EducationWeek® | SPOTLIGHT®

2025

Rethinking High School: Integrating Career Prep & Academic Learning

E+

Page 7

EDITOR'S NOTE

The rapidly changing world requires students to have far different, and more diverse skills than any generation before them. Students need a combination of soft skills like critical thinking and adaptability, along with practical skills, such as digital literacy and time management, to succeed in the workplace. Career pathways, and getting students on them, is essential for student success in the real world. This Spotlight focuses how districts, schools, and teachers across the country have successfully met the challenge.

Luca D'Urbino for Education Week

Page 18

Published October 22, 2024

Even in Academic Classes, Schools Focus on Building Students' Workforce Skills

By Matthew Stone

One skill Kentucky students learn in elementary school is how to write an opinion backed up by reasons and details. So in the Bullitt County school district, south of Louisville, the 1st grade classes at Old Mill Elementary School last January approached opinion writing and related skills in a way that showed their potential to have a real community impact.

The four classes learned about the workings of the Kentucky Humane Society in Louisville and browsed the shelter's website to familiarize themselves with the dogs, cats, and horses up for adoption. Then, they chose their favorite animal and had the job of writing short plugs explaining why the pet should be adopted. The students recorded themselves reading what they'd written, incorporated the audio into an animated class presentation, and shared it with the shelter.

The students were satisfying Kentucky academic standards for 1st grade. But the project was also an example of the 13,000-student district's attempt to go beyond standards and equip students—even some of its youngest—with more general life skills, like collaboration, problem-solving, and communication, that community members and employers consistently say they want from students coming out of high school.

Bullitt County educators are hoping students emerge from 13 years of school with these skills in part through more project- and community-based learning like the Humane Society collaboration.

"We know content's important. We know standards are important. We know that there are certain things that are foundational, that students have to know and be able to do," said Jesse Bacon, the Bullitt County superintendent. "But outside of that, what else do students need in order to be successful?"

That question is at the heart of a comprehensive rethinking that's underway about how schools are set up, how students learn, what skills they're expected to acquire, and how they demonstrate what they've learned. Much of this work directly challenges the traditional concept of school as a place where students simply acquire knowledge, by asking them to take the next step and apply it in a real-world context. It's a big departure that's unlikely to happen quickly.

Sam Mallon/Education Week

Students participate in reflections after a day of learning in Julia Kromenacker's 3rd grade classroom at Old Mill Elementary School in Mt. Washington, Ky. The Bullitt County district that includes Old Mill Elementary has incorporated a focus on building more general life skills, like collaboration, problem-solving, and communication, that community members and employers consistently say they want from students coming out of high school.

But the deliberate focus on universal workforce skills—often called durable, non-cognitive, soft, or transferable skills—is starting to take root as school districts and states develop so-called portraits of a graduate that lay out in graphical form the characteristics communities hope their students develop by the time they complete high school.

A network of education-focused nonprofit organizations are supporting this transition. But they concede they're doing this work without research to guide them on what's most effective.

And while a general consensus has emerged on the broader life skills community members want students to acquire—critical thinking, problem-solving, collaboration, and communication skills commonly appear in these portraits of a graduate—there's similarly little research confirming which abilities actually set up students for the best chance of success in life.

"There's some strong intuition there, but I think it is resting a lot on that intuition," said Matt Chingos, the vice president of education data and policy at the Urban Institute, a nonprofit research organization that's leading an effort called the Student Upward Mobility Initiative to fund academic research aimed at determining the skills students need to achieve economic success in life.

In addition to research, parallel efforts are underway to develop gauges that teachers and schools can use to judge whether students have acquired these skills.

Portraits of a graduate as an answer to, 'why are we learning this?'

To be sure, the drive to identify and inculcate these kinds of skills stretches back decades in American education, from the "life adjustment" movement of the mid-20th century through the push, in the early 2000s, for "21st century skills," all emphasizing many of the same basic ideas: collaboration, communication, and critical thinking.

Some of those former efforts, aimed mainly at non-college goers, smacked of classism.

And experts have debated at length the extent to which critical thinking skills taught in one context can be transferred to another.

Still, the efforts today reflect a continued sense that schools haven't emphasized these skills enough. And although the end goal is to have students fluent in these skills by the end of high school, laying the foundation goes back to the early grades—like the 1st grade classrooms at Bullitt County's Old Mill Elementary.

In Bullitt County, the district's graduate profile was the result of strategic planning begun in 2017 that involved focus groups and community meetings with students, teachers, parents, residents, business leaders, and other community members.

Students were asked what they hoped to gain from their school experience and what they wanted to accomplish. Employers were asked what they looked for in prospective hires. Parents were asked what experiences they hoped their children would have in school, and what they hoped they would gain from them, Bacon said.

The groups differed in their word choices, but they voiced consistent themes, he said.

From that process, the district developed its graduate profile, which lays out the broad characteristics, or competencies, Bullitt County students should develop by the time they graduate. The profile says they should be effective communicators, innovative problem solvers, productive collaborators, self-directed navigators, community contributors, and mastery learners.

To incorporate those competencies into instruction, educators then worked to define what it meant for students to display each one, and how it looked at different grade levels.

The district now emphasizes what it calls authentic learning experiences, like the Humane Society opinion-writing undertaking, that tend to include hands-on projects driven largely by students that might directly address a community need.

"We've focused for so long in the education space around the acquisition of content and knowledge when, today, our kids have more access to content and information than ever before, and that's not going to slow down," Bacon said. "And so it's not enough now to have knowledge of facts or material or information or content or standards. You have to know how to be able to apply those things in truly authentic ways."

In addition to fulfilling academic standards, each authentic learning experience addresses at least one of the six competencies outlined in the graduate profile, assistant superintendent Adrienne Usher said. Throughout the project, the teacher discusses that competency and how the lesson relates to it, and students reflect on what they learned.

The Humane Society project, for example, addressed the district's "effective communicator" and "community contributor" competencies, said Ashley Byerley, an instructional coach who worked with Old Mill Elementary's 1st grade teachers on it.

While individual districts and states have independently developed their portraits of a graduate, the final products have had striking similarities. Virtually all of them emphasize that students should emerge from school as critical thinkers, problem solvers, collaborators, self-starters, and community-minded citizens.

"It doesn't matter, really, where you're growing up, where your community is located," Bacon said. "There are foundational, core things that are part of the human development process that we have to foster and nurture as a part of the responsibility to educate kids and prepare them to be productive contributors to our world and society."

At a time when artificial intelligence is burgeoning and can perform many tasks that previously required humans, the skills that portraits of a graduate identify are "so much about being human and leveraging these technologies and these supports, but being able to engage with each other and ourselves in very complex ways," said Brooke Stafford-Brizard, vice president for innovation and impact at the Carnegie Foundation for the Advancement of Teaching, which is working to develop assessments that measure students' progress toward mastering these broader competencies.

In Utah, education officials held more than 40 focus groups with different constituencies across the state and administered surveys to inform their development of a state-level portrait of a graduate. At the same time, the state board of education encouraged local districts to develop their own, expecting it would contribute to a consensus on what schools should prioritize beyond standardized test-oriented accountability metrics, said Sarah Young, the chief of staff to Utah's state superintendent.

"We really felt strongly that most folks were going to arrive at a pretty similar outcome," Young said.

Beyond simply developing the portrait of a graduate—which Young called the "North Star of education" for the state—Utah officials broke out the competencies it outlines by grade range to show what students should be able to do as they progress through school and develop the skills.

Simply determining the outcomes, Young said, "doesn't necessarily tell a 3rd grade teacher, so how do I contribute to that vision?"

