

In Delaware, creating pathways and opportunities for youth

The Pathways to Prosperity initiative is helping states create seamless transitions from high school to college and the workforce.

By Robert Rothman

Andrew Flynn had long dreamed of working as an engineer. As a high school junior, his dream began to come true.

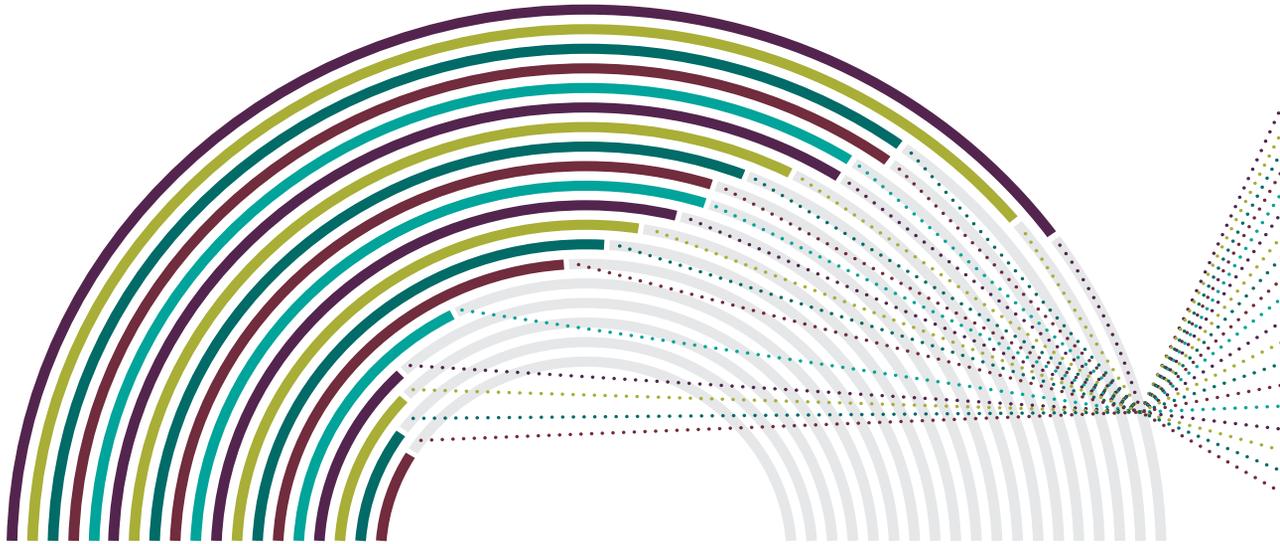
He enrolled in an advanced manufacturing career pathway program at his school, William Penn High School in New Castle, Del. Under the program, he took classes in technology and engineering at Delaware Technical Community College, which used state-of-the-art equipment and teachers with experience in the industry. He then had an opportunity to work the summer before his senior year at the Kuehne Co., a chemical manufacturer. A plant manager at Kuehne, Alan Rogers, was impressed with Andrew's work. "He will be an asset to a company one day."

For Andrew, the program gave him a better sense of his future. He is continuing his education to become an electrical engineer, and he knows he will be prepared for his career when he graduates. "I know what the competition is like and what I need to do to succeed."

Andrew's classmate Joe Zecca is on a different trajectory. He, too, went through the advanced manufacturing pathway and worked in a company before his senior year. By the time he graduated, though, he wanted to go into the workforce, and he had a lot of options: Three companies wanted to hire him. He chose Astra Zeneca, the pharmaceutical company, because he liked the range of equipment they had and the opportunities that were available. There was one catch: Astra Zeneca did not have a job opening, but the company hired him as a consultant until one opened. "They really wanted me," Joe said.

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Attributes employers seek



Pathways are intended to link high school, post-secondary education, and employers into a seamless system that will enable young people to develop the skills they need and gain valuable experience and move into productive careers.

