



Students at Waipahu High Academy of Industrial and Engineering Technology build a modular tiny house at the state Capitol as part of a competition. Photo courtesy of Waipahu High School.

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Preparing Teens for Tomorrow



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ABOUT THE AUTHOR

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We are continuing to publish stories researched and written before the COVID-19 crisis, such as this one.

Schools and businesses are partnering in unprecedented ways to develop the state's future workforce.

This is Part I of a two part report where we look at how Hawai'i's public high schools provide students with career training and work-based learning opportunities. In [Part II](#) (<http://www.hawaiibusiness.com/companies-take-the-initiative/>), learn how companies are driving the creation of workforce training programs in high schools and colleges to meet their needs for workers today and tomorrow. [Categories](#)



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Look across Hawai'i's public high schools and you'll see students teaching CPR to their teachers on Hawai'i Island, training to become medical assistants on O'ahu and interning with a clothing business on Moloka'i.

It's not new for schools to incorporate such work-based learning activities or to partner with local businesses and nonprofits. What's different today is the greater focus on preparing students for careers, says Alex Harris, VP of programs at the Harold K.L. Castle Foundation.

Employers are more heavily involved, he says, likely because of the state's low unemployment rate and because most jobs today require some form of college or advanced certification. At the same time, high schools are moving away from old notions of vocational preparation for some students and academic preparation for others. Today, career-focused learning is increasingly emphasized for all students because it helps answer that eternal student question: "Why should I learn this stuff?"

The intent is to deliver all this career-focused education within pathways that allow students to explore their interests, discover different professions and get the training and education they will find useful and rewarding.

"We're really trying to change the narrative," says Kelly Miyamura, pathways strategy director for Hawai'i P-20 Partnerships for Education, a statewide effort led by the DOE, UH and the state Executive Office on Early Learning.

"It's not just, 'Go to college, and you'll get a job,' " Miyamura says. Instead, the goal is to help students starting in middle schools to explore different careers, their interests and their aptitudes, she says. That thinking will inform their decisions about what to study in high school and what training and postsecondary education to seek.

Several educators and business leaders interviewed for this story agree that career-focused education has a lot of exciting momentum because it's bringing together industry, K-12 schools, higher education and other partners to support and prepare the next generation of workers.

Relevant Experiences

Long gone are the days when career-focused learning in high schools mostly occurred in vocational education programs.

Today, this type of learning is often seen in career academies, where college preparatory and career and technical courses are all sequenced into programs of study that prepare students for

Categories

particular career fields.

Tommy Cox, principal of Kapa‘a High School on Kaua‘i, says the academy model helps students to connect their career interests with what they learn in core courses like English and math. For example, building and construction students in the school’s Academy of Industrial Engineering Technology might read novels and instructional manuals related to their field in their English class.

“Education needs to be relevant,” says Kelcy Koga, principal of Waiākea High School, which has had career academies since 2004. “And I think that’s something that may have been lacking in the past. There was always talk of career readiness, but never something substantial and really measurable, where students were exposed to so many different opportunities and could actually experience them.”

Some of the academies at Waipahu High School are over 25 years old. Principal Keith Hayashi says this model is meant to provide students with authentic learning opportunities and help them develop skills in critical thinking, problem-solving, communication and creativity. It also allows teachers to be flexible in how they deliver content and engage students who otherwise might not be interested in school.

Sixteen of Hawai‘i’s 42 public high schools are career academy schools, and others are interested in adopting this model. Some public high schools have career and technical education (CTE) classes and pathways but have not gone as far as the more integrated system of career academies.

There are six career pathways: arts and communication, business, health services, industrial and engineering technology, natural resources, and public and human services. Some schools offer all six, others only have some. Within each are more specific CTE programs of study; for example, the business pathway has a program in human resources management. Each program is made up of a sequence of courses, spans at least two years of high school and extends to postsecondary education.



