



**P-TECH:**

## A Pathway to Student Success

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By Pat Fontana

High school students often think – and worry – about the future. What college will they attend? Which career path will they pursue? At the same time, businesspeople in the community are anticipating labor needs and most likely looking at the local educational system for the next generation of employees. Not all high school students can afford college or have inclinations toward completing a four-year degree. Not all businesses need the skill sets developed at a traditional high school. Enter a new pathway. Pathways in Technology, better known as P-TECH, is an opportunity for high school students to explore options for their education and their career in a supportive, unique environment.

While the structure and focus of P-TECH differ slightly from one school to another, the premise is the same: preparing students in a practical manner for careers that match the employment needs of community businesses, giving everyone a better chance for success.

IBM, the New York City Department of Education, and The City University of New York designed and launched the first P-TECH school in Brooklyn, New York, in September 2011. P-TECH has now grown to more than 100 schools across eight U.S. states (New York, Illinois, Connecticut, Maryland, Colorado, Rhode Island, Texas, and Louisiana), plus Australia, Morocco, and Taiwan, with further replication under way. More than 500 large and small companies are partnering with schools across a wide range of sectors, including health, IT, advanced manufacturing, and energy technology.

Here in New York, P-TECH is an innovative alternative to traditional high school that allows entering ninth-graders to work on their Regents high school diploma, an associate degree, and practical job skills in a span of four to six years. The education, just as in traditional public schools, is free for the student. Students set their own pathways based on their career interests and the amount of dedication and work they decide to apply to their educational choice.

Michael Dardaris, SAANYS 2018 HS Principal of the Year and “chief learning officer” for Hamilton-Fulton-Montgomery (HFM) P-TECH Early College High School in Johnstown describes a P-TECH education as “very individual, depending on speed and gaps in education.” HFM P-TECH graduated its first class in May 2018, with 12 students earning their high school diplomas and a degree from Fulton-Montgomery Community College, after just four years at HFM P-TECH. Another four students graduated in December 2018 and a class of 27 is scheduled to graduate in May 2019.

The focus at HFM P-TECH is on advanced manufacturing and information technology. Other P-TECH schools in the state have slightly

different focuses and structures, but all are committed to providing an alternative pathway for students for whom a traditional high school may not be the right fit.

Educators know that every student learns differently, at a different pace. The P-TECH alternative gives students the opportunity to choose their pace in a less traditionally structured environment with a more flexible schedule. Each day may be different for a P-TECH student, especially as they progress through the upper classes and work with mentors from local businesses.

Each school’s educators are the key to making the P-TECH structure work. Principal Dardaris says that the success of the P-TECH program cannot happen without his “unsung heroes,” the teachers who work so diligently with these students to help them succeed in their studies and their work. He adds that his staff and teachers “have a true interest in the students personally. They support them and care about them – even when they’re holding them to their highest standards.”

**P IS ALSO FOR PARTNERSHIPS**

These programs also cannot be successful without business partners. P-TECHs are private-public partnerships that engage members of the local business community in the education process. Students are paired with mentors, have the opportunity to job shadow, and can take advantage of paid internships, all because of the support of local companies. Industry partners also host field trips and work with the schools to ensure that students are informed of their options and their opportunities.

Mary Beth Fierro, principal at Oswego Middle School in the Oswego City School District, and SAANYS 2017 Middle School Principal of the Year, says that business leaders recognize that not all high school students are four-year college bound. When her local P-TECH representatives, housed in the Center for Instruction, Technology & Innovation (CiTi), come to speak to her eighth-graders, they are often accompanied by industry partners.

In fact, she notes that one of those business representatives who speaks at every P-TECH presentation had kids who went through the Oswego City School District themselves.

Makensie Bullinger, principal at the West Campus of the Capital Region Pathways in Technology Early College High School (Center for Advanced Technology at Mohonasen), adds that her school works with the Capital Region Chamber “to develop 21st century skill sets that business partners feel they need.” The school’s business partners contribute to “developing curriculum so that when students go into the workforce, they’ll be viable candidates.”

Kurt Redman, principal at Capital Region P-TECH East Campus (Watervliet Jr./Sr. High School), says that local business partners “are really excited about it and happy to see soft skills more emphasized in the program and students being specifically prepared for these jobs.” Although it is still a bit early to get a sense of outcomes for his students, there is “definitely a lot of support.”

**THE NUMBERS**

Students and parents alike are enticed to the P-TECH option in part because of the free tuition at the participating community college. P-TECH students can come from low-income or disadvantaged backgrounds and the lure of a free associate degree, along with free job training, is strong. According to the College Board, on average, tuition and fees at public two-year colleges run about \$3,347 a year. In addition, many P-TECH students are offered paid internships by local business partners.

Recruitment efforts begin with educating eighth-graders as to their options. Students must go through an application process for admission to a P-TECH school, much like the application process for college acceptance. They submit an online application, including letters of recommendation, and then sit for interviews or “conversations,” as Oswego County P-TECH Principal Brian Heffron describes them. Students are competing for a spot among the

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slots allotted for each P-TECH school each year.

Student numbers vary from school to school. Principal Heffron has 124 students currently enrolled in the Oswego County P-TECH program. Housed in the CiTi BOCES facility in Mexico, New York, Heffron says he has the “rare opportunity to recruit students from the nine different school districts that make up Oswego County.” As a benefit of the arrangement, students can “build connections with kids who may live on the opposite end of the county.”

