Bellwether

Assembly Across Sectors

How Other Industries Are Practicing Assembly and What This Means for Education

Kateland Beals, Liz McNamee, and Juliet Squire

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Introduction

In our examination of Assembly thus far, we have focused on the history and current state of it as applied to education. In this brief, we widen the lens to examine other sectors and industries that may hold lessons for how public education can adopt more student-centric, personalized, and customizable features of an Assembly approach.

In the private sector, prepackaged offerings make for an effective strategy, offering customers a lower-priced option for a collection of goods or services and/or ease of use. Cable television is a familiar example of a "preassembled" option, with customers receiving hundreds of channels as part of the typical package. In paying one price, customers have access to a bundle of channels without needing or having to make personalized choices. However, allowing customers to assemble their own package has also proved an effective marketing strategy, with industries selling individual goods to distinct customer segments. iTunes, for example, revolutionized the music industry by allowing consumers to build a personalized music library composed of single songs rather than albums.

Assembly-based models show up in public sectors as well, such as health care. Advances in technology and an increasing emphasis on putting the patient at the center of care models have shifted the sector toward an Assembly approach. Whereas doctor offices and hospitals were previously the primary point of care, patients now routinely access health care through pharmacies, telemedicine, remote monitoring, and wearable health and fitness devices.[1]

In the digital age, many products and services have become wholly or partially virtual, resulting in drastically lowered (and in some cases, eliminated) distribution costs. Additionally, providers now have greater access to end users — in both direct-to-consumer products as well as consumer data and information — increasing the appeal and feasibility of Assembly-based strategies. Spurred to enter these markets by a lower cost of entry, new suppliers often differentiate their offerings by meeting the needs of distinctive and more niche customer segments. The pandemic has accelerated existing trends in customization across sectors — and time will tell if it sticks. There is valid speculation about whether the return to "normal" will signal a return to familiar, "prepackaged" approaches.

The current public education system largely provides a standardized offering. Apart from classroom differentiation (which is highly variable and depends on the teacher), some leveled classes, and specific opportunities to customize learning through career and technical education, dual enrollment, high-school electives, or school-provided tutoring, most public school students complete a predetermined set of coursework with limited variance based on interest or need. Of course, public K-12 education is just part of the broad array of education offerings available to students, starting in early childhood and stretching through higher education and adult learning. Within this broad array of education offerings are segments that already closely resemble Assembly — such as the growing home-school movement, the extensive market for supplemental education services, and the burgeoning landscape of college persistence nonprofits that augment campus-based college advising programs.

With so many examples of user customization within and beyond public K-12 education, it raises the question of whether a dramatically greater level of personalization is possible for K-12 students. This brief presents a framework for how different industries have personalized services and explores a series of cases across sectors from which public education might draw lessons.

Our framework

While there are many ways we can classify differences across industries, for the purposes of this exploratory exercise, we will be considering two primary factors:

- The degree to which the outcomes or products of that industry affect others (high versus low externality).

- The degree to which it is preferable (or even necessary) that goods or services in that industry are personalized to the needs of individual users (personalized versus standardized).

This framing is important because the fundamental purpose of industries can be quite different, and it may not be appropriate to compare one to another in all situations. For example, in some industries it's beneficial to orient services and outcomes around individual needs and interests, whereas in other industries — or industry segments — the focus is on outcomes and benefits for the general public. While there are plenty of points of intersection between collective and individual benefits, it's important to consider these fundamental differences when evaluating models of success across sectors and identifying lessons that may apply to public education.

With that in mind, we've plotted a series of industries along a continuum of externality and personalization. "Prepackaged," standardized public goods such as public safety or public infrastructure are examples of both high externality and high standardization (Figure 1). These services affect all users in the market, are funded by taxpayer dollars, and are generally offered as a standard service to all citizens. Public roads and bridges aren't tailored to the personal preferences of each driver, nor is a 911 or emergency responder protocol based on the individual who calls. Citizens can't opt out of paying for these services through taxes, even if they don't consume them. These services are offered as a preassembled package and are viewed as a benefit of being a taxpaying citizen.

Alternatively, industries exist with relatively low collective benefit, or externalities, such as streaming services or gyms. An individual's media or fitness choices have very little effect on others (notwithstanding the public health benefits of a physically fit populous). As such, these industries are subject to less regulation. They can be more easily personalized to the preferences of the end user, who can exercise discretion on whether and what to consume.

And then there is health care — an industry with a high degree of externality in its overall public health implications and one that requires (yet doesn't always result in) personalization to the customer. The consequences of poor health care affect both individuals and society at large. But the public funding of health care for the elderly and low-income, as well as the consequences of poor public health, are significant enough to warrant some regulation and oversight. Meanwhile, doctors and hospitals strive to provide highly personalized care via specialists, equipment, and pharmaceutical treatment plans. Despite its attempt to balance regulation and personalization, however, health care remains fraught with equity and accessibility challenges.

Figure 1: An Externality and Personalization Framework for Applying Cross-Sector Lessons

