

The Promise and Challenges of Pandemic Innovation in High Schools

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When COVID-19 forced schools to close in spring 2020, education observers wondered if the pandemic would be the jolt public education needed to reinvent the way learning happens. At the time, few Americans, if any, expected the disruptions to persist through the entire 2020–21 school year and into the next. And few fully appreciated the challenges students, parents, teachers, support staff, and administrators were about to endure.

The learning environment for adolescents was unequivocally tumultuous. But did the year’s disruptions and necessary adaptations and inventions create the potential for change in New England high schools?

In summer 2020, CRPE, with support from the Barr Foundation, began observing and learning from students, parents, and educators in New England high schools as they navigated the uncertainty of the pandemic. We wanted to see what challenges and opportunities they faced, the ways in which they adapted to disruptions, and the new strategies and capacities that took hold.

We targeted high schools because they have proven highly resilient to change; we were curious to know how dramatic disruptions to the form and function of schooling might alter the curriculum and pedagogy of high schools. We also felt an obligation to focus on the needs and challenges of adolescents, who undergo rapid development during high school. The social and academic experiences of high school play an important role in this growth, and there are few years left in their K–12 experience to make up for any lost time. We wanted to understand how the pandemic year unfolded for these students: what they lost, what they gained, and what footholds for change emerged.

New England offered an intriguing context for this work. Since the late 1800s, the region has been home to some of the nation’s most progressive education leaders. These days the region—which comprises Connecticut, Maine, Massachusetts, Maine, New Hampshire, Rhode Island, and Vermont—is rich with organizations focused on education innovation. Many New England districts use competency-based assessment, which in place of traditional grading allows students to progress through curriculum as they demonstrate competence on specific skills and expectations. Many schools have developed graduate profiles that define a student’s success through a battery of academic, interpersonal, and dispositional outcomes. State education agencies in New England have been, at different points, leaders in adopting policies that support new career pathway programs.

Throughout the 2020–21 school year, we tracked the reopening and instructional politics of 86 New England school districts and charter management organizations and conducted deeper qualitative research in four of them (see chart). That included monthly interviews with 18 parents and teachers; two waves of deep-dive interviews in the winter and spring with high school teachers, principals, and superintendents; and focus groups with high schoolers. The largest district we studied had 14,400 students, and the smallest had 4,500; consistent with the diversity of New England communities, the districts ranged from nearly all students of color to nearly all white.

SYSTEM CHARACTERISTICS		1	2	3	4	5
	State	CT	ME	MA	MA	RI
	System Type	Public District	Public Consolidated District	Public District	Charter Network	Public District
	Urbanicity	Urban, Small	Rural	Suburban, Large	Urban, Large	Suburban, Large
	High School Instructional Model	Hybrid	Hybrid	Remote	Remote	Remote
	High School Instructional Model	Hybrid	In-person	Hybrid	Remote	Hybrid
	# of High Schools	1	3	1	1	1

Educators and families described an uphill climb on what sometimes felt like a sheer and slippery rock face. It was difficult to act with clarity when surrounded by stress and disruption. Nationally, teachers reported that 13 percent of high school students were absent each day on average in 2021—approximately twice the prepandemic rate. The Centers for Disease Control and Prevention reported that mental health emergency visits among adolescents aged 12 to 17 years of age increased by 31 percent during 2020, and visits for suspected suicide attempts began to increase among adolescents, especially girls.

In focus groups, students conveyed the gravity of these national data. Despite some creative solutions and strong relationships, many teenagers reported that school became much harder and much less gratifying. This was on top of existing inequities, which in many ways worsened during the pandemic.

Yet some educators and administrators used this moment to redesign high school. Despite the year’s challenges—and, in many cases, because of them—schools introduced innovative, student-centric practices that could address longstanding issues in public education. But the innovations are tenuous and could easily be lost in the rush to return to normal. The challenge now

is to maintain a commitment to newly crystalized visions of innovation while helping students recover academically. As we head into 2022, it is worth taking stock of what opportunities emerged in the 2020–21 school year.

