Some Assembly Required

How a More Flexible Learning Ecosystem
Can Better Serve All Kids and Unlock Innovation

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Introduction

Fifty-four million school-aged children reside in the United States, and education plays an essential role in helping them grow into adults who can pursue their passions and contribute to their communities and society. More than a century of new legislative and judicial mandates, a significantly larger and more diverse student population, and increased demands from an evolving economy and fragile democracy have tasked our schools with providing all students in their care a wide range of academic and nonacademic supports.

While all children need some of the same things from their education — a safe place to learn, literacy, and numeracy top the list — students also have individualized needs. At various points in their growth and development, some children will need help learning English or skills for self-regulation, some need occupational therapy, others need career counseling. Each student also has unique talents, interests, and capacities that their learning experiences should celebrate and cultivate.

Unfortunately, data on students' academic outcomes and social-emotional well-being make clear that the one-size-fits-all system of education that emerged in the industrial era is poorly suited to the modern one. For decades, measures of students' academic growth and achievement have shown only modest progress and persistent gaps among student subgroups.[1] Measures of students' social-emotional well-being indicate a growing crisis in mental health.[2] Other indicators of postsecondary success, unemployment, and civic engagement are also disheartening.[3] The COVID-19 pandemic has only exacerbated these trends.

Moreover, families and students have demonstrated an increasing appetite for educational experiences that are not just *better* but also *different*. Participation has increased in nontraditional learning environments that embrace project-based and self-directed learning, include more excursions into communities and the natural world, and engage parents as more active partners in students' learning. The unschooling movement of the 1970s has gained new momentum. And even within the public school system, parent opinion polls find greater support for "bold change" than returning to the pre-pandemic "normal."[4]

Families and their children need new solutions that a more robust ecosystem of learning opportunities can provide — an ecosystem with the potential to expand students' access to options that not only support their mastery of basic skills but also cultivate their individual interests, talents, and goals; foster new and more customized solutions outside large and inflexible systems; break down barriers between school, family, and community to support every aspect of a child's growth and development; and tailor supports for students furthest from opportunity.

In fact, this ecosystem already exists — for some. Many families leverage it to ensure their children get what they need to flourish. Some work within their schools, some switch schools, some leverage online learning and community resources to teach their children at home, and still others provide their children with supplemental or enriching experiences beyond the school day and year.

The future is here; it just isn't equitable. Families and students' ability to access options and customize their learning is too often contingent on families' financial means, knowledge of what options exist, ability to navigate complex systems and exercise agency in choosing the best options for their child, and other personal or community resources needed to overcome logistical barriers to participation.

This brief argues that a system of education equal to the demands of the modern era will require the flexibility to customize learning experiences for each child, a dynamic ecosystem that's responsive to changing needs and demands, and a commitment to equity in policy and practice. It will also require creating and sustaining communities where diverse students, families, educators, and others can gather and participate in shared endeavors. **In short, to realize the excellent, equitable, and dynamic system of education we need, some Assembly is required.**

Assembling education:

- Puts families and students at the center of an ecosystem of flexible services, supports, and learning experiences.

- Allows families and students to customize educational experiences through a diversity of flexible component parts, beyond what's offered by school choice.

- Creates opportunities to build community and shared purpose with others, across residential boundaries.

- Ensures that families' access isn't constrained by socioeconomic status or structural barriers like transportation.

Schools must provide a wide array of services but struggle to meet *all* needs of *all* students

The schools we have today were designed at a different time, for a different purpose. Schools have evolved considerably from those that sought to teach white elementary students reading, writing, and arithmetic in the 1800s. Almost as soon as common schools began to expand across the country, they began to expand their offerings to include basic health care and health education, athletics, and career counseling, among many other services. They evolved far beyond institutions of teaching and learning, and now provide children with a wide range of supports.

Child care: The most fundamental, if frequently overlooked, service that a typical school today provides is custodial care for children. As parents experienced during the pandemic, the mere work of keeping children supervised and occupied during the day is often what allows adults in the household to participate in the workforce.

