



Not an Assembly Line

Current Practices and Emerging Trends
of an Assembly-Based Education in K-12

Linea Koehler, Alex Spurrier, and Juliet Squire
August 2022

Beta[★]
BY BELLWETHER



Introduction

To flourish as adults, students today need access to a variety of supports, services, and learning opportunities tailored to their needs, interests, and goals. They need communities that support their academic and social-emotional growth and cultivate opportunities to work in concert with those who share their goals and passions. And with the help of family or other trusted adults, they need an opportunity to shape educational experiences that prepare them to lead fulfilling lives and contribute to society. Assembling education promises a path toward this future state.

There's more Assembly in education today than first meets the eye. Millions of families and students participate in a variety of school-provided services and supports; millions more select services and supports outside the school system, either to supplement or replace traditional schooling. Done well, both approaches have the potential to foster an ecosystem of learning options in which families and students assemble those that best meet their needs.

Within the system, schools can serve as a gateway for options that provide students with more personalized and differentiated support. Much of what schools provide is standardized in the "factory" model of schooling, in which cohorts of students receive a set sequence of instruction. But schools also offer specialized options. Sometimes they provide specialized options themselves, and sometimes they partner with agencies, community organizations, or vendors. Schools engage third-party entities to provide highly specialized services to small populations of students, such as occupational therapy; they develop offerings themselves or with partners to address gaps or enhance learning for students with specific needs or interests, such as dropout recovery programs or work-based learning experiences. Families and students can work within or through schools to shape elements of their experience, but schools have a significant role in directing, providing, or coordinating services.

Increasingly, families and students are playing a greater role in assembling education outside the system, navigating an ecosystem in which traditional public or private schools are one among a variety of entities offering a wide diversity of learning opportunities. After school, on weekends, and over vacations, families arrange and pay for supplemental learning like tutoring, music lessons, or counseling. Less common — but growing — are families and students who replace full-time school enrollment with an Assembly of learning options, such as home-schooling co-ops, microschools, or other nontraditional environments. Here, families and students take on more ownership over directing the learning experience, even if they continue to rely on schools or other entities to provide some supports.

Assembling education predates the COVID-19 pandemic, but the past several years have generated new momentum. More must be done to ensure all families can access the services and supports their children need. As the policy environment improves, technology becomes familiar and ubiquitous, and whole-child supports generate renewed interest and enthusiasm for leveraging community resources, Assembly-based education is poised for expanded impact.

Millions of families already participate in Assembly-based education

Assembly-based education can take numerous forms, but two dimensions help differentiate approaches: The first dimension is *who is directing* the student’s education by deciding which services, supports, or learning experiences align with their needs, interests, and goals. The second dimension is *who is providing* the experience, whether a traditional school, the student’s family, or another organization (Figure 1).

Figure 1: Dimensions of Assembly-Based Education

		WHO DIRECTS THE SERVICE	
		School	Families
WHO PROVIDES THE SERVICE	Other	Occupational therapy	Home-school co-ops
	Families	Homework help	Home-schooling, travel
	School	Schoolwide STEM program	School sports

Assembling education can happen through a student’s school. Teachers, school staff, or families may identify a need and work within the school system to ensure the student receives an aligned service or participates in a specific program. The degree of input from families and students may vary, but the school ultimately directs students’ learning experiences. Schools may also provide those experiences themselves or coordinate with those who do.

Other Assembly-based education can take place outside the school system. In this approach, a family member or other trusted adult may identify a student’s needs, interests, and goals and navigate the ecosystem to find aligned options. Rather than the school, however, families and students are the primary decision-makers about the services or supports the student receives and who provides them.

As of 2020, approximately **54 million school-aged children** resided in the United States.¹ Just including the forms of Assembly-based education described below, at least one in three students already participates, and perhaps *all* students already participate, in some form of Assembly-based education.

Assembling education occurs in familiar forms within and through schools; families and students typically have input into these options, even if students' participation is ultimately up to the school. For instance, **career-technical education** (CTE) allows students to select and pursue a CTE pathway or industry certification aligned with their needs, interests, or goals. Traditional schools often either provide these pathways themselves or coordinate with other agencies. About **7.6 million secondary school students** participated in CTE programming in the 2019-20 school year, though participation declined during the pandemic likely given the hands-on and team-based nature of many CTE programs.² Alongside CTE courses, schools also help coordinate apprenticeships, internships, and other work-based learning in partnerships with local employers.



Dual or concurrent enrollment programs are another learning option that students typically access through their schools. These programs allow families and students to shape their learning within the public school system by enrolling in courses that offer both high school and college credit.³ Dual enrollment has been on the rise for years, with federal data showing a 68% increase in students taking college courses for credit from 2002-03 to 2010-11, for a total of almost **1.4 million students**.⁴ While recent federal data isn't available, the Community College Research Center

assesses undergraduate enrollment among students under age 18, a proxy for dual enrollment. In 2019-20, they estimate **between 1.6 and 2 million students** participated in dual enrollment programs, though participation declined slightly during the pandemic.⁵

A close cousin of dual or concurrent enrollment and online learning opportunities described below, **course choice** (or "course access") policies also allow students to earn credit through courses or learning experiences offered outside their own school, from higher education institutions and virtual course providers to apprenticeships in the community.⁶ Participation in course choice is difficult to capture, given the significant overlap with other types of programs, but estimates from a few states with programs in place suggest at least **tens of thousands** of students are benefiting.⁷

Tutoring is a learning option that schools or parents can direct and that a variety of entities can provide. For instance, students may receive tutoring through their school. When the school is the provider, tutoring is often assigned to specific students based on academic performance, staff referrals, or attendance problems. A nationally representative survey in 2014-15 found that one-third of all high schools (32%) "required academic tutoring for at least some students" and "8% of all high school students participated in required academic tutoring."⁸ Among high school students, about **1.2 million students** and likely many more receive tutoring from their schools.⁹ Most often, school-provided tutors are licensed teachers who are offered supplemental pay out of the school or district budget, though some schools also work with outside organizations, professional tutors, or volunteers.¹⁰

Outside of schools, families also hire tutors — a local teacher, postsecondary student, or advanced peer — to help their child with coursework or test prep. In a June 2022 poll tracking how families are navigating education during the pandemic, 17% of parents reported their child was receiving tutoring outside of school, which pencils out to approximately **9.1 million students**.¹¹ Increasingly, tutoring companies like Kumon, Kaplan, TutorMe, Varsity Tutors, and others dominate the space. According to market research firm Global Industry Analytics, the 2022 private tutoring market in the U.S. is estimated at \$26 billion.¹²

Students can also assemble their education through **online content**. For instance, online courses may be provided or coordinated by a student's school, or students may access them on their own. Through their school, students may enroll in online courses as part of credit recovery, summer school, or when their school does not have the subject-matter teacher to offer a particular class. Providers like the Virtual High School, a nonprofit that works with over 700 high schools to offer more than 300 teacher-led online courses that include Advanced Placement and STEM options, give students the option to earn credits with a wider selection of course offerings.¹³