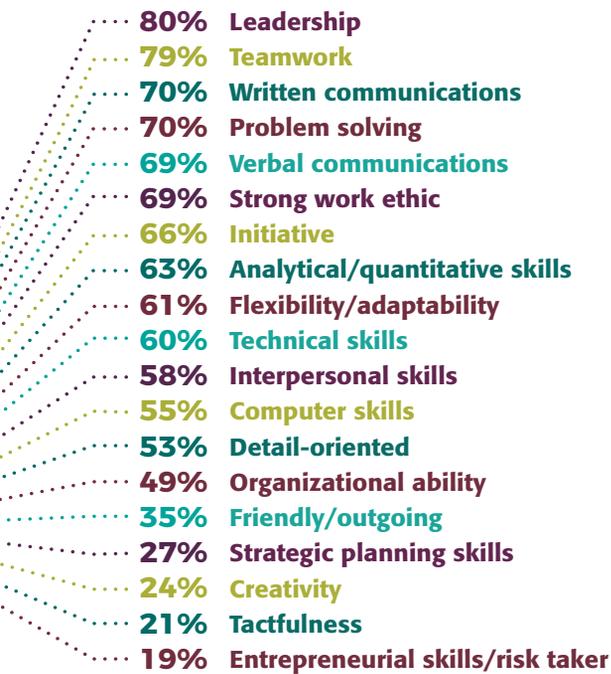
SOURCE: Jobs for the Future, 2017.

Andrew and Joe are two of about 6,000 Delaware students — and counting — who have benefited from a statewide initiative designed to provide college and career preparation for Delaware youth. Students who enroll in the program develop needed skills, get real work experience, and earn certificates that qualify them for employment when they graduate. At the same time, participating businesses get a steady supply of skilled workers who are job-ready.

“The more we satisfy skill needs, the better off the state will be, and the better off individuals will be,” said former Gov. Jack Markell, who launched the initiative in 2014. “We want people to stay here. And the more people stay here, the more employers want to stay here. It’s a virtuous circle.”

The goals are ambitious. As governor, Markell pledged to increase the proportion of Delaware residents with college degrees or postsecondary credentials to 65% (up from 40%) by 2025, and to enroll half of all Delaware high school students in career pathways by 2019.

To be sure, the initiative faces challenges in meeting those targets. For one thing, it has been unable to secure dedicated funding from the state, which has faced budget deficits over the past few years. But Markell said its early success bodes well for the future. “The fact that we were able to grow from 27 [students in the initial cohort] to 6,000 in three years is a pretty good indication we have been able to move forward,” he said.



A changing labor market

As with most places, Delaware’s economy has undergone significant changes over the past few decades. These transformations have had profound effects on the job market, creating a need for individuals with higher levels of skills than ever before.

Delaware Pathways is intended to address talent supply in the state by providing young people with opportunities to develop the competencies needed for middle-skills jobs and by providing employers with ways to recruit and train a steady supply of needed workers. The goal was to create true pathways from school to career.

The idea for the initiative came from a 2011 report from the Harvard Graduate School of Education (Symonds, Schwartz, & Ferguson, 2011), which called for the United States to build a system that would ensure that the majority of students who do not graduate from four-year colleges have clear pathways toward secure and productive careers. Noting that other, high-performing nations, such as Australia and the Netherlands, have created successful systems that support youths on their passage from school to careers, the report called on educators, business leaders, and government officials to work together to create similar systems in this country.

Following the release of the report, one of its co-authors, Robert B. Schwartz, teamed up with Jobs for the Future, a Boston-based education and work-

force-development organization, to form a network of states interested in developing pathways systems. Eight states — California, Georgia, Illinois, Massachusetts, Missouri, New York, Ohio, and Tennessee — signed up.

After hearing a presentation by Schwartz in 2014, Markell became interested in having Delaware join the network. He believed that it fit well with his goal of increasing the postsecondary attainment rate in the state, and so he called together leaders from K-12, higher education, business, and community organizations to discuss creating a Delaware pathways system. They quickly agreed, and Delaware became part of the Pathways to Prosperity network and began building its system.