In Utah's Juab district, the portrait of a graduate offers teachers some help in answering the age-old question: "When am I going to ever use this in real life?" said Natalie Darrington, an instructional coach in the 2,700-student system south of Provo that was one of the first in the state to develop a portrait of a graduate.

Students might never use some of the specific knowledge they learn in math class outside of school, Darrington said. But learning it contributes to something bigger—becoming a mathematical thinker and problem-solver—that corresponds with the broader skills in the portrait of a graduate, she said.

"It's not about the content," Darrington said. "It's about all of these other things that you're developing about yourself that you're going to be able to build on and carry and transfer to your English class or transfer to your science class."

How will schools know if they're successfully imparting durable skills?

The mechanisms for testing students' understanding of math, reading, and other academic subjects are, if still hotly debated, well established.

But if the new "North Star" for schools is—in addition to rigorous academics—training students to become critical thinkers, collaborators, and problem solvers, how will they know if they've succeeded?

It's a question to which some of the nation's largest test developers are devoting attention.

The textbook publisher and test-maker Pearson has published a series of papers in recent years on teaching and assessing creativity, communication, critical thinking, and collaboration. The company also works with employers on cultivating "power skills" among workers.

And last year, the Carnegie Foundation for the Advancement of Teaching announced a collaboration with test-maker ETS, the former administrator of the SAT and developer of other major national tests like the GRE, to build assessment tools that measure precisely those skills states and districts are outlining in their portraits of a graduate.

"I think there's never been more attention on these kinds of skills, and I've never seen

the policy priority at a higher level," said Chris Domaleski, associate director of the Center for Assessment, which works with state education departments on assessment and accountability systems.

But direct measures of students' mastery of durable skills are still nascent, Domaleski said, and not something states are yet incorporating into the performance measures to which they hold schools accountable.

The Carnegie-ETS initiative is in its early stages, but the idea is to build tools that provide the same psychometric reliability as traditional academic tests while giving timely feedback to students and teachers. Students would submit projects and work products from outside learning experiences, such as internships and job shadows, and participate in gamified or experiential assessment modules, according to the Carnegie Foundation. That could happen at any time, rather than during a prescribed testing window.

"So it ends up being a very dynamic and robust picture of how to continue to support the student," said Stafford-Brizard, the Carnegie vice president.

The high school transcript is another facet of K-12 education that could evolve.

The Mastery Transcript Consortium, which became an ETS subsidiary in May, has worked for years on a digital academic record through which students show how they've developed the competencies their districts prioritize in their portraits of a graduate.

The transcript lays out those competencies, and students supply evidence showing their progress—projects they've completed, internships, tournaments where they've competed. It doesn't list grades.

Some 370 schools have joined the consortium, and nearly 500 colleges and universities have accepted students supplying the transcript since 2020, according to the group.

The transcript and competency-based assessments could help build currency for the model more widely, beyond the small number of school systems trying to make this shift, said Mike Flanagan, the Mastery Transcript Consortium's CEO. So far, it's been difficult for schools to implement because it's so far outside the traditional K-12 infrastructure and largely unknown.

"We have to take these skills and make them legible in a way that they are not today, and also make them super easy to read and use," he said, "so the people who have to make tough decisions about who goes where and does what have the best and most accurate information." ■

81% of PLTW Launch teachers agreed PreK–5 students are more engaged in science because of PLTW

In districts with Project Lead The Way (PLTW), students are empowered to take hands-on learning to the next level. From building accessible picnic tables to designing innovative medical devices, PLTW doesn't just increase engagement—**it changes the trajectory of students' lives.**

Discover PLTW programs that leave their communities in awe

Proven Curriculum that Meets Your Needs

- **Improve** student engagement and academic outcomes
- **Deliver** vertically aligned PreK–12 learning experiences
- **Gain** comprehensive support and teacher training
- **Access** funding to start and expand programs
- **Increase** support from local, regional, and national businesses
- **Connect** STEM and CTE to state and national standards

PLTW
Project Lead The Way

Source: 2023 PLTW Annual Report

pltw.org

Alan Warren/The Messenger-Inquirer via AP

Fourth graders Kysen Dull, left, and Kyree Davie try out some masonry work as they put a brick in place with help from Owensboro High School masonry students during Career Day at Cravens Elementary School in Owensboro, Ky. Putting on Career Day events is one way students can be exposed to career options at an early age.

Published April 29, 2025

How This Schooling Model Puts Career Preparation First

By Lauraine Langreo

A growing number of districts are shifting away from a near-exclusive focus on college preparedness and instead providing opportunities for students to explore and engage with various career pathways.

The shift comes as more families are questioning the return on investment from a traditional, four-year college education. Policymakers and industry leaders are also working to ensure there is a pipeline for students to end up in high-demand jobs.

Districts are offering more career and technical education courses, work-based learning experiences, and dual-enrollment opportunities. One increasingly popular approach is the career academy model, where students can earn college credit, industry credentials, and work-based learning experiences within a pathway.

"It's been around since the '60s," said Jay Steele, the president of the National Career Academy Coalition, a nonprofit that supports schools in transition to a career academy model. "It has resurfaced as communities are looking for some type of economic strategy in education that provides kids opportunities within their own communities."

Steele spoke with Education Week about what educators need to know about career academies, what it takes to start them, and what makes them successful.

The interview has been edited for brevity and clarity.

What do districts need to think about before starting a career academy?

It's very important, when we're working with the school or community, that we look at their regional or local workforce data published by the federal government every year from the Bureau of Labor Statistics. We can focus on three things: What are the high-skill jobs? What are the high-wage jobs? And what are the in-demand jobs? Those dictate to that particular community what their pathways should be.

What does a career academy look like?

At the elementary level, we use the term expose. So we're exposing kids to college and career experiences. It could be simple things like a Career Day, where you dress as your favorite career person. It could be [bringing in guest] speakers. It could be short units of problem-based units, or project-based units for kids to start exploring: What are the possible careers outside of being a football player, a doctor, a nurse? They know those things, but what are some of the others?

Once they get into middle school, we use the term explore. They'll take a little bit of everything, but it has to be aligned with the high school that they feed into. They'll do things like take a college interest inventory, a personality interest inventory, and career assessments. They'll start learning about themselves, what their strengths are, and then how to apply that in different courses as they have those experiences. They might take a yearlong elective course or a semester that's designed as an introduction into that particular area.

When they go to high school, we use the term engage, because now you're going deeper with the curriculum. You're going to career fairs, you're going to college visits, but those are aligned to what you're studying. They're starting to engage through college credit, through college experiences, through industry experiences. So by the time they graduate, they have a whole portfolio, from [industry] credentials to college credit, and they know companies and universities that offer opportunities for them after they leave high school so they can see a clear pathway. Or they've ruled something out which is just as important.

What's a challenge that schools face in transitioning to this kind of model?

We all went to high school, we know what that looks like, and to change that model to something different takes a visionary leader. It takes someone who can rally their faculty and get them on board and let them see the importance of the model and why it's beneficial for kids. It's not an easy change, but we do partner with school districts to help facilitate that change, to educate their team and prepare their school for master scheduling, all the way to the student experience and curriculum design. It is a challenge, but it is a challenge that many communities are seeing [will] benefit their kids.

What do districts need to make this model work?

I definitely think having community partners is key because we cannot do this work in isolation. The business community, the post-

secondary community, they provide the experiences for kids to make the curriculum come alive. They support the teachers in curriculum development and delivery. That's important. They're co-teaching alongside the teachers when and where possible, but they're also opening up their doors for kids to come in.

What have been the effects in districts where this model was put in place?

