



**CAREER TECHNICAL EDUCATION (CTE):
INCREASING STUDENT SUCCESS BY 100% FOR MAINE** 2017



ONE OF A SERIES OF STRATEGIES DESIGNED TO ACHIEVE THE GOALS LAID OUT IN EDUCATION INDICATORS FOR MAINE: 2016

Of all Maine's economic development strategies, education has the greatest return on investment. Investment in education creates lifelong learners, opens pathways to promising careers, and grows the economy. It also produces civically engaged members of vibrant communities.

For the past four years, Educate Maine has published *Education Indicators for Maine*, a snapshot of Maine's education system presented through indicators that measure access, participation, and performance.

This policy brief series focuses on individual indicators within the larger report and presents recommendations to improve outcomes. By design, the recommendations do not represent the full list of possible best practices, but rather focus on a few selected strategies with high returns for Maine people.

THE ISSUES HIGHLIGHTED IN THIS BRIEF ARE:

1. How best to serve Maine high school students who benefit from hands-on, technical, and career-focused educational experiences.
2. How best to serve Maine employers who have skilled jobs available and no qualified job applicants.

The link between these two groups is the Career and Technical Education Centers of Maine (CTEs). Maine has 27 career and technical education high schools throughout the state (see map).

MAINE'S 27 CTE HIGH SCHOOLS



● CAREER AND TECHNICAL EDUCATION HIGH SCHOOLS

Each center offers a range of programs in defined career pathways connected to postsecondary educational or training opportunities. A total of 23 programs, which fall into ten career clusters, are offered in Maine:

Agriculture & Natural Resources

- Agriculture & Natural Resources
- Wood Harvesting

Architecture, Construction & Manufacturing

- Building Trades
- Drafting
- Electrical
- Machine Tool
- Small Engine Repair (includes Marine Maintenance)
- Welding

Arts, Audio/Video Technology & Communications

- Graphic Arts
- Multimedia

Business Management, Administration, Finance, Marketing, Sales & Service

- Business Studies
- Marketing/Sales

Education & Public Services

- Early Childhood Education

Health & Human Services

- Health Services

Hospitality & Tourism

- Culinary Arts
- Travel and Tourism Management

Public Safety & Security

- Public Safety

Science, Technology, Engineering and Mathematics (STEM) & Information Technology

- Computer Repair/Install
- Composites Manufacturing
- Pre-Engineering Technology

Transportation

- Automotive Technology
- Auto Body
- Heavy Equipment and Commercial Driving



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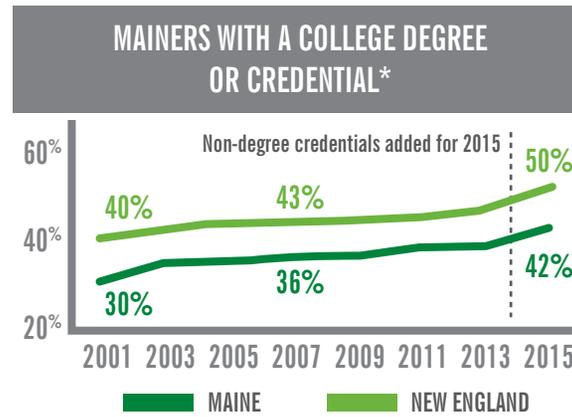
Maine's CTE schools and its educational and business partners offer credentials that qualify students for good-paying technical jobs in Maine.

These are jobs that are often going unfilled, which limits the ability of Maine businesses to grow. The jobs pay well (see chart below):

IN-DEMAND JOBS IN MAINE, 2014-2024		
OCCUPATION	ANNUAL OPENINGS	MEDIAN WAGE
FOOD SERVICE MANAGERS	40	\$48,000
WELDERS	55	\$47,000
HVAC INSTALLERS	34	\$45,700
MACHINISTS	40	\$45,000
POLICE OFFICERS	81	\$43,000
LICENSED PRACTICAL NURSES	44	\$42,700
CARPENTERS	124	\$38,000
AUTO TECHNICIANS	115	\$36,000

SOURCE: Maine Department of Labor, Center for Workforce Research and Information

In addition, rigorous CTE pathways prepare students to successfully pursue college degrees. Compared to neighboring states, fewer Maine workers have either a college degree or another job credential (see chart below):



* Adults ages 25 and older

SOURCE: U.S. Census Bureau; Lumina Foundation

For Maine's economy to grow, and for Maine's people to prosper, we need to close the credential gap.