Core academics: Schools also provide instruction in core academic subjects. Especially since the standards, assessment, and accountability movement of the 1990s and 2000s, schools have concentrated their time and energy on mathematics, English language arts, and science, the subjects on which states assess student progress and proficiency and which serve as key inputs into measures of school quality. Schools also provide instruction in history, civics, foreign languages, and other subjects.

Enrichment and remediation: Schools provide enrichment for children, with exposure to art, music, athletics, and life skills in technology, home economics, and health; they also provide remedial support for students who do not master new skills and content in lockstep with their peers.

College and career advancement: Schools provide specialized programs like dual enrollment and career and technical education, often connecting students to other agencies and institutions for learning opportunities.

Community: Schools provide for socialization, with students participating in common norms and expectations, school activities and events, and the other intangibles that define a shared culture.

Support for special populations: For students with specific characteristics, schools provide additional support to meet their needs, including special education services and instruction for students for whom English is not their primary language.

Support for basic needs: Schools provide support for other student needs, including identifying and reporting students suffering from neglect and/or abuse, or who are otherwise in crisis; providing connections to social service agencies; and screening for some health issues. In many schools serving low-income populations, schools also help ensure students have healthy food, clothing, and shelter.

Schools strive to deliver this ever-expanding list of services and supports. School administrators and staff wear numerous hats far beyond academic instruction. They forge partnerships with other agencies and community organizations to augment their capacity. But their efforts too often fall short or are stymied by a revolving door of new reforms — leaving too many students without the types or quality of supports they need. The results are discouraging.

Over the past 50 years, students' scale scores on the National Assessment of Educational Progress have shown only modest improvement, with persistent gaps between racial and economic subgroups.[5] High school graduation rates have also ticked slowly upward past 80%, with similar gaps by race and income.[6] When students reach postsecondary education, nearly half take remedial courses and fewer than half graduate within four years.[7]

The pandemic has deepened these challenges. Research on student test scores confirms significant declines overall and a widening achievement gap; surveys of students from the Centers for Disease Control and Prevention show a significant uptick in mental health issues.[8] Unemployment is up among young people, while civic participation remains low.[9]

As society continues to adapt to the pandemic, it's necessary to reassess whether policymakers, practitioners, and families can reasonably ask schools to be the primary or even sole provider of services to meet the profound and varied needs of K-12 students. If the answer is no, alternative ecosystems of student supports should be explored. Schools could double down on community partnerships and wraparound services, in an effort to augment their capacity to meet student needs. Schools could also do less, with policies, practices, and supports that empower families and students to find what they need within a broader ecosystem of options. Either approach requires a fundamental mindset shift to meet student needs and an agnostic perspective about how it happens.

Assembly-based education puts students at the center

Assembly-based education has the potential to recenter policies and practices on the intended beneficiaries (students) rather than the traditional mode of delivery (schools). It evokes Clayton Christensen's "jobs to be done" framework for innovation and Harvard professor Theodore Levitt's insight that "people don't want to buy a quarter-inch drill. They want a quarter-inch hole."[10]

The metaphor holds for education. Students don't need a math class; they need to know how to do math. Students don't need recess; they need time to play and build relationships. The country doesn't need school buildings where student cohorts progress through a curriculum with same-age peers; it needs safe places for students to chart pathways to becoming adults ready to contribute to their community, the economy, and the body politic.

An ecosystem of flexible learning experiences could provide students and their parents (or another trusted adult) with the freedom and the flexibility to assemble a variety of learning experiences focused on *what students need* to know and be able to do instead of *how the school* will provide it. Students could learn and receive support from many potential providers. Schools may be one provider, but not the only provider. Students and families could assemble a wide variety of learning experiences that, taken together and customized, prepare each child for lifelong success.