It does take about three to five years for full transformation of a high school. But the research shows that the model leads to higher rates of attendance, higher rates of graduation, and lower rates of discipline issues.

What it does not show is an improvement in achievement in academics. You have to focus on teaching and learning within the academy structure [to see academic gains]. So project-based learning, move the didactic-style lecturing to more active learning, work on authentic, real-world projects. That's where you're going to start seeing the achievement numbers move. That takes time, and it takes a really dedicated focus by the instructional leaders within the school to focus on transforming teaching and learning. ■

Published March 19, 2025

The College Board Adds Two New AP Courses. Here's What Makes Them Different

A focus on career prep is the driving force behind these new AP courses.

By Alyson Klein

New York—

For decades, the College Board partnered with college and universities to design courses for its sprawling Advanced Placement program, which is offered at about 16,000 high schools, making it the most widespread vehicle for bringing college-level expectations to high school classrooms.

Now the nonprofit is putting a new twist on AP: It is crafting courses not just with higher education at the table, but industry partners such as the U.S. Chamber of Commerce and the technology giant IBM.

The organization hopes the effort will make high school content more meaningful to students by connecting it to in-demand job skills.

It believes the approach may entice a new kind of AP student: those who may not be immediately college-bound.

The effort may also help the College Board—founded more than a century ago—maintain AP's prominence as artificial intelligence tools that can already ace nearly every existing AP test on an ever-greater share of job tasks once performed by humans.

"High schools had a crisis of relevance far before AI," David Coleman, the CEO of the College Board, said in a wide-ranging interview with EdWeek last month. "How do we make high school relevant, engaging, and purposeful? Bluntly, it takes [the] next generation of coursework. We are reconsidering the kinds of courses we offer."

The first two classes developed through this career-driven model—dubbed AP Career Kickstart—focus on cybersecurity and business principles/personal finance, two fast-growing areas in the workforce.

Students who enroll in the courses and excel on a capstone assessment could earn college credit in high school, just as they have for years with traditional AP courses in subjects like chemistry and literature.

However, the College Board also believes that students could use success in the courses as a selling point with potential employers.

"Our aim is to have employers recognize the value of [the coursework], when you're applying to internships or apprenticeships or when you're on the job," Coleman said.

E+

New AP course aims to equip students with real-world business skills

That's a goal shared by the U.S. Chamber of Commerce, which is helping to shape the business principles course.

"This course is going to give people a leg up both when they're applying for jobs, and then once they get the job, whether they have a college degree or whether they've gone straight in into the workforce, because they'll just have a basic understanding of how businesses in general operate," Neil Bradley, an executive vice president and chief policy officer at the chamber, said. "Those are skills that can be taken to virtually any workplace and would be found valuable."

For instance, the course could be worthwhile for a student who wants to pursue a career in welding—a job that may not require a four-year degree—and hopes to open their own welding shop down the line.

The student will need to understand concepts like profit margins and return on investment, Bradley said.

That's something many students aren't exposed to unless they major in business at a four-year college, he said.

"College is always going to be valuable, full stop. But it's also true that we're never going to have 100 percent of kids going to college, and nor should we want to," Bradley said.

This kind of deep collaboration is a first for many businesses, which aren't typically at the table giving detailed input on course content, said Carol Kim, the director of technology, data and AI at IBM.

"It's a really good way for corporations and companies to help shape the curriculum and the future workforce," Kim said. "That's where I find a lot of the value, is letting them know what we're looking for."

Both the business and cybersecurity courses could also help fulfill state high school graduation requirements for computer science education (currently in place in at least 11 states) and financial literacy (on the books in more than half of states).

College Board expands AP to bridge higher ed. and career training

These career-minded courses developed with industry partners align with the College Board's long-standing work with higher education, Coleman said. The organization will continue to collaborate with colleges to craft course content.

"It's not a pivot because it's not to the exclusion of higher ed," Coleman said. "What we are doing is giving employers an equal voice."

Still, the College Board's move comes as the public increasingly questions the value of a traditional four-year college degree.

A plurality of adults—49 percent—believe a four-year degree is less important in getting a well-paid job than it was 20 years ago, according to a 2023 Pew Research Center survey.

College Board's move could help break down longstanding barriers between college-bound students and those in career-and-technical education, said Adriana Harrington, the managing director for policy at ExcelinEd, a nonprofit working with College Board on the initiative.

"We felt by having it powered by AP, it provided a rigor and a clout to traditional career and technical education courses," she said.

For years, policymakers and educators have been trying to "shift the narrative into, every student is on a [career] pathway, as opposed to CTE being over here and Gen. Ed.

being separate. Having AP feed into that feels like a really natural and important step."

Work-based learning is key to making AP career courses meaningful

Lazaro Lopez, the associate superintendent for teaching and learning in Township High School District 214 outside Chicago, agreed that the College Board's move is a clear signal to the K-12 field that "career-focused learning is rigorous, it's valuable, and it deserves the same recognition as traditional academic pathways."

But Lopez pointed out that the idea is hardly novel.

For over a decade, Lopez—a 2025 Education Week Leader to Learn From—has led an effort in his district to make high school more relevant by offering dozens of career pathways. Though District 214 was on the early end of this trend, such pathway programs are now a fixture in high schools nationwide.

In Lopez's district, many pathways include college-level coursework, including AP classes. For instance, the district encourages students in its business pathway to take AP Economics, and steers those in its political science pathway to AP Government and Politics.

But for Lopez, those classes take on far more meaning when paired with another key component of District 214's pathways: work-based learning experiences, including job shadowing, internships, and apprenticeships.

Lopez said local schools would need to integrate those experiences into the Kickstart courses to maximize career-connected learning.

"The caveat with all of this is that it can't become this other academic track that's just AP," Lopez said. "It can't replace any hands-on experiences that prepare students for college and careers, because [that's what leads] to that level of engagement and depth of relevance for the students."

He also noted that some pathways his district offers require materials and workspaces that the College Board alone can't provide, such as health care labs and manufacturing equipment.

"Part of what makes our programs successful is the equipment and facilities we have," Lopez said. "It opens the aspirations of the students because they're seeing it there in their school. They see this health care lab, they're seeing the nurse who's teaching them, and they start to envision that they fit in that space. It really does have an impact."

In response to such concerns, Holly Stepp, a spokeswoman for the College Board, said that the courses are designed to serve as a "nationwide standard, which can be exceedingly beneficial for districts that lack resources to provide a diverse range of career and technical education programs."

She added that work in the courses is "designed to be hands-on and lean into project based learning."

Lopez also wondered, "how are these courses going to be received and recognized by higher ed.?"

While for years colleges gave credit to students who got a passing score on AP courses—typically at least a 3 out of a possible 5—postsecondary institutions have been slower to embrace the College Board's newer courses, including AP Seminar.

AP Seminar was designed to help students develop the collaboration, research, and writing skills that they would need for a range of college majors, according to the College Board's website.

Given that, colleges typically don't award credit for success in the course. Those that do consider it a general elective.

It is "still early in the process for securing credit policies for the new courses," Stepp said. She added that work begins once the course frameworks are finalized.

Cybersecurity course will prepare students for high-demand field

The cybersecurity course is being piloted in 200 schools this school year and is expected to expand to 800 schools next school year.

For now, students in the cybersecurity pilot who earn a passing score on the course assessment can earn a voucher for test preparation and exam fees for the CompTIA exam, an industry-recognized assessment.

Successfully completing the CompTIA exam signals to postsecondary institutions—and potential employers—that a student has the skills to perform job-related tasks, such as monitoring a network's performance and troubleshooting security infrastructure.