That is where Maine's CTE schools come in. CTE schools connect Maine youth to credentials of value that prepare them for career and college. This brief provides 6 strategies with 11 recommended actions to elevate the profile of the CTE pathway, to increase its capacity, and maximize the number of students enrolled in CTE programs in Maine.

The policy brief series is brought to you through a partnership between Educate Maine and the Maine State Chamber of Commerce, and through the generous support of the John T. Gorman and Nellie Mae Education Foundations. The production of the report was made possible by the contributions of Lisa Plimpton (research), Frank O'Hara (writing), and Pica (design and layout).



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“TODAY’S CTE IS NOT YOUR DAD’S OR GRANDAD’S VOCATIONAL SCHOOL.”

—Peter Gagnon, Lewiston Regional Technical Center

Today’s CTE schools and regions provide Maine high school students with rigorous pathways to prepare for a range of desirable careers and for college. CTE provides opportunities that can benefit any student who thrives in a hands-on, rigorous, learning environment. Applied learning provides opportunities to gain technical skills, industry-recognized credentials, and certificates. Here are some facts that are important for parents, educators, students, and employers to recognize:

FACT 1: CTE STUDENTS HAVE A HIGHER HIGH SCHOOL GRADUATION RATE IN MAINE

In 2015, the high school graduation rate for students concentrating in CTE programs was 90.2%, nearly three points higher than the state average of 87.5%.¹

Maine’s numbers are not unusual. Similar success with CTE programs is documented in other states. A recent study of Arkansas high school students found that:

- Students who had one additional CTE experience above the average were more likely to graduate (3 percentage points), enroll in two-year college (1 percentage point), be employed after graduation (2 percentage points), and make more money (\$28/quarter) in the year after high school. They were equally likely to enroll in a four-year college.
- Students who concentrated their CTE coursework (i.e., took their courses in a single program of study) were more likely to graduate high school by 21 percentage points compared to otherwise similar students—“a truly staggering number,” according to the study authors.²

FACT 2: CTE STUDENTS ARE WELL PREPARED FOR COLLEGE WORK

High schools are now moving towards a “proficiency” grading system. CTE schools have always been proficiency-based. If a student gets 7 out of 8 electrical wiring connections right, it is not enough to pass the CTE course. Every connection must be right, or else there is a serious safety issue.

Students in CTE courses learn the value of mathematics, of clarity in communication, of working in teams. The programs prepare students to pursue academic and technical studies at the postsecondary level and beyond.

Peter Hallen, the Mid Maine Technical Center Director, reports that a professor at the University of Maine Electrical Engineering Department told him that they prefer that their students have CTE experience in high school: “Students with strictly academic courses aren’t as well prepared as electrical students from the CTE, because they’ve had no exposure to the technical or applied aspects of the field.”

Three-quarters of the CTE programs offer students the chance to earn college credits. More than two in five Maine CTE students (42%) enroll in a two- or four-year college right after graduation.

FACT 3: MAINE CTE STUDENTS ARE QUALIFIED TO ENTER THE WORKPLACE

All of Maine’s CTE programs are required by law to use 3rd party verified national or state industry standards in their instruction. Successful completion of CTE programming may be used to demonstrate proficiency towards a high school diploma. About 40% of Maine CTE

students earn an industry-recognized credential upon completion of their CTE program. (This number may be much larger due to underreporting from local programs. Many students don’t receive the credential until they are 18 and have graduated the program and won’t show up in the school reporting.) A significant number earn additional “stackable credentials” that increase their earning potential.³ Most programs also have a hands-on component within their programs that allow their CTE labs to expand the program to the community. Through such experiences, students learn the “soft skills” that employers find missing from many young job applicants - skills such as showing up on time, dressing appropriately, and working well in teams.⁴

FACT 4: CTE IS A GREAT HELP TO STUDENTS FROM FAMILIES WITH LOW INCOMES

CTE is also an effective way to address the economic opportunity gap in education outcomes. Maine has a 17-point gap in high school graduation rates separating low-income students and their higher-income peers.⁵ The Arkansas study cited earlier reports that students from low-income families who concentrated in a CTE program were 25 percentage points more likely to graduate than students from low-income families who did not pursue a CTE concentration.⁶

THE BOTTOM LINE

“CTE improves outcomes for students seeking to start their careers quickly and is no hindrance to those who want additional academic training.”⁷



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SOURCES: 1 Maine Department of Education, Consolidated Annual Report, www.maine.gov/doe/cte/reports/index.html 2 ASCD, January 2017, “CTE in High School: Does It Improve Student Outcomes?” <http://www.ascd.org/ascd-express/vol12/1209-dougherty.aspx> 3 Interview with Margaret Harvey, Director, Maine Department of Education, Career and Technical Education, March 2017 4 American Youth Policy Forum, 2008, www.usmayors.org/workforce/documents/10-10-08CTEMeetingPaper.pdf 5 Maine Department of Education Data Warehouse 6 ASCD, January 2017, op. cit. 7 ASCD, January 2017, op. cit.