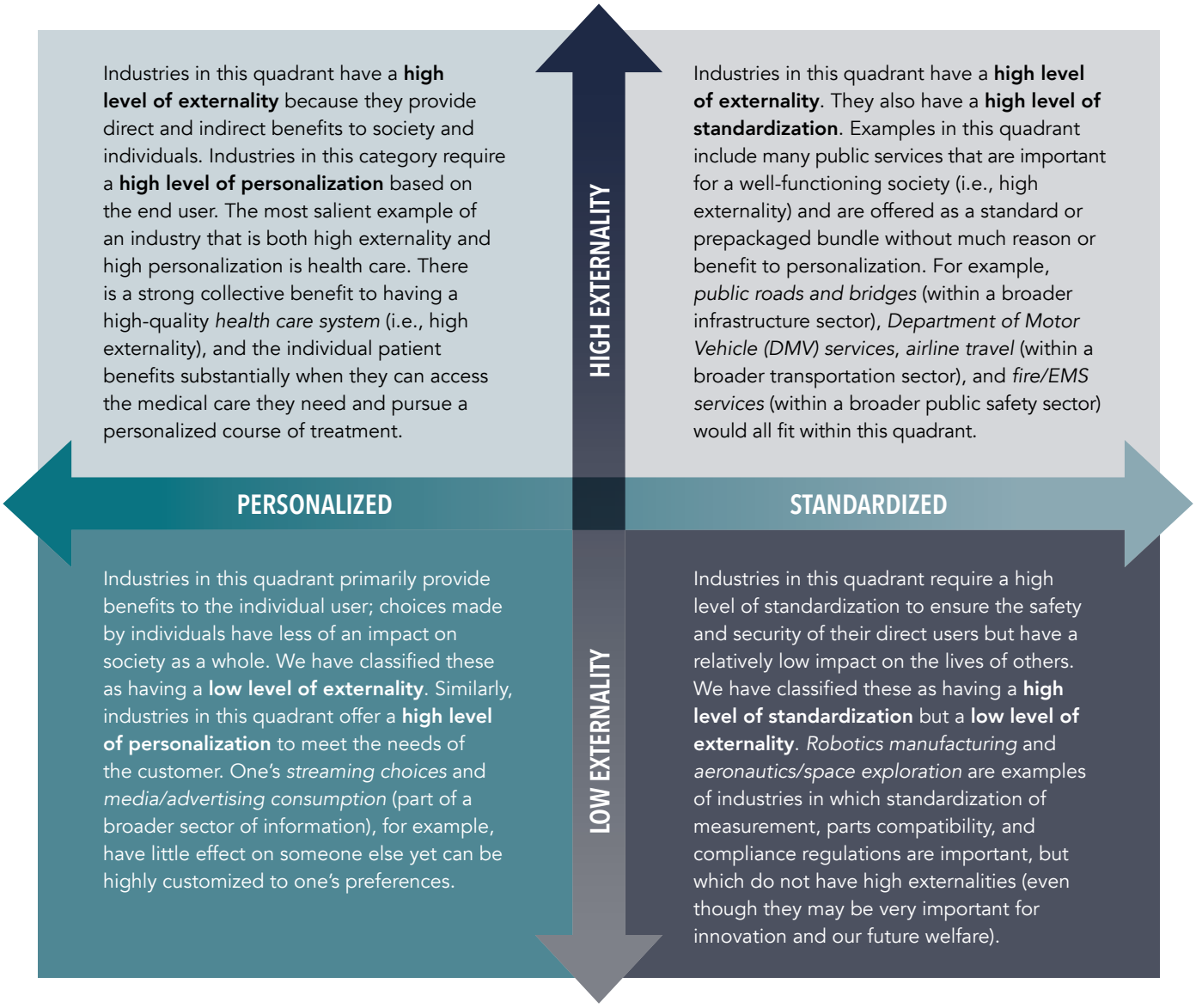


Figure 1 is illustrative, not precise. We recognize that one's degree of personalization within an industry often depends on other factors such as race, ethnicity, socioeconomic status, gender, and other marginalized statuses (e.g., in the case of health care, how personalized someone's experience is often closely related to their access to private health insurance or their ability to pay for services out of pocket). Individual differences may necessitate personalization (e.g., in the case of a physical disability or special needs). Additionally, industries may have some indirect or long-term benefits to society (e.g., in the case of personal fitness and overall public health), but for the purposes of this brief, we're generalizing the placement of an industry based on the modal experience of customers or patients.

Public education should move from standardized to personalized

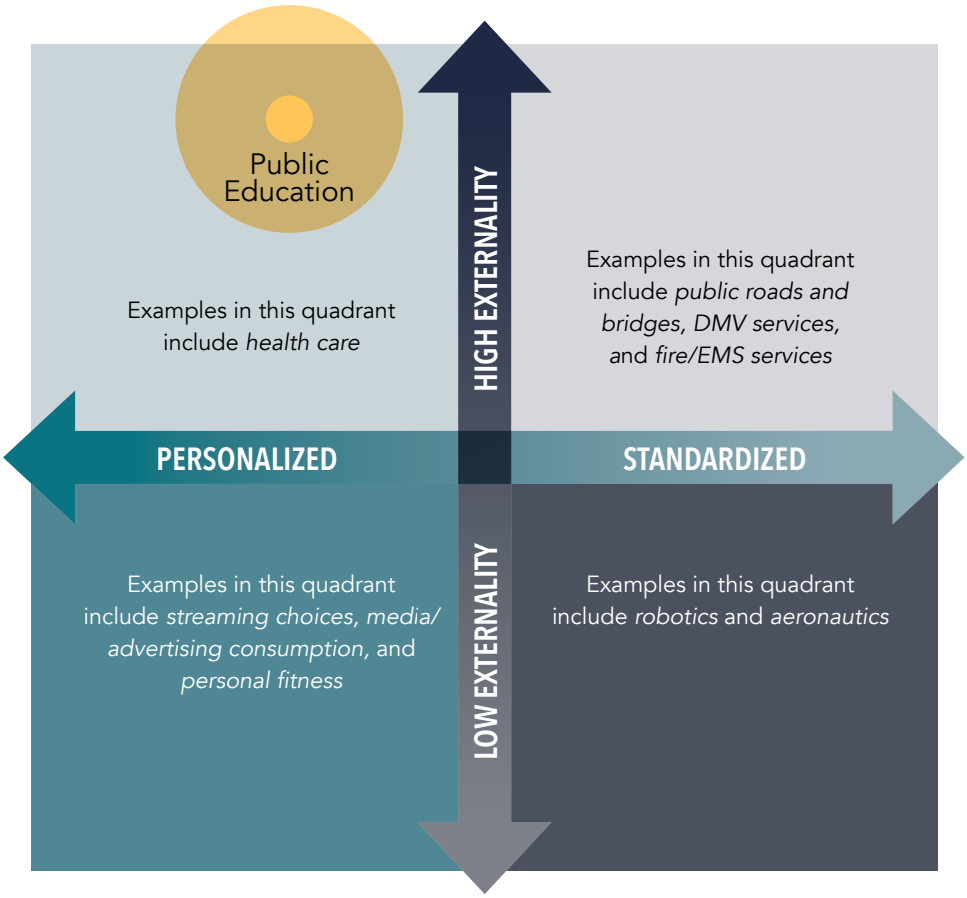
Where would education fall in this framework? Individual students and society both benefit when our education system develops productive members of society, builds a competent workforce, and supports individuals in their pursuit of self-actualization. This is why there are universal service mandates for public education — all states require children to receive an education, whether at home or at school (with limited exceptions and exceptional circumstances, which vary from state to state). While most would agree that public education has a high externality, when it comes to the degree of standardization public education today is treated more like public safety and public infrastructure — a good that can be standardized — situated in the upper right quadrant of the framework (Figure 2).

Instead, we posit that public education should be more like health care in its attention to individual students' life outcomes and their impact on society. This requires shifting the standardized system of public education to adopt or include a more personalized ecosystem.

We argue that public education should be more like health care than public roads in its degree of personalization. Just as each patient responds differently to treatment, has a different genetic makeup, and is exposed to different environmental factors, each student is coming to the classroom from a different starting place.

Public education should be situated in the upper left quadrant of the framework.