Students with cybersecurity skills aren't likely to lack job opportunities, Kim noted. In fact, the World Economic Forum, an international advocacy and research organization, projects a global shortage of 85 million cybersecurity workers by 2030.

Kim sees cybersecurity skills as applicable to a wide range of sectors. "It just interacts with so many things, whether it be social, economic, or political," she said. Cybersecurity experts "safeguard our networks, our data. They protect our communities in this interconnected world."

The College Board will also have to stay a step ahead of rapidly evolving technology, including AI, which will play a growing role in cybersecurity coursework, Kim said.

Coleman agreed. "There'll be a more living portion of these courses," he said. The way courses like cybersecurity "intersect with AI will be updated much more frequently," potentially annually.

AP business course focuses on real-world skills, soft skills, and future health care integration

Students in the business principles/personal finance class will work in teams to develop a business plan and simulate the role of a financial adviser for households with varying income levels and goals.

There are no pilots planned for the course, but the College Board is field testing the coursework this school year and next. An exam will be part of the class when it launches nationwide in the 2026-27 school year.

To be sure, in addition to wanting employees who understand key business terms and strategies, employers are also seeking workers who possess a range of so-called soft skills, such as empathetic listening, persistence, and self-awareness. Such capabilities, though, are notoriously difficult to assess and measure on a standardized test.

The College Board and the chamber, however, believe that those skills will be embedded in the project-based work students will complete for the course, including working in teams to create a business plan.

"You're going to develop those soft skills, because you're practicing them," as part of the course material, Bradley said.

Looking ahead, the College Board might expand the Kickstart program.

One possibility: A health care course.

"I think the next breakthrough is going to be health care," Coleman said. Students tend to study biology and chemistry separately. But "if you ever want to do health care, you need to know how chemistry works in the body. ... Why don't we do an integrated course? [Could] kids learn [these topics] simultaneously in a great course on anatomy and physiology and careers in the health sciences?"

Teacher training is key to meeting cybersecurity workforce demands

The Kickstart initiative will require significant teacher training—particularly for the cybersecurity course. Cybersecurity skills, already too rare in the job market to meet em-

ployers' needs, are even scarcer among the nation's teaching force.

Complicating matters: If a teacher has the know-how to get a job in cybersecurity, they likely already have the skills to work in a higher-paying profession than K-12 education.

So, the College Board is planning to invest heavily in training K-12 teachers to lead the cybersecurity course. The model has already shown success with AP Computer Science Principles, the program's introductory computer science course.

Slightly more than half of the teachers who lead that class have backgrounds in subjects other than computer science, Coleman said. But those coming from other disciplines have completed summer training programs that enabled them to teach the class, which includes a requirement that students complete a coding project.

College Board is hoping for a similar result in sponsoring cybersecurity training.

"I'm not saying [these teachers will] be experts in cyber" by the end of their training, Coleman said. "I'm saying they'll know enough about the structure of the cyber course and have the resources that they'll be able to stay a step ahead of their kids."

This kind of concerted effort is necessary to get students ready for the future job market, Coleman said.

"Unless we're willing to massively invest in teachers learning ahead of their students, we will never catch up" to workforce needs. ■

79% of high school PLTW students agreed they can **build an argument** using logic and defend their point of view

In school districts across the U.S., students in Project Lead The Way (PLTW) programs are learning the in-demand technical and transferable skills that workplaces require. The result? Graduates who speak the language of industry and arrive ready to contribute from day one.

Transferable Skills for Lifelong Success

- COLLABORATION
- CRITICAL THINKING
- COMMUNICATION
- ETHICAL REASONING
- PROBLEM SOLVING
- CREATIVE THINKING

Are your students future ready?

PLTW Students Are.

See the comparability study

PLTW Project Lead The Way

Source: 2023 PLTW Annual Report

pltw.org

Eric Davis for Education Week

Agnieszka Crownoever explains how a surgical robot works to intern Lutrell Kirk, an 18-year-old high school senior, at Northwest Health in Valparaiso, Ind. Lutrell and other seniors are part of a program to give them hands-on experiences before graduation.

Published September 30, 2024

Students at This High School Do Internships. It's a Game Changer

By Elizabeth Heubeck

Chesterton , Ind.—

Disengaged students. Sky-high absenteeism. A disconnect between the typical high school's academic curriculum and post-graduation life.

These and related complaints about the American high school experience have been gathering steam for some time; the pandemic exacerbated them. State-level policymakers have taken note, and many are now trying to figure out how to give high school students access to a more relevant and engaging experience that prepares them for a future—whether it involves college or doesn't.

One of those states, Indiana, has begun to reimagine high school graduation requirements—placing a greater emphasis on experiential, hands-on learning. But before the murmurings of change, Indiana's Chesterton High School had already begun moving in this direction.

The school, located in Porter County, Ind., serves approximately 2,000 students from three towns that make up what's known as the Duneland area. In 2019, just before the pandemic struck, the district's then-new superintendent, Chip Pettit, challenged the high school to enroll 50 percent of its seniors in an experiential learning opportunity outside of the school building.

Adding an elective senior internship—lasting a semester or the entire school year, depending on student preference and schedule availability—to its preexisting traditional career and technical education and teacher cadet programs made the goal achievable.

After a slow start, the school's internship program has grown exponentially. In 2019-20, just five students completed internships, mainly due to the logistical challenges the pandemic presented. This past year, it grew to over 180 participating seniors, with more than 200 community organizations agreeing to accept interns.

Just a day before Chesterton seniors graduated from high school in June, Education Week caught up with five seniors to learn about their internship experiences, what they learned, and how the glimpse into the work world may shape their futures.

Prepping animals for surgery

Ark of the Dunes Animal Hospital

It's a typical busy Wednesday morning at the Ark of the Dunes Animal Hospital in Chesterton, Ind. Two leashed dogs bark loudly at another four-footed patient in the waiting room. But mere feet away, in the pre-op exam room, a sense of calm prevails.

Wearing scrubs, Alex Reed, an intern and senior at Chesterton High School, hovers over the patient before her, one hand resting gently on the dog's belly. She injects the saline solution that will sedate the dog during a spay operation, as another staff member looks on. Once the dog goes limp on the exam table, she shaves the site where the incision will be made and gently clips each of the dog's nails before hooking up the animal to a heart monitor.

Now the canine is ready to undergo its operation, thanks to Alex's efficient work.

Acting with a calm competence that belies her age, Alex begins to sound a bit more her age when asked about how she's enjoying the internship experience. "I love being here," she gushed. "I didn't think it would be so exciting."

Alex's family owns four cats and a chameleon, but it wasn't until the teen began spending time at the animal hospital as an intern—three days a week starting in September 2023—that she developed an appreciation for the various roles of staff members at the animal hospital. Prior to her internship, Alex considered studying herpetology (the branch of zoology related to amphibians and reptiles) in college. Now, she's leaning toward veterinary medicine.

She'll have plenty of time—and more hands-on experience—before solidifying her professional plans. The staff at the animal hospital asked Alex to work through the summer there as a paid full-time employee before heading to college in the fall, allowing her to spend even more time onsite than during her elective internship.

Marketing the Indiana coast lifestyle brand

Retail hub for The IN Coast

In the heart of downtown Chesterton sits a tiny storefront, barely bigger than a garage. But some big brainstorming happens in that small space—the retail hub for The IN Coast, a lifestyle brand celebrating the northwest Indiana lake town. And during the 2023-24 school year, much of it came from Megan Wilcox and Lexi Wolf, Chesterton High School seniors who interned for the business.

