process?
- What is the timeline for scheduling at your district/school?
- In what ways might you assess the team's values, beliefs, and assumptions about constructing the schedule?
- How would the team answer the following question: Is the schedule equitable for all students?

Do not copy, post, or distribute