Bellwether

An Assembly of Talent

Empowering and Expanding Human Capital in Education

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Introduction

The education system in the United States must evolve from a one-size-fits-all approach to one in which students' individualized needs are served by an ecosystem of more flexible learning opportunities. This approach, Assembly, is growing and serving more families than ever.

Many families already engage in different flavors of Assembly — from home-schooling co-ops to after-school enrichment to work-based learning — but access too often depends on families' financial and social capital. The same is true of *adults* who are dedicated to serving the needs of students but whose access to the full range of potential roles and responsibilities is constrained in the status quo.

Measuring by dollars invested, human capital is the primary way we invest in education. Within the school system, millions of adults are growing increasingly dissatisfied and burnt out in inflexible roles that are not competitively compensated, have too many responsibilities, and offer too few opportunities for advancement or entrepreneurialism. Roles for adults outside the school system are also challenging. Those that serve children through out-of-school learning opportunities often have more flexibility, but they lack the benefit of supportive peer networks or established institutions and struggle to coordinate with schools and each other. Family members and a plethora of community members also contribute in big and small ways to help the next generation of students learn but face similar barriers to coordination.

Like students, adults are seeking greater autonomy and flexibility within the educational ecosystem. A new approach is needed.

Rather than fitting adults into neat boxes with consistent job titles and rigid salary schedules in unresponsive systems, Assembly requires embracing new and different methods of empowering adults to better support children. Sector leaders must develop new ways to bring the vast pool of talent that both is and could be serving students into roles that better meet children's needs.

Children have a variety of needs that adults help meet

A fundamental shift is needed to ensure adult roles are shaped so that they can respond to the foundational needs that all children share as well as the individual and evolving needs of each child. Specifying children's needs helps clarify the various ways in which adults can better serve them.

All children need adults to provide safe, stable environments and relationships.

Children cannot engage in educational experiences if they don't have a safe place to be and age-appropriate supervision by trustworthy adults. This essential prerequisite is especially salient in the wake of the COVID-19 pandemic.

Children need a safe custodial environment; this should include a physical space that limits the potential for harm and a nourishing atmosphere among trusted adults in which children feel safe to express emotions and experiment with new skills without fear of failure.[1] When a child feels safe, they develop relationships with their peers and the adults in their lives that are founded on interpersonal trust, which is positively associated with academic achievement, effective interpersonal problem-solving, and social adjustment.[2] Experiences and relationships in childhood can be strong predictors of long-term learning and life outcomes.[3]

Children also need stability in their environment and in their relationships. The consistency and predictability in a child's life play an important role in the child's development and academic engagement.[4] A child's sense of stability is affected by changes in the family's economic circumstances, housing and basic needs security, employment status, familial structure, and school and child care situation.[5] Children are bound to experience some degree of change in their lives, but supportive relationships with adults have been shown to mitigate the consequences of instability and encourage children to develop healthy strategies for coping with adversity, adapting to their surroundings, and regulating their emotions.[6]

Finally, a child needs core physical and mental health, including social-emotional well-being. There is a statistically significant relationship between students' health and academic achievement, including their level of concentration, grades, attendance, retention, and completion.[7] Studies have shown a correlation between poor academic performance and a wide array of health issues including mental illness, food insecurity and poor nutrition, physical inactivity, sleep deprivation, substance abuse, and chronic health issues like obesity and asthma.[8] Mental health has been a particular focus in recent years, with the prevalence of anxiety and depression among children and adolescents on the rise,[9] and early detection and treatment has been shown to reduce negative impacts.[10]

Social-emotional well-being, too, has important implications for a child's educational experience. Both formally (via curriculum or policies and practices) and informally (by modeling behaviors), adults in a child's life help them to develop self-awareness, self-management, social awareness, relationship skills, and responsible decision-making skills that contribute to social-emotional well-being.[11] In turn, students achieve improved graduation and postsecondary outcomes, career success, family and work relationships, mental health, and engaged citizenship.[12]

Adults play a critical role in providing children with the environments and relationships that support their ability to learn.

All children need adults to provide high-quality instruction in core academics as well as specialized learning opportunities.

Beyond safe and stable environments and relationships, children and their families need access to high-quality schools and programs to prosper in their education. Whether in a traditional district, charter, or private school, school-based learning typically centers around instruction in English language arts, math, science, and social studies, while other learning opportunities might cater to a child's artistic prowess, athletic abilities, or need for advanced or remedial education.

The education sector provides some standard measures for evaluating the quality of educational programs and has spent hundreds of billions of dollars over several decades to improve school quality. The most widespread approach in recent decades has been improving the rigor of standards and using test scores to inform instruction and assess schools' progress[13] — which has led to a plethora of research on the importance of students' proficiency in math and English language arts for their long-term outcomes.

