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FEATURE

# Making the Most of Student Time amid Staff Shortages

*by Richard Viard and Craig Gibbons*

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# Making the Most of Student Time amid Staff Shortages

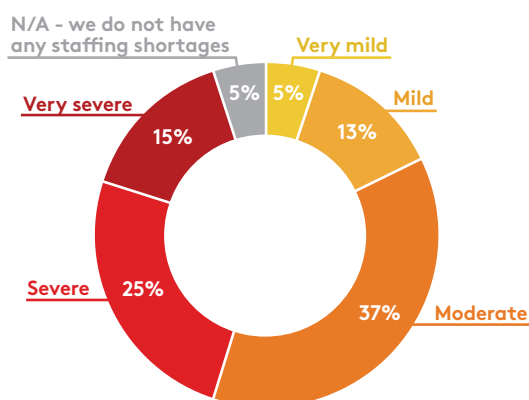
Richard Viard and Craig Gibbons



While vaccinations, the decline in hospitalization rates, and the significant lifting of mask mandates have allowed a return to some sense of normalcy, the still-ongoing pandemic and the enormous challenges of the past two years continue to take a substantial toll on schools in the form of staff shortages. In a fall 2021 *Education Week* survey, 25% of school districts reported their staff shortage issues as “severe” and 15% rated the shortage issues as “very severe,” while 37% said staffing challenges were “moderate” (*Exhibit 1*). Just shy of half of respondents identified full-time teachers among the roles they are struggling to fill.<sup>1</sup> As of winter 2022, 44% of public schools report having teacher vacancies in a nationally representative survey of 670 public schools conducted by the National Center for Education Statistics.<sup>2</sup> Some of the country’s largest districts reported having thousands of unfilled positions as of late October; to make matters worse, high-poverty districts are getting hit disproportionately hard.<sup>3</sup>

**Exhibit 1 40% OF SCHOOL DISTRICTS REPORT STAFF SHORTAGES AS SEVERE OR VERY SEVERE**

How much of a problem are staffing shortages at your school/district this school year?



Source: EdWeek Research Center survey, 2021.

Now more than ever, schools need to find ways to meet the needs of all students by efficiently leveraging the talents of their current staff. Scheduling strategically can help make the most of staff and student time. Here, we share some scheduling strategies for maximizing the reach and impact of teachers in order to meet the needs of their students.

## 1 Look for opportunities to reduce the number of classrooms or class blocks.

At the elementary school level, reducing the number of classrooms is an obvious option to consider when faced with staff shortages. Of course, this directly impacts class size, but it might have a smaller impact than you think. Before ruling out this option, take into account students who spend most of their time in substantially separate classrooms, or who are remote-learning students, or who are in other settings outside the general education classroom.

At the middle school level, the classic “middle school model” is a configuration in which each grade has four or more teachers focused on a single subject—e.g., ELA, math, science, and social studies. Schools feel obliged to have at least four teachers for each grade to provide content expertise, and students cycle through every subject each day. When facing staff shortages, schools may consider offering science and social studies on alternating cycles such as an A/B day (consequently increasing the length of core blocks); this approach can allow the science and social studies teachers to be shared across grades (*Exhibit 2*).