Outside of schools, families and students can access supplemental materials through a wide variety of online providers. For example, Outschool offers non-credit-bearing online educational options to students ages 3 to 18.¹⁴ Outschool saw a huge increase in popularity during the pandemic,¹⁵ growing from an enrollment of **80,000 students** taking classes in March 2020 to **over 500,000** as of February 2021.¹⁶ Another example is Reconstruction, which provides “unapologetically Black” coursework that families can purchase for their children to supplement what they learn in school.¹⁷ Predating outfits like Outschool and Reconstruction, large vendors such as K12 or targeted programs, like Johns Hopkins University’s Center for Talented Youth, offer direct-to-consumer options for families to purchase online courses for their children.¹⁸

While the pandemic has muddled data on online learning, participation appears to be on a positive trend. In 2016, just 3.1% of students ages 5 through 17 and enrolled in K-12 education reported taking a school-related course online, and local public schools were the most common providers of these courses.¹⁹ The number of students engaging with online learning has skyrocketed during the pandemic; data from April through December 2020 shows that an average of 70% of students were taking courses in a “distance learning format using online resources.”²⁰ Even as most schools have reopened for in-person learning, however, some students continue to use some degree of online learning. In spring 2022, the U.S. Census Bureau’s Household Pulse Survey found that 5% of students were participating in real-time online instruction from a teacher and 4% were participating in asynchronous online learning.²¹ Data comparable to pre-pandemic



rates is not yet available, but upticks in online learning — currently including about 9% (**5.8 million**) of students — could signal a sustained increase.²²

Families and students can also access a host of **after-school and summer activities**, through or outside their school. This sector of supplemental options is a significant source of flexible learning experiences. A 2020 survey by the Afterschool Alliance found that approximately **7.8 million children** spent an average of 5.6 hours per week in after-school programs,²³ and **12.6 million** “were in a structured summer experience.”²⁴ Market research firm IBIS World estimated the size of the after-school and summer camp industries at \$23.5 billion and \$3.3 billion, respectively.²⁵ Another market research firm estimates youth sports at another \$19.2 billion.²⁶

Some learning options, like CTE and dual or concurrent enrollment, are available to families and students through their school; some, like tutoring, online courses, or after-school programs, might be available outside the system as well as other Assembly-based pathways.

Home-schooling is defined by a student being primarily educated outside of a public or private school. Between 1999 and 2019, home-schooling rates ranged from 1.7% to 3.4%.²⁷ Results from the U.S. Census Bureau's Household Pulse Survey have shown a dramatic rise in home-schooling rates. Data collected in the early days of the pandemic in spring 2020 showed 5.4% of U.S. households were home-schooling. By fall 2020, the rate jumped to 11.1% of households, including 16.1% of Black households and 12.1% of Hispanic households.²⁸ If these rates of home-schooling hold steady as the pandemic wanes, the 2022-23 school year could see **5.9 million students** participating in home-schooling.²⁹

Hybrid schools are on the rise as well. As defined by the National Hybrid Schools Project at Kennesaw State University, hybrid schools are entities wherein "(1) most or all of the curriculum is decided by the school" (though parents do some instruction and grading); and "(2) students attend live classes fewer than five days per week in a physical building and are 'homeschooled' the rest of the week."³⁰ This definition excludes schools that only provide a la carte classes to home-schoolers and home-school co-ops that provide networks and supports for home-school families that still direct and provide most instruction themselves. Most hybrid schools surveyed by researchers at Kennesaw State University held classes two or three days a week.³¹

Measuring participation in hybrid schools can be difficult because they may be organized as independent private schools, charter schools, programs within existing private or public schools, or independent home-school programs. As a result, they often fly under the radar of systematic data collection efforts. A survey of 73 schools across 28 states showed a trend of accelerated hybrid school openings over the last decade, with school enrollments averaging around 227 students across all grades.³² Based on these survey data, **at least 16,500 students** are participating in hybrid home-schooling. Given the survey's limited sample, this estimate likely undercounts enrollment in hybrid schools.

Assembly-based education beyond K-12 students

The emergence of Assembly in education isn't limited to K-12 students. It's also gained traction in postsecondary education as well as the ways in which teachers access resources and support.

Assembly in postsecondary education

The traditional, fully assembled higher education experience includes "formal, credit-bearing curricula with lectures, tutorials, and seminars," along with some less formal offerings, including short courses, summer programs, and public lectures.³⁷ Depending on the type of postsecondary institution and degree — a community college, for example, provides fewer services on campus relative to a residential four-year research university — a number of other services are included as part of their educational package, such as housing, sports, health care, and libraries.³⁸ New innovations are creating opportunities for students to assemble various components of a postsecondary education to meet their needs.

Online instruction: Some institutions are offering students a more flexible array of instructional options, including through the growth of massive open online courses and online courses that colleges, universities, and other educational institutions offer to students who aren't necessarily enrolled.³⁹ Online courses, such as those offered by Southern New Hampshire University and Western Governors University, are often asynchronous and self-paced; they separate instruction from many of the elements of a traditional, fully assembled college experience, from relationships with faculty and peers to campus life.⁴⁰ Online courses can be a flexible, affordable option for students that don't tie them to time requirements or a single campus.

Credentialing: Associate's or bachelor's degrees have long been the dominant signal of a student's knowledge and skills, but that's also changing. Alternative degrees or credentials based on competency (students' demonstration of knowledge or skills rather than time-based benchmarks⁴¹) allow

Often called the 21st-century reimagining of the one-room schoolhouse, **microschools** and learning pods are other examples of out-of-system options.³³ Microschools tend to reach middle- or upper-income families with tuition rates higher than those of a parochial school but less than those of elite day schools by providing the core academic instruction, as well as opportunities for socialization and community, without the robust set of school clubs, sports teams, or other non-academic options offered by larger public or private schools.³⁴ Families then assemble a host of other experiences by selecting extracurricular activities a la carte from churches, community groups, or private-sector providers. Tyton Partners estimated that about **610,000 students** were enrolled in microschools in fall 2020.³⁵

Learning pods, in which a trusted adult supervises a small group of children, are a variation on microschools that emerged from the exigencies of the pandemic, sometimes initiated by schools and districts; at their schools' peak, as many as three in 10 families — or **16.6 million students** — had a student participating in a pod.³⁶ Most learning pods during the pandemic were supplemental to the education children received from their school; adults provided guidance and peers provided socialization, but students received academic instruction through the virtual options offered by their school.

The types of learning opportunities described here are far from exhaustive. They don't capture the infinite permutations of students' learning experiences within or beyond their schools, nor does any option sit neatly within one segment of the framework (Figure 1). But they illustrate the different forms that Assembly-based education can take and how many school-aged children already participate.

students to demonstrate skills in increments smaller than a two- or four-year degree. For instance, micro-credentials are “short, focused credentials designed to provide in-demand skills, know-how and experience;” they're often available through postsecondary institutions and can be stackable toward traditional degree pathways.⁴² Coding bootcamps are short, intensive programs that teach individuals with little to no prior experience to become software developers.⁴³ Programs like these allow students to participate in more flexible options over shorter periods of time.