Math, reading, and attention skills, even those that start in early childhood, are strong predictors of later achievement.[14] According to some research, strong math skills measured in kindergarten, particularly in counting and number sense, can predict success in reading, math, and science in later school years.[15] Third-grade reading proficiency is correlated with later academic achievement; students who could not read on grade level by third grade are four times less likely to graduate by age 19 than their peers.[16] Looking even further into the future, math and reading scores in high school are also tied to increases in early career earnings and are strong predictors of overall economic attainment.[17] Students who demonstrate high academic achievement in secondary grades are more likely to enroll and succeed in higher education programs,[18] which is also shown to correlate to future happiness.[19] The evidence is clear that providing quality instruction from pre-K to postsecondary is essential for children's ability to flourish as adults.

Learning opportunities should also involve supporting the cultivation of talents and interests beyond core academic subjects. Sometimes taking place outside school, these opportunities are an essential part of a student's development and of a well-rounded educational experience. Sports, music, art, and other hobbies all contribute to positive mental health and students' sense of belonging.[20] Participation enables greater academic achievement, character development, social development, and community involvement, and it may even impact the future educational and job opportunities available to a child.[21] While most children participate in some form of specialized learning opportunities, whether through their school, external providers, or their communities, there is room to expand access to new and more diverse options for all families.[22]

Adults play a central role in providing children with academic instruction in core subjects, as well as supporting their learning in a wide range of specialized interests and topics.

Adults help meet these student needs in a wide variety of roles

Adults work to meet each child's non-academic and academic needs through a complex support system — one that typically begins with their family and extends to include school-based educators and support staff, non-school education and enrichment providers, and community members. While these categories encompass many of the adults who are invested in a child's learning, it is nearly impossible to include all the individuals who might contribute in big and small ways to a child's trajectory.

Families are often children's primary caretakers and first educators.

Though their access to tools and resources varies, all families play a pivotal role in their children's development. Particularly in the early years of a child's life, their family shapes their values system, self-worth and identity, motor skills, cognitive abilities, language acquisition, literacy development, and social-emotional skills.[23] Intentional activities such as reading, creative time, singing or dancing, movement, and structured or unstructured play greatly impact development.[24]

Families also play an important role in diagnosing their children's educational needs. For most children, parents are the most engaged adults in their lives, and many provide hours of at-home academic support every week.[25] Parents often have a sense of when their child is struggling academically, socially, or behaviorally; studies have even shown that leveraging parent-reported information to help identify children with learning and attention problems led to more accurate diagnoses than using psychometric measures alone.[26]

Parents are also insightful when it comes to identifying their child's proclivities — for instance, if the child thrives with more hands-on, project-based learning — and seeking supportive schools or extracurricular environments. Parents of students with special needs play an especially central role in diagnosing their child's needs and advocating for related services.

Finally, in the ecosystem of learning options available today, parents must navigate and select those best suited to their child's needs, interests, and goals. A parent interested in looking outside of traditional public schools must research options and contend with a confusing policy landscape, enrollment timelines, lottery procedures, and lengthy applications. Nontraditional schooling models such as learning pods, microschools, or home-schooling demand an even more active role from families, as classroom (or equivalent) instructional time is typically a fraction of that in traditional schools and families must provide more robust support for learning.[27] The out-of-school learning industry is just as confusing, requiring many parents to spend significant resources to understand and select the best options or revert to those options that are most accessible.

Teachers and other school-based professionals have specific roles dedicated to children's K-12 education.

A classroom teacher is one of the most visible, familiar, and ubiquitous roles in K-12 education. They are the cornerstone of schooling today, and they matter more to student achievement than any other aspect of schooling.[28] Beyond academic instruction, they fulfill numerous other essential roles in a child's education.

Academic standards and standardized curriculum create some degree of uniformity in instruction, but teachers deliver content and bring it to life, adapt lessons for individual learning needs, keep students engaged, measure interim progress, and maintain a positive classroom environment. In practice, instruction represents a complex bundle of discrete responsibilities from lesson planning to behavior management to data analysis and interpretation.

In addition to instruction, teachers are often responsible for a host of administrative tasks including inputting student data, creating progress reports, managing logistics of class excursions, decorating their classrooms, and ordering supplies. They spend hours attending meetings or completing tasks requested by school leaders. They often supervise student drop-off/pick-up, lunchrooms, study halls, and detentions. Many teachers go above and beyond to fill gaps in students' needs that are not met by other areas of the education system including directly providing support for basic needs,[29] developing caring relationships (i.e., mentoring),[30] or leading extracurricular activities.

Additionally, an array of support staff known as education support professionals (ESPs) make up one-third of public school employees, including those in clerical, custodial maintenance, food, health and student support services, paraeducators, security, skilled trades, technical services, and transportation services.[31] These roles provide a mix of generalized support for school operations (e.g., secretaries, custodians, bus drivers) and specialized supports for academic and non-academic needs (e.g., instructional assistants, school nurses, family and parent services aides).