### Exhibit 2 MIDDLE SCHOOL APPROACH TO CONSIDER—A/B DAYS

Typical middle school configuration				Alternative Approach			
Four classrooms/teachers per grade.				Alternating science and social studies on A/B days allows science and social studies teachers to be shared across grades.			
7				7			
a	b	c	d	a	b	c	
8a-9:10a English Language Arts	8a-9:10a Math	8a-9:10a Science	8a-9:10a Social Studies	8a-9:30a English Language Arts	8a-9:30a Math	8a-9:30a Science Day A	8a-9:30a Social Studies Day A
9:10a-10:20a Social Studies	9:10a-10:20a English Language Arts	9:10a-10:20a Math	9:10a-10:20a Science	9:10a-9:55a Unified Art	9:30a-11a English Language Arts	9:30a-11a Math	9:30a-11a Science Day B
10:20a-11:05a Unified Art				9:55a-11:05a Social Studies	9:55a-11:05a English Language Arts	9:55a-11:05a Math	9:55a-11:05a Science
11:05a-11:35a Lunch				11:05a-11:35a Lunch			
11:35a-11:50a Recess				11:35a-11:50a Recess			
11:50a-1p Science	11:50a-1p Social Studies	11:50a-1p English Language Arts	11:50a-1p Math	11:50a-1p Science	11:50a-1p Social Studies	11:50a-1p English Language Arts	11:50a-1p Math
1p-2:10p Math	1p-2:10p Science	1p-2:10p Social Studies	1p-2:10p English Language Arts	1p-2:10p Math	1p-2:10p Science	1p-2:10p Social Studies	1p-2:10p English Language Arts

Source: DMGroup.

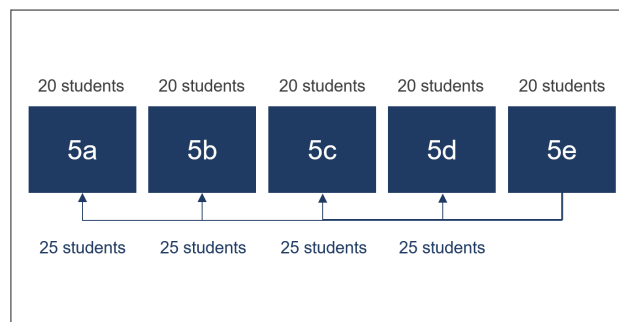
## 2 Regroup students during specials to reduce the number of specials teachers needed.

While reducing the number of elementary classrooms may not be possible, there may be an opportunity to regroup students into fewer classrooms during specials. By splitting the students of one classroom across the other classrooms for specials, the number of specials teachers needed can be reduced.

For example, in a grade with five classrooms of 20 students each, splitting one classroom into the other four increases class sizes of specials only by five students (*Exhibit 3*). This tactic can be especially helpful if only one or two grades have more sections than the others, requiring an additional specials teacher for only one or two periods a day.

Another option, which may be fairer for all students, is to divide the whole grade into four classrooms instead of splitting just one classroom, thus allowing all students to socialize with different groups during specials.