Megan and Lexi, interested in marketing and fashion and inspired by the positive experience of a former Chesterton High School in-

tern at The IN Coast, approached owner Jenny Soffin as soon as they learned that she would again be accepting marketing interns from the school. Soffin rewarded their assertiveness with a spot as interns for the school year.

What started as an internship scheduled for 10 to 15 hours per week during their senior year became an all-consuming experience in which no task was too big or too small. Megan and Lexi have done everything from tagging incoming merchandise and welcoming customers to the store to creating a new design for the brand's shorts/sweatshirt set and participating in marketing brainstorm sessions with the leadership team.

Lexi said that she and Megan initially assumed this would be limited to school hours. The reality has proved far different: They don't leave work at the shop when they lock the door for the day.

"Even on the weekends, we're texting Jen ideas. It's become a part of our lives," Megan said.

The interns marveled at the process of seeing their creative ideas come to fruition, from crafting a design to tagging the final product—a T-shirt with the unique pattern screen-printed onto it.

Lexi and Megan are headed to college in the fall, where both planned to take marketing courses. They'll have an advantage over many of their classmates.

"I feel like nothing compares to the impact of hands-on learning," Megan said. "No matter how many classes we would have taken, nothing compares to being in the business and seeing how it works every day."

A student witnesses the inner workings of a hospital up close

Northwest Health

Lutrell Kirk says he got lost all the time when he started his internship at Northwest Health, a local hospital in Valparaiso, Ind. It's no wonder, as he was dispatched to 10 to 15 departments throughout the experience. "Now, I know the hospital like the back of my hand," he said.

He also learned several invaluable lessons about working in the hospital setting—lessons not easily taught in a high school classroom.

Observing employees in a dozen or so settings, Lutrell realized two things: Hospitals offer many types of employment opportunities, and every one matters. "From security to surgeons, they all have to do their part to make the hospital run smoothly," said Lutrell, whose tasks ranged from transporting patients through the hospital to delivering bloodwork to laboratories.

During his internship, Lutrell witnessed firsthand how some of the most prestigious medical professions also come with the greatest responsibility. He described standing in an operating room, impressed by how much respect the staff members showed for the surgeon, and, in turn, the air of authority the surgeon displayed. "Everyone's eyes went straight to him when he walked into the operating room. The nurses put on his smock. And then he just got to work," said Lutrell. "I was like, 'I want to be like him when I grow up.' But there's a lot of pressure on that guy."

An experience later in his internship drove that lesson home. Lutrell was with a security department staff member when an emergency call came through. An incoming patient had been shot, and they needed to head to the front doors of the emergency department to await his arrival. Police and emergency department personnel crowded the area, and Lutrell watched as the bleeding patient was whisked into an operating room.

"It got real, fast. In just 30 minutes, everything happened and the staff had to be prepared," said Lutrell, who described the coordinated efforts as a beautiful thing to witness. "This is a real job. People's lives are on the line."

As Lutrell pursues studies in biochemistry at Indiana's Valparaiso University over the next four years, he'll have time to reflect on his dynamic internship experience and consider how it might shape his future. "There are so many pathways in the hospital," he said.

An intern-mentor relationship drives the success of a real estate internship

McColly Real Estate

Ever since he was a young kid, Alex Hurlbert loved driving through neighborhoods and admiring houses with unique architecture and attractive landscaping. So he jumped at the chance to intern at a residential real estate company.

Unsure of what to expect, Alex enjoyed a front-row view of the multi-tiered process that starts with a vacant lot, ends with the sale of a new house on that formerly empty lot, and requires several steps along the way to make it happen. The relationship between Alex and his internship supervisor, Paul Boyter, a managing broker at McColly Real Estate, proved key to the success of the experience.

Alex demonstrated a genuine eagerness to learn and, in turn, Boyter openly shared what he knew. Alex learned the ins and outs of the various online systems associated with the industry and tagged along with Boyter on appointments—whether to the home of a prospective client or to an open house for a home on the market.

"We would go to people's homes, hear their stories. Alex was right there with me. It's real-life stuff," Boyter said. "I didn't change a thing. I did what I do every day and just incorporated Alex into it."

Eventually Boyter began entrusting Alex with certain responsibilities in his absence, like researching and providing estimates for the cost of an upcoming home listing and posting new listings online.

The internship taught Alex more than how residential real estate operates. He also picked up on how powerful networking is in the industry to developing a client list and a reputation for high-quality service. "I'm proud that I made all these connections," Alex said. "Paul's going to be somebody I talk to in my future, definitely."

In turn, Paul taught Boyter a valuable lesson, too.

"When I see kids like this, it gives me hope for the future that we're going to be OK," the real estate agent said. "That's what I've learned from Alex."

Designing construction site plans

Duneland Group, Inc.

Nine months into her internship at Duneland Group, Inc., an engineering and surveying firm a few miles from her high school campus, Abby Ailes reflects on her first few days there.

"I sat at my computer and all I saw were a million lines on a computer. I had no idea what they meant. I freaked out at first," Abby said.

Then she gave herself a pep talk. "I was like, I'm here for a year, let's put my mind to it."

Eventually, those lines on the computer screen started making sense, as did the industry jargon that engineers in the office used. "You hear talking, you just kind of pick up on it," she said.

It helped that Abby spent two to three days in the office for the entire school year—and that she resolved early in her experience to persevere in spite of her lack of experience. Prior to her internship, Abby's only exposure to the industry was an introductory engineering class in her junior year. "We worked on making blocks in class, and cubes. Here, we make real things," she said of the company,

which provides land development and municipal and civil engineering services.

Since the early days of her internship, Abby has learned that those "lines" on her computer screen represent elements of construction site plans. She's even been tasked with contributing to and manipulating them.

"I put the house on the lot with the correct building codes and dimensions. To be able to put a house in a subdivision like that, it blows my mind," said Abby.

It must have impressed her employer, too. The firm asked her to stay on past her internship as a full-time employee until she departed for college in the fall. She's leaning toward studying engineering, primarily because of her internship experience. ■

More Like This

This High School Program Is Preparing Students To Be Detention Officers

What Is Career and Technical Education, Anyway?

Microsoft, Verizon, and Other Big U.S. Companies Design Their Ideal High School Courses

Published February 03, 2025

This Leader Made the Tagline 'Discover Your Future' Real for Students. Here's How

By Lauraine Langreo

Jamie Kelter Davis for Education Week

Lazaro Lopez, associate superintendent for teaching and learning at High School District 214, visits the manufacturing lab at Wheeling High School, where he talks with students and their instructor, in Wheeling, Ill.

Lazaro Lopez spent the decade after barely graduating from high school feeling lost.

He spent some time in the Army. He worked as a real estate agent. He conducted new-hire training for American Airlines.

He tried to figure out where he belonged.

It wasn't until his late 20s that Lopez realized the common thread in the jobs he'd been drawn to: teaching. He decided to go to college to get a degree in education. At almost 30, he began as an English teacher at John Hersey High School in Arlington Heights, Ill.

"I did not have navigators or mentors or the context for me to explore what's possible or for me to even know that I should go to college," said Lopez, who was the first in his family to graduate from college.

His parents, who emigrated from Cuba to Florida, only spoke Spanish. It wasn't until Lopez was held back in 2nd grade that a teacher took the time to help him learn English. By the time he graduated high school with a 1.6 GPA, he was living on his own and working to support himself.

Now, Lopez, 57, is the associate superintendent overseeing curriculum and instruction for Township High School District 214 outside Chicago. He's made it his mission to make sure none of its 12,000 students feel lost after high school graduation.