<http://www.hawaiibusiness.com/wp-content/uploads/2020/03/04-20-HB-Career-Academies-CareerPathways.png>

More students are completing a CTE program of courses. In an email, Alisa Bender, assistant superintendent for the DOE's Office of Curriculum and Instructional Design, writes that the percentage of students who complete a CTE program has been growing: 42% in the 2016-17 school year, 48% in 2017-18 and 56% in 2018-19.

She says this increase may be due to a change in how the completion of a CTE program is defined; however, the most significant increases tend to be at high schools with career academies.

"Schools like Waipahu and 'Aiea High attribute increases in CTE completers to a shift to be more supportive of students' passions, finding purpose and growth potential, as well as creating more personalized learning environments," Bender writes.

She adds that the department is working with teachers, school administrators, parents, businesspeople and colleges on improvements to CTE pathways and programs that would align with workforce data, such as the number of jobs for various professions and trades in Hawai'i. Many schools have already established partnerships with local industries to support their CTE pathways and help provide curriculum advice.

In rural Ho'olehua, Moloka'i High School has five CTE pathways. They incorporate hands-on, real-world experiences through internships at local businesses and organizations and help students gain the skills to earn industry certifications. The school only has about 320 students and not all pathways are offered each year, says Katina Soares, the school's principal. She says one goal is to create a schedule so students can learn core subjects like English, math and science in career-focused clusters.

Mahina Anguay, principal of Waimea High School on Kaua'i's west side, says the academy structure helps her school to communicate to parents the classes, certifications and training that their children will need to reach their college and career goals.

"For us, the word 'purposeful' has been really important," she says. Now more students have planned their futures instead of "running around in April their senior year not knowing."

Anguay adds that's been especially important for the surrounding community, which has many low-income families. Waimea's academies take advantage of the school's proximity to a military base, hospital, senior care home and seed companies to help prepare students for living-wage, high-demand jobs.

The next step, she says, is to strategically and intentionally align pathways for students to pursue from early grades through college. "School is not random," Anguay says.



<http://www.hawaiibusiness.com/wp-content/uploads/2020/03/Profesional-Public-Services1.jpg>

Students in Waipahu High's criminal investigation course learn how to solve a simulated crime on their campus. Honolulu Police Department instructors and UH West O'ahu forensic anthropology and criminology professors taught students how to dig around evidence and analyze dirt and bones. | Photo courtesy of Waipahu High School

Waialeale Elementary has already started to integrate career academy pathways into its school design by backward mapping from Waipahu High's academies, says Principal Sheldon Oshio. Students in preschool through sixth grade participate in a college and career fair with local employers and postsecondary institutions before the school's 12-week academy pathway program begins. The program consists of weekly multi-age classes; the intent is to allow students to explore their career interests so they can make more informed decisions about the classes they want to take in middle and high school and college.

Castle Foundation's Harris says career academies are the linchpin in organizing the K-12 experience. "Because students are getting the sequence of courses, they're getting the job shadow or the mock interview or the internship in a particular theme, and then they're going on oftentimes to the community college to receive a two-year degree, there starts to be a really clear pathway that's helping students to navigate through what can be a really confusing jungle of options."

The work to develop educational pathways has been going on for years, says Bernadette Howard, Hawai'i director for CTE. In fact, two federal laws – the Workforce Innovation and Opportunity Act and the Strengthening Career and Technical Education for the 21st Century Act – require schools, community colleges and their workforce development partners to put students and job seekers on career pathways, she says.

Christina Kishimoto, superintendent of the state DOE, says public education in Hawai'i has reached a new level. No longer do students need to graduate from high school before they can have an impact on their communities and have access to college courses and internships, she says. "Our kids want to be engaged very differently today. And that's exciting. That creates a new and very positive kind of pressure on the system to adjust to this new generation and also gives us the opportunity to have this generation be problem solvers and solution creators for their own future."

Working Together

As schools prepare students for careers more strategically, it's common to see employers sitting on advisory boards, participating in work-based learning activities and telling educators what skills they want to see in future workers.