**Exhibit 3 REGROUPING REDUCES NUMBER OF SPECIALS TEACHERS NEEDED**

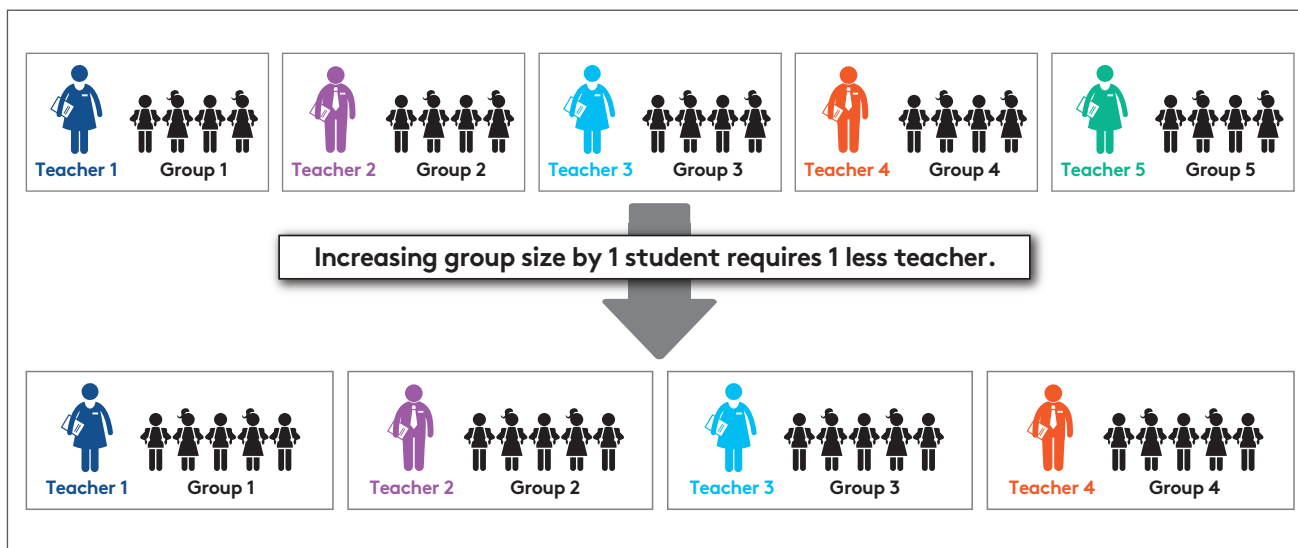


Source: DMGroup.

### 3 Scheduling intervention periods across classrooms allows for grouping based on student need.

Having a common grade-level schedule that allows intervention and small-group instruction to be scheduled at the same time across a grade makes it possible to efficiently regroup students across classrooms by areas of need. Providing more opportunities for effective and efficient regrouping can have a profound impact on the reach and impact of staff. And student needs can be matched with the teacher best qualified to meet those needs. This reduces the number of staff required to provide these services and can produce better outcomes for students (*Exhibit 4*).

**Exhibit 4 OPTIMIZE STUDENT GROUPING ACROSS CLASSROOMS BY AREA OF NEED**



Source: DMGroup.

In schools with a higher number of classrooms per grade (e.g., eight or more), you may need to schedule two intervention blocks per grade at different times so that half of the grade can be served sufficiently at one time (*Exhibit 5*).

Staggering the intervention periods of each grade enables support services staff to “flood” each grade through the day—meaning all support services staff can be directed toward one grade at a time (*Exhibit 6*). Also, keep in mind the best practice of assessing student growth and needs, and adjusting groups as needed once every six to eight weeks.

### Typical process steps:

1. Identify student groups based on their area of need (across classrooms).
2. Assign each group to the most qualified teacher for the area of focus.
3. Schedule intervention and small-group instruction blocks so that teachers can go from grade to grade through the day to cover all students.
4. Every six to eight weeks, review progress based on data and update groups accordingly; students who mastered the area of focus exit intervention or move to the next area to be mastered.

### Exhibit 5 OPTIMIZING GROUPING IN SCHOOLS WITH A HIGHER NUMBER OF CLASSROOMS

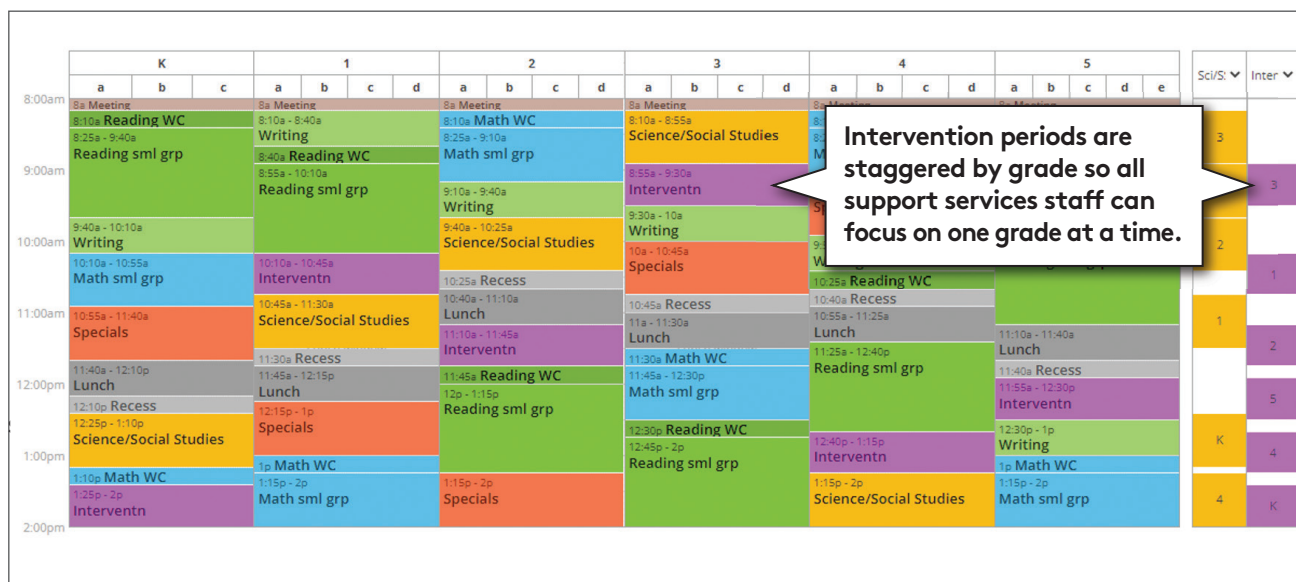
#### Grade 1 with eight classrooms:

**Intervention** is scheduled at different times for half of the grade to reduce the number of students needing to be served at the same time.



Source: DMGroup.

### Exhibit 6 INTERVENTION/ENRICHMENT (I/E) BLOCKS SCHEDULED ACROSS EACH GRADE LEVEL



Source: DMGroup.



## 4 Specifically call out whole-class and small-group time on the master schedule.

Having a master schedule that is more specific about ELA and math whole-class versus small-group instruction helps identify the small-group time when support staff may be allowed to provide push-in services (*Exhibit 7*).

Staggering small-group time by grade level also provides opportunities for support staff to cover all students through the day. Scheduling these blocks at the same time across a grade provides opportunities to group students across classrooms, maximizing staff talent and time.

Determine the best duration for these blocks based on your reading and math curriculum. Some programs call for short whole-class instruction followed by a longer period of small groups while others suggest the opposite.

**Exhibit 7 IDENTIFY SMALL-GROUP INSTRUCTION TIME TO ALLOW FOR SCHEDULING OF SERVICES**

	K			1			
		b	c	a	b	c	d
8:00am	Meeting			8a Meeting			8a Meeting
8:10a - 8:55a	Reading whole class			Science/Social Studies			Math
9:00am	8:55a - 9:40a			8:55a - 9:25a			Math
	Reading small group			Writing			9:10a - 9:40a
9:40a - 10:00am				9:25a - 10:10a			Accel.
10:00am	Writing			Reading whole class			9:45a - 10:30a
	10:10a - 10:50a			10:10a - 10:55a			Scienc
	Sci/SS			Reading small group			10:30a - 10:45a
11:00am	10:50a - 11:35a			10:55a - 11:30a			10:45a - 11:15a
	Specials			Accel.			Lunch
	11:35a - 12:00pm			11:30a - 12p			11:15a - 12:00pm
12:00pm	Lunch			Lunch			Read
	12:00pm - 12:15p			12p Recess			12p - 12:45p
	Recess			12:15p - 1p			Read
	Math whole class			Specials			12:45p - 1:15p
1:00pm	12:55p - 1:30p			1:00p - 1:30p			1:15p - 1:30p
	Math small group			Math whole class			Spec
	1:30p - 2:00pm			1:30p - 2p			
2:00pm	Accel.			Math small group			