Advising: A broad landscape of nonprofits have created out-of-system programs that support students' postsecondary persistence and completion with services supplemental to traditional advising available on college campuses. Often partnering with institutions to reach underserved students, organizations like Beyond12, Bright Prospect, College Possible, College Track, EMERGE, One Million Degrees, and PeerForward provide wraparound supports, personalized coaching, and near-peer mentorship.⁴⁴ Nonprofits such as Braven, The Opportunity Network, and Project Basta focus specifically on building students' career-ready skills and connecting them with internship and employment opportunities, providing customized and more intensive services than a typical on-campus job center.⁴⁵

Assembly-based support for educators

At the K-12 level, educators can increasingly assemble supports beyond or instead of those provided by their school.

Classroom Supplies: Some public school systems now use individualized accounts for teachers' purchases of classroom supplies. ClassWallet manages teacher spending for classroom supplies in 3,200 schools across 20 states.⁴⁶ For instance, in Utah, ClassWallet provides accounts for all teachers in the state and monitors spending.⁴⁷ Teachers receive an average of \$200 for classroom supplies and access to retailers such as Office Depot, Staples, and Scholastic.⁴⁸

Families and students need information, funding, and agency to find options that meet their needs

It's impossible to consider Assembly-based education independent of the disruption caused by the pandemic, let alone the generations-long need to better prepare students to flourish in their lives, work, and community. Entrenched equity gaps that have plagued education for generations have widened even further. And the impact of the pandemic on students' mental health hasn't been evenly distributed; students — especially those furthest from opportunity — have returned to school with profound academic and social-emotional needs.⁵⁷ Moreover, even students who succeed on standard measures of success too often struggle with so-called “soft skills,” like communication, problem-solving, or creativity, that are necessary for navigating the workplace and adult life.⁵⁸ Assembly-based education offers a timely and promising path forward because of its potential to empower families and students to respond to profound and diverse needs.

Most families and students will continue to rely on their school to serve as a hub for accessing a wide variety of services and supports. Schools are valuable sources of information to families and students; they often have working relationships with numerous public agencies, nonprofit organizations, or other entities; and they can leverage \$190 billion in federal relief dollars and/or increased federal funding for community schools to build the robust wraparound services families and students need.⁵⁹ As a result, one option is to **help schools assemble more robust services and supports, and ensure students and families have adequate input and agency** shaping their education within the system.

Another option is to **help families and students assemble the services and supports they need independent of the school system**, either to supplement or replace the services and supports

Instructional materials: For better or worse, many teachers assemble instructional materials by looking beyond the curricula and textbooks they receive from the state or district. A 2017 RAND analysis found that almost all teachers use Google and a large majority of teachers use Pinterest to find lessons and materials.⁴⁹ Additionally, more than half of teachers say they use the website TeachersPayTeachers at least once a week for resources.⁵⁰ Unfortunately, TNTP's 2018 report *The Opportunity Myth* found that only 20% of teacher-created or -selected curriculum materials were on grade level, compared to 34% of materials provided by the district or state.⁵¹ This illustrates a demand for materials beyond traditional textbooks or curricula and the need for the supply market to respond with high-quality, vetted materials that teachers can easily access.

Professional development: Educators spend about 19 days per year in professional development activities, costing an estimated \$18,000 per teacher per year, though reports of its efficacy are mixed at best.⁵² Empowering teachers with individual professional development accounts could take the burden off administrators and districts, providing a more personalized approach that caters to teachers' individual strengths and growth areas.⁵³ For those newer to the profession, it might mean courses in improving project-based lesson planning, while more experienced teachers might prioritize remote learning strategies or tools.⁵⁴ Currently, many teachers assemble professional development themselves by using platforms such as DonorsChoose⁵⁵ to collect donations to fund learning opportunities or resources not provided by the district. Others turn to specialized nonprofit organizations such as Fund for Teachers⁵⁶ that provide grants for self-designed professional learning.

students receive from their school. Many families have already worked to customize their child's education throughout the pandemic and several states have passed new policies and/or leveraged federal relief dollars to provide funding directly to families and students so they can seek out solutions online or in their homes or communities.⁶⁰

The options are not mutually exclusive, and one approach may work better for some families than for others. Regardless, Assembly-based education presents challenges of access and equity. Within or outside of schools, families and students must have the information, funding, and agency to secure options that align with their needs, interests, and goals.

Information is a persistent challenge for families and students. Awareness of work-based learning opportunities offers an example. While every state in the country has a policy for work-based learning, just seven states have the infrastructure to communicate those opportunities to stakeholders.⁶¹ A 2020 survey by American Student Assistance “found that only 34% of students were aware of work-based learning experiences” in high school.⁶² This is a familiar challenge to cities that have large charter school sectors. Families and students in these cities must be able to collect and analyze significant amounts of information to navigate the enrollment process, especially when schools have different school models, application timelines, lottery procedures, or enrollment preferences (e.g., for siblings of current students).⁶³

Cost is another factor that affects equitable access; students must be able to afford an option to take advantage of it. Many programs offered by or through a child's school come with public dollars attached; schools may use operational dollars to provide tutoring, for instance, or states may waive or cover the cost of tuition for students enrolling in a dual enrollment course at the local college. Outside the system, cost is a bigger challenge that requires public funding for out-of-system options to address. Economists Greg Duncan and Richard Murnane compared enrichment spending and found that high-income families spent about \$2,700 more than low-income families in 1972-73. By 2005-06, this gap had nearly tripled to \$7,500.⁶⁴ While policies like Education

Savings Accounts (ESAs), microgrants, and others have gained momentum, significant gaps remain.⁶⁵

Finally, Assembly-based education within and outside the system requires agency — the resources, mindset, and voice families and students need to work the system and get necessary supports. This could mean families' collective or individual ability to communicate with school staff about student needs, and discern and follow the steps necessary to access aligned supports. It could also mean a family's ability to collect and review information about the learning options available outside the system and select what's aligned with their student's needs. For many, it could signal a need for trusted advisers to augment family and student agency, like the supports and guidance provided by Engage Detroit, Black Mothers Forum, RESCHOOL Colorado, Families Empowered, and Love Your School.⁶⁶

Regardless of when and how it takes root, families and students of all backgrounds must have the wherewithal to access the available options.

Momentum is building for Assembly-based education

Numerous factors continue to drive the growth of Assembly-based education, before and especially since the pandemic began. A more favorable policy environment, new capabilities enabled by technology, and a renewed focus on the whole child are creating the conditions for assembling education.



Recent state and federal policies have accelerated Assembly-based education.

Policy is critical in supporting the growth of an Assembly-based education ecosystem, from enabling different learning options to providing funding to ensuring the necessary transfer of credit.