A system of career pathways

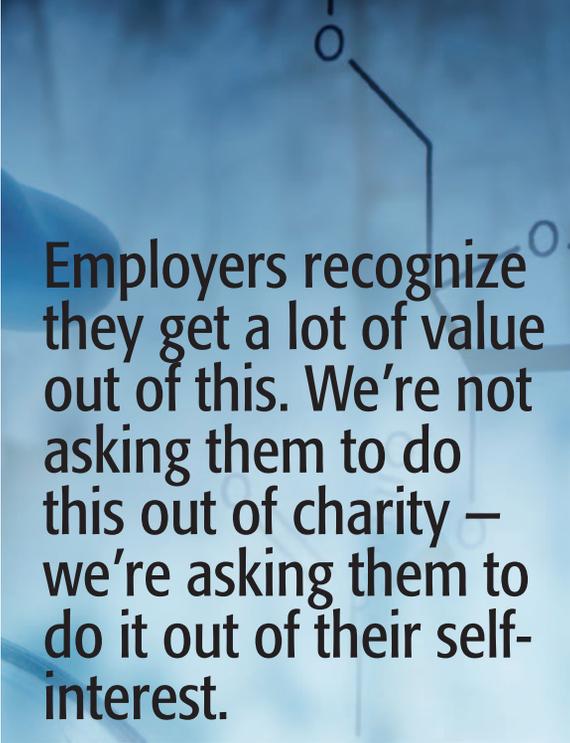
At the heart of the Pathways initiative are the pathways themselves. As the Harvard report had proposed, the pathways are intended to link high school, postsecondary education, and employers into a seamless system that will enable young people to develop the skills they need and gain valuable experience and move into productive careers.

To accomplish this, the Delaware officials moved to create structures in which students as early as middle school would be able to learn about and explore career options, and then, as high school sophomores or juniors, take courses related to careers and, concurrently, enroll in an institution of higher education for a two- or three-year career-related program of study. In the summer before their senior year and during their senior year, students would participate in a paid internship for about 240 hours at a work site in their chosen field. Upon high school graduation, a student would have a diploma, six to 15 college credits, an industry-recognized credential, and work experience. The student could then pursue postsecondary learning or move right into the workplace.

To select the pathways, Department of Education officials worked with officials from higher education and industry to examine labor data and identify fast-growing fields that required some postsecondary training and that paid relatively high wages. These included health sciences, which is expected to grow by 15.4% by 2024, and information technology, which is expected to grow by 13.2% by that time. The three partners then developed a course of study that would develop the skills necessary for entry-level employment.

“The secret to its success is the collaboration between K-12, institutions of higher education, and employers,” said Markell. “Without employers playing a leading role in defining the skills that are required, it would not be successful.”

Once the pathways were created, the Department



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of Education invited school districts to apply to participate. Those selected received seed money; the department also provided professional development for teachers. Once selected, the schools had a year of planning before implementing the pathway programs. The schools then recruited students they identified as ones who might benefit from the initiative and encouraged them to enroll. By the end of 2017, the state will have developed 10 pathways.

In some cases, like the advanced manufacturing pathway, students take all of the career-related coursework at an institution of higher education, where they earn college credits. In others, like the teaching pathway, students take some courses at their high school and others at a college or university. The students earn college credits and can apply them to degree programs once they graduate from high school. For example, in the nurse assisting pathway, high schools offer courses in fundamentals of health sciences, essentials of anatomy and physiology, and certified nurse assisting. These credits can be applied to an associate's degree program or to programs leading to certification in allied health.

In 2015-16, 5% of Delaware high school students (1,850 students) earned credit in a pathway. The goal is to ensure that 50% of all students (20,000 students) are completing pathways by 2019-20.

Work-based learning experiences

A key element of the Pathways initiative is work-based learning. By providing students with opportunities to apply their knowledge and skills in actual work sites, students gain the skills and experience they need to begin their careers. And companies gain workers who are capable of starting effectively on Day 1.

In Delaware, many employers have been eager to provide work-based learning experiences for youths, according to Markell. The employers see the experiences as a way of helping fill the skills gaps by training a cadre of potential employees who are simultaneously gaining valuable skills and knowledge in the classroom, he said.