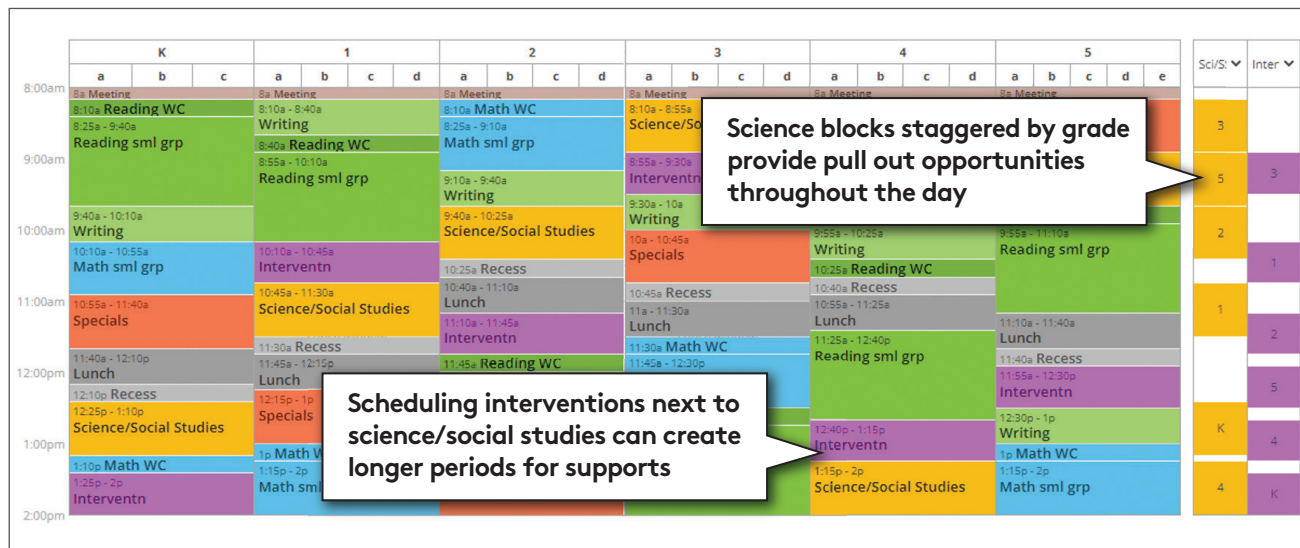
Source: DMGroup.

## 5 Identify additional opportunities to provide pull-out services throughout the day while protecting core instruction.

To most efficiently use the time of special education and related services staff, ensure they have opportunities throughout the day to pull out students for services. When intervention/enrichment periods are not enough to cover all student needs, consider leveraging other subjects (e.g., social studies/science periods in lower grades) to provide additional opportunities for pull-out services without disrupting students' core reading and math. You may also want to consider using these classes for less frequent, shorter-duration services rather than daily intensive services so that students don't always miss out on these subjects.

Using the science and social studies example, scheduling these periods at the same time for all classrooms of a grade level provides opportunities to group students across multiple classes. Being able to group students with similar needs is advantageous for students and reduces the amount of staff needed to address student needs.

Another effective strategy is to schedule science and social studies directly before or after an intervention period, providing extended time for services if needed (*Exhibit 8*). For example, if an IEP calls for 60 minutes of pull-out reading support, this could be provided during a 30-minute intervention period followed by a 30-minute social studies period.