In the last several years, states have passed an increasing number of policies that provide more flexible choices. As of the 2020-21 school year, five states – Arizona, Florida, Mississippi, North Carolina, and Tennessee – had active ESA policies.⁶⁷ During their 2021 legislative sessions, Indiana, Kentucky, Missouri, New Hampshire, and West Virginia all enacted ESA policies and Florida expanded their existing ESA program.⁶⁸ While Kentucky and West Virginia's ESAs are mired in legal challenges, Arizona amended its ESA program in 2022 so that any student in the state is eligible to participate.⁶⁹

States have also proposed and enacted policies that provide funding for supplemental learning. In Idaho and several other states, policymakers leveraged federal relief dollars to provide direct-to-family funding for supplemental educational supports. In 2022, Idaho created Empowering Parents Grant Program, which provides up to \$3,000 per family for education-related expenses.⁷⁰ Oklahoma and Texas also used federal relief dollars to create microgrant programs.⁷¹ In Ohio, policymakers created an ESA specifically to support enrichment activities.⁷²

State policies that ensure students can earn and transfer credit for a variety of learning experiences also help enable Assembly-based education. These policies include expanded and improved dual and concurrent enrollment, competency-based education, and "Learn Everywhere" programs. Every state has dual and concurrent enrollment policies that enable high school students to enroll in classes that offer both high school and college credit.⁷³ Among states with a smattering of policies that enable competency-based education, Oregon leads the pack on credit flexibility by allowing districts to award academic credit to students who demonstrate mastery through a variety of avenues, including exams or other demonstrations of learning.⁷⁴ Several states have also passed Learn Everywhere policies that allow students to receive public school credit for participation in approved out-of-school programs.⁷⁵ New Hampshire's Learn Everywhere program is one example.⁷⁶

Finally, while state policymakers have passed numerous option-enabling policies in the last few years,⁷⁷ policy both leads and trails the field. On the cutting edge of new configurations of learning, some organizations leverage policies in creative and unexpected ways. For instance, Prenda uses Arizona's virtual charter

law to secure public charter funding for students in microschools. Under the partnership, students can enroll in EdKey's Sequoia online school, making them eligible to receive charter school funding from the state. Students then also participate in small in-person learning communities supervised by a learning guide.⁷⁸

Not all policies enable Assembly-based education; some policies constrain the availability of these options or how families and students access them. Zoning laws can constrain where learning takes place, seat-time requirements can constrain how students earn credit, and choice-enabling policies like ESAs can limit which students and providers participate. The challenges and opportunities for policy to better support Assembly-based education will be a topic for analysis in our future work.



Technology provides critical capacity and infrastructure for Assembly.

Education technology enables Assembly-based education by allowing greater customization, providing connectivity, and streamlining access. Teachers, principals, and administrators can use education technology to embrace more powerful data-driven decision-making.⁷⁹ Data-driven decisions help create more personalized learning experiences that meet student needs. New tools and platforms can augment teachers' expertise by automating grading, assessing students' progress toward skill proficiency in real time, assigning personalized coursework, and providing remediation or acceleration. It can facilitate collaboration on group projects and increase student engagement through strategies such as gamification. And tech-based solutions for tracking student behaviors (attendance, discipline) can streamline communication with parents. All of the above can inform teachers, school staff, families, and students about individual needs and help students access aligned services and supports.

Technology has also revolutionized connectivity. Since the pandemic, students now have access to laptops, tablets, and/or WiFi hotspots in nearly every school district;⁸⁰ a majority have access to home internet services that allow them to "fully and consistently participate in online learning."⁸¹ While there remain challenges with access to devices and broadband internet as well as in implementing

effective digital learning strategies⁸² and combating technology fatigue,⁸³ technology-based learning allows for greater connectivity among families, students, and educators beyond the walls of a school or classroom.

Finally, technology plays a significant role in coordinating the flexible options possible under an Assembly-based education. For instance, technology can help streamline how families access information about their options and direct public dollars. Newly passed ESA programs often rely on web platforms developed by ClassWallet, Step Up for Students, Student First Technologies, and others, through which families and students can register for the programs and manage their individual spending accounts online.⁸⁴ Meanwhile, organizations like GreatSchools, Schoolahoop, and WonderSchool⁸⁵ provide searchable online databases of learning opportunities that are essential for helping families navigate complex ecosystems.

Traditional schools have leveraged digital connectivity and tools to inform and enhance students' learning experiences. Increasingly, education technology is also playing a role in creating access points for ecosystems of learning opportunities.



Whole-child needs require a broader array of supports within and outside school.

Before 2020, many educators, families, and advocates recognized that children's academic growth is interlinked with their cognitive, social and emotional, physical, mental, and identity development. A "whole-child approach" acknowledges that students' education and life outcomes depend on their access to supports in and out of school, as well as their school environment and relationships, and seeks to ensure the full scope of a child's needs are met.

To support students struggling with anxiety, depression, or other effects of the pandemic, schools, families, and students will need to draw on a broad range of resources and support systems to meet student needs. Unfortunately, school-based programs are unable to fill every need. As of 2017-18, just 51% of schools helped diagnose student mental health challenges and just 38% offered treatment.⁸⁶

Schools are working to assemble an expansive array of services, either by hiring additional staff to administer specialized programs and services, or by partnering with community nonprofits or other external partners. Families are seeking out options on their own, from extracurricular activities to private mental health counseling. Both will be better able to respond to students' mental health needs if they can assemble what students need from every available resource within schools and across their communities.

Assembly-based education is at a critical inflection point

Millions of families are assembling education for their children. Increasingly, in-school options for customization like dual enrollment or CTE now sit alongside new out-of-system options like microschools, learning pods, and hybrid home-schools.

Meanwhile, new and expanded state policies enable more families and students to access learning options outside of or instead of a traditional school. Technology is playing a critical role in providing the data, capacity, and connectivity necessary to assess students' needs and customize their learning. A renewed focus on the whole child highlights students' social-emotional well-being and the variety of organizations and institutions that can support those needs.

The momentum for Assembly-based education is growing but also is at a critical inflection point. For Assembly-based education to deliver on its promise — and for all families and students to have equitable access — more work remains. Future publications will address key challenges in Assembly-based education and how the sector can address them. ✨

About the Authors



Linea Koehler

Linea Koehler is a senior analyst at Bellwether in the Policy and Evaluation practice area. She can be reached at linea.koehler@bellwether.org.



Alex Spurrier

Alex Spurrier is an associate partner at Bellwether in the Policy and Evaluation practice area. He can be reached at alex.spurrier@bellwether.org.



Juliet Squire

Juliet Squire is a senior partner at Bellwether in the Policy and Evaluation practice area. She can be reached at juliet.squire@bellwether.org.



Beta by Bellwether is an initiative to jump-start bold solutions to structural problems in the education sector. Beta moves beyond imagining a new sector by bringing together viewpoint- and experience-diverse teams from across education to create blueprints and tools for leaders around the United States. Our goal is to help build an education system that better serves all young people — particularly those from systemically marginalized communities — and models a new way forward for the sector. For more, visit bellwether.org/beta.



Bellwether is a national nonprofit that exists to transform education to ensure systemically marginalized young people achieve outcomes that lead to fulfilling lives and flourishing communities. Founded in 2010, we work hand in hand with education leaders and organizations to accelerate their impact, inform and influence policy and program design, and share what we learn along the way. For more, visit bellwether.org.