Figure 1: A Student-Centered Framework for Assembling Education

Needs
Resources
Providers
Enabling Conditions
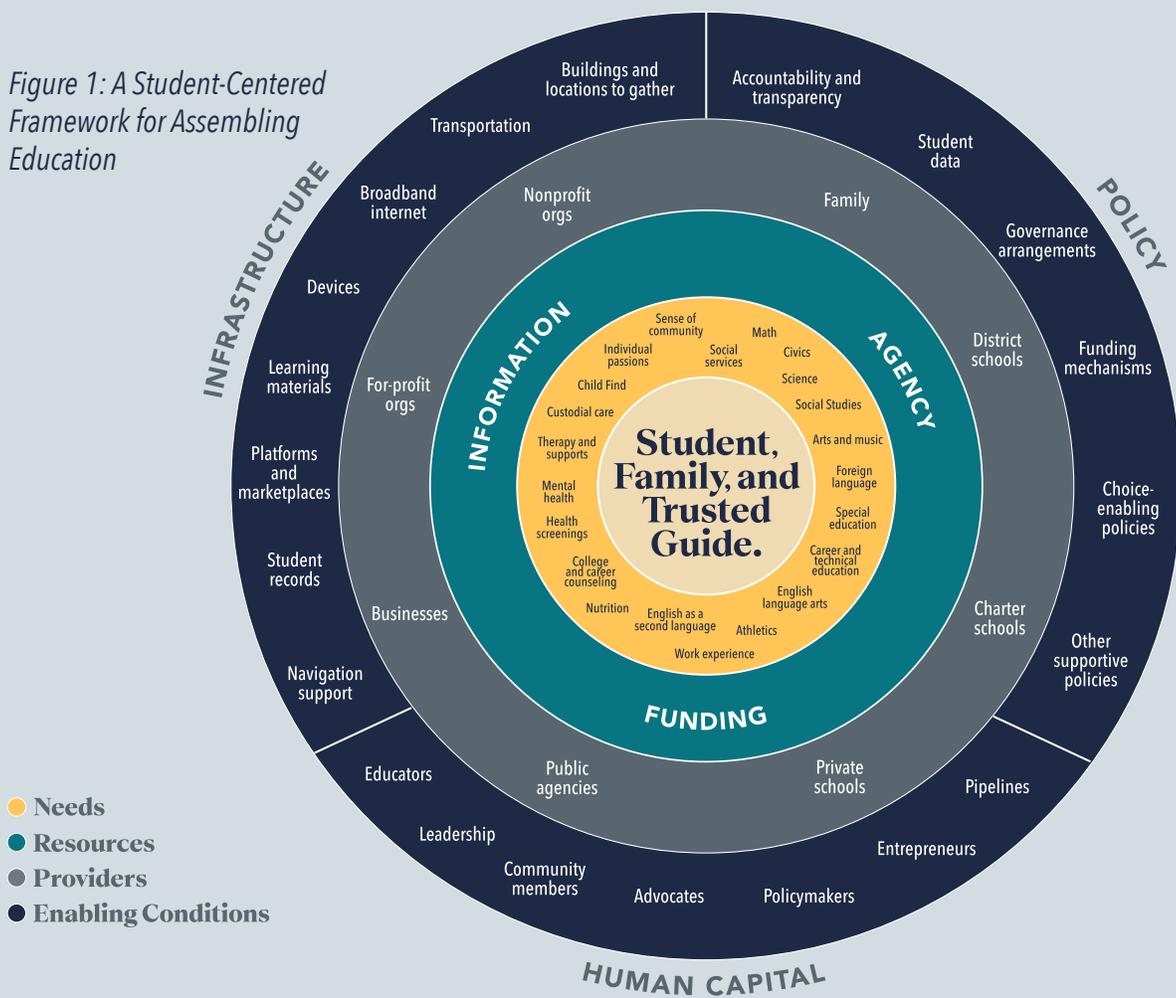
As illustrated in Figure 1, an Assembly-based learning ecosystem revolves around students and their individualized needs. With adequate funding, information, and agency, students and their families — or families with the help of a trusted guide or teacher — can assemble a diversity of learning options from numerous potential providers, including but not limited to schools, to meet the individual needs of each child. An ecosystem that fosters the necessary infrastructure, human capital, and policy conditions supports students, families, and providers and helps them connect and coordinate. It also creates opportunities for new communities to form across residential lines of demarcation, perhaps in a traditional classroom, or perhaps through an online course on a niche student passion or a shared experience in the workforce.