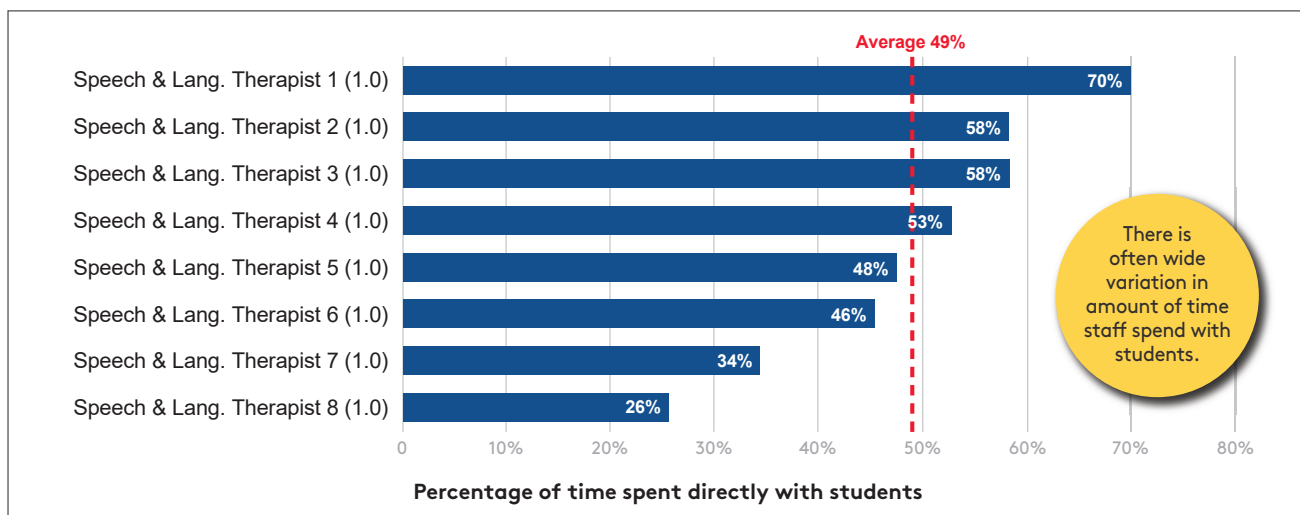
**Exhibit 8** WAYS TO EXTEND TIME FOR SERVICES

Source: DMGroup.

## 6

## Maximize support staff time with clear guidelines on direct service and group size.

Although special education administrators and teachers alike feel that teachers spend most of their time with students, our research frequently shows that much lower percentages of time are spent with students than expected. Many other tasks take up staff time, including paperwork, school duties, and IEP meetings. Some districts have been successful in reducing these activities by reassigning them to others or streamlining meetings and paperwork in favor of time spent with students. Setting guidelines on direct service (the percentage of time staff spends with students out of the total contracted work week) and group size can help increase delivery of service to students and use staff time more effectively and efficiently, possibly resulting in the need for fewer staff or more adequately supporting student needs with existing staff (*Exhibit 9*). It is useful to monitor direct service and group size metrics on a regular basis due to shifts in workload related to changing student needs.

**Exhibit 9** EXAMPLE OF A SPEECH AND LANGUAGE DIRECT SERVICE REPORT

Source: Example from a special education opportunities review conducted by DMGroup.

For example, in a small district, going from 40% direct service to 60% direct service is the difference between needing four speech and language pathologists (SLP) compared with six SLPs (*Exhibit 10*).

*Exhibit 10* THE EFFECT OF SETTING DIRECT SERVICE GUIDELINES

Direct service		Staff needed	
40%	840 min	5,040 / 840 =	6 FTE
50%	1,050 min	5,040 / 1,050 =	4.8 FTE
60%	1,260 min	5,040 / 1,260 =	4 FTE
The above analysis assumes that the contracted work week of therapists is 2,100 minutes and there are 5,040 student minutes to cover.			

Source: DMGroup.

Similarly, controlling average group size per educator can ensure that more students are supported by fewer teachers. Although it may seem that working one-on-one with students provides them with better, more focused attention, research shows that students make more progress in a group of their peers than they do when isolated with a therapist.

In Exhibit 11, Teacher 2 covers more than twice as many student minutes (and twice as many students) as Teacher 1 during the same time period by seeing students in groups of three instead of one or two.

*Exhibit 11* THE BENEFITS OF SETTING GROUP SIZE GUIDELINES

	Teacher 1	Teacher 2
Students in group 1	1	3
Teacher minutes	60	60
Student minutes	60	180
Students in group 2	2	3
Teacher minutes	30	30
Student minutes	60	90
Average group size	1.3	3
Total teacher minutes	90	90
Total student minutes	120	270
Note: Average group size = total student minutes divided by total teacher minutes.		

Source: DMGroup.