Acknowledgments

We would like to thank the many individuals who gave their time and shared their knowledge with us to inform our work on this project, including the Advisory Group for their participation in Beta by Bellwether's Assembly initiative. We are particularly grateful to Stand Together Trust for its financial support of this work.

We would also like to thank our Bellwether colleagues Andrew J. Rotherham, Kateland Beals, Lynne Graziano, Liz McNamee, and Alexis Richardson. Thank you to Lerner Communications, Valentina Payne, Alyssa Schwenk, Abby Marco, Zoe Campbell, Julie Nguyen, and Amber Walker for shepherding and disseminating this work, and to Matterlab and Super Copy Editors.

The contributions of these individuals and entities significantly enhanced our work; however, any errors in fact or analysis remain the responsibility of the authors.



Endnotes

- 1 National Center for Education Statistics, "Table 101.40 — Estimated Total School-Age Resident Populations, by State: Selected Years, 1970 through 2020," Digest of Education Statistics, accessed July 28, 2022, https://nces.ed.gov/programs/digest/d21/tables/dt21_101.40.asp?current=yes.
- 2 Hannah Neeper, "2019-20 National CTE Enrollment Data Now Available," CTE Policy Watch (blog), May 13, 2021, <https://ctepolicywatch.acteonline.org/2021/05/2019-20-national-cte-enrollment-data-now-available.html>.
- 3 National Center for Education Statistics, "Dual or Concurrent Enrollment in Public Schools in the United States," Data Point, December 2020, <https://nces.ed.gov/pubs2020/2020125.pdf>.
- 4 Kelly Field, "The Rise of Dual Credit," Education Next 21, no. 1 (Winter 2021), <https://www.educationnext.org/rise-dual-credit-more-students-take-college-classes-high-school-degree-attainment-rigor/>.
- 5 John Fink, "Estimating Trends in Access to Dual Enrollment Using IPEDs and CRDC Data" (web conference), Community College Research Center, June 28, 2021, slide 4, <https://ccrc.tc.columbia.edu/media/k2/attachments/dual-enrollment-ipeds-crdc.pdf>; National Student Clearinghouse Research Center, "COVID-19: Stay Informed with the Latest Enrollment Information" (Student Demographics tab), November 18, 2021, <https://nscresearchcenter.org/stay-informed/>.
- 6 "Course Access Opportunity Incentive," ExcelinEd Policy Toolkit, November 2018, <https://excelined.org/wp-content/uploads/2020/07/ExcelinEd.PolicyToolkit.CourseAccess.OpportunityIncentive.pdf>.
- 7 Liana Loewus and Andrew Ujifusa, "Course Choice: A Different Way to Expand School Choice?" EducationWeek, April 4, 2017, <https://www.edweek.org/teaching-learning/course-choice-a-different-way-to-expand-school-choice/2017/04>.
- 8 "Issue Brief: Academic Tutoring in High Schools," U.S. Department of Education, Office of Planning, Evaluation and Policy Development, Policy and Program Studies Service, April 2017, <https://www2.ed.gov/rschstat/eval/high-school/academic-tutoring.pdf>.
- 9 Author's calculations based on high school population — see National Center for Education Statistics, "Table 203.10," https://nces.ed.gov/programs/digest/d21/tables/dt21_203.10.asp.
- 10 "Issue Brief," <https://www2.ed.gov/rschstat/eval/high-school/academic-tutoring.pdf>.
- 11 "EdChoice — The Public, Parents, and K-12 Education: A National Polling Report," Morning Consult, June 2022, <https://edchoice.morningconsultintelligence.com/assets/171487.pdf>; author's calculation based on population five to 17 years old — see "National Center for Education Statistics, "Table 101.40," https://nces.ed.gov/programs/digest/d21/tables/dt21_101.40.asp?current=yes.
- 12 "Private Tutoring: World Market Report — MCP-1597," StrategyR, accessed July 28, 2022, <https://www.strategyr.com/market-report-private-tutoring-forecasts-global-industry-analysts-inc.asp>.
- 13 "Homepage," VHS Learning, accessed July 28, 2022, <https://www.vhslearning.org/?hsLang=en>.
- 14 Sophie Heller, "FAQ for Outschool Families," Outschool, accessed July 28, 2022, <https://support.outschool.com/en/articles/4321090-faq-for-outschool-families>.
- 15 Erin Schulte, "How Outschool Won the Pandemic," Fast Company, March 11, 2022, <https://www.fastcompany.com/90729413/how-outschool-won-the-pandemic>.
- 16 Rick Hess, "Outschool CEO on How to Engage Half a Million Virtual Learners," EdWeek, February 11, 2021, <https://www.edweek.org/technology/opinion-outschool-ceo-on-how-to-engage-half-a-million-virtual-learners/2021/02>.
- 17 Steve Bumbaugh, "Mirrors, Windows, and Reconstructing Black Education," The Elective, April 27, 2022, <https://elective.collegeboard.org/kaya-henderson-reconstruction-black-education>; "Homepage — Unapologetically Black Education," Reconstruction, accessed July 28, 2022, <https://reconstruction.us/home>.
- 18 "Homepage," K12, accessed July 28, 2022, <https://www.k12courses.com/>; "Online Programs," Johns Hopkins Center for Talented Youth, accessed July 28, 2022, <https://cty.jhu.edu/programs/online>.
- 19 National Center for Education Statistics, "Table 218.16 — Percentage of Students Ages 5 through 17 Enrolled in Kindergarten through Grade 12 Who Took Any School-related Courses Online and, among Those Taking Courses Online, Percentage Who Took Courses from Various Providers, by Selected Child, Parent, and Household Characteristics: 2016," Digest of Education Statistics, accessed July 28, 2022, https://nces.ed.gov/programs/digest/d19/tables/dt19_218.16.asp.
- 20 Author's calculation based on average of reported two-week periods between April and December 2020 — see National Center for Education Statistics, "Table 218.80 — Among Adults 18 Years Old and Over Who Had Children under 18 in the Home Enrolled in School, Percentage Reporting That Classes Were Moved to a Distance Learning Format Using Online Resources, by Selected Adult and Household Characteristics: Selected Periods, April through December 2020," Digest of Education Statistics, accessed July 28, 2022, https://nces.ed.gov/programs/digest/d20/tables/dt20_218.80.asp.
- 21 Author's calculation using Table 5 data in "Week 45 Household Pulse Survey: April 27 0 May 9, 2022," U.S. Census Bureau, May 18, 2022, <https://www.census.gov/data/tables/2022/demo/hhp/hhp45.html>.
- 22 Ibid.
- 23 "America after 3PM Fact Sheet," Afterschool Alliance, December 2020, <http://afterschoolalliance.org/documents/AA3PM-2020/National-AA3PM-2020-Fact-Sheet.pdf>.
- 24 "America after 3PM Summer Fact Sheet," Afterschool Alliance, May 2021, <http://afterschoolalliance.org/documents/AA3PM-2020/National-AA3PM-Summer-2021-Fact-Sheet.pdf>.
- 25 "After-school Program Providers in the US — Market Size 2003-2027," IBISWorld, July 31, 2021, <https://www.ibisworld.com/industry-statistics/market-size/after-school-program-providers-united-states/>; "Summer Camps in the US — Market Size 2005-2027," IBISWorld, December 28, 2021, <https://www.ibisworld.com/industry-statistics/market-size/summer-camps-united-states/>.