Importantly, in an ecosystem of flexible learning opportunities, there is no "right" way to assemble them. Some students will be well served by the array of services offered by their traditional school, and their families may only choose to supplement schooling with after-school or summer enrichment. Other students will be better served with a more a la carte approach, and families will assemble their education from numerous component parts. A student might find that their public school meets most of their needs but wants to incorporate a performance with the community theater as part of their education. Another student may find traditional schooling is ill-suited to their propensity to passionately explore one subject at a time and seek out-of-school options that provide that flexibility. Each approach is possible. Assembly-based education can make this customization equally accessible to all who want it — without forcing it on anyone.

An approach that enables students and their families to assemble a more customized learning experience may seem a stark departure from the status quo. In some ways, it is; it places significant power and agency with individual stakeholders rather than in a system or institution. On the other hand, the ecosystem described already exists in small — and not so small — corners of the education landscape today.

An ecosystem of flexible learning options already exists

Students and families today already participate in this flexible learning ecosystem to varying degrees, but those with means have disproportionate access. While many families leverage personal resources to ensure their children get customized opportunities that support their success and nourish their passions, other families lack sufficient funds, information, or agency to do the same.

School choice is a long-standing and significant avenue through which families shape their children's education. As of fall 2019, 5% of students were enrolled in charter schools and 17% were enrolled in public schools other than the one assigned by residential address.[11] Many more students participate in public school choice when their families move to a neighborhood to access the school it's zoned to. And another 10% of children enroll in private school.[12] During the pandemic, mobility rates among students increased by 75%, suggesting more parents are willing to change their child's school in search of something different or better.[13]

> But other options exist and provide learning opportunities in units smaller than a school, introducing many more permutations for how families can assemble their child's education.

Families and students access some options through their schools. For instance, at least 9 million students participate in learning experiences like career-technical education and dual enrollment.[14] Anywhere between 2 to 6 million students participate in online courses or course choice programs, earning credit toward graduation through instruction and experiences outside of school.[15]

Various configurations of home-schooling, microschools, learning pods, tutoring, and other forms of flexible learning also represent significant segments of the market. Home-schooling rates have increased dramatically, especially among Black families.[16] In 2019, the National Center for Education Statistics reported a home-schooling rate of 2.8% overall, and 1.2% among Black families.[17] In 2020, between spring and fall administrations of its Household Pulse Survey, the U.S. Census Bureau found rates of home-schooling had jumped from 5.4% to 11.1% of all families, and from 3.3% to 16.1% of Black families.[18]

Home-schooling does not take just one form; among children participating in home-schooling before the pandemic, more than half received at least some instruction from a private tutor or teacher or from a home-schooling co-op.[19] A majority of home-school students attended a private school, public school, or college for six or more hours per week.[20] In fact, eight states have policies that allow home-school students to participate in public school activities, with some variation in whether they can participate in core classes, extracurriculars, or both; 35 states have policies that allow home-school students to participate in public school athletics.[21] Hybrid home-schools are also on the rise, in which students attend school two or three days per week with other home-school families, and their parents teach them at home the rest of the time.[22] An inaugural survey in 2021 identified 73 hybrid schools serving 16,500 students across the country.[23]

Microschools — a modern iteration of the one-room schoolhouse — offer yet another flexible learning option. Approximately 610,000 students were enrolled in microschools in fall 2020.[24] And at various times throughout the pandemic, as many as one in three families have participated in "learning pods,"[25] in which adults provided guidance and peers provided socialization while students received academic instruction often through the virtual options offered by their school. As of June 2022, 15% of families indicate their child continues to participate in a learning pod.[26]

Tutoring and online resources are other examples of flexible supports for students. In addition to tutoring students receive at school, 17% of families reported in June 2022 that their child is working with a tutor *outside* of school.[27] Just in the first few months of the pandemic, Khan Academy reported that account registrations had increased 20 times over.[28] Outschool grew from an enrollment of 80,000 students taking classes in March 2020 to over 500,000 as of February

2021 — though Outschool's recent layoffs are a reminder that the sector is still dynamic.[29]

Finally, survey data indicate that 7.8 million children spent an average of 5.6 hours per week in after-school programs, and 12.6 million participate in structured summer activities.[30] Not necessarily exclusive of after-school and summer activities, 56.1% of children ages 6 to 17 also participate in youth sports.[31]

Student participation in flexible learning options helps illustrate the robustness of the options in the ecosystem. Families' private investments in these opportunities are another way to understand the scale and shape of the market.