ESPs, like teachers, also take on responsibilities outside of their core roles and can be a powerful factor in shaping school climate and student experiences.[32] ESPs can serve as informal mentors to students, especially those in challenging circumstances, and serve as the "schools' eyes and ears outside the classroom."[33] In some states and districts, they might also participate in individualized education program teams or help to onboard novice teachers, providing insights into the school and surrounding community.[34]

Non-school-based personnel offer support after school, on weekends, or during breaks.

Non-school-based personnel help to fill the gap for families who need their children to be safe and, ideally, meaningfully engaged over the summer, as well as the time between the end of the school day and the end of their workdays. Adults who play formal roles outside the school system respond to this need, ideally fortifying in-school learning and supporting students' development through extracurricular programs and wraparound supports.

Common roles include tutors, art program directors, youth sports coaches, or religious education teachers. For most families, these out-of-school providers are a primary way in which they Assemble a more customized educational experience for their children.[35] Through newer learning models, such as learning pods, adults can provide more intensive supports to students and may even go as far as taking the place of a traditional school experience.[36]

Whether in the form of coaching sports teams, teaching religious school courses, or leading a Scout troop, adults who interact with children through these roles form important relationships that have the potential to foster self-confidence, model healthy social and emotional skills, and help nurture students' curiosities and talents. Notably, these roles require less formal training than many school-based roles, do not require (or enable) adults to commit to full-time employment, and often offer commensurately less in training or compensation.

Adults serving in non-school education settings frequently have a greater array of roles to choose from, given the diversity of learning options that exist — from providing a mix of more general services to offering more specialized content or coaching.

Community members provide formal or informal support for children and families.

Many other adults can contribute to a child's growth and development, including social peers, neighbors, religious leaders, and local businesspeople. Individuals within this group may be involved with school-based programs, work with non-school-based providers, or simply offer support for a family or community.

Community members contribute in more informal ways, which can be some of the most influential. This might include a local business owner who keeps an eye on the young people frequenting their shop, an extended family member or a friend's older sibling who provides advice, or an elderly neighbor who offers child care when a parent gets called into work. These individuals can grow into mentors who provide a young person with a space to discuss personal problems, opportunities to learn social and job-related skills, and access to activities that they might otherwise have had trouble attaining.[37]

Collective efforts in communities can also play a role in supporting children and families. For example, community members often work together to distribute transportation responsibilities; a carpool group can lessen the strain on overburdened parents and give students an opportunity to connect with their peers. Simple efforts, too, make an important difference, such as a neighbor living near the bus stop who helps kids board safely.

Community members are an important resource for families as they navigate the education system and find opportunities that fit a child's needs. These adults may be from other families who have enrolled their child in a similar program in their community and have firsthand knowledge about enrollment processes, financial aid availability, or other critical details. They might also be religious leaders who have built networks through their congregation, retired teachers who know the ins and outs of the local education landscape, or working professionals who can offer career advice and leverage their networks to connect young people to internship and employment opportunities.

In the best of circumstances, community members are trustworthy sources of good information and support. Their opinions carry weight with families and students, they can ease the burdens of parenting, and they can help children develop a sense of who they are and what opportunities are available to them.

Several challenges hinder adults from meeting the needs of students

Teachers and education support personnel within schools, adults with a variety of roles in non-school providers, and community members all work to support students' growth. However, many of these roles for adults are sources of inequity; others are too standardized, siloed from one another, and under-recognized or disconnected from each other.

Families are constrained in meeting student needs by limited funding, time, and information.

Nearly every family is deeply committed to supporting their children's learning and development, but the time, energy, and financial resources they can dedicate to their children's education vary. Families may struggle to support their child's needs because they cannot afford the costs of private schools, lack information about the variety of after-school programs, or have inflexible schedules that preclude participation in other supplemental supports and activities. These constraints apply to educational options, as well as extracurricular activities and physical and mental health services.

Cost is a significant barrier. School choice policies are designed to enable families to enroll their children in high-quality educational options outside of their neighborhood schools — including open enrollment, magnet schools, charter schools, and publicly funded vouchers or scholarships.[38] Other subsidies through microgrant programs, education savings accounts, and child tax credits provide financial resources to cover the cost of more flexible options. These are helpful but not comprehensive solutions. While these policies are on

the rise, the number of families who can and do access funds from these programs remains relatively low.[39]

Time is another significant barrier that often constrains families' ability to identify and find solutions for their students' needs — and it is often correlated to a family's socioeconomic status. For instance, schools often ask families of children with special needs to be available for the multiple meetings and appointments needed to reach an official diagnosis or agree on a specialized learning plan — often during the working day. Their child's unique needs require time (as well as financial resources) to dedicate toward researching strategies, coordinating schedules, and accessing testing or specialists. These barriers present a challenge for families of all backgrounds and are magnified for those with limited resources and less flexible employment.

