

# How Middle and High School Educators See the Skills Shaping the Modern Economy

## Policy Recommendations

### INTRODUCTION

As more hiring managers move from a [pedigree-based to a skills-based hiring approach](#), educators are stepping up efforts to instill today's students with the skills they'll need for tomorrow's workforce. Specifically, "new foundational skills," as termed by Burning Glass Technologies to include human skills, digital building blocks and business enablers, have been found to be in broad demand among employers and form the basis for the 21st century world of work.

[Research by Burning Glass and American Student Assistance](#) found that these skills can lay the groundwork for a successful path through any form of postsecondary education or training, and that educators believe the development of these skills should begin in the foundational years of middle and high school. In fact, in a [Panorama Education survey](#) of K-12 school district leaders, 50% of respondents said their district was most focused on improving students' 21st century skills, more than any other aspect of college and career readiness. Additionally, these district leaders cited the lack of "life skills," many of which overlap with new foundational skills, as the largest barrier to students' readiness for life after high school.

To foster the development of new foundational skills and ensure all students have equal opportunity to gain them, we recommend policymakers and education leaders at the federal, state and local levels take the following action steps:

#### 1 Develop educational frameworks and state standards for teaching and learning these skills.

Integrating the new foundational skills into middle and high school curricula will require developing frameworks at the executive level of schools, municipalities, states, and nationally. These frameworks should (1) establish a common

definition and understanding of skills that can be used across the education and workforce development sectors; (2) define clear, high standards for teaching and learning foundational skills; (3) provide guidelines around testing, metrics and benchmarks for learning outcomes; (4) offer guidance on professional development goals for teachers and administrators; and (5) outline methods for teaching these skills through creative forms of both in-school education, such as career exploration days or college and employer site visits, and also out-of-school time activities like work, internships, career-oriented student organizations, volunteering and research.

Efforts to create skills frameworks should leverage past work on this topic, particularly around "employability" or "transferable" skills (many of which overlap with new foundational skills). For example, on the federal level, the [Employability Skills Framework](#) by the U.S. Department of Education's Office of Career, Technical and Adult Education can be instructive, or resources from private entities such as the [American Institutes for Research](#) (note that AIR's College & Career Readiness & Success Center closed in 2019) or [Jobs for the Future](#) provide a framework for integrating employability skills into curriculum and education initiatives. At the individual state level, the [Common Core State Standards](#), which have been adopted by 41 states, the District of Columbia and four territories, [already integrate](#) some of the skills classified as new foundational skills, particularly the human skills of social, creative and critical intelligence. If Common Core State Standards are reevaluated, other new foundational skills in the business enabler and digital building block areas could be included in this framework.



## 2 Establish statewide metrics and benchmarks for learning outcomes of these skills.

Successful acquisition of skills cannot always be measured through traditional testing. A growing number of states are turning to metrics of work-based learning experiences and industry credentials. Bellwether Education Partners **found that** 39 states track college and career ready indicators that include a “career-based” element, such as CTE, work-based learning, industry credentials, or apprenticeships. In recent years, several states have moved to incorporate work-based learning, such as apprenticeships and internships, into the secondary school education experience. For example, the Commonwealth of Massachusetts instituted **Innovation Pathways**, a program that allows traditional comprehensive high schools to reimagine the educational experience so that students receive coursework and experience in a specific high-demand industry. Schools that receive the IP designation must offer structured work readiness activities and work-based learning experiences. Other states have changed high school graduation requirements to require a work-based learning experience or grant credit for work-based learning experiences toward high school graduation requirements. For example, Ohio state law now **requires** every school to comply with an Ohio Department of Education-developed framework for issuing credit for work-based learning. States that have built these frameworks have also developed success metrics that could be a starting point for new foundational skill metrics of success.

While testing and experiential learning outcomes can measure skills-building in the short-term, it is the post-high school years that offer the most insight into whether students are transforming their skills knowledge into college and career success. Longitudinal tracking of postsecondary enrollment, credential attainment, and the ability to secure employment could offer the fullest picture of how well students are building upon the skills they learned in middle and high school.

The **National Association for College Admission Counseling** found that while states might track what their students did immediately after high school, only 37 percent

tracked information on whether a student who enrolled in college persisted beyond the first year. Getting into college is the most important metric from the high school point of view, but it may be time for us to rethink that it is the only metric that points to a school’s ability to prepare students for life after college. Counselors and administrators should work toward the same metrics for success: ensuring their students are entering a post-secondary education environment they can succeed in academically and financially so that they can achieve long-term success. Without tracking the numbers of how many kids persist in higher education or through programs like apprenticeships or other skills-based training, schools will never know how they are progressing toward this metric, and we will never move past the default position of recommending certain school types over others just to achieve enrollment numbers.