Early on in his career as an educator, Lopez, a 2025 EdWeek Leaders To Learn From honoree, was determined to increase the value of a high school diploma. He wanted to create a system in which students could explore and pursue their career interests through challenging coursework and individualized work-based learning experiences, all with the goal of graduating armed with information about their path forward.

His decade-plus work on a framework he calls "college-ready by design" at one of the largest high school districts in Illinois is paying off.

In the 2023-24 school year, 84 percent of the district's graduating students earned early college credits, with 65 percent earning at least eight credit hours. That same year, 59 percent of juniors and seniors participated in an internship and/or apprenticeship.

By contrast, fewer than a quarter of 11th and 12th graders nationally participated in dual-enrollment or dual-credit programs during the 2020-21 school year, according to the most recent data available from the National Center for Education Statistics.

This work has become a top priority for District 214 over the years, said Superintendent Scott Rowe.

"The entire system is built to guide [students] in pursuit of what they say they're interested in," he said. "That's to Laz's credit."

The district is a national model for creating coherence among high school, college, and industry, said Kyle Hartung, the associate vice president in education practice at Jobs for the Future, a nonprofit that focuses on education and workforce alignment.

Lopez "deeply understands and believes in what this work is all about and why it's critical," he said.

Students explore core academics through a career-oriented lens

Lopez's push to transform how District 214 prepares students for college and careers began in 2007 when he became the principal of Wheeling High, one of the district's six comprehensive high schools.

About a year after stepping into a school leadership role, "Laz came to me with his vision for a complete redesign of the entire school," said David Schuler, the District 214 superintendent at the time and now the executive director of AASA, the School Superintendents Association. "From my perspective, what he was doing was only going to be beneficial to the students, the families, and the staff at Wheeling, so why would I say anything other than 'go for it'?"

Lopez's idea was to create a career pathways program to help students explore careers, while earning early college credit, industry credentials, and work-based learning experiences.

The effort put District 214 at the vanguard of a national trend. At the time, career academy models were gaining steam, but it wasn't until around 2011 that the more systematic approaches to career-connected learning that spanned high school and postsecondary came into the forefront, Hartung said.

In District 214, students don't take just the core classes required for graduation, such as

English and math. In fact, the district's academic handbook showcases career-specific electives as prominently as possible so students can immediately connect what they're learning in core subjects to the real world.

When he introduced the concept of career pathways, some teachers were worried that it would mean less focus on traditional academics, Lopez said. He explained the approach as another way for students to look at their English, math, science, and social studies classes through the lens of the pathway they've picked, making those subjects more relevant to them.

Here's an example of how it works: Ayana Solaka, a 12th grade student at Wheeling High School with dreams of becoming a surgeon, is in the pre-med pathway. Back in 9th grade, she started with a course called Intro to Health Care 1. In 10th grade, she took the second part of Intro to Health Care, as well as a class on medical terminology. In 11th grade, she took a college nursing assistant training course; at the end of the year, she took an exam to be a certified nursing assistant or CNA.

Now in 12th grade, she has a credit-bearing internship with Advocate Lutheran General Hospital in Park Ridge, Ill., putting her CNA training to use. After high school, she plans to attend a four-year university to double major in public health and neuroscience. Then it's on to medical school.

Fully implementing a pathway takes about three to five years, according to Lopez.

Before launching a particular pathway, the district considers a host of issues: Will students want to participate? Can the district find qualified teachers? What about higher education and industry partners? The district also needs to determine what the pathway sequence should look like, what college coursework could complement it, and what the internship or apprenticeship opportunities would be.

As principal at Wheeling, Lopez started with a manufacturing pathway. From there, he and his staff at the school created pathways for health care, research, business, and law.

When Lopez became associate superintendent in 2013, he started working on scaling the pathways throughout the entire district. Today, there are 40 career pathways districtwide that students can choose from. The most popular are engineering, business, and health sciences.

Starting when they're freshmen, students are asked by guidance counselors what pathways interest them, and then their high school experience is tailored around that interest. Students can change their minds and switch pathways every semester or every year. Students aren't required to pick a pathway, but more than 90 percent choose to do so, Lopez said. Undecided students still receive career exploration experiences.

"The goal isn't that we think you're going to figure out what you're going to do for the rest of your life," Lopez said. Instead, the district seeks to give students the tools they need to "make more informed decisions about the next stage" after graduation.

But some students feel like there's an emphasis on following and finishing their pathway, said Ayana, who is on a student committee that provides feedback on district programs. Students might not feel like they could take an elective outside their pathway just for fun, she said.

"You can switch the pathway, but there's almost, like, a need to finish the pathway," Ayana said. "If you don't finish the pathway, it kind of just feels like unfinished business. That's how students feel about it. Some of them just want to explore rather than complete it, but they feel the need to complete it."

The way the pathways are advertised in the academic handbook leads students to assume that they're supposed to follow the sequence. They feel they can't deviate from it, she said.

Students are not expected to stay in a pathway and are encouraged to explore, and a majority of 9th and 10th graders do change pathways, Lopez said. But some pathway teachers might encourage students to finish because of the potential benefits; a pathway endorsement on an Illinois high school diploma could lead to scholarships, for example.

'Worth a million dollars to our community'

Part of Lopez's "college-ready by design" framework is providing students with opportunities to earn early college credit, including through a dual-credit program, so they can get a head start on their postsecondary career and save money on college tuition or workforce training.

Beyond serving as associate superintendent in District 214, Lopez is also the chair of the Illinois Community College Board and has a seat on the state's higher education board. He has also worked with state lawmakers on strengthening the connections between high school, college, and the workforce. Lopez expanded the dual-credit program at District 214 with the help of those connections.

The district partners with seven higher education institutions in and near Cook County, Ill., to provide more than 60 college-level courses that any student can take while in high school if they've met the prerequisites. Prior to the expansion, the dual-credit opportunities were limited to career and technical education students, Lopez said.

Lopez worked with state policymakers to make sure every community college has the same placement standards. Whether a student takes a college-level course through a dual-credit program or at a community college or university, credit is guaranteed. Lopez pushed to ensure that students who scored a 3 or above on a College Board Advanced Placement exam will receive corresponding college credit in every public institution in Illinois.

"That really is worth millions of dollars to our community," Lopez said.

Lopez's redesign of the district's college- and career-readiness system also includes the creation of the Center for Career Discovery, an office dedicated to ensuring every junior and senior in the district has work-based learning experiences, such as a 30-hour or 60-hour credit-bearing internship or a full-year paid apprenticeship.

The center, founded in 2016, acts like a matchmaking service, with staff dedicated to calling employers, screening students, and setting up and preparing students for interviews.

"We feel pretty strongly that coursework is only a component of that [career exploration] journey," said Barb Kain, the director of the center. "Once they've identified a career area or areas that are interesting based on coursework they've taken, we give students the opportunity to participate in an internship in an authentic setting, meeting connections in the industry, to see if it really feels like something they could see themselves doing."

Students who take the first few health-care pathway classes might find those courses interesting, for example, but when they do an internship at a hospital, they might realize they can't handle the sight of blood, Kain said. For other students, the work-based learning experience can cement their interest in a career.

One of the challenges is ensuring all students who want an internship or apprenticeship are placed with an employer, Lopez said.

The center has been able to meet the demand, facilitating experiences for more than 3,000 students annually, with the help of more than 1,500 employer partners. But it requires constant recruitment and management of potential hosts, Lopez said. Sometimes, the district struggles with placing

students, especially if they're younger than 18, because employers are concerned about liability.

Lopez and his team work hard on marketing the internship and apprenticeship programs to potential employers.

"I do a lot of public speaking, and my message to employers is: 80 percent of the students that are in our high schools right now are going to be coming back to this community," he said. "If you invest your time and energy in them, you're investing in our community's economic future and development."