Finally, the process of navigating educational options is another critical area in which families' capacity is often constrained by social capital. The out-of-school ecosystem of options in particular is not well organized and there is limited and disparate information about program quality and outcomes, making it difficult for families to know where to invest their time and money.[40] Parents often identify programs by word-of-mouth or recommendations from those in their social network.

High-income families have greater exposure to high-quality programs and share information about them through their networks. Other families face more challenges. For instance, undocumented or mixed-status families are ineligible for many services and hesitant about providing information that is often required to enroll in programs, fearing disclosures to immigration authorities.[41] They, along with other families who do not primarily speak English, face language and cultural barriers in accessing information about services and communicating with schools and other providers.[42]

Families furthest from opportunity may also have limited knowledge of the education system and are contending with long and inflexible work hours, basic needs insecurity, transportation issues, lack of reliable child care, and other structural barriers to engagement.[43]

Many families demonstrate a determination and ability to overcome these barriers. For instance, there has been a surge of historically marginalized communities working on their own to build navigational tools and learning options that best fit the needs of their students. Examples include the Conoce tus Opciones Escolares[44] school choice awareness project to support Spanish-speaking families and the Black Mothers Forum in Arizona.[45]

Standardized roles, insufficient and inflexible compensation, and limited opportunities for entrepreneurialism constrain how school-based personnel meet student needs.

For most students and families, schools will continue to serve as the primary provider of education for decades to come. Their central role in the education ecosystem has made them a convenient place to assign responsibility for a broad array of programs and services.[46] Schools, in turn, have had to attract the human capital to provide those programs and services and as a result are the largest employer of full-time professionals dedicated to supporting students.

Efforts to address human capital challenges in schools are primarily focused on improving existing roles — through teacher preparation, certification, hiring, compensation, working conditions, evaluation, professional development, and retention. However, these efforts do not address underlying challenges with how school systems define standard roles and deploy adults to meet student needs.

Poorly optimized roles

The traditional K-12 system has defined and sometimes rigid roles for school-based personnel. While these roles may provide clarity, they are often poorly designed to maximize adults' skills and interests to meet students' individual needs.

As described on page 5, teachers have a wide array of instructional, administrative, and ancillary duties, from developing lesson plans to decorating their classrooms to supervising the lunchroom. While essential for students' well-being and ability to learn, these tasks are not directly related to instruction and divert teachers' capacity away from the tasks at the core of their roles and responsibilities. In fact, teachers report that they spend less than half of their 54-hour workweek on instruction.[47]

Teachers have very little control over their roles, including the classes they teach, the professional development they receive, and the non-academic duties they take on. While there are notable exceptions, such as the staffing models developed by Summit Public Schools or Opportunity Culture,[48] teachers' roles are highly standardized; they rarely have the opportunity to shape the distribution of responsibilities with other staff in ways that leverage individual teachers' comparative advantages in lesson planning, behavior management, small-group intervention, or data analysis.

Meanwhile, other school staff often play important but unrecognized roles in supporting student success. While classroom teachers are asked to perform many auxiliary tasks and have limited differentiation in their roles, ESPs are often underutilized in the roles they play. In fact, results from teacher surveys point to a complementary solution — lessening the burden of auxiliary responsibilities on teachers in ways that create opportunities for other adults.[49] When taken to extremes, leveraging ESPs for more auxiliary tasks can dilute the deployment of their specialized skill sets. Nonetheless, there is potential to identify creative new ways to redistribute responsibilities between classroom teachers and ESPs to allow all adults to fill roles tailored to their individual skills and passions.

Insufficient and inflexible salaries and benefits

Redefining the roles that teachers and ESPs can play in the education system is promising but would require a different approach to compensation. The rigidity of salary schedules in K-12 education have constrained how the system attracts, develops, and retains talent. Salary schedules are based on standard roles, making it hard for schools to get creative in defining roles tailored to the skills and interests of individual adults. Salary schedules also assign premiums for experience and educational attainment, making it difficult to recruit and retain teachers based on quality alone.

Salary schedules especially disadvantage teachers of color and young teachers.[50] Teachers of color, including Black and Latino teachers, are more likely to be new to the profession.[51] They are also more likely to be employed in high-poverty districts and minority-majority districts,[52] and to teach in Southern states,[53] where there is less funding available to support schools and lower teacher salaries.[54] In an industry that needs to reimagine and diversify its workforce, this presents a significant challenge.