- 26 "Youth Sports Market Projected to Reach \$77.6 Billion by 2026 — Comprehensive Industry Analysis & Insights," *GlobeNewswire*, December 26, 2019, <https://www.globenewswire.com/news-release/2019/12/26/1964575/0/en/Youth-Sports-Market-Projected-to-Reach-77-6-Billion-by-2026-Comprehensive-Industry-Analysis-Insights.html>.
- 27 National Center for Education Statistics, "Table 206.10 — Number and Percentage of Homeschooled Students Ages 5 through 17 with a Grade Equivalent of Kindergarten through 12th Grade, by Selected Child, Parent, and ?household Characteristics: Selected Years, 1999 through 2019," *Digest of Education Statistics*, accessed July 28, 2022, https://nces.ed.gov/programs/digest/d21/tables/dt21_206.10.asp?current=yes.
- 28 Casey Eggleston and Jason Fields, "Census Bureau's Household Pulse Survey Shows Significant Increase in Homeschooling Rates in Fall 2020," *U.S. Census Bureau*, March 22, 2021, <https://www.census.gov/library/stories/2021/03/homeschooling-on-the-rise-during-covid-19-pandemic.html>.
- 29 Author's calculations based on population between 5-17 years of age — see National Center for Education Statistics, "Table 101.40," https://nces.ed.gov/programs/digest/d21/tables/dt21_101.40.asp?current=yes.
- 30 Eric Wearne and John Thompson, "National Hybrid Schools Survey 2022," *National Hybrid Schools Project*, Kennesaw State University, March 2022, <https://coles.kennesaw.edu/education-economics-center/hybrid/documents/Hybrid-Schools-Annual-Report-2022.pdf>.
- 31 Wearne and Thompson, "National Hybrid Schools Survey 2022," <https://coles.kennesaw.edu/education-economics-center/hybrid/documents/Hybrid-Schools-Annual-Report-2022.pdf>, Figure 12.
- 32 Wearne and Thompson, "National Hybrid Schools Survey 2022," <https://coles.kennesaw.edu/education-economics-center/hybrid/documents/Hybrid-Schools-Annual-Report-2022.pdf>.
- 33 Jason Bedrick and Matthew Ladner, "Let's Get Small: Microschools, Pandemic Pods, and the Future of Education in America," *Backgrounder* 3540, Center for Education Policy, October 6, 2020, <https://files.eric.ed.gov/fulltext/ED609716.pdf>; Arianna Prothero, "'Micro Schools' Could Be New Competition for Private K-12," *EducationWeek*, January 26, 2016, <https://www.edweek.org/policy-politics/micro-schools-could-be-new-competition-for-private-k-12/2016/01>; Michael B. Horn, "The Rapid Rise of Pandemic Pods," *Education Next* 21, no. 1 (Winter 2021), <https://www.educationnext.org/rapid-rise-pandemic-pods-will-parent-response-covid-19-lead-to-lasting-changes/>.
- 34 Juliet Squire, Melissa Steel King, and Justin Trinidad, "Working Toward Equitable Access and Affordability: How Private Schools and Microschools Seek to Serve Middle- and Low-income Students," *Bellwether Education Partners*, July 2019, https://bellwethereducation.org/sites/default/files/Working%20Toward%20Equitable%20Access%20and%20Affordability_Bellwether.pdf.
- 35 Adam Newman, Tanya Rosbash, and Andrea Zurita, "School Disrupted — Part 1: The Impact of COVID-19 on Parent Agency and the K-12 Ecosystem," *Tyton Partners*, May 2021, <https://d1hzn4d3dn6lg.cloudfront.net/production/uploads/2021/05/School-Disrupted-04.21-FINAL.pdf>.
- 36 "EdChoice — Gen Pop National Polling Presentation," *Morning Consult*, October 2020, <https://edchoice.morningconsultintelligence.com/assets/167040.pdf>, slide 20; author's calculations based on "National Center for Education Statistics, "Table 101.40," https://nces.ed.gov/programs/digest/d21/tables/dt21_101.40.asp?current=yes.
- 37 Laura Czerniewicz, "Unbundling and Rebundling Higher Education in an Age of Inequality," *EDUCAUSE Review* 53, no. 6 (October 29, 2018), <https://er.educause.edu/articles/2018/10/unbundling-and-rebundling-higher-education-in-an-age-of-inequality>.
- 38 Ryan Craig, "The Great Unbundling of Higher Education Starts Now," *Forbes*, July 24, 2020, <https://www.forbes.com/sites/ryanraig/2020/07/24/the-great-unbundling-of-higher-education-starts-now/?sh=b83ec976ed22>.
- 39 Tristan McCowan, "Higher Education, Unbundling and the End of the University as We Know It," *Oxford Review of Education*, 2017, <https://core.ac.uk/download/pdf/111032516.pdf>.
- 40 Steven Mintz, "Is Competency-based Education an Idea Whose Time Has Come?" *Inside Higher Ed* (blog), March 7, 2022, <https://www.insidehighered.com/blogs/higher-ed-gamma/competency-based-education-idea-whose-time-has-come>.
- 41 "Trending in Higher Ed: Competency-based Education," *Utah System of Higher Education*, May 2, 2019, <https://ushe.edu/trending-in-higher-ed-competency-based-education/#:~:text=Competency%2Dbased%20Education%20takes%20into,around%20credit%20hours%20and%20grades>.
- 42 "Gain New Skills, Knowledge, and Experience with Microcredentials at SUNY," *SUNY*, accessed July 28, 2022, <https://www.suny.edu/microcredentials/#:~:text=What%20is%20a%20microcredential%3For%20when%20you%20are%20ready>.
- 43 Robert Duffner, "The Rise of the Coding Boot Camp," *WIRED*, accessed July 28, 2022, <https://www.wired.com/insights/2014/08/rise-coding-boot-camp/>.
- 44 "Homepage," *Beyond12*, accessed July 28, 2022, <https://www.beyond12.org/>; "Homepage," *Bright Prospect*, accessed July 28, 2022, <https://brightprospect.org/>; "Homepage," *College Possible*, accessed July 28, 2022, <https://collegepossible.org/>; "Homepage," *College Track*, accessed July 28, 2022, <https://collegetrack.org/>; "Homepage," *Emerge*, accessed July 28, 2022, <https://www.emergefellowship.org/>; "Homepage," *One Million Degrees*, accessed July 28, 2022, <https://onemilliondegrees.org/>; "Homepage," *Peer Forward*, accessed July 28, 2022, <https://www.peerforward.org/>.
- 45 "Homepage," *Braven*, accessed July 28, 2022, <https://bebraven.org/>; "Homepage," *The Opportunity Network*, accessed July 28, 2022, <https://opportunitynetwork.org/>; "Homepage," *Basta*, accessed July 28, 2022, <https://projectbasta.com/>.
- 46 Ben Scafidi, "Unbundling: A New Way to Approach Teacher Professional Development and Classroom Supplies," *Fiscal Research & Education Center by EdChoice*, August 11, 2020, <https://www.edchoice.org/engage/unbundling-a-new-way-to-approach-teacher-professional-development-and-classroom-supplies/>.
- 47 Scafidi, "Unbundling," <https://www.edchoice.org/engage/unbundling-a-new-way-to-approach-teacher-professional-development-and-classroom-supplies/>.
- 48 Cision PR Newswire, "ClassWallet to Provide Spending Management Platform for Teachers under Five-year Contract from Utah State Board of Education," *ClassWallet*, July 20, 2020, https://classwalletnews.com/press_releases/classwallet-to-provide-spending-management-platform-for-teachers-under-five-year-contract-from-utah-state-board-of-education.