Schools made pandemic pivots of all sorts

Out of the chaos and urgency of the pandemic, a lot changed in schools. Access to and engagement with learning technology soared. Teachers gained a new understanding of the disparate personal challenges their students face. There were alterations to how classrooms were structured, what curriculum was delivered and how, how educators and administrators set goals for students, and—of course—how schools systems operate and engage with partners. By embracing, sustaining, and building upon these developments, we could usher in an era of discovery and change in public schools that addresses inequities that have persisted over generations, especially for students from marginalized populations.

Teachers sought more technologically advanced and flexible classrooms

The greatest upheaval during the pandemic was in the overall nature of the classroom and the work students and teachers do together. For the most part, remote and hybrid learning dampened the quality of exchange among students. It required teachers to adopt new instructional models and revise their curriculum and lessons. And it entailed a massive, rapid rollout and scale-up of technology for learning. Nationally and in New England, districts purchased and distributed devices to every student. School districts worked with broadband vendors, community partners, and families to secure home Internet access.

Principals observed that use of technology became more coordinated and impactful, as teachers and schools took a crash course on software tools. A RAND survey found that 30 percent of districts across the nation adopted a new learning management software system during the pandemic. Each of the school systems in our study already had a learning management system in place before the pandemic, but in some cases educators and administrators got serious about vetting and training staff on these and other software tools. One district in our sample collaborated with teachers to identify the most valuable software, organized a list of preferred tools, and provided training on them. “Technology had always been a tool [in our school],” one principal reflected. “It was now being used as an instructional tool.”

One teacher recounted how students were uncomfortable about giving answers out loud, especially in a virtual setting. She started using Nearpod, an application for interactive instruction and presentations, to generate more contributions from students, some of whom were at home and some of whom were in the classroom. With some people typing and others speaking, she shouldered a greater responsibility for managing the conversation: “I have to guide through all of that and process everything for them because they’re not hearing each other the same way,” she said. “Everything has to go through my filter. Even if I pose a question and somebody in the room answers out loud, I have to repeat it, because the people at home can’t hear them.” She made a conscious effort not to put her own spin on comments and simply make sure that all students were part of the same conversation, but it was logistically challenging and exhausting.

A world languages teacher explained how she and her colleagues gradually gained confidence with technology. “I’m definitely doing better than in the fall, and I hope that’ll be even better in September,” she said in spring 2021. She used the analytic functions in quiz software to identify which questions were difficult for kids and collected weekly reflections from students about the technologies they piloted together, such as Screencastify, which recorded lessons, enabling review. The technology tools freed up teachers’ time so they could focus on instruction, and seeking feedback from students about the apps encouraged students to take ownership of their own education.

Hybrid and remote schedules provided for more flexible use of time. Each of the systems in our sample used longer learning blocks to cut down on the number of transitions students made during the day. These longer blocks gave teachers and students more opportunity to spend more time on certain lessons, with different types of instructional approaches. Still more flexibility was offered via a designated remote learning day (typically Wednesday), during which no classes were scheduled. Instead, students worked independently, attended office hours with teachers, or—in some schools—engaged in extracurricular activities.

Personalized learning became more than a buzzword

Many teachers in the schools we studied threw out the rulebook to ensure students were engaged and well served. They offered different ways to demonstrate mastery, were flexible about deadlines, and tried out different forms of engagement and delivery.

Seeing the emotional and practical challenges students faced at home, as well as the unreliable Internet access some contended with, teachers recognized that they needed to give students more leeway in when and how they completed their work. Sometimes this meant more time to finish assignments. Though not all teachers favored the longer learning blocks, and several lamented the loss of class time on remote learning days, they took advantage of the flexible schedule to help students individually and troubleshoot instructional issues with colleagues.

For their part, students told us that they appreciated both the flexibility and the greater opportunity for independent learning. Some students reported that when their teachers gave them leeway in their work, they felt more seen and understood. Others appreciated having time built into their schedule to check in with teachers as needed, get caught up on schoolwork, or participate in activities. Students, parents, and teachers noted that high schoolers had to plan well and exercise smart time management to succeed last year. Some students felt they rose to the occasion—figuring out strategies to support themselves and asking for help when necessary—while others floundered during independent time, which concerned their parents.