Some states, like **Texas**, have already been successful in establishing state tracking systems to better understand a Texas student’s progress through the education system, but those systems don’t go far enough. Unfortunately, most states with longitudinal systems in place are unable to effectively track their students if they move to other states for work or school, so there is no full picture of how well students are progressing.

One solution to this issue could be to eliminate the federal ban on Student Unit Records. The Student Unit Record is a data system that uses student-level data for things like financial aid eligibility, higher education enrollment, etc. Higher education institutions collect data on demographics, course of study and graduation rates so that they can report trends to state and federal agencies about student performance at an institutional level. In the 2008 reauthorization of the Higher Education Act, a ban was put in place preventing individual level data from being collected and connected by the different agencies that

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collect it. For example, if we wanted to understand how well a student did after graduating from college, we cannot link the information submitted by their college to the U.S. Department of Education with Internal Revenue Service data to understand the student’s career trajectory. Elimination of that ban—with appropriate privacy concerns addressed—would go a long way to better understanding how well our education systems are preparing students for the workforce.

### 3 Ensure adequate funding is available for teaching and learning skills.

Robust education funding at all levels—federal, state and local—is enormously important if additional skills training is to be worked into school curriculum. On the federal level, funding in legislation from the *Elementary and Secondary Education Act* (reauthorized as the *Every Student Succeeds Act*) and the *Carl D. Perkins Career and Technical Education Act (Perkins V)* to the *Workforce Innovation Opportunity Act (WIOA)* all play a role in how effectively skill building is prioritized in curriculum and the pool of money local municipalities will have to ensure program implementation. We need to ensure funding for this legislation increases if schools are to have the resources they need to make necessary COVID- related changes and build the school

systems necessary for future student success.

While only **8%** of school funding comes from federal sources, the federal government has enormous influence over the types of activities on which funding can be spent. This influence comes in

the form of authorizing legislation that outlines federal spending priorities. The authorizing language of the bills mentioned above could be reconsidered to incorporate new foundational skills. Expansion of authorizing language

would, in turn, make additional funding possible.

For example, the latest version of the **Carl D. Perkins Career and Technical Education Act (reauthorized as the Strengthening Career and Technical Education for the 21st Century Act (Perkins V))** was reauthorized and signed into law in 2018. This includes a definition of “employability skills” students should obtain through a Career and Technical Education program and created a framework for evaluating these skills. The framework was developed to help educators incorporate employability skills into instruction and, similar to new foundational skills, these nine Perkin-defined skills are sorted into three broad categories—applied knowledge, effective relationships, and workplace skills. Missing from this Perkins framework are many of the new foundational technical and business enabler skills. To work additional skills into their requirements, this framework could be amended to include new foundational skills in future iterations of Perkins. This would force those receiving Perkins funding to put more priority into teaching these skills.

The **Elementary and Secondary Education Act**, reauthorized as the Every Student Succeeds Act (ESSA), is the federal authorizing and funding mechanism for K-12 education. Schools that receive Title I, ESSA funds must comply with this law. This most recent reauthorization was the first time the law attempted to focus on a whole child approach to teaching and learning and ESSA calls for schools to establish a “well-rounded” education for all students. In addition to incorporating things like social and emotional learning, the law now calls for an expanded focus on the arts, social studies, environmental education, computer science and civics. The area of “computer science” is one of the places that the new foundational skills could be fit into the new ESSA framework. If there is a desire to push additional skills through ESSA, they could be included during future reauthorizations in the definition of a well-rounded education. Similar to Perkins, this would force those receiving ESSA funding to prioritize these skills.

In addition, funding is available to schools through ESSA for college and career counseling (Title IVA, Title IVB), and teacher training (Title II). The teacher training provision, for example, increases teacher preparation for STEM-related

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activities and skills. Requirements could be made to include new foundational skills in services delivered through these grants.

And finally, the **Workforce Innovation Opportunity Act (WIOA)** is the primary federal workforce development and training legislation. It includes a youth provision designed to help disconnected youth, or youth with specific barriers to employment, prepare for postsecondary education and career. New foundational skills could be worked into the WIOA definition of **“Work Preparation Activities,”** which defines the need for programs to provide service that build academic, critical thinking, digital literacy and self-management skills but does not delve specifically into new foundational skills. WIOA is up for reauthorization in 2021 and changes to these youth work activities could be addressed in the reauthorization to help prioritize new foundational skill development.