Entering P-TECH classes are referred to as “cohorts.” The Oswego County P-TECH program was launched in 2016 and is now recruiting for cohort four. In Johnstown, the HFM P-TECH graduated its fourth cohort in 2018. HFM P-TECH is housed as a standalone school and now has just over 200 students. Principal Dardaris says that 13 different school districts flow into the school, but that they are still “small and we’re so connected that we can keep in touch with our kids.” He adds that graduates often stop by for unofficial mentoring and to act as mentors themselves to the younger students.

Mary Cahill, Capital Region BOCES director of educational support services, says the grant that funds their P-TECH program was awarded in 2018 so their students are at the beginning of their new pathway. The Capital Region West Campus in Schenectady currently has 19 students and the East Campus in Watervliet currently has 11. These students have their own classrooms within the traditional high school and teachers come to them throughout the day.

Cahill emphasizes that the innovative P-TECH structure entices “students

who wouldn’t even be thinking about going to college.” She, along with West Campus Principal Bullinger and East Campus Principal Redman, looks forward to seeing their student numbers increase as more eighth-graders learn about the opportunities available through this pathway to college and to a career.

### TRANSITION FROM MIDDLE SCHOOL

P-TECH is a four- to six-year program that depends on the progression of high school classes as well as college classes, so students must enter as ninth-graders. P-TECH principals often work with middle school principals to recruit and educate eighth-graders on their high school pathway options. Oswego Principal Heffron does just that with Oswego Middle School Principal Fierro. The middle school has a “large population of students who are interested in pursuing a career in manufacturing,” Fierro says.

As Oswego Middle School is a Title I school (as is Oswego High School), many of its seventh- and eighth-graders and their parents are excited about the possibility of the students earning a free associate degree, gaining valuable workplace skills, and potentially even working as paid interns while in high school. Fierro sees P-TECH as the “perfect alternative for that group of students.”

P-TECH recruiters typically work with middle school staff and teachers to prepare students for the transition to the high school program. Presentations and educational sessions involve the eighth-graders, their parents, and their teachers, to ensure that everyone involved is thoroughly informed. Principal Heffron stresses that “one of the biggest things that we try to do is give the student as much information as possible about who we are and the pathway this program leads to.”

In addition, the rising ninth-graders are required to attend a summer “bridge” program that helps them with the transition. The summer program is typically one to two weeks long and is designed to not only assess the stu-

dents but to give them a better idea of what they will do as a P-TECH student. Many summer bridge programs offer a tour of the P-TECH campus as well as the local community college campus.

### THE STUDENT PERSPECTIVE

Ryan Kamanu graduated from HFM P-TECH Early College High School with a college degree in May 2018 and a high school diploma in June 2018. Kamanu earned an Associate of Applied Science degree in health studies from Fulton- Montgomery Community College and has already put his education to good use in the Army National Guard, where he trained as a combat medic and became a nationally certified EMT. He is now working toward his personal training certificate and will eventually attend a four-year college, where he will major in exercise science or physical therapy. A four-year degree will also help in his plans to move up from the enlisted ranks to become an officer with the Guard.

Kamanu was in the group of 12 students in the first cohort at HFM P-TECH, who all graduated after four years in the program. He entered P-TECH when it was a very new concept and, although he says he “immediately jumped at the opportunity,” he did feel a bit like a guinea pig. In fact, he admitted, he was ready to quit after just a few months in P-TECH.

In eighth grade, Kamanu was attracted to P-TECH by the recruiting presentation that offered a free college education and a free laptop. Even at that young age, he knew he wanted to do something in the medical field. His ultimate goal was to take his medical skills to Kenya, from which his father hailed, and he may still do that. No one in his family had completed college and he was ready for the new adventure.

Today Kamanu says P-TECH is the “single best program out there. It will give you the head start to advance, the tools to succeed,” including professionalism, presentation, and cooperation skills. He “loved project-based learning and the professionalism that we were taught.” He adds that he had “an awesome mentor,” the

administrator of a nursing home in Johnstown and he appreciated the fact that P-TECH allowed him to participate in clubs and sports in his home school.

The ability to stay connected to the student's home school can be one of the keys to that student's success within the P-TECH structure. P-TECH principals say that some students are concerned about being able to participate in sports and clubs and are reassured they are able to do so by connecting with their home schools. Even given that option, however, Principal Fierro says that one of her students decided P-TECH was not for him because he wanted to be more active in sports and music and could not do so while still focusing on his P-TECH program.

A very small percentage of all P-TECH students do decide the loose schedules and rigid attendance requirements inherent in the program are not right for them. When that happens, the P-TECH principal and counselors consult with the students and their parents and those students

return to their home schools and a traditional high school education, often ahead of their peers academically. Principal Dardaris notes that "90 percent of students stay in the program."

Dardaris explains that a good candidate for the innovative P-TECH school might not necessarily be one with academic strength but that "it's really about grit." Students who are "willing to dust themselves off after falling down ... are being successful." Principal Heffron says he is "really looking to see if there is a passion for what the program is designed to be doing." Each P-TECH is focused on a specific area, which typically matches the advanced manufacturing or computer technology needs of area employers, so students should be inclined toward careers in those fields.

In the P-TECH structure, students are expected to show up and participate. Attendance requirements are strict, in part to match the potential attendance needs of an employer. Designed to reflect the practical expectations of their local business partners,

Students who are "willing to dust themselves off after falling down... are being successful."

P-TECH expectations are that students will actively engage in collaborative, hands-on work and team projects. In return, students are offered individualized learning that enables them to develop the professional leadership skills, practical job skills, and real-world experience that will lead them on a pathway to their success.

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