"All these years, it's been pretty backward," says Jackie Kaina, director of programs for the Kaua'i Economic Development Board. "It's been the schools going out to the businesses and saying, 'We

need you for this.' Whereas, the academies model ... we're now looking at industry to be the driver, to tell the schools what their expectations are."

The Kaua'i Economic Development Board has a grant from the Castle Foundation to act as a work-based learning intermediary, helping to connect businesses with the island's three high schools. The community is too small to have advisory boards for each high school, so the island recently created a joint board, called the Employer Advisory Council, comprised of 32 business partners.

Hawai'i Pacific Health's training programs for medical assistants, nurse aides and surgical instrument processing technicians are available to students at 12 O'ahu high schools. Kaina says HPH may bring a nurse aide training program to Kapa'a High, which is just 10 miles from HPH's Wilcox Medical Center.

Carl Hinson, director of workforce development at Hawai'i Pacific Health, adds that through the Healthcare Association of Hawaii's Healthcare Workforce Initiative, the health care industry has brought together academy principals, directors and teachers to talk about how the industry can strengthen their academy programs, what resources are needed and what the student and teacher experiences are like.

Waipahu High's advisory boards include industry and postsecondary partners, teachers, parents and students. They meet at least quarterly to discuss whether curricula are relevant and meet the needs of employers.

"So if it's not, then as high schools we need to adjust," Hayashi says.

Industry and postsecondary partners have helped the school's health academy incorporate problem-based learning methods that are used at the John A. Burns School of Medicine. Hayashi says this will help all students with critical thinking and problem solving, regardless of whether they pursue medicine.

Partnerships can also help students get internships, which is a win-win for students and employers, Hayashi says. The business can assess if a student intern is someone they should hire. "There's also incentive for the student to do a good job because you may be working for these people one day. The academy design, I think, meets the needs of many people."

HawaiiUSA Federal Credit Union's Cary Miyashiro can attest to that. The credit union has employees who started as interns 20 years ago. Miyashiro is a member of the DOE's Business Pathway Advisory Council and sits on academy advisory boards at Waipahu, Kapolei, Campbell and 'Aiea high schools.

HawaiiUSA also has student-operated credit unions on several public and private school campuses.

Categories

Chris Honda, a battalion chief for the Hawai'i County Fire Department, says the department is heavily involved in career fairs, career education and presentations for several Hawai'i Island schools. Honda, who is also a member of Waiākea High's health academy advisory board, says the department's partnership with the schools has helped to increase interest in careers as firefighters and emergency medical technicians.



(<http://www.hawaiiibusiness.com/wp-content/uploads/2020/03/Unknown-5-scaled.jpg>)

Thane Todd, a senior at Waiākea High, leads a hands-only CPR program at Waiākeawāena Elementary. He was assisted by students in the high school's Health Academy. | Photo courtesy of Waiākea High School

“That really increases our applicants, qualified applicants, and the more applicants we can get, the more competitive it gets,” he says. “We can get the best people serving our community.”

Business involvement in schools can also help drive the future economy. The Public Schools of Hawaii Foundation is helping schools start programs that will prepare students for new careers and industries in a future economy dominated by artificial intelligence. The foundation is piloting a program this spring with Oceanit to introduce Waipahu High students to AI. The foundation also plans to sponsor a summer boot camp to educate public school science teachers about genome science.

Categories

“I think we’re trying to be more proactive as a business organization and we’re actually trying to create new industries and opportunities for careers in Hawai‘i,” says Ken Hiraki, president of the foundation.

The Chamber of Commerce Hawaii is another work-based learning intermediary funded by the Castle Foundation, says Keala Peters, VP of education and workforce development at the chamber. Its role is to bridge businesses and schools and to help improve the efficiency, quality and quantity of work-based learning experiences.

The nonprofit ClimbHI and its LEI program also help to connect businesses and schools. LEI brings together over 1,000 high school and college students and over 120 hospitality businesses statewide through career fairs and site visits each year, says Julie Morikawa, president of ClimbHI.