- 49 V. Darleen Opfer, Julia H. Kaufman, and Lindsey E. Thompson, Implementation of K-12 State Standards for Mathematics and English Language Arts and Literacy (RAND Corporation, 2016), https://www.rand.org/pubs/research_reports/RR1529-1.html.
- 50 Opfer, Kaufman, and Thompson, Implementation of K-12 State Standards for Mathematics and English Language Arts and Literacy, https://www.rand.org/pubs/research_reports/RR1529-1.html.
- 51 "The Opportunity Myth: What Students Can Show Us about How School Is Letting Them Down — and How to Fix It," TNTP, 2018, https://tntp.org/assets/documents/TNTP_The-Opportunity-Myth_Web.pdf, p 31.
- 52 Scafidi, "Unbundling," <https://www.edchoice.org/engage/unbundling-a-new-way-to-approach-teacher-professional-development-and-classroom-supplies/>.
- 53 Michael B. Horn and Mike Goldstein, "Putting School Budgets in Teachers' Hands," Education Next 18, no. 4 (Fall 2018), <https://www.educationnext.org/putting-school-budgets-in-teachers-hands-end-users-classroom-purchasing-decisions/>.
- 54 Horn and Goldstein, "Putting School Budgets in Teachers' Hands," <https://www.educationnext.org/putting-school-budgets-in-teachers-hands-end-users-classroom-purchasing-decisions/>.
- 55 "Creating a Professional Development Project," Donors Choose, accessed July 28, 2022, <https://help.donorschoose.org/hc/en-us/articles/204363783-Creating-a-Professional-Development-Project>.
- 56 "Program Information," Fund for Teachers, accessed August 1, 2022, <https://www.fundforteachers.org/documents/Program-Information.pdf>.
- 57 Megan Kuhfeld, Jim Soland, Karyn Lewis, and Emily Morton, "The Pandemic Has Had Devastating Impacts on Learning. What Will It Take to Help Students Catch Up?" Brown Center Chalkboard, March 3, 2022, <https://brook.gs/3HBFY7J>; Centers for Disease Control and Prevention, "Adolescent Behaviors and Experiences Survey," 2021, <https://www.cdc.gov/healthyyouth/data/abes.htm>.
- 58 "Time to Rethink Learning — How Real World Learning Can Better Prepare Students for the Future of Work," Ewing Marion Kauffman Foundation, accessed July 28, 2022, <https://realworldlearning.kauffman.org/>; "Homepage," Age of Agility, accessed July 28, 2022, <https://ageofagility.org/>.
- 59 Nat Malkus, "The \$200 Billion Question — How Much of Federal COVID-19 Relief Funding for Schools Will Go to COVID-19 Relief?" American Enterprise Institute, August 2021, <https://www.aei.org/wp-content/uploads/2021/08/The-200-Billion-Question.pdf?x91208>; "Education Department Announces \$68 Million in Grants to Support Students through Full-Service Community Schools," U.S. Department of Education, July 12, 2022, <https://www.ed.gov/news/press-releases/education-department-announces-68-million-grants-support-students-through-full-service-community-schools>.
- 60 Cara Candal, "Microgrants: Growing Innovative Learning Opportunities for All Students," ExcelinEd, July 28, 2021, <https://excelined.org/2021/07/28/microgrants-growing-innovative-learning-opportunities-for-all-students/>; Katie Dauphinais, "Make Idaho's 'Strong Families, Strong Students' Grant Permanent," ExcelinEd, February 26, 2021, <https://excelinedinaction.org/2021/02/26/make-idahos-strong-families-strong-students-grant-permanent/#:~:text=The%20Strong%20Students%20legislation%2C%20sponsored,learning%20support%20and%20supplemental%20resources>.
- 61 "Defining High School Work-Based Learning Is Just the First Step: Why Communications Infrastructure Is So Important," American Student Assistance (blog), April 28, 2021, [https://www.asa.org/blog/defining-high-school-work-based-learning-is-just-the-first-step/#:~:text=Nationwide%2C%20just%20seven%20states%20\(Delaware,information%20about%20work%2Dbased%20learning](https://www.asa.org/blog/defining-high-school-work-based-learning-is-just-the-first-step/#:~:text=Nationwide%2C%20just%20seven%20states%20(Delaware,information%20about%20work%2Dbased%20learning).
- 62 "What Students Want: Work-Based Learning Programs," American Student Assistance (blog), March 24, 2021, <https://www.asa.org/blog/what-students-want-work-based-learning-programs/#:~:text=However%2C%20a%202020%20ASA%20survey,experiences%20for%20high%20school%20students>.
- 63 John Valant and Jane Arnold Lincove, "The Barriers That Make Charter Schools Inaccessible to Disadvantaged Families," Brown Center Chalkboard, Brookings, March 16, 2018, <https://www.brookings.edu/blog/brown-center-chalkboard/2018/03/16/the-barriers-that-make-charter-schools-inaccessible-to-disadvantaged-families/>.
- 64 Greg J. Duncan and Richard J. Murnane (eds.), "Introduction: The American Dream, Then and Now," in *Whither Opportunity? Rising Inequality, Schools, and Children's Life Chances* (Russell Sage, 2011), Figure 1.6, https://www.russellsage.org/sites/all/files/Duncan_Murnane_Chap1.pdf.
- 65 Alex Spurrier, Lynne Graziano, Brian Robinson, and Juliet Squire, "Expanding Educational Options: Emergent Policy Trends," Bellwether Education Partners, January 25, 2022, <https://bellwethereducation.org/publication/expanding-educational-options-emergent-policy-trends>; "Education Savings Accounts (ESAs)," EdChoice, accessed July 28, 2022, <https://www.edchoice.org/school-choice/types-of-school-choice/education-savings-account/>.
- 66 "Homepage," Engaged Detroit, accessed July 28, 2022, <https://www.engageddetroit.hsc.com/>; "Homepage," Black Mothers Forum, Inc., accessed July 28, 2022, <https://blackmothersforums.com/education>; "Homepage," RESCHOOL Colorado, accessed July 28, 2022, <https://www.reschoolcolorado.org/>; "Homepage," Love Your School, accessed July 28, 2022, <https://www.loveyourschool.org/>; "Homepage," Families Empowered, accessed August 19, 2022, <https://familiesempowered.org/>.
- 67 "The ABCs of School Choice — the Comprehensive Guide to Every Private School Choice Program in America," EdChoice, 2021, <https://www.edchoice.org/wp-content/uploads/2021/03/2021-ABCs-of-School-Choice-WEB-2-24.pdf>, p.14.
- 68 "The ABCs of School Choice — the Comprehensive Guide to Every Private School Choice Program in America," EdChoice, 2022, <https://www.edchoice.org/wp-content/uploads/2022/01/2022-ABCs-FINAL-WEB-002.pdf>.
- 69 Olivia Krauth and Joe Sonka, "Judge's ruling strikes blow to Kentucky's new school choice law," Courier Journal, October 8, 2021, <https://www.courier-journal.com/story/news/education/2021/10/08/kentucky-education-opportunity-account-tax-credit-ruled-unconstitutional-judge-says/6025983001/>; Randy Yohe, "Judge Files Injunction Halting Hope Scholarship Program," West Virginia Public Broadcasting, July 6, 2022, <https://www.wvpublic.org/government/2022-07-06/judge-files-injunction-halting-hope-scholarship-program>; Jerod MacDonald-Evoy, "Ducey Signs New School Voucher Law, Opponents Launch Campaign to Stop It," AZ Mirror, July 7, 2022, <https://www.azmirror.com/blog/ducey-signs-new-school-voucher-law-opponents-launch-campaign-to-stop-it/>.