Low take-home pay is another challenge to recruiting and retaining talent in education. In 2021, the gap in pay between teachers and non-teachers with similar levels of postsecondary education grew to a record 23.5%.[55] Many teachers moonlight to supplement their income.[56] For ESPs, whose average pay is "at least $10,000 below a basic living wage in all but one state across the country,"[57] the situation is even more dire; research suggests they would not be able to live in a metropolitan area and support themselves and one child without government assistance or another adult's income.[58] The latter is especially concerning given that individuals in support roles are more often people of color.[59]

Inflexible and insufficiently compensated roles are unlikely to help schools build high-performing teams of adults committed to using their unique talents to meet student needs.

Finally, benefits are an important constraint on how schools deploy their staff. They are consistently rated one of the top reasons that education professionals stay in their roles.[60] While pensions are often perceived to be a generous aspect of teacher compensation, benefits are not always generous, flexible, or guaranteed. Poorly structured retirement policies leave many

teachers who leave the profession — or who move across jurisdictional boundaries — without any pension benefit at all.[61] Teachers and school systems must often make significant contributions to unfunded liabilities.[62] Inflexible pension benefits divert funds from more generous teacher salaries while incentivizing teachers to stay in their roles and in the system longer than they might otherwise. These benefits also complicate revisions to the salaries and roles for adults, since changing them has ripple effects in the pension system.

Limited opportunities for entrepreneurialism

Rules and regulations from state and federal agencies helped establish and sustain a risk-averse culture in schools. Although some district teachers, administrators, and support staff demonstrate high degrees of entrepreneurialism, they are often constrained — or outright suppressed — by the larger bureaucracies they operate within.

Teacher and principal evaluations, which typically rely on formal observations, student growth data (test scores or learning outcomes), surveys, and the like, place pressure on teachers and school leaders to conform to rigid external expectations of how they should perform within their role.[63] At the district level, superintendents must work to adapt local policies to support innovation and, in spending federal funds earmarked for innovation, face murky guidance that incentivizes them to play it safe to avoid a potential audit.[64]

Teachers have little room in which to be entrepreneurial, constrained by rigid rules and routines as well as implicit norms.[65] Certainly, many teachers across the country find big and small ways to innovate — in their classrooms and in their schools — but they face significant barriers to doing so. During the COVID-19 pandemic, educators became entrepreneurial under duress. They adapted their curriculum and instruction from in-person to a remote format and launched new learning options like pods.[66] However, the positive innovations from that period may be lost as schools revert to the pre-pandemic status quo.

The training, certification, compensation, working conditions, and responsibilities of school-based educators and staff are important issues. However, these issues must be considered in the broader context of all the adults who are — or could be — helping to better serve the needs of children.

Non-school-based personnel struggle to sustain and coordinate services, especially for marginalized students.

Adults outside of the school system can and do play important roles in childrens' education, but they also face significant challenges when it comes to sustaining options in underserved communities and communicating and coordinating services with others engaged in a child's learning and development.

Working parents face significant challenges in meeting the needs of their children. They look to the education sector to fill custodial care roles while providing needed enrichment, but they lack access to affordable, let alone universal, child care;[67] program costs create socioeconomic gaps in participation.[68] In fact, despite substantial demand, two-thirds of parents in areas of concentrated poverty reported that finding an enriching environment for their child in the after-school hours was a challenge, compared to 46% of parents living outside of these areas.[69] Rural families reported that inconvenient locations and lack of available options in the community were significant barriers to enrolling their children in after-school and summer programs.[70] Those with unpredictable schedules, less flexibility, and less paid time off — a group that is disproportionately Black, Latino, and low-income — feel this problem most acutely.[71]

Those that operate in non-school roles often struggle to build effective, sustainable programs without the reliable influx of per-pupil public funding. Some — certainly not all — providers in the sector are eligible for federal, state, and local funding streams,[72] but these only support a portion of their costs. Nonprofit providers, especially smaller organizations, depend on individual donations.[73] Unfortunately, small education-focused organizations were more likely than any other nonprofit organization types to experience decreases in overall donations from 2015 to 2019.[74] Both nonprofit and for-profit providers also rely heavily on tuition and fees collected from families to support operations.[75]

As inflation drives up the cost of transportation, staff, infrastructure, utilities, and other expenses, programs are likely to become less affordable. In a June 2022 survey, 44% of providers reported it was a major

problem that income and budgets were not keeping pace with the rising costs of running programs, while 22% said programs were unaffordable for families.[76] It can be incredibly challenging for those entrepreneurs in non-school roles to keep their doors open while providing affordable services to families who may lack other options.