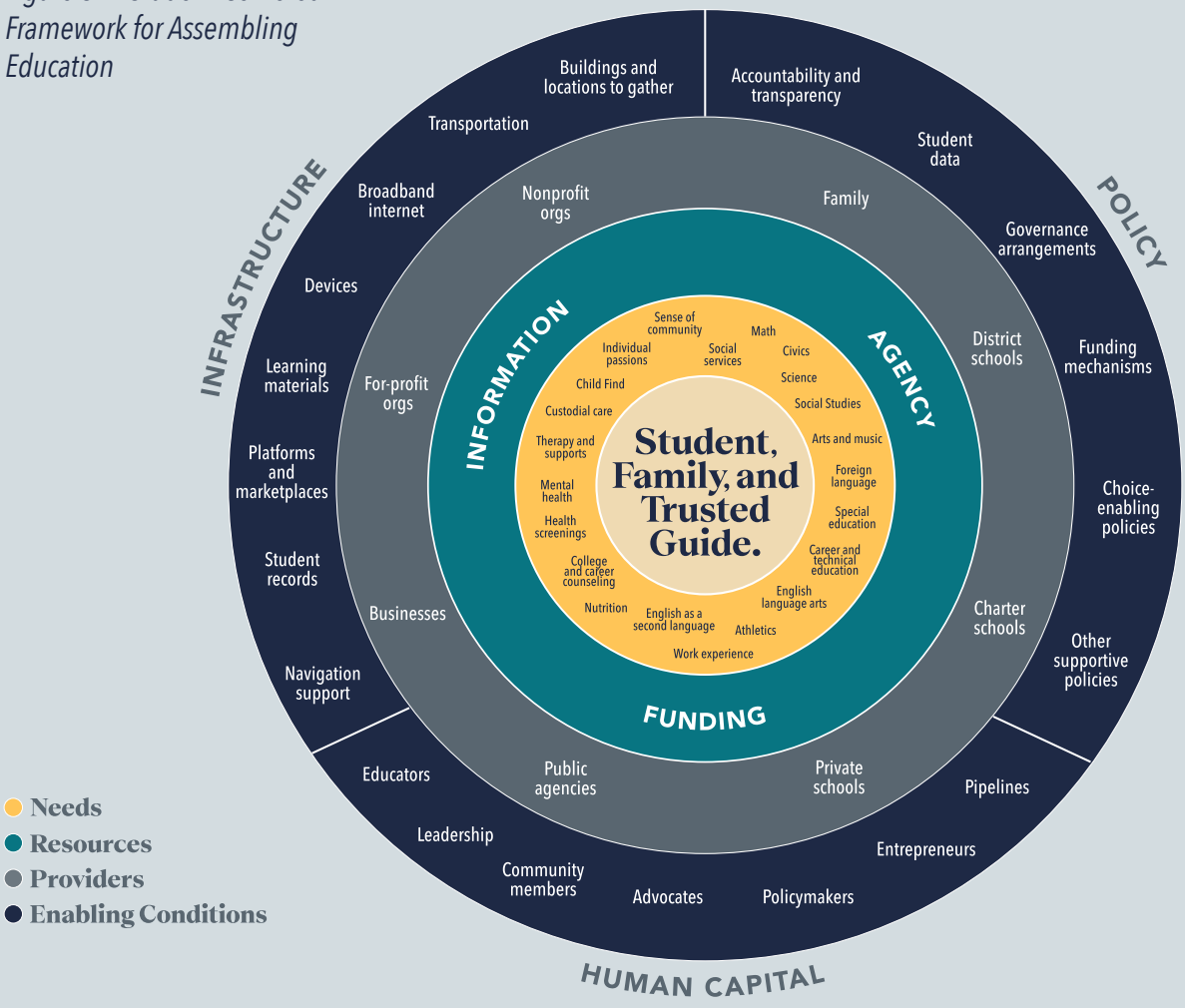
Figure 2: Placing Public Education in the Framework to Assess Potential for Assembly



Shifting public education from a standardized to a personalized approach would not obviate fundamental needs; there will always be a body of knowledge and skills that all students will need to flourish. Rather, shifting education to a more personalized approach would capitalize on the personalized learning and student development that many schools strive for but struggle to provide and which is already happening beyond the walls of the school building.

To understand what it would take for education to maximize its value to society and the individual, comparisons to the benefits and challenges of Assembly in other sectors lend helpful insights. For example, is it possible for education to offer the degree of personalization that is so appealing about streaming or fitness, without exacerbating inequity or increasing negative externalities? Is it possible for education to offer the degree of standardization necessary to prepare students to live together in community and society while meeting individual needs and without stifling individual passions? Is it possible to do all this and foster a more equitable system for all students? This is the promise of Assembly, which illustrates how a learning ecosystem would revolve around students and their individualized learning needs (Figure 3).

Figure 3: A Student-Centered Framework for Assembling Education



The current standardized version of public school places school at the center, with students as the "recipients" of education (Figure 4). By contrast, an Assembly-based model places the learner at the center, with providers offering services to students and families (Figure 5).

Figure 4: Traditional School Model

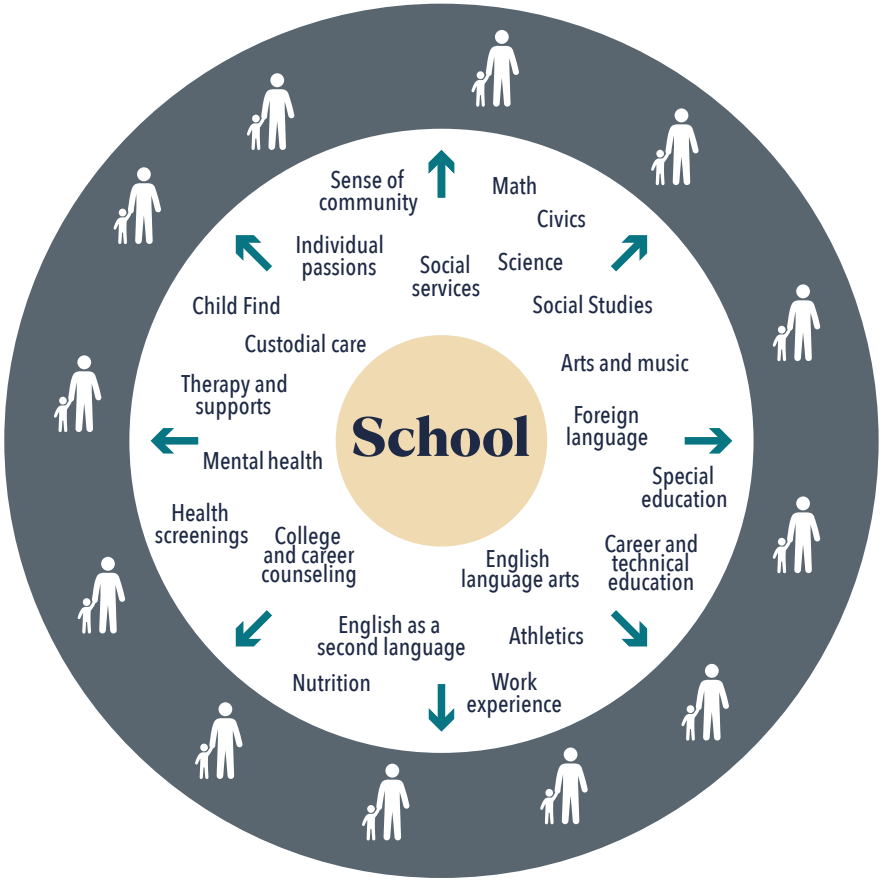
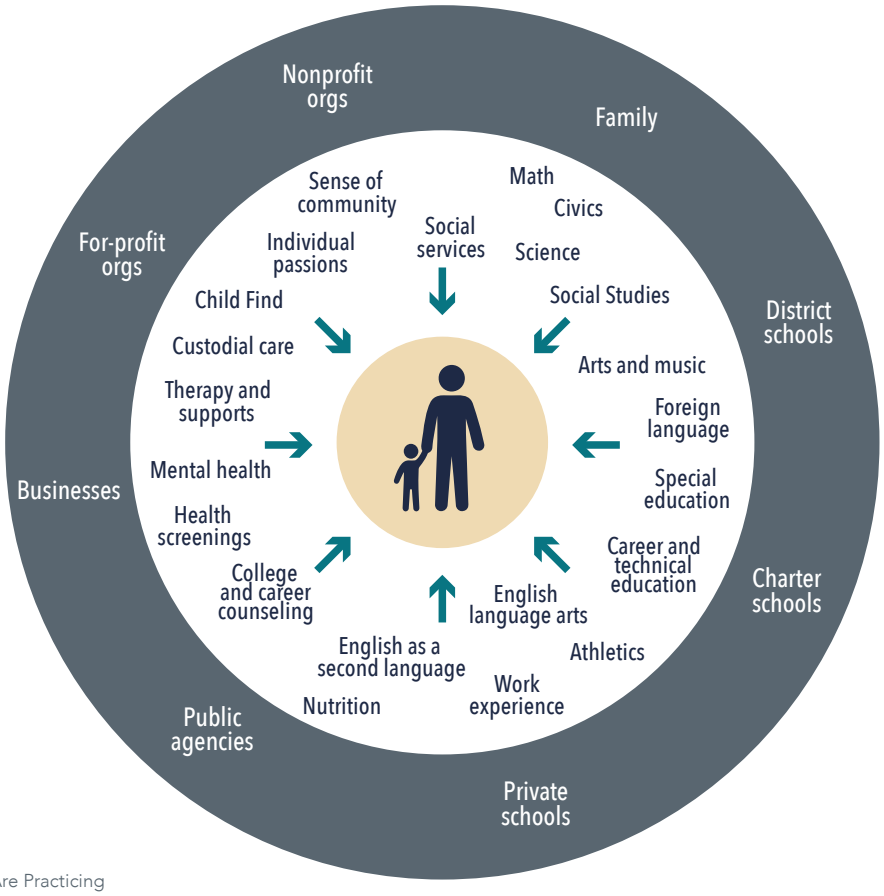