"So far, they've seen the light," he said. "Employers recognize they get a lot of value out of this. We're not asking them to do this out of charity — we're asking them to do it out of their self-interest. When they do, they see the value of doing this."

Gary Stockbridge, the president of Delmarva Power and the head of the Business Roundtable's education committee, acknowledged that some employers might be reluctant to hire high school-age interns, but he said there is a growing recognition that the practice will help develop a talent pipeline, which is badly needed in the state. "At Delmarva, we have found that it is easier to do internships at the college level than at the high school level," he said. "At the high school level, it's more about helping the individual student than it is about the student helping the business. At the college level, you get benefits back — they are more senior, more able to work on their own. But you are developing a talent pipeline, so you spend more time [with high school students] helping them understand the soft skills. Businesses have to understand that."

Employers who have hired the students as interns said they have been impressed with the knowledge and enthusiasm the students bring to the job. "They have passion, drive, they want to know more," said Meg Gardner, the owner of the Blue Moon, a restaurant in Rehoboth Beach, who has hired five students under the Pathways program. "They want to get all the experiences. They want to do more than they were hired to do."

Joshua Grapski, the owner of a group of restaurants in Rehoboth Beach, agreed that the workers are eager to learn, and added that their coursework provides a nice complement to the hands-on experience they get while working as interns. "I'm impressed with how well the curriculum fits with what the industry needs," he said.

He added that the students learn cooking techniques as well as business and management, he said. "That's something I wish I had in high school," Grapski said. "It's applicable if they want to own a restaurant some day or be a general manager. They know marketing, financing."

Still, he and others acknowledged that there are some limits on what high school-age interns can do in the workplace. Youths under age 19 cannot serve alcohol in restaurants, for example. And there are liability concerns involving potentially dangerous equipment.

Pathways to success

Pathways leaders are confident that they can reach their goal of expanding the initiative so that half of all high school students are enrolled in a pathway by 2019. All the pieces are in place. Already, the initiative has produced a number of accomplishments. The biggest beneficiaries, of course, are the students who have gone through the Pathways, like Andrew Flynn and Joe Zecca. They now have skills, work experience, and a credential that will enable them to pursue further education or a career. And there are thousands more with those advantages.

But the initiative has also produced some ancillary benefits, some of which might not have been expected at the outset. These include:

Redesigning high schools

For decades, education reformers have been urging an overhaul of high schools to make them more relevant and engaging for students. Although the graduation rate has been rising, many students continue to drop out of high school, and surveys continually show that high school students remain bored and disengaged in school.

The Pathways initiative has accelerated high school redesign in Delaware. For example, the Appoquinimink School District reorganized its high schools into smaller units, each of which includes one or more career pathways. In turn, each of the pathways includes opportunities for students to take Advanced Placement courses or dual-enrollment options, and each provides work-based learning experiences with business and industry partners.

Linking schools, colleges, and employers

The vision of Pathways was to create a seamless system in which students moved from high school through postsecondary education to employment. Achieving that vision required the three sectors to work together in ways they seldom have throughout the history of American education. The Pathways initiative has indeed made that happen.

In Delaware, the leaders of the sectors knew one another and had worked together to craft a vision for education for the state. But the initiative has also led to partnerships on the ground that had not been in place before.

For example, business leaders and educators from Delaware Technical Community College and the K-12 sector worked closely together to develop the Pathways curricula. This was not an easy task; business leaders had complained for years that students lacked the skills they needed for entry-level employment, but they had not articulated the precise skills

that were necessary, nor did they have a program of study that would enable students to develop those competencies in a systematic way. Now such programs of study are in place.

Similarly, schools and businesses have more partnerships than ever. Schools work with businesses to have career fairs, and businesses visit schools to discuss careers and invite students and teachers to do job shadows in the workplace.

Changing expectations for youth

Much of the education reform rhetoric in the past decade has focused on getting more students to go to college. In part, this reflects a greater recognition that the workplace in the coming decade will require students to attain some form of postsecondary education; the wage gap between college graduates and those with a high school diploma or less is large and growing.