Sustaining an out-of-school option is hard, but starting something new is even harder — especially for Black and Latino leaders, who are more likely to be denied for small business loans or receive loans with high interest rates.[77] For those choosing to go the nonprofit route, nonprofit executives of color receive less grant funding overall, have less access to unrestricted assets, and face greater challenges in securing financial support from a variety of funding sources.[78]

Adults coming from backgrounds in educational roles, or those coming from the communities who most need support, rarely have large stores of capital to self-fund their ideas for innovation. For someone like a former teacher looking to start a microschool or an intensive STEM summer camp, entrepreneurship can feel impossible without more support. Some networks and incubators such as Edupreneurs[79] or 4.0 Schools[80] have cropped up to provide structured supports for those looking to innovate in education-related roles, but there is not enough capacity to address the needs of the field.

In addition to the challenges of entrepreneurialism in education, existing non-school-based providers and their personnel face the challenge of having limited information or data about the academics and behaviors of the students they serve in school and other settings. Formal lines of communication and avenues for coordination with school personnel and other program providers are limited unless the non-school provider has an existing contract with a school or partnership agreement, or unless there is an existing personal relationship between individuals working with the same student.

Beyond school, adults play a variety of roles in supporting students' growth and development. The variety of after-school programs, summer activities, or other learning experiences offer adults multiple roles to play. However, for options serving families with limited means, these roles are often in cash-strapped organizations and disconnected from the adults who support students during the school day.

A vision of an Assembly-based approach to human capital

The current approach to human capital in K-12 education is rigid and narrow in scope. Ossified systems that develop and manage talent in schools often end up *limiting* the energy, talent, and passion of educators. Those outside the school system who would otherwise be inclined to help support the educational development of children struggle to provide affordable services to those who need them most. Communication and coordination across all of the adults working to support a child's success is too often disjointed.

An Assembly-based education presents the challenge and the opportunity to rethink and remix how adults meet students' needs. Just as Assembly allows families and students to customize their education from an ecosystem of learning experiences, it also allows adults to customize their roles to how they are best able to support students' growth and development. Moving toward a more Assembly-based system will include new roles to address unmet needs in the current system, reimagined roles that combine different permutations of adults' skills and expertise, and new ways for adults to coordinate and collaborate.

Specifically, it is necessary to:

- Enhance the capacity of parents in their roles as childrens' first educators by providing better information about their needs.

- Create new roles for adults to help families guide their children's development and navigate a complex ecosystem of options.

- Differentiate roles within the system tailored to adults' skills and interests.

- Create more flexibility and autonomy for adults in traditional roles.

- Create more flexible pipelines for adults to find and prepare for child-serving roles.

- Establish salary and benefit structures that support more flexible deployment of talent.

- Create opportunities for adults to engage in structured risk-taking and innovation.

- Develop networks of support for those rethinking and reinventing roles.

Enhance the capacity of parents in their roles as childrens' first educators by providing better information about their needs.

Families need additional supports to enhance their capacity to provide educational experiences for their children. Schools currently serve as a hub for many services and a trusted partner in education for families, but families with younger children or whose schools are not providing the full range of supports their children need must have another place to turn.

Trainings aimed at new parents to support understanding of key developmental processes, including language acquisition, socialization, and literacy development, could be an opportunity to boost parent engagement early and set students up for success on their education journey.

Parents should also have direct access to diagnostic testing for their children. It is common for children who may qualify for accommodations in the classroom or supports such as speech therapy, occupational therapy, or counseling services to not receive them because their needs go undetected. Testing is often spurred by an educator or health care professional within school systems — or at the request of parents — which initiates a complex, paperwork-heavy process.[81] Parents should be able to reliably initiate diagnostic testing with few — if any — bureaucratic hurdles.

Finally, as parents work to understand their children's needs, they should also have access and ownership of their child's educational data, including formative and summative assessments as well as diagnostic assessments. Strong, secure data-sharing mechanisms would make it easier for families to share data with a range of education providers — including but not limited to traditional schools — to help them meet specific needs and to coordinate efforts across providers.

Create new roles for adults to help families guide their children's development and navigate a complex ecosystem of options.

In addition to gaining more information about their child's learning, many families would also benefit from having a trusted guide who helps them find their way through the wide variety of educational environments available to them, both during early childhood and once their child is school-aged. As a child gets older, a trusted guide can also coach and mentor them to take on more ownership and decision-making in their education.

Families and students need the ability to navigate a rich ecosystem of providers, including public institutions, nonprofit organizations, and businesses that provide educational options. With some notable exceptions, navigation supports are typically provided in ad-hoc ways — a referral to services from a teacher, a conversation with a neighbor, or the recommendation of a family member.

Technology can and should play a role in helping families match student needs to available options. Web-based databases and platforms could be developed to aggregate information on educational options and utilize artificial intelligence technology to help advise families as they select programs to meet the needs of their children. Technology is not enough, however.