Figure 5: Vision for Assembly



There is clearly untapped potential to customize schooling, but there are also many outstanding questions about how to do so efficiently and equitably while balancing individual and public interests. In this brief, we will explore four examples of Assembly-based personalization across different sectors and identify potential applications for education.

The four case studies are:

- Streaming Services
- Personal Fitness
- Media Consumption
- Health Care

This analysis points to several high-level findings with relevance for public education

1. Amid long-standing challenges with student engagement, which were exacerbated by the COVID-19 pandemic-related school closures, Assembly-based models signal an opportunity to increase the relevance of school, reach students in new and more tailored ways, and *foster community and participation among students who are disconnected from or not well served* by the traditional school environment.

2. Assembly may be *especially valuable for students and families* who use a small number of services extensively, those who require a different method of content delivery, or those who don't want or need all the services offered in the traditional education system.

3. Assembly may open the door to entry by new providers, creating a *more robust array of suppliers of educational experiences and potentially alleviating the burden on public school systems* to meet all needs of all students.

4. A*ssembly can serve as a temporary or a long-term solution for students and families*, and *lower switching costs make this possible*. Just as many consumers are returning to gyms after using personal fitness apps during the pandemic, students may need the "prepackaged" version of school to varying extents and at different points along their educational pathway.

5. Veering from the existing "preassembled" education bundle is *attractive but potentially risky for quality and equity considerations*. As seen in health care, as well as in the current system of education, it's difficult to ensure that assembled options are distributed equitably and that the resources are of high quality. An Assembly-based approach also does not guarantee higher quality and could pose a risk to traditional schools themselves, as seen in the decline of marquee fitness and media companies with the introduction of flexible formats.

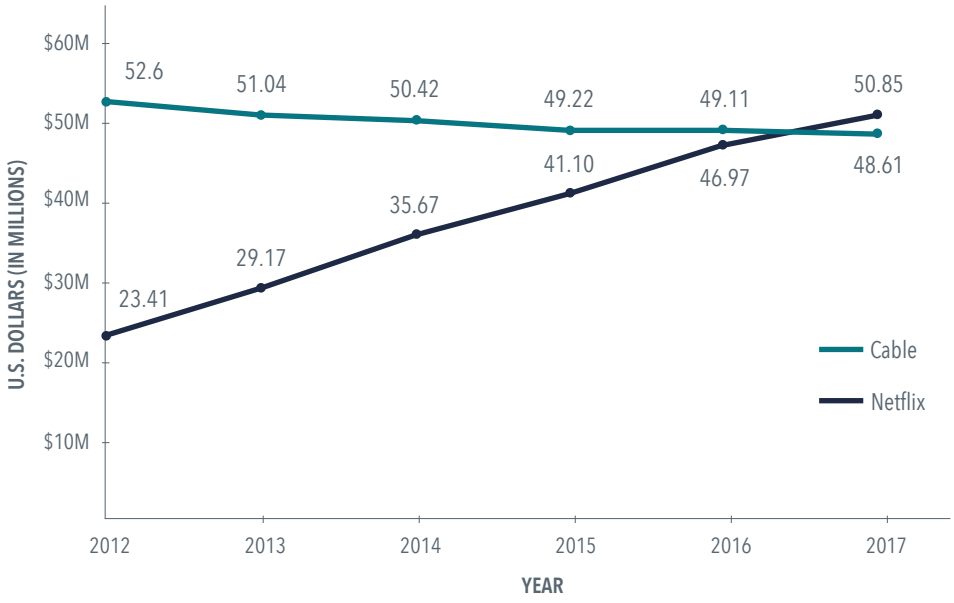
6. For parents, students, and families, there is the *risk that the burden of navigating additional complexity falls disproportionately on students and families* furthest from opportunity. Sufficient navigational supports will be necessary to support such a model.

7. *How options are assembled can vary widely*; educational experiences can be assembled in a variety of ways to meet the needs of students, families, and communities.

As education leaders explore the potential of Assembly, important questions must be addressed about how this approach could affect equitable access, quality of offerings, return on investment, student outcomes, and the changing role of schools within communities. These and other unresolved questions warranting further research and analysis are captured at the end of this brief.