Obviously, states also play a critical role in shaping education policy and setting funding priorities. With **48%** of education funding coming from states, they hold most of the power to determine what goes on inside a school system. To get new foundational skills into the schools, states could set standards and curriculum requirements, mandate skill acquisition, measure outcomes and set benchmarks for quality, allocate funding for programs, and they can also determine which federal opportunities, authorized by federal law, they will participate in.

In addition to states, local municipalities wield enormous influence in education policy. Cities and towns fund 44% of education costs and direct the minutia of day-to-day school activity. In order for new foundational skills to be incorporated into a school system, they must be accepted into the district’s vision for their students. Districts will then need to push implementation of frameworks, align teachers and testing, and establish classes from exploration to project-based learning that will impart these skills.

Even in good times, it can be an uphill battle to secure funding specifically targeted to skills-building, given the competing budget priorities for every school district. Now, in the wake of Covid-19, the challenge is even greater as K-12 school districts nationwide face an untenable combination

of increased expenses and deep cuts to state revenue. Unfortunately, many districts may deal with budget cuts by eliminating programs they have not prioritized as essential or those that are not long-established.

Rather than retreating, it is critical that we seize the opportunity to reimagine our schools so they improve student opportunities and outcomes and help kids build the skills they need for success. The goal should not be to return to the status quo, but to reinvent the ways in which we align our education and workforce development strategies so that students can maximize their learning opportunities and achieve career goals, employers find the skilled and educated workers they need, and the US maintains global competitiveness and a thriving economy. A laser-like investment in education during this time of crisis will require immense political will, but it is necessary to ensure the inequities of our education system, laid bare by COVID, do not persist. We cannot limit funding for education just as our students – particularly those most vulnerable to falling behind in an age of remote or hybrid learning – need support the most. Additionally, school boards and administrators must also signal their dedication to pushing out of old comfort zones, by allocating funding toward new strategies for skills-based teaching and programming that give students the tenacity they need to succeed in a changing world.

## 4 Ensure appropriate professional development for teaching foundational skills.

Many teachers may feel unprepared to teach foundational skills without the proper training and instruction. Colleges and universities that train teachers and school counselors could look to change curriculum and training standards for their undergraduate, graduate and certification programs in education, and states could update their teacher and counselor certification requirements. For existing teachers and counselors, professional development opportunities at industry conferences, seminars and online courses abound, but too often teachers and counselors lack the proper support to take advantage of these learning opportunities.



School administrators should encourage staff and afford them the flexibility and time needed to attend these out-of-the-classroom experiences.

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Another strategy to give teachers the confidence to implement a skills-rich curriculum is greater access to externships. Externships are professional development opportunities that allow teachers to obtain behind-the-scenes experience

in local industries, bring that knowledge back to the classroom, and add real-world relevance to their lessons. Some externships are federally funded; for example, the Massachusetts Department of Elementary and Secondary Education oversees a summer Teacher Externship Program, funded by a competitive grant made possible through the federal Perkins legislation, that places 48 teachers in externships at local employer sites for a minimum of 50 hours. The teachers must teach at a school that receives Perkins funding, are provided a stipend, and are required to develop one or more high quality lessons to be delivered in their classes next school year relating to the externship.

Externships can also be public-private partnerships, such as the nonprofit Teacher 21's Leadership Initiatives for Teaching Technology (LIFT2) program that places teachers from Massachusetts, Rhode Island and New Hampshire into externships with STEM companies. Sponsoring companies provide the work-based learning experience, while Framingham State University provides credit courses as an educational component of the program. State policymakers could look to encourage these types of valuable programs and expand their reach, perhaps by supplementing funding with state dollars, matching investments by sponsoring businesses, or creating financial incentives like tax breaks for sponsors.

## 5 Increase funding and support for school counselors.

Due to a lack of school counselors to meet demand, many teachers are stepping in to fill the void when it comes to meeting students' social-emotional needs, leaving little time to add skill development to their myriad tasks. The American Psychological Association [reports](#) that young Americans in Generation Z are most likely of all generations to report poor mental health – and that was pre-COVID. But this strain on teachers can reduce their time in the classroom teaching skills. An ASA study found that the amount of time teachers spend per day dealing with students' emotional and mental health issues has increased in recent years. To take some of this burden from teachers and increase the time available in a counselor's day to manage both mental health issues and help students plan for their future, federal, state and local leaders should boost funding to hire additional counselors so that their caseloads do not exceed the [American School Counselor Association recommendation](#) of no more than 250 students per counselor (the national student-to-counselor ratio stands at 482:1). With current ratios at that level, school counselors do not have the time in their day to adequately talk with all students about the need for new foundational skills.