- 70 "Idaho Governor Little Signs Student-centered Bill Creating Empowering Parents Grant Program," ExcelinEd, March 1, 2022, <https://excellinedinaction.org/2022/03/01/idaho-governor-little-signs-student-centered-bill-creating-empowering-parents-grant-program/>.
- 71 Candal, "Microgrants," <https://excellined.org/2021/07/28/microgrants-growing-innovative-learning-opportunities-for-all-students/>.
- 72 "Ohio Afterschool Child Enrichment Educational Savings Program," Ohio Department of Education, accessed July 28, 2022, <https://education.ohio.gov/ohioace>.
- 73 Carlos Jamieson, Chris Duncombe, Lauren Bloomquist, Sharmila Mann, and Tom Keily, "50-state Comparison: Dual/Concurrent Enrollment Policies," Education Commission of the States, June 21, 2022, <https://www.ecs.org/50-state-comparison-dual-concurrent-enrollment-policies/>.
- 74 "Rethinking 'Seat Time': State Approaches to Earning Credit in Out-of-School Time," National Conference of State Legislatures, 2021, <https://www.ncsl.org/documents/educ/SeatTime.pdf>; "Future-focused State Policy Actions to Transform K-12 Education," Aurora Institute, April 2020, <https://files.eric.ed.gov/fulltext/ED608216.pdf>.
- 75 Alex Spurrier, Lynne Graziano, Brian Robinson, and Juliet Squire, "Expanding Educational Options: Emergent Policy Trends," Bellwether Education Partners, January 25, 2022, <https://bellwethereducation.org/publication/expanding-educational-options-emergent-policy-trends>.
- 76 "Learn Everywhere," New Hampshire Department of Education, accessed August 19, 2022, <https://www.education.nh.gov/partners/education-outside-the-classroom/learning-everywhere>.
- 77 Alex Spurrier, Lynne Graziano, Brian Robinson, and Juliet Squire, "Expanding Educational Options: Emergent Policy Trends," Bellwether Education Partners, January 25, 2022, <https://bellwethereducation.org/publication/expanding-educational-options-emergent-policy-trends>.
- 78 Becky Knapp, "Prenda offers 'a new way to do school'," White Mountain Independent, December 29, 2021, https://www.wmicentral.com/prenda-offers-a-new-way-to-do-school/article_dcd5647d-be78-501a-a696-fee6fde7006b.html.
- 79 Julie A. Marsh, John F. Pane, and Laura S. Hamilton, "Making Sense of Data-Driven Decision-Making in Education," RAND Corporation, 2006, https://www.rand.org/content/dam/rand/pubs/occasional_papers/2006/RAND_OP170.pdf.
- 80 Kevin Bushweller, "What the Massive Shift to 1-to-1 Computing Means for Schools, in Charts," EducationWeek, May 17, 2022, <https://www.edweek.org/technology/what-the-massive-shift-to-1-to-1-computing-means-for-schools-in-charts/2022/05>.
- 81 Mark Lieberman, "Most Students Now Have Home Internet Access. But What about the Ones Who Don't?" EducationWeek, April 20, 2021, <https://www.edweek.org/technology/most-students-now-have-home-internet-access-but-what-about-the-ones-who-dont/2021/04>.
- 82 Alyson Klein, "What's Getting in the Way of More Effective Digital Learning?" EducationWeek, March 8, 2022, <https://www.edweek.org/technology/whats-getting-in-the-way-of-more-effective-digital-learning/2022/03>.
- 83 Alyson Klein, "Tech Fatigue Is Real for Teachers and Students. Here's How to Ease the Burden," EducationWeek, March 8, 2022, <https://www.edweek.org/technology/tech-fatigue-is-real-for-teachers-and-students-heres-how-to-ease-the-burden/2022/03>.
- 84 "Homepage," ClassWallet, accessed July 28, 2022, <https://classwallet.com/>; "Family Empowerment Scholarship for Students with Unique Abilities (FES-UA)," Step Up for Students, accessed July 28, 2022, <https://www.stepupforstudents.org/logins/special-needs-login/>; "Homepage," Students First Technologies, accessed July 28, 2022, <https://www.studentfirsttech.com/>.
- 85 "Homepage," GreatSchools, accessed July 28, 2022, <https://www.greatschools.org/>; "Homepage," Schoolahoop, accessed July 28, 2022, <https://schoolahoop.org/>; "Homepage," Wonderschool, accessed July 28, 2022, <https://corp.wonderschool.com/>.
- 86 National Center for Education Statistics, "Spotlight 1: Prevalence of Mental Health Services Provided by Public Schools and Limitations in Schools' Efforts to Provide Mental Health Services," Indicators of School Crime and Safety, July 2020, https://nces.ed.gov/programs/crimeindicators/ind_s01.asp.



© 2022 Bellwether

- © This report carries a Creative Commons license, which permits noncommercial re-use of content when proper attribution is provided. This means you are free to copy, display and distribute this work, or include content from this report in derivative works, under the following conditions:
- ① **Attribution.** You must clearly attribute the work to Bellwether, and provide a link back to the publication at www.bellwether.org.
 - ⑤ **Noncommercial.** You may not use this work for commercial purposes without explicit prior permission from Bellwether.
 - ③ **Share Alike.** If you alter, transform, or build upon this work, you may distribute the resulting work only under a license identical to this one.

For the full legal code of this Creative Commons license, please visit www.creativecommons.org. If you have any questions about citing or reusing Bellwether content, please contact us.