However, success does not necessarily require a four-year degree, and because of Pathways, Delawareans increasingly recognize this. “The Pathways work opened the door to rethinking how we think about careers and college,” said Paul Herdman, president of the Rodel Foundation of Delaware, which supports the initiative. “It could be a one- or two-year certificate program. Kids [who take that route] are doing just fine or better in terms of income and quality of life. For the 70% of people who didn’t finish college, their life choice was validated.”

Challenges ahead

While the initiative has been successful, the partners face some challenges moving forward. These challenges do not threaten to unravel the initiative, but the leaders need to address them to ensure that it accomplishes its goals. The challenges include:

Changes in leadership

Markell, who set the initiative in motion, stepped down as governor in January 2017 because of term limits. His appointed secretary of education also stepped down. In many cases, the loss of two key leaders can threaten an initiative because new leaders want to put their own stamp on policies, not necessarily carry out the policies of their predecessors. In this case, that does not look likely. The new governor, John Carney, has expressed strong support for Delaware Pathways, and the new secretary of education, Susan Bunting, is also an enthusiastic backer of the initiative. She had previously been superintendent of the Indian River School District, whose two high schools have operated the engineering pathway. The leadership transition appears smooth.

Uncertain funding

The leaders of the initiative have been effective in securing private funds and they have a strategy for pursuing grant opportunities where they exist. They also have designed the initiative so that existing funds support current programming; expansions would be delayed if funding does not materialize.

A bigger challenge is in securing state funds for Pathways. While the partners have been very successful in using federal funds to support the initiative and have secured millions of dollars in private grants, they all recognize that a reliance on those sources of funding alone cannot sustain the program. Only with a steady stream of state funds can they put down roots and build an infrastructure. The state's budget deficit has blocked that stream, at least for the time being.

Inadequate student preparation

Delaware Pathways provides opportunities for students — but students have to be prepared to take advantage of those opportunities. To take Pathways courses and earn college credit while in high school, students must be ready for college-level work. But a large number of Delaware students lack that preparation.

According to a state report, 40% of Delaware high school graduates were required to take remedial coursework in college in 2016, and the gaps in remediation rates are high: 50% of Hispanics, 59% of African-Americans, and 53% of low-income students were required to take remedial courses in col-



“No, I haven’t applied to any colleges yet. But I have formed an exploratory committee.”

lege. And those are the rates for students who attended college — 43% of Delaware’s class of 2014 did not (Delaware Department of Education, 2016).

The warning signs appear earlier. On the SAT, which as of 2016 is required for all 11th graders in the state, only 27% of Delaware students met the benchmark in either math or English language arts. (Students who meet the SAT benchmark are much less likely to be required to take remedial courses than those who do not.) And, again, the gaps are large. While 37% of white students met the benchmark in math and 37% met the benchmark in English language arts, 14% of Hispanics met the benchmark in either subject area, and 10% of African-American students met the benchmark in math (Delaware Department of Education 2017).

Pathways leaders recognize this challenge, though, and they have secured funding to develop a course to accelerate the English language skills for students who fail to achieve the benchmark score on the SAT. They plan to develop a similar course in mathematics.

The new Switzerland?

These challenges are formidable, but the Pathways leaders are aware of them and have plans to address them. In the meantime, they have much to show the rest of the nation.

At the statewide Delaware Pathways conference in March 2017, Robert Schwartz noted that he has frequently taken Americans interested in a seamless career pathways system to Switzerland, which he has called the “gold standard” in career and technical education. In fact, Paul Herdman from Rodel and Luke Rhine from the Delaware Department of Education accompanied Schwartz on a trip to Switzerland at the outset of the Delaware Pathways initiative.

In the not-too-distant future, Schwartz predicted, he might not have to take visitors all the way to Europe. He might be able to bring them to Delaware.

Delaware Pathways is a long way from Switzerland’s system, which has 500 years of history behind it. But the state is off to a promising start. **■**

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