In another initiative, ClimbHI and the Education Bridge last year launched the ClimbHI Bridge online portal to make connections between businesses and schools even easier. (Note: *Hawaii Business Magazine* Editor Steve Petranik is a founder of the Education Bridge.)

For years, Morikawa says, businesses have told her they want to offer opportunities to youths and schools but don’t know who to contact. Teachers have a similar problem: They want help from companies but don’t know the right people in the business community. The ClimbHI Bridge is an easy-to-use website that brings the two sides together to create those connections. At press time, there were 18 high schools and 40 businesses with access to the platform. Morikawa encourages businesses to learn about joining the ClimbHI Bridge by emailing her at info@climbhi.org (<mailto:info@climbhi.org>).

Waipahu High’s Hayashi says it’s an exciting time because Hawai‘i’s public schools, colleges, businesses and organizations are coming together to align education with labor needs and economic development.

“Five, six, seven years down road, I’m excited to see where it’s going to be because we’re going to be a place that’s better for students, for our economy – looking at high-skill, high-wage, in-demand, future-focused opportunities for our students,” he says.

“Like I said, it’s a win for everyone.”

Giving Local Students a Head Start

Students at Waipahu High School earned more than 235 industry certifications last school year as food handlers, medical assistants and pharmacy technicians, and in OSHA 10-hour training courses, [Categories](#)

first aid and software like Autodesk Revit and Solidworks, says Principal Keith Hayashi.

He expects many more certifications will be earned this year; the goal, he says, is that all Waipahu students have industry certifications or credentials before they graduate.

Kelly Miyamura, pathways strategy director at Hawai'i P-20 Partnerships for Education, a collaboration led by UH, the state Department of Education and the state Executive Office on Early Learning, says providing industry certifications in high schools is a relatively new trend in Hawai'i – and one that's happening in more and more states.

An estimated 65% of positions in the U.S. demand postsecondary credentials, according to a May 2019 report called "Credentials Matter" by ExcelinEd and Burning Glass Technologies. Possessing a credential shows a student's competence in the knowledge or skills required to succeed in a certain occupation or industry. Credentials can include degrees, educational certificates, certifications and government-issued licenses.

David Miyashiro, executive director of HawaiiKidsCAN, says providing high schoolers with industry certifications gives them a head start on their futures.

"At least you're giving them some kind of real advantage for that first step, so ultimately the goal is that more of our students have the tools they need to survive and thrive in Hawai'i," he says.



(<http://www.hawaiibusiness.com/wp-content/uploads/2020/03/Future-Fest-Welding-Session.jpg>)

Welding instructor Kailen Inouye helps Kamuela Sagario make a BBQ grill from a discarded water heater at Moloka'i High School's Future Fest, where alumni, professionals, military recruiters, entrepreneurs and college admission counselors give high schoolers a taste of career pathways not available in the regular school schedule. | Photo courtesy of Moloka'i High School

Two bills (HB 2508 and SB 3013) introduced at this year's session of the state Legislature aim to financially incentivize public high schools to encourage students to obtain industry-recognized certifications for high-demand, high-earning careers. They also require the state Department of Labor and Industrial Relations to provide the state DOE with a yearly list of high-value occupations that require or prefer applicants to have industry-recognized certifications.

Miyashiro says this data can help schools choose the career academies or pathways they develop. Without that data, "we're really making policy and program decisions with a blindfold on," he says.

Twenty-four states provided credential attainment data for the "Credentials Matter" report, yet none of them highly aligns the supply of credentials earned by high school students with the demand for them in industry. Only 19% of the credentials earned by K-12 students in the national analysis were demanded by employers, and of the top 15 credentials earned, 10 are entirely oversupplied. Hawai'i did not provide data for this report.

Categories

UH Maui is also conducting a study with its partners of the workforce development needs on Maui, and conversations regarding valued industry certifications are already ongoing between educators and employers on Kauaʻi.

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12/13