Case Study 1: Streaming Services

Figure 6: Netflix Versus Cable TV Subscribers in the U.S.[2]



Source: Business Insider

What was the standard package? With traditional cable packages, customers pay one price for a bundled set of channel options across a wide spectrum of genres. The average viewer might view six or seven channels consistently out of the 200 offered yet pay a flat monthly fee.[3] In addition to including channels they don't regularly watch, up to 30% of a subscriber's cable bill is made up of taxes and service fees.[4] In the early 2000s, startups like Netflix and Hulu disrupted the space, offering an Assembly-based alternative in the form of streaming (Figure 6). These startups increased optionality for consumers at a lower price point. Additional streaming platforms like Amazon Prime and Disney+ followed, and increasingly, cable and broadcast networks like CBS, ESPN, and NBC are striving to compete by offering their own a la carte streaming services.[5]

How was it personalized? Enabled by widespread availability and consumer adoption of broadband internet, streaming platforms were able to deliver on-demand and highly customized content for a much lower price than traditional cable. Streaming also drastically reduced (and in some cases, eliminated) the amount of time viewers spent watching advertisements. The first real alternative to cable, streaming services appealed to viewers' desire for greater watching flexibility, fewer commercials, and lower prices. Streaming platforms like Netflix, Hulu, and Amazon Prime aren't disassembled completely; rather, they're smaller content bundles that customers mix and match to create a combination tailored to their viewing preferences.

What happened? The television landscape has changed rapidly, especially among the youngest viewers. As of 2021, 78% of U.S. consumers have a subscription to video-on-demand services, up from 52% in 2015,[6] while cable subscriptions have fallen from 76% in 2015 to 56% in 2021.[7] Only 34% of Americans ages 18-29 now get their TV through cable or satellite, compared with 81% of those over age 65.[8] Increasingly, open-content platforms like YouTube are becoming the preferred media source for younger generations. With more than 2 billion users worldwide, the platform's popularity signals that the trend toward Assembly-based media has only just begun.

Potential takeaways for public education

- **Assembly-based education may be especially valuable for students and families who use a small number of services extensively, those who require a different method of content delivery, or those who don't want or need all the services offered in the traditional education system.** This could be the student showing an early propensity for and interest in engineering and robotics, the diverse learner who needs individualized instruction, or the student who would rather explore out-of-school learning at a community theater. Assembly can allow students and families the flexibility and freedom to engage in the education system in a way that best suits their learning needs and preferences.

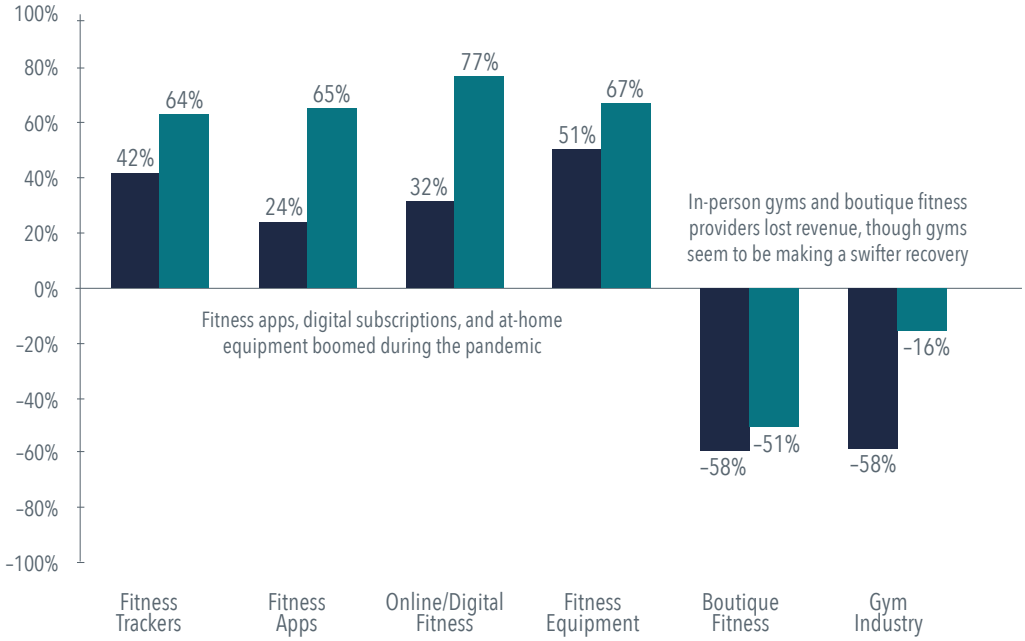
- **Those who can navigate the system with ease (often those with resources) are more likely to take advantage of modular options.** Streaming services require reliable access to high-speed internet, which is not universally available or affordable. The process of choosing from a more extensive menu of offerings can be overwhelming. As the field of education considers adopting a more Assembly-based approach, it will be important to provide education and support to students and families as they navigate a new, complex (and likely, unfamiliar) landscape. Assembly offers the promise of greater customization but, without navigational support, risks creating further disparities between families with resources versus those without.

- **Educational experiences can be assembled and reassembled in a variety of ways.** Just as streaming users often subscribe to multiple platforms based on their personal preferences, students and families in an Assembly-based ecosystem may select which options work for them. While students and families may prefer a more traditional, fully bundled school option, others may want or need a highly customizable, modular option. Many others may want something in between. There is no "right" combination — only the one that works best for the individual student and family.

- **Increased optionality for students and families may drive the education sector as a whole to greater personalization.** The rise of disrupters like Netflix and Hulu forced all cable providers to offer more customized viewing options to consumers. Similarly, as disrupters like microschools, home schools, charters, and hybrid options grow in popularity, district schools may follow in offering more personalized, Assembled options for students.

Case Study 2: Personal Fitness

Figure 7: Fintess Industry Change in Revenue During Pandemic by Segment [9]



Source: RunRepeat

What was the standard package? Ranging in price from $20/month to more than $200/month,[10] traditional gym memberships offer an abundance of exercise equipment, a range of fitness classes, and (in some cases) access to premium features like pools, basketball courts, and other resource-intensive offerings. Members may need to share machines during the busiest hours or check the schedule to see when their preferred classes are offered, but generally can access a wide array of fitness-related equipment and activities. At a flat rate, those who go to the gym more receive more value for their membership, while those who visit less often end up paying for much more than what they use.

How was it personalized? Motivated by a desire for community and shared passion, boutique gyms and studios like SoulCycle,[11] CrossFit,[12] and Barry's Bootcamp[13] began to emerge in the early 2000s. The pandemic accelerated existing trends, further personalizing fitness via apps, individual instructors, and equipment vendors like Peloton.[14] Without a physical location, gymgoers could access fitness opportunities from home, often at a lower price. Rather than paying for an array of services they may not use in a traditional gym, consumers could pay for individual classes in the specific type of exercise they preferred at a time that worked for them (Figure 7).

What happened? Americans changed the way they exercise. Fitness increasingly exists outside the confines of the gym. Individual instructors offer classes online via YouTube and apps, and companies like Peloton have seen a huge spike in sales, especially during the pandemic. Fitness app downloads grew by nearly 50% in the first half of 2020 alone, with nearly three in four Americans using at least one fitness app during quarantine.[15] And these apps vastly expanded the fitness options available to the average user, offering mindfulness and meditation, dance, and jujutsu. According to a poll by TD Ameritrade, nearly six in ten Americans said they didn't plan to renew their gym memberships after the pandemic.[16] Through the elimination of the high overhead costs of gyms, consumers were able to save money while the market gave way to a wide range of direct-to-consumer content providers.