Tyton Partners, an investment banking and consulting firm specializing in the global knowledge sector, estimates that U.S. families spent $211 billion on education before the pandemic, including $82 billion on "core" school experiences, like private schools or home-schooling; $102 billion on supplemental activities, like sports and social enrichment; and $27 billion on supplemental products, like project-based activity kits and smartphone learning apps.[32]

By fall 2020, when the pandemic was in full swing, families' investments had shifted considerably and already increased by 10% (Table 1).

Table 1: Private Spending on Education, Fall 2020

Private Spending on Education, Fall 2020		Delta From Spring 2020
Core	$4B for learning pods	+ $1B
	$69B for supplemental learning pods	N/A
	$6B for microschools	+ $2B
	$12B for home-schooling	+ $5B
	$49B for private schooling	– $19B
Supplemental activities	$4B for college prep	No change
	$2B for test prep	– $1B
	$7B for language learning	– $2B
	$13B for sports/athletics	– $12B
	$21B for social enrichment	– $11B
	$25B for academic enrichment	– $4B
Supplemental materials	$2B for magazines	No change
	$3B for project-based activity kits	No change
	$3B for print textbooks	– $1B
	$3B for physical toys	– $2B
	$4B for workbooks	No change
	$4B for smartphone learning apps	No change
	$5B for computer learning apps	No change

Source: Adam Newman, Tanya Rosbash, and Andrea Zurita, "School Disrupted, Part I: The Impact of COVID-19 on Parent Agency and the K-12 Ecosystem," Tyton Partners, May 2021, p.17.

All told, families' private spending on core education, supplemental activities, and supplemental materials was about $232 billion in fall 2020 — equal to about 30% of the $794 billion spent on the entirety of public K-12 education during the 2019-20 school year (Figure 2).[33]

Figure 2: Comparison of Public and Parent Spending on K-12 Education
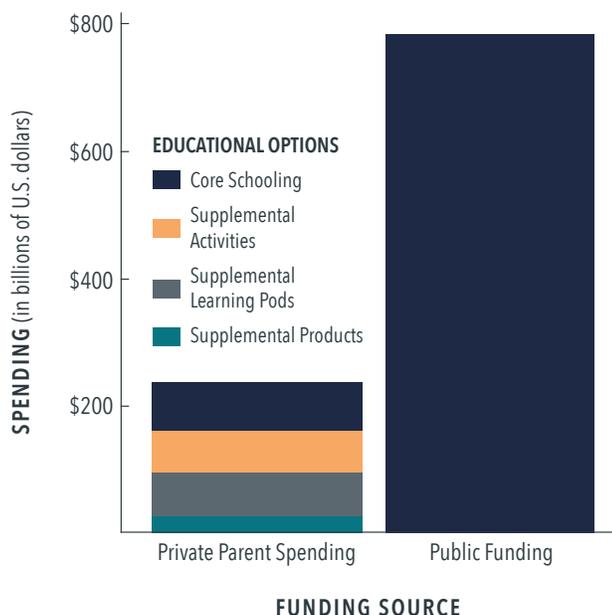
This ecosystem of learning options is already established and continues to grow. It has the potential to help families assemble a wide variety of learning experiences, provided by a diversity of partners and providers, to develop the skills, knowledge, and characteristics each child needs to flourish as an adult — but only families with financial means, knowledge of what options exist, and the ability to navigate complex systems can reliably gain access.

The current ecosystem of learning options is far from equitable

Inequitable access to high-quality public schools is well documented. While they don't charge tuition, high-quality public schools may not be accessible to students because of residential assignment or an insufficient number of seats, the options don't exist in their community, or financial or logistical barriers. Access to private schools is also constrained; as of 2011-12, the most recent data available, the average tuition for private schools is $12,420.[34] While 5.5 million students attended private schools in 2019, only 539,000 vouchers, scholarships, or education savings accounts were provided that year to students to support tuition costs.[35] Many more private school students receive tuition subsidies through philanthropic scholarships or financial aid, but tuition nonetheless remains a barrier for many low- and middle-income students.[36]