# 7 Leverage shared staff across schools based on workload and ensure they have access to all student and school schedules.

Leveraging service providers across multiple schools based on workload rather than caseload can help fewer staff support more students. Comparing service provider workload (time spent with students) can often help identify staff who may have availability to help at other schools within the district.

If possible, to maximize staff time, try to have them work an entire day at one school and then an entire day at another rather than traveling between schools during the day. Ensure that they have access to up-to-date classroom schedules for their students, and that homeroom teachers follow the schedule. This helps staff to schedule students at the most appropriate time without needing to pull them out from core instruction.

Sharing specials staff across schools can help better leverage the skills of existing staff. In Exhibit 12, each school has four specials teachers—art teacher, music teacher, PE teacher, and librarian. The three-section school needs only three specialists each day, while the five-section school needs five. (Both schools provide art, music, PE, and library on a four-day rotation.) Each day, a different specials teacher is free at the three-section school and could go to the five-section school; this alleviates the need to hire additional teachers at the five-section school.



## Exhibit 12 THE BENEFITS OF SHARING STAFF ACROSS SCHOOLS

School A 3 sections per grade					School B 5 sections per grade				
MONDAY					MONDAY				
Art 1	Music	PE	Library		Art 1	Art 2	Music	PE	Library
	501	502	503		501	502	503	504	505
	401	402	403		401	402	403	404	405
	301	302	303		301	302	303	304	305
	201	202	203		201	202	203	204	205
	101	102	103		101	102	103	104	105
	K01	K02	K03		K01	K02	K03	K04	K05

On Monday, the art teacher isn't needed at the three-section school and can work at the five-section school.

.....↑

Source: DMGroup.



## Use a dedicated scheduling solution that clearly communicates the schedule to teachers and parents, and provides real-time updates of changes.

In many elementary schools, schedules are created using Excel or Google Docs. Although these are powerful tools in their own right, they weren't designed for scheduling and fail to identify interdependencies and conflicts in a school schedule. In addition, they require a lot of manual updates when a master schedule change is made. It is also harder to ensure that everyone is working from the most up-to-date version of the schedule, since many schedules are distributed via email attachments.

Using dedicated elementary scheduling software allows principals to spend less time managing and updating the schedule, reduces the chances for mistakes or conflicts, and provides a centralized, up-to-date version of the schedule accessible from any place with an internet connection.

The list above captures just a few of the strategies that we regularly help schools put in place to maximize staff time through scheduling. Depending on which positions you have open, these strategies may or may not work for you, but we hope that they may provide some new ideas or spark ideas of your own. If you have found creative ways to maximize your schedule, we'd love to hear from you so we can continue to share innovative solutions with our community of educators. Send your ideas to us at [scheduling@dmgroupk12.com](mailto:scheduling@dmgroupk12.com). ♦

### NOTES

<sup>1</sup> Mark Lieberman, "How Bad Are School Staffing Shortages? What We Learned by Asking Administrators," *Education Week*, October 12, 2021, <https://www.edweek.org/leadership/how-bad-are-school-staffing-shortages-what-we-learned-by-asking-administrators/2021/10>.

<sup>2</sup> Naaz Modan, "NCES: Nearly Half of Public Schools Impacted by Staffing Shortages, Resignations," *K-12 Dive*, March 3, 2022, <https://www.k12dive.com/news/nces-nearly-half-of-public-schools-impacted-by-staffing-shortage-resignat/619732/#:~:text=Shortages%20also%20extend%20beyond%20the,custodial%2C%20nutrition%20and%20transportation%20staff>.

<sup>3</sup> D. Goldhaber and T. Gratz, "School District Staffing Challenges in a Rapidly Recovering Economy," CALDER *Flash* Brief No. 29-0122 (Arlington, VA: National Center for Analysis of Longitudinal Data in Education Research, 2022), <https://caldercenter.org/sites/default/files/CALDER%20Policy%20Brief%2029-0122.pdf>.