Interestingly, as the pandemic has waned, gyms have seen an uptick in users while apps like Peloton have experienced a downturn in popularity, indicating that with low enough switching costs, consumers will change their behavior to accommodate their fitness needs as they vary over time and as their context changes. With more modalities and options to consider, the market has become more elastic as users are able to choose options that best meet their needs at a given time.

Potential takeaways for public education

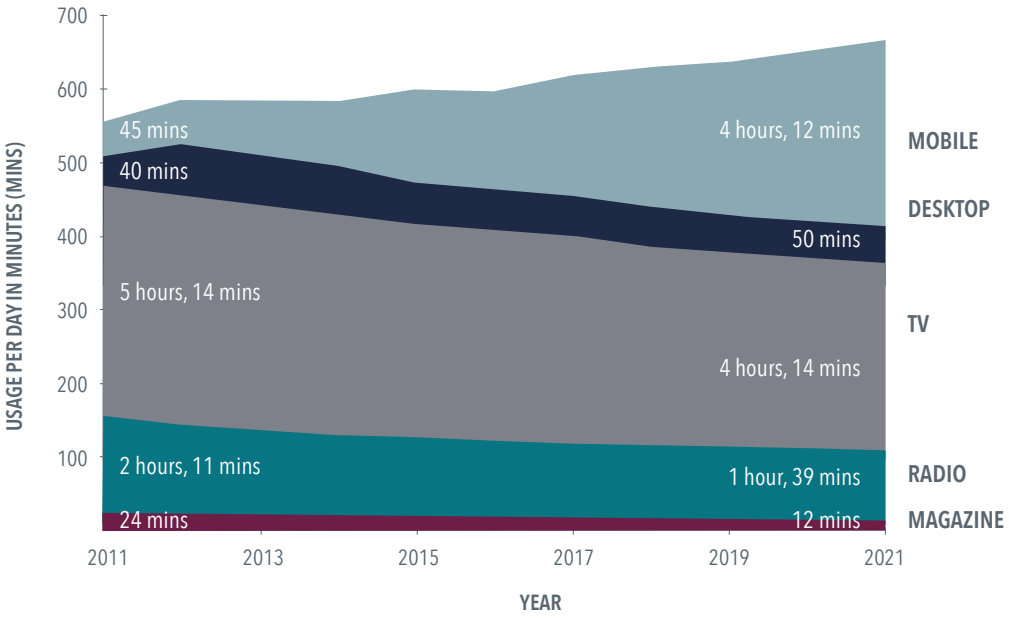
- **Assembly-based education can serve as a temporary or a long-term solution for students and families, and lower switching costs make this possible.** Just as many consumers are returning to gyms after using personal fitness apps during the pandemic, students may need the "prepackaged" version of school to varying extents along their educational pathway. A solution that works well for a student at one point in time may not be the best solution in perpetuity.

- **Lowering barriers to entry into the marketplace may increase innovation and incentivize suppliers to enter the market.** Just as the pandemic opened the door for new and creative fitness alternatives, allowing Assembly-based educational options to enter the space could inspire new and creative solutions in educational content and delivery, especially those that meet the needs of a niche or specialized customer segment.

- **Assembly offers greater cost signaling about the value of certain educational opportunities.** As consumers transitioned to at-home workouts during the pandemic, the pricey overhead cost of large-scale gyms was reallocated to more providers and back into customers' pockets. Schools carry significant overhead costs with little feedback from the market on their value; Assembled options present an opportunity to allocate school operating funds toward more flexible learning options, potentially saving money — or getting truer market signals — on what it costs to meet family and student needs.

Case Study 3: Media Consumption

Figure 8: Changes in Modes of Media Consumption[17]



Source: Visual Capitalist

What was the standard package?

"Packaged" print publications like magazines and newspapers earned revenue by integrating the news, editorial content, and advertisements in a single publication.[18] With a virtual monopoly on distribution, these publications were the primary recipients of advertising dollars. Similarly, TV (cable) and music (albums) bundles were dominated by broadcast networks and record labels, respectively, offering little room for new entrants to access consumers without going through traditional gatekeepers. Most consumers received their information or music from a small number of sources, limited to those with access to major distribution channels.

How was it personalized? As the digital age lowered distribution costs, the dominance of traditional gatekeepers unraveled; advertisers were able to bypass them and go directly to end users.[19] Consumers valued the ability to choose their news sources or their individual song selections, increasing the popularity of open sources like Google, Facebook, iTunes, and Spotify. Lower distribution costs and direct-to-consumer access through the internet meant that companies could earn revenue on targeted advertising while allowing users to customize their media selections.

What happened? The number of media outlets proliferated, with ubiquitous online content and new platforms emerging regularly (Figure 8). Although the variable costs of digital advertising are lower than print, advertising spending has increased as advertisers seek to reach highly targeted customer segments.[20] The cost savings in the switch to digital have been diverted to deeply understanding customer behavior through data analysis. Advertising has also become more intimately woven into everyday life — billboards and magazine ads are giving way to algorithms that serve up new content, embedded advertising, and social influencers.[21] As the number of media, entertainment, and information sources has grown, customers often consume information in silos that align with their partisan leaning or age demographic — customized to their preferences but not necessarily aligned with fostering an informed citizenry. And while media is an important channel for public speech and expression, ensuring that information in the media is accurate and of high quality remains an ongoing challenge.

Potential takeaways for public education

- **Personalization may alleviate the pressure on schools to be all things to all students.** In recent years, schools have increasingly become the packaged print publication of the education world, offering the general population everything they might possibly need. By relieving them of the burden of being the sole distributor of both academic and non-academic supports, Assembly-based education presents an opportunity to lighten the load carried by schools, allowing them to focus more narrowly on an academic core.