Lopez and his staff also let the results do the talking. As one employer has a positive experience with a District 214 intern or apprentice, word spreads to others in the community, Lopez said.

Heidi Weiner, the vice president and human resources manager of plastic-manufacturing company Demgy Chicago, said she's been impressed with the students the district sends.

The apprentice her company had last year is now a full-time employee. The student currently in the role is also strong. If "you give him a project, he just takes it and runs with it," Weiner said.

The students "help bring fresh eyes" to what the company is doing, she said. They also "bring an energy" to the business because the staff enjoys "imparting their knowledge," Weiner added

"I feel like we won the lottery with both of our apprentices," Weiner said. "They've really enhanced our business."

For students with the most significant disabilities, the district has a Vocational Lab, where students can explore their interests and develop job skills so they can find employment after graduation. One example is Forest Brew, a coffee shop in one of the district's specialized schools that serves employees, where students with disabilities operate the cash register and make lattes. Most students with Individualized Education Programs, or IEPs, are provided independent and embedded work-based learning experiences, Lopez said.

For Lopez, preparing students for college and careers is "simply a strategy for engagement." By making what students are learning relevant to their interests and their future, they're more likely to come to school, he said.

Some students show up to class because they want to play football, some because they're in band or choir, and others because of a teacher, Lopez said. Now, a career pathway could be a student's lever of engagement.

Ayana, the 12th grade student in the pre-med pathway, said she never really hated school, but her pathway classes "made school more fun."

"I enjoyed going to these classes because it related to something that I wanted to do and it was something that I was interested in," she said. "I wouldn't want to miss the class."

'More powerful to drive your own ship'

The work to redesign the high school experience hasn't come without challenges for Lopez.

"It has been a career-long process" of trying to get buy-in from staff and the community, of building pathways from the ground up, of reallocating resources and funding, Lopez said. "What began as a single pathway in one school has grown beyond what I ever imagined, thanks to the shared vision and tireless dedication of our teachers, district staff, and school leaders."

After more than two decades, Lopez is still motivated by his mission to ensure students don't feel unmoored after graduation, especially in a rapidly evolving economy.

"I used to tell my students, 'If you choose nothing, then the world is going to take you where it takes you. Isn't it much more powerful if you drive your own ship and guide your own path, so that you can actively make those choices, as opposed to the world making the choices for you?'" Lopez said.

"Discover your future" isn't just District 214's tagline, said Lopez. "It's real." ■

92% of PLTW Gateway teachers agreed students have a better understanding of STEM careers because of PLTW

From the first spark of curiosity to lifelong career confidence, Project Lead The Way (PLTW) shows students where STEM can take them.

280+

careers explored across PreK-12

Start Here.
Go Anywhere.

Discover the possibilities

PLTW
Project Lead The Way

Source: 2023 PLTW Annual Report

pltw.org

Jamie Kelter Davis for Education Week

Lazaro Lopez, associate superintendent for teaching and learning at High School District 214, at Wheeling High School in Wheeling, Ill.

Published February 03, 2025

The Power of Career Pathways For Engaging High School Students

By Lauraine Langreo

Lazaro Lopez is working to ensure his students avoid the uncertainty he felt upon graduating high school—unsure of what came next.

As the associate superintendent for teaching and learning in Township High School District 214 outside Chicago, Lopez has dedicated his career to creating a system where students can explore potential careers, earn college credits early, and gain valuable work-based learning experiences.

"I spent the next decade sort of lost," Lopez said. "That is what drives my work and the work that I've done now for over a decade."

In an interview with Education Week, Lopez, a 2025 EdWeek Leaders To Learn From honoree, discussed the "career-long" process to build a system that prepares students for life after high school. This interview has been edited for length and clarity.

How did you get the whole district on board with your vision?

I talked about how the essence of the work had to do with student engagement, and getting to [that] through relevance, making sure the experience the student has while they're with us was a relevant one to them and their future. The way you personalize that experience is through this lever of career pathways. Each student has their own lever of engagement in school, but fully developing pathways helps meet the needs of a lot of students that perhaps weren't being met.

The way I got buy-in was really around this concept for the entire community, that our school should be a relevant, pertinent step in the pathway to your future, that it's not just about this high school diploma. It is really about creating the context for economic mobility and aspiration.

Was it difficult to get that buy-in, especially from core-subject teachers?

It has been a career-long process. Whenever you're introducing something new, particularly if it's not within sort of this traditional landscape, people are fearful that it means that you're no longer focused on the area that they may have prioritized.

The reality is that we still prioritize core academic subjects, but what we were doing was really leveraging the value of our electives to drive them with a purpose. They saw that it wasn't about something we were taking away. We were adding, actually, a real-world context to the work that the students were doing, where they could see their connections, because they're looking at school differently from a different lens. They're looking at it from a lens of their interest in criminal justice, or their interest in business, or their interest in health care. They're viewing your subject through that lens.

What work goes into creating and implementing a career pathways program?

It takes somewhere from three to five years to fully implement a pathway.

The first thing in developing these pathways [is figuring out]: Is there [a] consensus that we should be doing this? Does the community [want it]? Are there higher-ed partners? Are there employer partners? Are there faculty and school leaders that actually think we should be doing this? Should we be laying out a path, and what [would] it look like? Do a backward design: If we want students to be ready to engage in business, what does that look like today? What does college coursework look like? What are the entry-level opportunities?

What challenges have you heard from career-pathway teachers?

One of the challenges is the teachers have to be credentialed to teach college-level coursework within that pathway. The other challenge is staying current and relevant. Just because you've developed the pathway doesn't mean you're done. We recently redid the business pathway that we had done originally a decade earlier, because business has changed. That does produce some anxiety with teachers.

What has been the biggest challenge in putting this together?

The biggest challenge has been work-based learning and transportation. Every student would benefit from a work-based learning experience. It is just a significant challenge to provide transportation to all the students that need it in order to access, what I think is, an essential part of a career pathway. But transportation is just really expensive. It's difficult to facilitate thousands of work-based learning

experiences, recognizing that we really can't afford to provide transportation for every student. We have contracted with taxi companies, bus services, and strategically selected sites that are within walking distance or near public transportation.

How can other districts do what you're doing?

Begin in your area of strength. Depending on your community, you start where you have a strong employer base. Look at your courses and ask yourself: Is this relevant for students and their future? How can I sequence this in a way so that it leads beyond high school? Set your North Star to where students are going to be six years after high school graduation. What is that going to look like, and how can you set them up for the most likelihood of success?

Then you build one pathway at a time. It really does take a lot of resources and a lot of collaboration with all the partners to develop a pathway. Once you go through that process once or twice, you become somewhat more efficient at it.

But I will tell you even as we were deep into the work, we probably were never working on more than one or two pathways at a time. Recognize that where we're at is a decade in the making. ■

OPINION

Published May 13, 2025

How One Organization Is Helping Grads Find Jobs

Generic approaches won't work well for many students

By Rick Hess

Luca D'Urbino for Education Week

Mike Goldstein, the founder of Match Education and 1Up Career Coaching, is one of my favorite education thinkers. Over the years, he's often been decades ahead of the pack when it comes to rethinking tutoring, teacher pay, professional development, school models, and more. He's occasionally shared glimpses of his thinking here at RHSU. Well, he wrote recently, after his nonprofit 1Up Career Coaching was featured in best-selling author Dan Heath's new book *RESET: How to Change What's Not Working.* I was intrigued by Goldstein's take, per usual. Here's what he had to say:
—Rick

Dear Rick,

Last fall, after the election, you wrote that there's an opportunity for the education community to engage in some much-needed reflection and to rethink some of the areas where we're stuck. When I read that, I was reminded of Dan Heath's new book *RESET: How to Change What's Not Working.* You may know Dan, the best-selling author of Made to Stick and Switch.