Trusted guides who can empathize and understand families' needs will become essential to ensuring equitable access to the ecosystem of learning options. Guides could come from the ranks of many existing school-based or non-school-based roles and offer an opportunity for advancement to those with a talent for building trust, identifying students' needs, and keeping pace with the evolving options. And the role can provide adults currently working in schools, in out-of-school providers, and within the community a more formal role in which to support families in navigating their K-12 education journeys.

Numerous navigators have lit the path on how to help families understand their options, from established nonprofits like Families Empowered, EdNavigator, and RESCHOOL Colorado to more recent entrants like Love Your School and West Virginia Families United for Education. However, Assembly will require more systematic, scalable, and sustainable solutions to help families navigate a complex ecosystem.

Differentiate roles within the system tailored to adults' skills and interests.

Some current roles include auxiliary tasks poorly matched to the skills and interests of the adults who fill them; other roles are poorly differentiated to capitalize on adults' specialized skills; still others are underutilized. A more Assembly-based approach would consider a pivot away from a system of role-determined responsibilities to one of competency-driven responsibilities, in which a wider array of roles align to the variety of competencies an adult possesses so they can more flexibly deploy them to meet students' diverse needs.

Paraeducators illustrate how roles could evolve; once tasked with clerical duties and general monitoring, paraeducators demonstrated a capacity for more specialized responsibilities and now take on many of the instructional tasks of a teacher, with their role continuing to grow in this aspect.[82] Schools could continue to consider new roles for support staff that leverage their skills to support grading, data collection and analysis, or parent communication.

It is also possible to remix and redistribute the typical responsibilities of a classroom teacher. For instance, teachers working in a team could serve a larger group of students but specialize among themselves in lesson planning, small-group instruction, or behavior management. Other approaches could include part-time and hybrid/remote roles and creative staffing models like "floating teachers."[83]

Finally, while technology is unlikely to ever replace the human-to-human interactions vital to teaching and learning, it is rapidly advancing and could be leveraged to augment or streamline roles with online content delivery, automated data analysis, or diagnostic testing — freeing adults' time and skills for other purposes and roles in which human judgment and connection are essential.

Create more flexibility and autonomy for adults in traditional roles.

More flexibility in educational roles is another key lever to empower adults to better serve children. Adults in education are experienced, knowledgeable professionals who should be treated as such, but are often limited — or even undermined — by prescriptive policies and procedures. Rather than micromanaging teachers when it comes to instruction and classroom management, school and system leaders should allow education professionals to respond and adapt to the needs of the young people in their classroom.

For example, educators should be trusted to make the most effective use of their professional development funds and school leaders should encourage them to identify areas where they could use additional support or coaching, especially as roles become more specialized. At present, districts spend nearly $18,000 per teacher per year on professional development efforts that are not yielding the desired returns.[84] Low shares of teachers (less than one-third) reported that they found the professional development activities they accessed to be "very useful."[85] Rather than continuing with the status quo, schools should trust teachers with greater flexibility and autonomy by providing them with individual "accounts" they can draw from to pay for approved forms of professional development.

While school systems will need to provide *some* structure around aspects of educators' roles, such as a strong curriculum and schoolwide best practices for lesson design, they should also provide structured opportunities for teachers to exercise autonomy and deploy their time flexibly. Paired with better instructional coaching and assessments of teachers' growth and effectiveness, this could go a long way toward unlocking teachers' talents within and beyond the classroom.

Create more flexible pipelines for adults to find and prepare for child-serving roles.

To engage more individuals in the project of educating children, we must build new, more diverse talent pipelines — both in terms of who enters the pipeline and the kinds of roles they intend to support.

An Assembly-based approach to talent pipelines can build on innovative models developed to support traditional public school systems. "Grow Your Own" programs are promising models that develop partnerships between educator preparation programs, school districts, and community organizations to recruit and prepare

cohorts of local residents to teach in their communities.[86] In Chicago, for example, Grow Your Own programs have been implemented to recruit and train education support professionals[87] and parents and community members[88] to become bilingual educators in communities with a high proportion of English language learners.

Adapted to Assembly, this approach to talent pipelines could help identify and prepare more adults for roles that leverage specific, high-demand skill sets, such as teaching career-technical education courses, leading summer enrichment programs that build work-ready skills, or mentoring students who are struggling to regulate their emotions or behavior.

Certification systems must also offer more flexible options to support a broader range of roles. To that end, licensure systems should offer smaller-scaled, stackable credentials that maintain key protections — particularly concerning safety standards for children — while offering more flexible pathways for adults into educational roles. For instance, short-term training programs or badging systems could create new avenues for experienced professionals to demonstrate their fitness to work with children without requiring traditional postsecondary coursework or degrees.

Establish salary and benefit structures that support more flexible deployment of talent.

Talent pipelines to support new and more flexible roles will struggle unless compensation, benefits, and supports are structured in ways that help attract and retain talent in those roles.