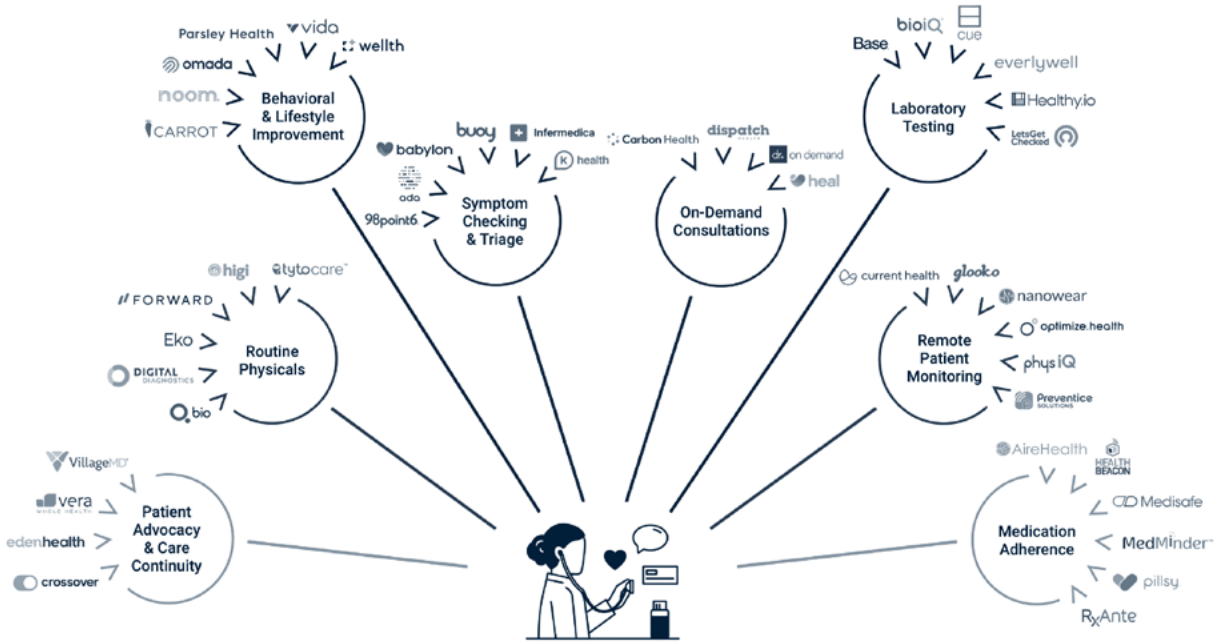
- **A deep understanding of the individual user's needs could result in more personalized, tailored content.** In the same way that targeted advertisers use algorithms to recommend goods and services based on our prior browsing and buying habits, successful education content providers can pinpoint and address the unique needs of their student-users. A deviation from "standard packaging" allows pedagogy to become deeply personalized to the individual student.

- **Assembly still means that students engage in challenging learning experiences.** While Assembly may allow students to choose from a broader array of content and formats that meet their needs and interests, this should not be synonymous with a lack of rigor or intellectual challenge. Education plays a critical role in expanding our ways of thinking and pushing students to consider various (sometimes conflicting) viewpoints. Assembly must be balanced to ensure students have the flexibility to explore personal interests and passions while maintaining exposure to the rich and challenging learning experiences that create well-rounded members of society.

Case Study 4: Health Care

Tech startups are disrupting and transforming the primary care experience[22]

Figure 9: Unbundling the Family Doctor: Companies Targeting Primary Care



Source: CBInsights

What was the standard package? In the past, most patients' medical journey followed a similar path: Sick individuals visited their primary care doctor, who either prescribed medication or sent the severely ill to the hospital. From there, patients were either admitted for treatment or sent home. In the more distant past, the family doctor was the gatekeeper of all subsequent medical treatment (and this remains the case for many on HMO plans).[23] Health care providers were then paid for by the patient or by the insurance company.

In 2002, 77% of American adults had a primary care doctor.[24] This dropped to 75% in 2015, with more significant declines among younger and relatively healthy Americans.[25] Less than 65% of 30-year-olds had identified a primary care physician in 2015.[26] This may be in part due to the shortage of primary care physicians[27] and nurses[28] in the health care industry.

How was it personalized? Starting in the 1950s, doctors began pursuing more specialized pathways rather than family medicine, creating more health care entry points for patients. Advancements in technology, accelerated by COVID-19, have increased these points of access to care (e.g., retail clinics, community centers, behavioral health, home health, virtual). Telemedicine, asynchronous communication, and at-home medical testing kits have extended the boundaries of clinical capacity beyond traditional physical and geographic lines.[29]

Unlike education, health care reimbursement in the United States is a complex braiding of private and public dollars. From Medicare to Medicaid to private insurance and self-pay, health care business models vary widely, exposing a limit to this comparison. The Affordable Care Act accelerated value-based care funding, reimbursing providers based on patient outcomes rather than services rendered, which led to an increase in specialty and nontherapeutic health care options for patients.

What happened? Patients have alternative health care options now in a way they had not previously. There are many more direct-to-consumer options that provide alternate pathways to medical care, such as TelaDoc and Doctor on Demand.[30] Many patients have greater choice, improved quality, increased access, and more affordability. However, care coordination has become more complex as data is no longer centralized or easily accessible when patients switch between providers. To retain patients, private electronic medical record companies maintain their competitive advantage by *not* sharing patient records across systems. This led to miscommunication, unclear ownership, fragmented patient care, inefficiency, and, in some cases, poor outcomes, particularly for the most vulnerable populations. Greater fragmentation in the market created a need for more improved care coordination across providers.

More recently, health care began rebundling disease-specific care. Medicare and Medicaid offer prepackaged payment options for services related to cardiac care, joint replacement, oncology services, and other chronic diseases.[31] In bundled payment options, hospitals receive quality-adjusted pricing for specific disease-related surgeries, preventive medicine, and follow-up care.[32] The goal of such models is cost reduction, prevention, and meeting quality outcomes. Bundled payment options emphasize not only treating a disease but also maintaining overall health.

It should be noted that the positive effects of Assembly-based health care are largely reserved for those who can afford or have access to private health insurance options like PPOs or EPOs. For patients with government-subsidized or low-cost insurance, the landscape looks quite different: plan options are different, fewer physicians are willing to accept these plans, and patients have less access to convenient options like wearables or virtual care.

Potential takeaways for public education

- **Establishing secure and accessible infrastructure will be critical.** As student information is shared more broadly across providers, it will need to be both protected and shareable to ensure a coherent, efficient educational pathway for students. Just as patients need a health record that can be accessed by multiple providers, a shared learner record will allow for communication across all education providers.

- **The funding model will dictate the service delivery model.** By switching to a value-based funding model, specialty providers were incentivized to enter the market and provide niche care. Similarly, specialty education providers may enter the market to serve specific populations of students if they're financially incentivized to do so.

- **Health care is an industry with multiple entry points and provider types; it represents the complexity and equity challenges that come with such a model.** Despite expanding entry points for patients, the U.S. health care system remains inaccessible and inequitable for many Americans. Those who rely on Medicaid, for instance, often lack access to the highest-quality care. Education would be wise to heed caution when drawing lessons from health care to avoid replicating a dual market, in which high-quality services are available only to those who can use private insurance or personal funds to pay.

- **Perhaps the answer lies in reassembling existing services to better meet the needs of students.** While the current standardized school package may not meet the needs of all students, many aspects of school and of education are providing valuable services and supports — schools and educational providers may consider reassembling offerings strategically to target subsets of students with shared needs, interests, or goals.

Conclusion

The case studies in this brief illustrate the complexities and opportunities associated with Assembly. While a powerful marketing and pricing tool in the private sector, translation to the public sector isn't straightforward. It comes with significant quality and equity concerns, so there are simply fewer examples of successful personalized, Assembly-based models in the public sector from which to draw. Unlike cable TV or personal fitness, *all* students must be able to equitably participate in the education marketplace. And there are significant consequences when they are not.

Moreover, many may fear that an Assembly-based model would present a threat to our existing educational institutions. Is it possible to lessen the burden on schools, increase efficiency, and enable customization while preserving long-standing institutions that continue to provide valuable services? Cross-sector examples of personalization offer important lessons learned and potential alternatives to the current "prepackaged" state of education, and yet, these may not be appropriate or necessary for all students. It's important to provide Assembly-based education offerings equitably to those who benefit from them without abandoning a system that still works for many.