Policymakers should support legislation, such as the proposed federal [Counseling for Career Choice Act](#), that would provide increased federal funding for school counselors and would help counselors develop a framework for career preparation that could include new foundational skills.

Funding opportunities for counselors can also be found in ESSA's Title IV, part A: "Student Support and Academic Enrichment Grants." On the state level, as state governments prepare and implement their CTE plans in accordance with the Perkins V Act, they can request school recipients of Perkins Grants to allocate a portion of this federal funding to the recruitment and retention of counselors. Or, they can craft initiatives at the state level like the Colorado School Counselor Corps Grant Program, which allocated \$16 million to 75 secondary schools to create an additional 220



counselor positions and provide 875 school professionals with postsecondary and workforce training. Within a five-year period, Colorado cut the student-to-counselor ratio roughly in half and decreased the high school dropout rate from 5.5 percent to 3.5 percent.

Local school boards and administrators should likewise prioritize school counselor funding in budgets.

### **6 Increase availability of regional labor market data so that teachers have access to up-to-date information for their students.**

The federal Strengthening Career and Technical Education for the 21st Century Act (Perkins V) lays the groundwork for stronger links between states' education initiatives and local workforce needs. The legislation requires recipients of federal Perkins education funding to conduct **a comprehensive local needs assessment** and update it at least every two years. As part of this assessment, CTE leaders must assess how well their education programs align with regional labor market demand. However, many educators may struggle with gathering, analyzing and translating complex statistical data. To overcome these challenges, teachers and school administrators can turn to **resources** that provide best practices and examples from states who are leading the way in connecting education systems with labor market information. For example, the Nevada Department of Education works together with the **Governor's Office of Workforce Innovation for a New Nevada** to convene Industry Sector Councils, where industry partners issue recommendations on the necessary skills, training and educational requirements for in-demand jobs based on labor market information. But as with so many education initiatives on the "career track," these resources are often only geared to and circulated in CTE circles. As referenced earlier in these recommendations, it is essential that educators keep abreast of labor market demand for all their students, even those not enrolled in a formal CTE program, and the required skills for potential careers, so they can begin to lay a foundation of skills that students can build upon in postsecondary study.

### **7 Create state or federal tax benefits or grant funding to incentivize employer participation in youth internships and work-based learning.**

Hands-on learning, such as internships, apprenticeships and worksite learning, can help students explore their likes and dislikes, and better align postsecondary education plans with career goals. Internships for students younger than 18 are somewhat available nationwide but are not nearly as prevalent as those for college-aged students. Employers often cite challenges with hiring youth interns, such as timing, transportation, recruiting, and work content that either complicate or preclude an internship experience. To help companies overcome these challenges and to incent corporate cultures that value intern experience, government should provide a series of financial incentives, from tax credits to grant funding, to support the ability of employers to provide paid internship programs.

For example, some states provide a corporate income tax credit up to a specified amount for a qualified business that hires interns. The credit could be restricted to qualified businesses in certain industries as dictated by state or local workforce needs. Such a program existed in the state of **Minnesota** for a number of years before being eliminated by the legislature. The program allowed for a Minnesota employer to receive up to a \$2,000 tax credit per student intern who completed an internship program. A similar program is in place in the state of **New York** and several states have introduced legislation to establish these programs, including **Florida** and **Illinois**. To promote the attainment of skills by younger students, these credits could be structured in such a way as to incent the hiring of high school interns, such as legislation introduced in **Virginia**. Alternatively, states could establish an internship fund and grant money to companies looking to implement or support a paid internship program. Such programs exist in many states, including Nebraska, Colorado, Indiana, **Massachusetts** and Iowa. Similarly, in Massachusetts, reimbursement is provided to employers to incent hiring interns in specific industries like Advanced Manufacturing or Robotics. (A similar program existed in **Colorado**; however,



the program was set to expire in 2020 and was not extended.) Whatever the setup, these programs allow for the state system to encourage and support the growth of internship programs while allowing the employer the control to establish the internship that best meets their needs.

### **CONCLUSION**

Students today face a future world of work that will be transformed by trends we anticipate, such as globalization and artificial intelligence, and events unforeseen, like

health pandemics. To survive and thrive, students will need to develop a portfolio of essential, portable skills that will carry them through a lifetime of multiple jobs. To be sure, no education can ever guarantee a career that will be 100 percent bulletproof against the tides of change and unexpected circumstances. But helping students to build core foundational skills at an early age is the best protection we can give them in a 21st century workplace that's bound to require endless amounts of flexibility, resiliency and grit.