For adults in traditional school-based roles, schools and school systems should adopt reforms that provide teachers and other staff with compensation based on a wider variety of factors than tenure of employment and their highest-earned credential. Instead, additional pay could be driven by specific roles or responsibilities, such as assignments in hard-to-staff schools, teaching high-demand subjects, or serving in a leadership role.[89]

Teachers and other adults in school-based roles also often feel locked into the system by benefit structures, where pension vesting requirements and tenure-based calculations create significant incentives for staff to

continue in their roles even if they might otherwise leave. There is a direct correlation between access to a high-quality, centralized benefit system and a worker's financial security;[90] portable benefits would reduce the disincentives adults face to pursue roles best suited to their talents and passions.

For new, more flexible roles that would be part of an Assembly-based system, a greater departure from current practice is necessary. Adults in part-time, contracted, and freelance roles are often underemployed and typically ineligible for traditional, employer-provided benefits packages.[91] To the extent that Assembly makes these roles more common, and to provide adequate compensation and make these roles attractive to talent, employers should be mindful of the out-of-pocket costs for benefits and build this into pay rates. In addition, smaller employers can benefit from pooling with other, similar organizations to increase their negotiating power with insurance companies[92] and other benefits providers. An umbrella organization that provides back office supports to those who might otherwise be single proprietors can also make new roles more appealing by providing benefits and handling administrative tasks.

Finally, offering more flexible benefits packages is not sufficient when employees struggle to understand them. Benefits systems can be remarkably complex and opaque. Much like students and families in Assembly, employees often need the experience of a trusted guide to help them navigate and craft the benefits package that best fits their circumstances. Employers should independently or in partnership with external experts offer benefits management support in the same way they may offer administrative, legal, and other operational supports.

Create opportunities for adults to engage in structured risk-taking and innovation.

For Assembly to reach its full potential, adults need opportunities for structured risk-taking and innovation, both within and outside the traditional education system. Today, adults in education who have an idea for a new solution face numerous barriers to exploring that idea — not least of which are startup costs, a significant hurdle for individuals who do not have highly remunerative jobs or stores of personal capital.

Within the system, states, local governments, and philanthropic organizations can develop microgrant programs that provide incentives for smaller-scaled innovative projects. For instance, some states provide paid research opportunities to Teacher of the Year award recipients that explore statewide issues and surface solutions,[93] while some districts offer paid sabbaticals that empower educators to take a break from the classroom, often to pursue aligned interests.[94] These approaches could be expanded to support a larger cohort of innovative educators in each state.

Outside the system, incubators and funders could create intentional spaces and programs where education professionals could apply to receive monetary support, coaching, and access to new networks to support the launch of promising ideas, similar to Y Combinator and other Silicon Valley incubators.[95] For instance, 4.0 Schools invests "in community-centered models of education, providing coaching, curriculum, community, and cash to those with the imagination to envision more equitable ways to learn, and the desire to ethically test those ideas."[96] The VELA Education Fund also provides microgrants to education entrepreneurs — including students, parents, educators, and others — to build new solutions for meeting families' needs.[97]

To build a pipeline of education innovators, adults need financial support to invest their time or develop prototypes, as well as opportunities to pressure test and improve their idea in collaboration with peers and experienced entrepreneurs.

Develop networks of support for those rethinking and reinventing roles.

As the roles for adults in education evolve, so will the supports they need — from training programs and professional development to opportunities to share new ideas and best practices. New networks of support for adults to share their experiences, challenges, and successes with one another, and learn from the expertise of others, would help the sector identify and create the needed intermediary supports.

One example is from leaders of emerging options like learning pods, hybrid schools, or microschools, who too often end up reinventing the wheel — in either their operations or their learning model — because they lack a way to connect with others who have pursued a similar path. Organizations like the National Microschooling Center, developed by microschool founders, have emerged to foster collaboration, innovation, and capacity building among entrepreneurial education leaders.[98] More such networks will be necessary to support the adults playing a variety of new roles in an Assembly-based system of teaching and learning.

Conclusion

Reforms of the current, rigid system of human capital are long overdue — families are overwhelmed, teachers are burnt out, out-of-school providers are not equitably accessible, and community members are underutilized. An Assembly-based approach to human capital recognizes that childrens' unique educational needs must be served by a diverse range of talent and expertise, not a one-size-fits-all approach. This will require significant changes in how talent is attracted, developed, supported, and deployed in K-12 education, with a focus on better aligning adults' contributions with the needs of children.

It is possible to rebuild human capital in education with a design that empowers families with a more complete set of supports, incentivizes adults from various life and professional backgrounds to get involved in new ways, invests in infrastructure that supports children and adults, and enables Assembly to thrive. In doing so, we can create a more equitable, flexible, and responsive education system for students and the adults who serve them. ✦

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Beta
BY BELLWETHER

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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