The expansion of technology and flexibility in learning were both part of a larger shift toward personalized learning. Personalized learning had long been a buzzword in education, broadly associated with efforts to incorporate technology into learning, give students more choice in what learning looked like, and provide them with individualized pathways. Though teachers appreciated many aspects of personalized learning, the movement’s lack of clear definition led it to fall out of favor for many.

In our conversations with teachers and principals last year, however, we noted that the notion of personalized learning resonated strongly. As teachers saw students come back to their

classrooms with a wide variety of experiences, interests, and challenges, they saw they couldn't just pick up where they left off. They wanted to try new things and meet the moment. One English teacher said she got the best response from students by "having honest conversations with them and eliciting their views on things and their choices and what they want to see." A social studies teacher got the highest assignment completion rates from "anything where you put them in the control chair and make it a fun thing the kids are going to grab ahold of."

Some teachers deemphasized quizzes and tests with one right answer and instead measured progress on projects and assessments with open-ended responses. An AP teacher, realizing her students likely wouldn't pass the AP test with limited instructional time, decided that for their futures, it was more important to prioritize college-level writing than the multiple-choice skills they typically work on for the test. A world languages teacher designed her class with little emphasis on test-taking or homework. "Fifty percent of my class grade is classwork, because it's something that I can actually see and hear," she said. This strategy encourages class participation and creative thinking, focusing the conversation more on ideas students introduced rather than on asking them to respond to prompts and worksheets with answers they might have been able to Google anyway.

Teachers in two of the districts we studied took personalization further by shifting to Universal Design for Learning (UDL), an approach to designing learning environments and activities in ways that are flexible and adaptable to the needs of individual students. One teacher was enthused about her school adopting more flexible projects in the upcoming year and described a lesson plan they piloted that offered students several options for a unique research-based project: write a newspaper article, short persuasive piece, or poem. Students presented their work for public-speaking credit, and everyone learned common skills such as note-taking, database inquiry, and citations while working on products of their choice. "This diversification was helpful to allow students to pull up their strengths and try to enlist their interests, because the more engaging you can be, the more students want to learn," she said.

One science teacher renewed her commitment to UDL based on her experience teaching remotely in spring 2020. She realized that she needed to plan lessons that students could do on their own, at their own pace. "I love the idea that kids get the information the way they want to, and the way they communicate it," she said. "And that worked. I saw students thrive that I had not previously seen thrive, and that was really exciting for me." There are still some barriers to implementing UDL schoolwide. Even though teachers at this school participated in professional development on the topic, this interview subject expressed frustration that some colleagues made small modifications for some learners but stopped well short of offering true differentiation. This teacher, however, concluded that "using UDL consistently is going to be something I will do forever."

Teachers reexamined and reimagined curriculum standards and performance measures

For most students and educators, it truly was all they could do to sustain any learning last year. Early analysis of assessment data from districts in New England shows how difficult the effort was. Our own analysis of MAP results, for seventh through tenth graders at 346 New England public schools, showed a widespread decline in math and smaller declines in English and language arts during the 2020–21 school year. Students from lower-income households generally saw larger declines in both math and reading relative to financially advantaged peers.

Lost instructional time and students' difficulty in accessing and engaging in school forced teachers, administrators, and system leaders to take a hard look at their curriculum and how they measure and mark students' progress. This reflection brought a new focus on competency-based models and compelled teachers and administrators to reframe performance measurement with an equity lens.

Teachers, students, and parents across all of our sites noted that a great deal of curriculum landed on the cutting room floor last year. One student observed that most of her classes were easier and didn't cover the same ground as classes in prior years. In math, with some classmates in person and some online, "the teacher had to write on the board and on the computer. It took up time, and sometimes we didn't finish the class, so we had to do the rest on our own or the next day."

In some cases, teachers cut the curriculum without any clear strategy, as they ran out of time or lowered expectations amid difficult circumstances. Teachers and administrators in three of our school systems, however, described how they made calculated cuts to streamline the curriculum to zero in only on essential skills—just what students needed to sustain their learning and be prepared for the next course.

Whether the cuts were intentional or unintentional, the impact of the pandemic on curriculum coverage forced teachers to reexamine course standards and reflect on what their coverage (or lack of coverage) implied for students. Throughout the year, teachers described a nearly constant need to reflect on their curriculum and instruction to adapt to constantly shifting circumstances. In two systems, teachers mentioned how powerful it was to collaborate with their colleagues to do this work, an opportunity made possible with the open schedule they had on flexible learning days.