Supplemental learning is also a significant source of inequity in education. While dated, an analysis of family expenditures on educational enrichment shows a significant gap by income levels that has widened over time. In 1972-73, the poorest quintile of families spent an average of $883 on enrichment, while the richest quintile spent more than four times as much ($3,740). By 2005-06, the poorest quintile of families spent $1,391 in enrichment, but the richest spent almost seven times as much ($9,384).[37] More recent data confirms a gap in enrichment activities by students' socioeconomic status. Tyton Partners' research shows that just 6% of high-income students didn't participate in out-of-school educational activities, while 30% of low-income students didn't participate.[38]

Without adequate supports, a flexible ecosystem could exacerbate inequities — for example, with atomized education systems that are impossible to navigate, bad actors who provide low-quality services, or incoherent learning pathways that fall short of preparing students for success in their own lives or as contributing members of society. Any negative effects would likely land hardest on students furthest from opportunity. These risks underscore that while the die may already be cast on *whether* we advance toward a more Assembly-based education ecosystem, *how* we do so has enormous implications. **An Assembly-based ecosystem must be accessible to all students who want it and attend in particular to students at the margins.**

Assembly-based education can surface new answers to old problems

The state of poor and inequitable student outcomes is well documented, as are the disheartening and disparate impacts of the pandemic on students' academic growth and social-emotional well-being. A more flexible learning ecosystem creates the possibility for new solutions to emerge.

More collaboration between family, school, and community.

Schools have been asked to fulfill an expanding set of mandates over the last 150 years: provide higher levels of education to meet the demands of an evolving economy; serve more students, including student populations historically marginalized or excluded; and meet an increasing variety of previously under-supported student needs. Assembly-based education creates an opportunity for a broader swath of partners, from community nonprofits to online providers, to share these responsibilities.

Customized options to meet diverse student needs.

In order to serve millions of students and to do so efficiently with public resources, schools often must prioritize and offer a standard learning pathway. As a result, the school system isn't optimally designed for each child's distinct needs and interests. Instead of endeavoring to provide families with one educational option to meet every need, with the right policies and supports in place, Assembly-based education has the potential to provide *all* families with access to *more* options that can meet the needs of their children.

Increased equity in supplemental learning options.

Some families can and do tilt the odds of their children's success by paying out of pocket for additional activities, from sports leagues and music lessons to private tutors. Parents with limited financial or social capital — or with other constraints on their ability to exercise educational agency — often struggle to provide their children with these same opportunities. An Assembly-based education reframes education to include the learning that happens inside and outside of school and provides an avenue for elevating and addressing out-of-system inequities.

Flexible ecosystems responsive to changing conditions.

Like any large organization, today's school systems have grown and ossified over time and struggle to meet changing student needs or the demands of a quickly evolving knowledge- and technology-driven economy. Assembly-based education creates greater opportunities for more agile providers to emerge, identify unmet needs, and create new solutions. It can also create new ways for large existing systems to partner with other entities to adapt and respond to family and student needs and preferences.

Excellent services to meet specific needs.

Students receive a range of services from schools, including instruction in particular subject areas, support services, and extracurricular activities. But given the range and complexity of student needs, it's difficult for a single organization to provide all the services that all students need to thrive, let alone provide top-tier services on all fronts. Assembly-based education can empower providers to focus on providing exceptional services in particular areas so students can access excellent options for distinct needs.

Differentiated roles for adults that expand the talent pool. If there's one trait shared across educators in K-12 schools, it's that they end up wearing multiple hats in their current jobs, from instruction and behavior management to grading papers and analyzing assessment data. Assembly-based education can lead to more specialized roles for educators, administrators, and support staff — as well as talent from other sectors. This could enable more adults to leverage their comparative advantages in ways that maximize their talents, create new pathways for advancement, and provide higher-quality supports to students and families.

Lower costs for switching when an option isn't working. If a student is struggling with how a school teaches a particular subject or has a passion for a career pathway their school doesn't offer, many don't have options beyond switching schools. An Assembly-based education can provide students who are satisfied with some — or even most — of their current school environment to make more incremental changes to their education. Offering options that are accessible without changing 100% of a student's school experience can reduce the barriers to exploring new interests or types of learning environments.