Despite its challenges, Assembly-based education presents the opportunity to address the diverse and wide-ranging needs of students as the country emerges from a pandemic. Rather than being the gatekeepers of educational content, schools could serve as *gateways*, connecting students and families to an expanded array of content and experiences. Students whose needs are not being met in traditional schools may find those met through alternative options. Schools overburdened by service distribution may be able to offload many of these requirements and focus more time and energy on delivering educational content. But this can be achieved equitably only if parents and students are given the resources necessary to access *high-quality* educational options. Policymakers and system leaders must create the guardrails and infrastructure necessary to ensure that Assembly contributes to better and more equitable outcomes. ✦

About the Authors

Kateland Beals

Kateland Beals is a consultant at Bellwether in the Strategic Advising practice area. She can be reached at **kateland.beals@bellwether.org**.

Liz McNamee

Liz McNamee is an associate partner at Bellwether in the Strategic Advising practice area. She can be reached at **liz.mcnamee@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**.

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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**.

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Endnotes

1 Brian Williams, "Disaggregation of Healthcare: The Great Unbundling Proceeds," Cognizant, Dec. 3, 2019, https://digitally.cognizant.com/disaggregation-of-healthcare-the-great-unbundling-proceeds-codex5241.

2 Jeff Dunn, "More People Now Subscribe to Netflix Than Cable TV in the U.S.," Insider, June 15, 2017, https://www.businessinsider.com/netflix-more-popular-than-cable-us-chart-2017-6.

3 Brad Adgate, "Unbundling the Cable Bundle," Forbes, Feb. 18, 2020, https://www.forbes.com/sites/bradadgate/2020/02/18/unbundling-the-cable-bundle/?sh=34b6275e75e8.

4 Kate Cox, "The 3 Big Things We've Learned About Your Cable Bill," Consumerist, May 17, 2016, https://www.consumerreports.org/consumerist/the-3-big-things-weve-learned-about-your-cable-bill/.

5 Omri Wallach, "Which Streaming Service Has the Most Subscriptions?", World Economic Forum, March 10, 2021, https://www.weforum.org/agenda/2021/03/streaming-service-subscriptions-lockdown-demand-netflix-amazon-prime-spotify-disney-plus-apple-music-movie-tv/.

6 Julia Stoll, "SVOD Service User Shares in the U.S. 2015-2021," Statista, July 27, 2022, https://www.statista.com/statistics/318778/subscription-based-video-streaming-services-usage-usa/.

7 Lee Rainie, "Cable and Satellite TV Use Has Dropped Dramatically in the U.S. Since 2015," Pew Research Center, March 17, 2021, https://www.pewresearch.org/fact-tank/2021/03/17/cable-and-satellite-tv-use-has-dropped-dramatically-in-the-u-s-since-2015/.

8 Ibid.

9 Nicholas Rizzo, "Fitness Industry Statistics 2021-2028 [Market Research]," RunRepeat, Oct. 12, 2021, https://runrepeat.com/fitness-industry.

10 Jade Scipioni, "59% of Americans Don't Plan to Renew Their Gym Memberships After Covid-19 Pandemic: Survey," CNBC, July 23, 2020, https://www.cnbc.com/2020/07/23/many-dont-plan-to-renew-their-gym-memberships-post-pandemic-survey.html.

11 SoulCycle, https://www.soul-cycle.com/.

12 CrossFit, https://www.crossfit.com/.

13 Barry's, https://www.barrys.com/.

14 Peloton, https://www.onepeloton.com/.

15 Carmen Ang, "Fitness Apps Grew by Nearly 50% During the First Half of 2020, Study Finds," World Economic Forum, Sept. 15, 2020, https://www.weforum.org/agenda/2020/09/fitness-apps-gym-health-downloads/.

16 Scipioni, "59% of Americans Don't Plan to Renew Their Gym Memberships."

17 Aran Ali, "How Media Consumption Has Changed Over the Last Decade (2011-2021)," Visual Capitalist, April 28, 2021, https://www.visualcapitalist.com/how-media-consumption-has-changed-in-2021/.

18 Ben Thompson, "The Great Unbundling," Stratechery, Jan. 18, 2017, https://stratechery.com/2017/the-great-unbundling/.

19 Ben Thompson, "Dollar Shave Club and the Disruption of Everything," Stratechery, July 20, 2016, https://stratechery.com/2016/dollar-shave-club-and-the-disruption-of-everything/.

20 Megan Graham, "Advertising Market Keeps Growing Much Faster Than Expected, Forecasters Say," Wall Street Journal, Dec. 6, 2021, https://www.wsj.com/articles/advertising-market-keeps-growing-much-faster-than-expected-forecasters-say-11638784800.

21 Cathy Li, "This Is How COVID-19 Is Affecting the Advertising Industry," World Economic Forum, June 8, 2020, https://www.weforum.org/agenda/2020/06/coronavirus-advertising-marketing-covid19-pandemic-business/.

22 "Unbundling the Family Doctor: How the Traditional Primary Care Experience Is Being Disrupted," Research Briefs, Dec. 23, 2020, https://www.cbinsights.com/research/startups-unbundling-primary-care/.

23 Dhruv Vasishtha, "The Disaggregation of Healthcare and Its Implications for Care Coordination," HIStalk, April 19, 2021, https://histalk2.com/2021/04/19/readers-write-the-disaggregation-of-healthcare-and-its-implications-for-care-coordination/.

24 Joanne Finnegan, "Number of Americans With a Primary Care Provider Declined 2% Over a Decade, New Study Shows," Fierce Healthcare, Dec. 17, 2019, https://www.fiercehealthcare.com/practices/moving-wrong-direction-fewer-americans-have-a-primary-care-provider-new-study-shows.

25 Ibid.

26 Ibid.

27 "AAMC Report Reinforces Mounting Physician Shortage," Association of American Medical Colleges, June 11, 2021, https://www.aamc.org/news-insights/press-releases/aamc-report-reinforces-mounting-physician-shortage.

28 "The Shortage of Healthcare Workers in the U.S.," Duquesne University, https://onlinenursing.duq.edu/post-master-certificates/shortage-of-healthcare-workers.

29 Williams, "Disaggregation of Healthcare," https://digitally.cognizant.com/disaggregation-of-healthcare-the-great-unbundling-proceeds-codex5241.

30 Ibid.

31 HealthLeaders Media News, "Medicare Proposes Bundled Payments for Cardiac Care," HealthLeaders, July 26, 2016, https://www.healthleadersmedia.com/finance/medicare-proposes-bundled-payments-cardiac-care.

32 Cheryl L. Damberg, et al., "Measuring Success in Health Care Value-Based Purchasing Programs: Findings from an Environmental Scan, Literature Review, and Expert Panel Discussions," Rand Health Quarterly, Dec. 30, 2014, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5161317/.

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