A recent analysis by University of Southern California professor Morgan Polikoff argues that curriculum standards have not yet yielded the promised benefits, in large part because teachers have not fully implemented them as imagined. Teachers will no doubt come out of this experience with different perspectives on the costs and benefits of the cuts that happened last year, but the renewed and possibly deeper focus on curriculum will hopefully lead to rich discussions about curriculum, its scope, and the essential supports needed to make standards more meaningful.

Teachers and administrators also took a deeper look at how they measure and monitor students' learning and progress through curriculum. In each of the school systems in our sample, teachers and administrators articulated a new appreciation for models in which students progress only as they show competence with the curriculum. Teachers and administrators described several benefits to a proficiency-based model, including the ability to better personalize instruction, accommodate students' disparate challenges, and acknowledge the curriculum that was missed.

The systems we visited varied in their use of proficiency-based models. The pandemic prompted one system to replace failing grades with incompletes and have students and teachers work together until the student showed proficiency. Another system had shifted to a proficiency-based model years ago but had not trained teachers on it for years. After seeing the importance of the model and progress monitoring during spring closures, administrators expressed renewed commitment to strengthening and supporting their proficiency-based systems in the coming years.

Social-emotional learning and student well-being took center stage

The social and emotional well-being and development of students took on new significance in every school system we examined. Teachers and parents across our sample expressed concern about the toll that remote learning, social isolation, anxiety, and the loss of important rites of passage and high school traditions took on students. One parent shared how their child, a strong student prior to the pandemic, saw his grades fall precipitously. Teachers, with a new window into students' home lives, saw how students juggled significant responsibilities and had a hard time finding the time and place to concentrate. Communication between school and home was uneven by system and classroom, but in general teachers and parents discovered value in enhanced opportunities to collaborate. However, because of language and cultural barriers and inequitable access to technology, school systems will have to invest in family partnerships in ways most have not yet attempted.

Students with whom we spoke were often sanguine about their year and what they lost. Nearly all shared their disappointment at cancelled activities and time away from friends and from school. Students—especially incoming ninth graders and those new to the district—lamented the lack of opportunity to build relationships and be truly known and understood by their peers and teachers. Teachers felt this, too, and struggled to engage students. Students described connecting with teachers or classmates in open discussion as their most valued experiences in the year. “My teachers, the ones that I enjoy having classes with, should continue communicating with us as people, because a lot of the time they’re just talking to us as if they are in charge,” one said. “Having that one-on-one, human-to-human interaction is something I really appreciate.”

Teachers and administrators in one district described the need for a multitiered system of support that engages every child, not just those in a crisis. Multiple schools set up Google forms for students to report that they needed help and for staff and students to nominate individuals in need of extra support. In one school, during advisory period, teachers had students describe their feelings and needs, and then a staff member would reach out with individualized support. Of course, to make these systems work, schools need enough staff to respond. Even at a school that engaged counselors and front office administrators in this work, the principal felt they had not been able to do enough to reach out to families.

One district planned to use federal COVID relief funding to hire social-emotional learning (SEL) coaches to support students in elementary through high school. Some students used flexible learning days to meet one-on-one with teachers and get help managing their workload and understanding difficult concepts.

Though educators recognized the important of SEL, there were few attempts to scale or bring structure and rigor to SEL endeavors, and high schools were often prioritized after elementary and middle schools in this work. The main way that relationships formed was not through formal structures but through the type of organic, in-person exchanges impossible when school is remote. We learned of only a few successful efforts to rethink remote learning to create more opportunity for relationship building through curriculum and instruction.

School systems adjusted operations and set a new bar for change

During the pandemic, school systems took on roles they had never imagined, often (but not always) in formal partnerships with community-based organizations, serving as de facto community schools. In spring 2020, school systems across New England worked with community partners to distribute food, procure and ensure the delivery of computers, arrange for home Internet access, and offer a host of other supports to families. Some added new job positions, such as family liaisons who reached out to households with struggling students or students with whom teachers had lost touch.