An ecosystem friendly to evolution and innovation. A flexible ecosystem enables endless new permutations and configurations that create a process for discovery and can yield unexpected benefits. Consider, for example, how adjustable seats in cars allow for basic, individual customization; how innovations in artificial intelligence and machine learning (necessary for disruptive advancements in self-driving cars) have enabled the mainstream adoption of cruise control and collision avoidance; or how the famous but unplanned discovery of penicillin seeded unforeseen but transformative health care solutions. New discoveries require a greater embrace of risk in the education sector, from new solutions families try with their neighbors to a new learning software developed by a large assessment company. Not every option or innovation will succeed. The point should be to create enough space to start small and learn quickly from those experiences.

Gradual release of agency to support student-directed learning. The current education system offers students little agency over their own educational journey, save for a few elective courses and extracurricular activities in high school. An Assembly-based ecosystem could foster a mindset shift that places more emphasis on the development of agency and autonomy in students as they mature. Over time, students could be empowered to gradually take more control over their educational path and the options they pursue. Some students may be more prepared to make that shift earlier than others, but a more dynamic ecosystem would recognize and cultivate students' executive functions and ownership over their educational journey while preparing them to independently navigate college, career, and adulthood.

Assembly-based education will need to overcome significant risks and barriers

The benefits of existing, high-quality flexible learning ecosystems are available to some families right now, particularly those with substantial financial resources and the information and agency to navigate complex systems or exit the system entirely. For Assembly-based education to create opportunity for all students, especially those furthest from opportunity, practitioners, policymakers, funders, and others must help the sector overcome significant risks and barriers by pursuing solutions to the following challenges.

Provide equitable access to opportunities. Before students can take advantage of a more flexible learning ecosystem of educational options, there are several practical and logistical hurdles they may need to navigate. First, families need to be aware of the options available to them — both in terms of what might serve their children's needs and how they might complement or conflict with other providers. Second, families must have agency to select, access, and participate in the options that work best for their children. Finally, the financing of educational options is a barrier that may deter families from even seeking options that could serve their kids' particular learning needs. Families must be able to direct funding to the option(s) they select. In doing so, they send a direct signal to providers about what they need, and providers can respond accordingly.

Reduce transaction costs. An education system that offers more flexible options will dramatically increase the number of individual decision points that families could potentially make for their children. Navigating this complexity imposes costs on families — particularly those already stretched thin — including time and money. It requires the development of infrastructure that makes it as easy and streamlined as possible for families to assemble a complete and coherent set of educational experiences.

Create, connect, and sustain community. Schools play a central role in many communities through the families they currently serve, as well as have strong ties of alumni connections and traditions associated with athletic programs and other extracurricular activities. These ties may be strained as students pursue other options. At the same time, a more flexible ecosystem may lead to the strengthening of some communal bonds or the creation of new communities that bring students, families, and others together across enrollment zones that too often divide communities along racial or socioeconomic lines. Such an approach could bridge divides while reinvigorating the role of local nonprofit and civic organizations in supporting social cohesion.

Create accountability for quality without stifling innovation. Providing students with opportunities to pursue a range of educational options will lead to more customization and a broader array of providers, which will make it more difficult for policymakers to set and maintain benchmarks of quality. A more flexible ecosystem will create accountability challenges both at the provider level (Are they providing quality services?) and at the student level (Is each student's assembly of learning experiences setting them up for success as an adult?). This creates a need for solutions directed by and independent of public policy. At the same time, efforts to solve for quality and accountability run the risk of stymieing existing or emerging pockets of innovation outside the system. Assembly-based education must wrestle with this age-old tension.

Improve data accessibility, portability, and security. Increasing the number of educational providers that interact with students will create new demands on the data infrastructure to ensure interoperability, communication, and collaboration between individuals and providers. This includes information needed for families to search and find options for their children, securing and sharing student academic records, and enabling third-party assessments of outcomes. Many school systems struggle to do this well as a sole provider — a challenge that will be magnified when more students learn across multiple providers.