In *RESET*, he digs into broken systems—hospitals where packages take three days to show up, animal shelters that can't get people to adopt cats, fast food restaurants where drive-thrus take forever—and how to fix them.

One example of a failed system Dan provides is K-16 education: He explores the problem where many first-generation college graduates struggle to find good entry-level jobs. They apply to dozens of openings and get no replies, let alone interviews. Dan found his way to my friend Geordie and me. We were curious about what was causing this and where the conventional wisdom might be wrong. When Geordie and I interviewed these "undermatched" college grads, they expressed exasperation and sometimes shame. "What's wrong with me?" they'd ask.

In Dan's parlance, our next step was to "map the system." Yes, their high schools never delved deeply into career exploration nor realistic entry-level job expectations; yes, they'd sort of haphazardly chosen majors; yes, they hadn't really built the social capital in the form of "connections" that would genuinely help them chase down jobs after graduation.

But the key leverage point was in the last part of their K-16 experience. Despite job-search support offered by university career centers, recent grads continued to struggle—a reality that makes sense, given that career-center programs empirically have a bad track record. In Dan's "map the system" parlance, we thought, that's where the gold was buried—the opportunity for quick, productive change.

So, Rick, we took a page from your book *Cage-Busting Leadership.* Instead of creating one more career-coaching program, we decided to invert things. Usually, education interventions are designed to have a fixed dosage of some input and then see what happens. Even when I conceived of "high-dosage math tutoring" at Match, all that meant was the dosage of inputs was bigger and of better quality! But we still weren't steering toward a concrete outcome.

To help struggling post-grads, we decided to do things differently: We held the result constant and varied the dosage. Geordie and I first tried this approach with a small sample. We decided we would do whatever it took, for as long as it took, to get a concrete result: Find them a new job that would pay 20% more and raise alumni satisfaction from 4 out of 10—the average baseline job satisfaction among our 1Up clients in their current "undermatched" job—to 8 out of 10.

Instead of giving generic advice for each step of the job search, we'd sit there patiently alongside students and recent graduates and just do it: search the internet to seek out jobs they might like, read job descriptions together, bypass the college's inefficient Handshake click-to-apply tool—and instead find actual humans who they could email directly—and draft and send applications on the spot. When interviews came along, we'd drop everything to help them prepare.

We whipped up a little nonprofit, 1Up Career Coaching, to provide this service. We soon realized we'd need to reject conventional practices for our clients to succeed. For one thing, with permission, we were honest to the point of bluntness—there was no other way

to do the work. For another, there was no generic "prep" that helped. If someone had an interview coming up, we worked with them 24 hours beforehand for that particular interview, for over an hour, creating key lines and rehearsing them over and over until they flowed. For in-person interviews, we plotted the Uber drop-off point and target time. For an interview on Zoom, we adjusted lighting, camera angle, background, and sound level.

It worked! Our first 30 people found new jobs. Then another 50.

Now, we've shifted our focus from charter school alumni to a different cohort of low-social-capital college grads: middle-aged moms who attend one of the largest online colleges in the U.S. The program is working for them, too.

Rick, you've written, and I agree, that policy can be a bad tool because it can require things to be done, but it can't require that things be done well. Your insight explains not just why many school-based interventions don't produce meaningful outcomes but also why the few that do in small trials don't scale well. The people running these interventions never know when the "job is done."

Most interventions just change an arbitrary "statistically significant improvement"—a kid at the 50th percentile makes it to the 53rd, for example. That allows the program and the evaluator to claim success. But it's not an easy-to-grasp target. By contrast, if you are building a table, tutoring a kid until he can pass a certain test, or counseling a 22-year-old until they have actually landed a new job—that's a more concrete targeted outcome.

What if interventions first achieved a concrete, clear gain like "whatever it takes to read reasonably well" or "whatever it takes to stop being clinically depressed," no matter the cost in time or resources? Then, only after we know what it takes to achieve a goal—both the dosage of an intervention and the human skills needed to deliver that well—do we examine the resource constraints.

I know what you're thinking: How can schools afford this?

First, sometimes the money is already there. Take Boston, where schools spend over $30,000 annually for each student. Over 13 years from K-12, that's $390,000 per child. What if parents controlled that money? They could spend $20,000 per year on basic schooling and save $10,000 per year for bursts of high-dosage help when needed. If their 3rd grader struggles to read, or their 8th grader was spiraling into depression, or their 10th grader seemingly had a shot to be really good at tennis, they'd do what wealthy families do: Hire intensive help until the child is curling up with *Harry Potter*, stabilized, or hitting 105 mph serves. Wealthy families don't pay for help that only moves their child up .08 of a standard deviation and results in their child still being a struggling reader. They buy the dosage and quality needed to get the job done.

Second, artificial intelligence can lower costs in the long term, but it must replicate something successful. Right now, we're using AI to replace weak interventions, like replacing low-quality human tutoring and counseling with even weaker ones. That's like trying to fix a wobbly table by removing another leg. Instead, we should use AI to enhance proven systems. Once we've anchored to results, we can explore how AI might improve efficiency or scalability.

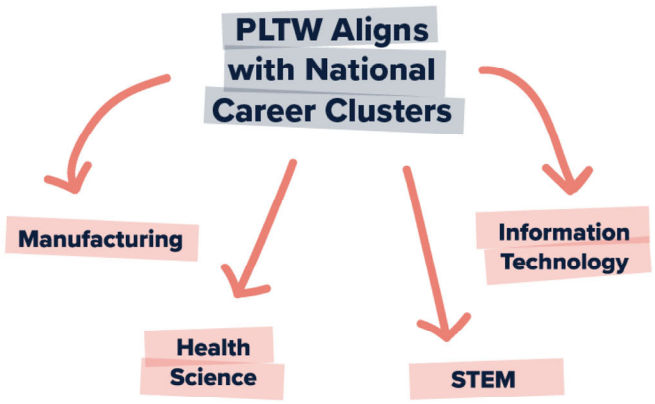
Dan Heath's *RESET* is about programs that approach challenges from a new direction. In the education sector, the endless stream of half measures and weak interventions with bad incentives is not leading to the desired outcomes. We need a new direction.

It's time to anchor R&D to clear, meaningful outcomes and do whatever it takes to achieve them. That means taking small steps—and often failing and recalibrating—to achieve durable wins. Whether it's a college grad landing a great job or an 8th grader mastering fractions, the principle is the same: We shouldn't stop halfway or arbitrarily dole out "help" that doesn't produce a concrete result. We keep going until the job is done; then, we come up for air, look around, and see what it takes. Only then is it time to have the hard conversations about resource constraints. ■

Published by Editorial Projects in Education, Inc.
6935 Arlington Road, Suite 100
Bethesda, MD, 20814
Phone: (301) 280-3100
www.edweek.org

280+ careers for students to explore

Today's students need authentic, purposeful learning experiences that help them decide what they do—and don't—want to do after high school. Through active partnerships with industry leaders and education experts, Project Lead The Way (PLTW) delivers PreK–12 programs that equip students to thrive in careers and higher education.



Meet District-Level CTE and Workforce Priorities

in rural, urban, and suburban settings

- Industry-recognized credentials
- College credit and scholarships
- Internships, mentorships, and apprenticeships
- Direct-to-workforce career opportunities

PLTW Project Lead The Way

Source: 2023 PLTW Annual Report

pltw.org