The school systems also found themselves working differently in ways that could have longer-term effects. With easily-accessible classroom recordings, some increased peer observation of teachers and improved professional-learning opportunities without the logistical barriers of in-person sessions. One district finally shifted from arcane paper record-keeping to more streamlined electronic systems. It improved system-wide communication by using new tools like KiNVO, which enables educators to communicate directly with parents and caretakers via text message in over 80 languages. KiNVO's dashboards helped administrators monitor student attendance, send automatic messages when attendance slipped, and customize communication for students (the technology, it should be said, did not necessarily bridge the engagement gap for families—a parent might have been messaged that their child needed a meeting for their individualized education plan, but that doesn't mean they had been taught what an IEP was or been told that their child had one).

Finally, school systems and the people in them got familiar, if not entirely comfortable, with a new standard for change. In a matter of days, school systems across the region changed how they worked and continued to change in the months that followed. Schools operated on entirely new schedules. Teachers took on new assignments. Students and teachers adopted new tools, new communication methods, and new instructional processes. Traditions and norms that once seemed immutable were quickly adapted or eliminated, setting a new bar for what kind of change is imaginable. “After we're through the worst of this or this chapter, I don't think some of the ideas will feel as radical,” one system administrator said. “I think we're going to see a lot more flexibility to innovate and iterate. To me that's going to be a big win for the system, for kids, for everybody.”

Will pandemic innovations propel schools forward?

Although it has been encouraging to see schools and districts adapt and advance, several forces may prevent innovations from being sustained and scaled. Many were not systemic; rather, they were introduced by individual teachers and schools. Instructional approaches that are particularly engaging require a high level of energy from now-fatigued teachers. Fiscal constraints, union and community pushback, rigid policies, and other factors may also stand in the way. Only by recognizing and pushing back against these threatening forces can high schools hope to continue on a new path forward.

The answers to three questions will likely shape the extent to which school systems truly set a new course.

1. Can exploration and innovation that emerged during the pandemic, mostly from individual teachers and schools, be scaled and sustained in coordinated, systemic ways?
2. Will school systems and schools find ways to manage the fatigue felt among teachers and administrators?
3. How will school systems and schools manage to reinvent and innovate amid pressures to return to “normal”?

From teacher-driven exploration to coordinated and systemic innovation

Many of the efforts to provide students with more personalized, flexible, and responsive learning experiences last year—the kind of learning so many of the teachers and administrators noted should be the standard going forward—were advanced by the force and will of teachers. They spent countless hours rewriting lessons. They scoured the Internet, posted on message boards, and reached out to colleagues for ideas that they put into action. Teachers largely assumed the responsibility of managing students’ intense social and emotional needs and fluctuating engagement.

Administrators supported these efforts to some extent with professional development before the school year started, helping with outreach, especially for students who had been absent for long stretches and, in some cases, facilitating review of curriculum. However, safety protocols and relentlessly changing policies, schedules, and conditions diverted administrators’ attention.

Even though teachers collaborated, they largely figured out what instruction would look like on their own. Many of the new classroom practices, technology usage, strategies to provide social and emotional support, and even curriculum adjustments described above were specific to individual teachers, highly variable, and episodic.

“Some teachers are great at their teaching styles, and they do what they can to check in with their students both mentally and academically with the material, but it’s not really consistent through the entire school,” one student said. “It’s pretty much a teacher-by-teacher thing.” Another student said each teacher treated flexible learning days differently, some assigning asynchronous work and others delivering a lesson.

Support offered outside of class hours varied too. Sports coaches who teach, one student said, aren’t available after school. Several teachers “always make sure that it’s known that they can help us with anything,” one student said, while others do not. Because opportunities and support vary so widely among classrooms, it will be difficult hard to evaluate their efficacy and identify best practices.

Mitigating fatigue to sustain progress

Teachers and administrators described tremendous fatigue as the year wrapped up. Principals are very concerned about the morale and well-being of their teachers—a challenge that has reared its head as Omicron surges. “We’re all exhausted. It’s been a long year, and I’ve heard from a lot of people that they plan on doing less school stuff this summer, and I don’t blame

them,” one administrator said. “I think they all need a break. . . . I know sometimes it gets to our teachers when they hear some of the national chatter about teachers not being in school. My teachers are here—they’ve been here every single day—and they were working incredibly hard. And they are exhausted.”