Build a political coalition to support Assembly-based education. The development of a more customizable K-12 system may face significant political opposition from entrenched interests invested in the status quo. This has been true when other sectors have been deregulated from highly consolidated systems to a diverse ecosystem of providers, including telecommunications and health care. It would be naive to think that institutional K-12 interests with political clout will sit idly by as their sector introduces more competition. However, there is a potential to counter such efforts by building a cross-class, cross-racial coalition to support more educational options for families. Parents' concern for their children after years of disrupted learning cuts across the political spectrum and could lead to a new bipartisan effort to move K-12 education debates past traditional lines of argument and disrupt existing institutional coalitions.

The role of technology

The supports and services that traditional American schools currently provide didn't land in schools out of happenstance. The central location of schools in neighborhoods across the country has made them natural hubs for information, access, and community. But the constraints of geography and scale no longer apply in the same way. Technology provides alternatives, as well as opportunities, for greater efficiency and customization. It also has a role to play in addressing many of the potential barriers listed previously.

Technology supports more equitable access to opportunities. For instance, devices and the internet provide vast new avenues for families and students to access instruction and support, often beyond the constraints of a student's geographic location or financial means. In addition, while learning software has high up-front costs to development, once it exists, it can be distributed at low per-unit costs — an engine for equitable access.

Technology reduces transaction costs. For instance, online digital platforms can streamline access to information and help families and students efficiently sort and match to the learning opportunities that align to their needs, interests, and goals.

Technology creates and sustains community. For instance, online networks can help families and students connect — either virtually or in person — with others who share their needs, interests, and goals either for simple camaraderie or to join together to create new solutions to shared challenges.

Technology helps account for quality. Technology cannot solve the conundrum of quality and accountability in education, but it can facilitate the collection of student outcomes data and provide transparency about a provider's track record and reputation in concert with or independent of public policy.

Technology provides accessible, portable, and secure data. For instance, technology can facilitate the secure sharing of student data with approved users, including instructors, doctors, counselors, or others who are involved in supporting students' success.

Finally, it's important to acknowledge that an education ecosystem that requires some assembly will inevitably surface long-standing questions that have defined education debates for decades:

What makes public education public? Is education more of a private good or a public good? How should education balance the need to ensure all students have basic knowledge and skills, with their differentiated talents and interests? What's the role of the school vis-a-vis parents and families? What's the right degree of accountability, and when does it impede innovation? Is it better to move fast and make bold moves or to carefully pursue incremental change?

Assembly-based education intersects with each of these questions and many more. It cannot, and will not, resolve them. But it has the potential to rewrite old scripts and engage more stakeholders in the discourse. Importantly, it also has the potential to surface more than one answer and to help policymakers, practitioners, parents, and students pursue different approaches to the same goal: providing students with equitable access to the learning experiences they need to flourish.

Drafting a blueprint to break ground on a higher-quality, more flexible, and equitable ecosystem

In the coming months, we'll take a deep dive into the opportunities, challenges, and promising paths for how **Assembly** can help create the educational opportunities children need. Throughout this work, we'll highlight pain points and identify challenges for further research, analysis, and discussion — all in service of identifying and elevating a well-considered path forward. In the best of all possible worlds, we can see the potential for a more equitable educational assembly in which:

- Students and families can assemble the learning experiences that meet their needs and interests.

- Educators have opportunities to lead and succeed in environments that fully leverage their talents.

- Students receive the support they need to lead fulfilling lives and contribute to society.

- Opportunity is unlinked from families' and students' race or socioeconomic status.

We also know that in the worst of all possible worlds, systemic change to our education system could negatively affect students who are already furthest from educational opportunity. Mitigating that risk is an essential pillar of this work.

The pursuit of a flexible ecosystem of educational opportunity must be conducted responsibly, with full consideration of unintended consequences. It demands humility about knowns and unknowns, a respect for the benefits of incrementalism, and awareness of the risks of destabilizing systems without first understanding why and how they came to be.

Our goal isn't to disassemble the system with fads that will evaporate at the slightest roadblock. Instead, we aim to establish fertile ground to explore new configurations of teaching and learning, and establish policies and practices that may grow slowly but will have deep roots capable of weathering the storms to come. ✦

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Beta
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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

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**.

Endnotes

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