Last year, teachers, by and large, did not leave the profession as some anticipated. But reports of teacher shortages are widespread, nationally and in New England. Connecticut has identified eight statewide shortage areas, including special education, bilingual education, and STEM.

COVID is obviously not over, and this year has not brought much relief. Middle and high school students’ progress on MAP assessments has fallen off pace, and high school students have little time to get back on course. Teachers are being called on to revisit their curriculum and instruction to provide grade-level content supplemented with scaffolding and strategies for differentiation—necessary elements for a personalized and responsive instructional approach, but not sufficient. More effort is required to map out individualized pathways through students’ learning and to construct the monitoring and assessment systems and instructional supports to help students move efficiently through their pathways. The effort required to provide students with a personalized learning experience is substantial—it demands an intentional effort to manage the morale and well-being of teachers.

Returning to more than “normal”

Many of the responsive structures and policies that emerged during the pandemic may be imperiled: virtual office hours, flexible learning days, expansion of learning management systems, flexible in-person attendance, and alternatives to rigid grading systems.

While formed out of necessity, many teachers and students loved these approaches—yet others saw them as something to abandon, with a goal of returning to normal. Despite the Delta variant, at the start of the 2021–22 school year, with high school students eligible for the COVID vaccine, New England districts reopened for full, in-person instruction. Many accommodations made for the pandemic started to wind down, even if they showed promise. For example, one school system sought approval from the board to reserve a half-day for individual student work and teacher collaboration. The board, however, only agreed to give teachers 90 minutes of collaboration time.

Some school systems in the U.S. (though none of the five we profiled) have declared that they will no longer permit remote-only learning. High schools in New England, constrained by state-level decisions, are offering a limited range of remote options. The Connecticut legislature passed a law in July 2021 barring fully remote learning but announced new guidance in January 2022 with limited circumstances in which remote learning will be allowed. Massachusetts, however, is requiring all districts to offer full in-person instruction all year long. Only remote learning as it existed prior to the pandemic is permitted to continue. Maine, on the other hand, allowed local education agencies to make their own decision, with new remote learning models widely available through an open-source platform.

Online or in person, some new structures were responsive only to the particular demands of the pandemic and may not make sense to reinstate. Others had mixed reviews. Whatever the case, schools and districts should carefully consider each approach to determine whether it advances the personalized and responsive vision for learning that high schoolers deserve. Once eliminated, they may be very hard to revive.

Conclusion

After more than a year of disruption, the boundaries of what it means to “reinvent” high school stretched, and in some systems, the momentum for change accelerated. Students and teachers learned to work in new ways and reached new understandings about each other. When COVID wanes, schools will encounter a host of new and complex demands as they make sense of the pandemic’s challenges and opportunities, including addressing unfinished learning, spending a tidal wave of federal funding, and navigating continued calls for racial and social justice amid a national culture war.

The path forward raises a host of critical questions:

- Will school systems leverage momentum from the pandemic to remake high school? If so, what adaptations and innovations will they embrace? And which students will benefit from these shifts?
- How do school system leaders, educators, families, and students redefine success in high school? To what extent and how are these aspirations reflected in the adaptations and innovations that school systems embrace?
- What opportunities and obstacles do school system leaders, educators, families, and students confront as they seek to chart a new course to high school? How can they avoid the pitfalls that threaten to stall progress, especially for the most marginalized students?

As the pandemic endures, and as we emerge from it, CRPE will continue to investigate whether and how the trends described lead to a more equitable, student-centered high school experience. In this effort, Think Forward New England explores not only what shifts emerge postpandemic but also why, for whom, and with what effect.

About the Center on Reinventing Public Education

CRPE is a nonpartisan research and policy analysis center affiliated with Arizona State University’s Mary Lou Fulton Teachers College. We develop, test, and support bold, evidence-based, systemwide solutions to address the most urgent problems in K-12 public education across the country. Our mission is to reinvent the education delivery model, in partnership with education leaders, to prepare all American students to solve tomorrow’s challenges. Since 1993 CRPE’s research, analysis, and insights have informed public debates and innovative policies that enable schools to thrive.