STRATEGY 1: SET A HIGH GOAL

THE PROBLEM

To summarize:

(1) There are many good-paying technical jobs available in Maine that go unfilled every year because of the lack of qualified job applicants.

(2) CTE Centers in Maine have an outstanding record of helping students become qualified for such jobs.

Now consider a third fact.

CTE schools in Maine are underused.

This year, 8,505 students are enrolled in CTE programs, only 14% of our 9th to 12th graders.⁸

Nationally, 50% of high school students take one or more CTE experiences and 12% “concentrate” in CTE (complete a two-year CTE program of study). In Maine, only 14% of high school students take at least one CTE program, and 6% concentrate in CTE during high school. (see chart)

In contrast Europe has a vibrant CTE system that leads to greater opportunity and lower unemployment. In Germany, for example, two students out of three take a vocational curriculum instead of going to a traditional college. Consequently, in Germany, the youth unemployment is lower than the youth unemployment rate in the United States.⁹

CTE is a proven program with proven results. In Maine, it is not available to all of the students who would benefit from it; and where it is available, it is underutilized and can be difficult to access.

Maine needs to set an ambitious goal for increasing CTE enrollment—one which is achievable, but requires Maine educators to “stretch”.

In consultation with educators around the state, this is our recommendation.

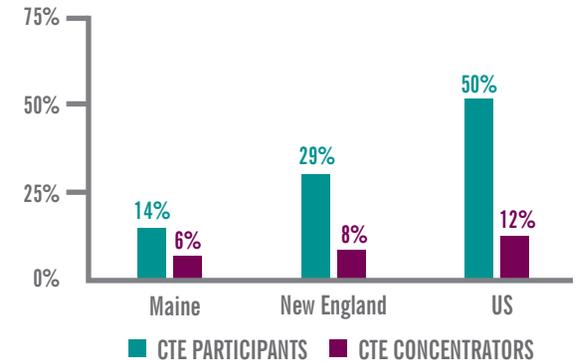
THE STRATEGY

Action 1: Adopt the Maine Department of Education’s goal to double CTE enrollment in Maine by 2020

This will require investments in space and equipment; closer scheduling cooperation with high-schools; more part-time teachers; more industry participation; and providing CTE experiences for students before they reach high school. But our conversations with state and local educators tell us that it can be done.

The strategies and actions on the following pages will help us get there.

CTE PARTICIPATION AS A PROPORTION OF PUBLIC HIGH SCHOOL STUDENTS, 2014-15



SOURCES: U.S. Department of Education, Office of Career, Technical, and Adult Education; National Center for Education Statistics



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SOURCES: ⁸ Interview with Margaret Harvey, op. cit. ⁹ Bloomberg, April 2013, “What Germany Can Teach the U.S. about Vocational Education,” <https://www.bloomberg.com/news/articles/2013-04-29/what-germany-can-teach-the-u-dot-s-dot-about-vocational-education>



STRATEGY 2: UPDATE THE PUBLIC PERCEPTION OF TODAY'S CTE

THE PROBLEM

We asked educators: "If you had a magic wand, what one thing would you do to improve CTE in Maine?" The most frequent answer was to change the perception of CTE among parents, guidance counselors, high school teachers, and high school principals. Parents resist allowing their children to take CTE courses: "My kid isn't at-risk, isn't special ed, isn't in alternative ed, and wants to go to college—he/she doesn't belong in CTE."

Guidance counselors have a 4-year college degree, limited experience in technical jobs, and huge caseloads. Many share the misperceptions that CTE is for students who can't make it in college or that students don't have room in their schedule.

"For millions of American students, CTE is not a meaningful part of their high school experience. In large part, this is because CTE has been chronically neglected by American education leaders and policymakers. Many CTE advocates suspect that this oversight has happened because of the damaged "brand" of vocational education."⁹

Dan Coffey of the Cianbro Institute puts it this way: "Change the perception of the skilled trades. There is a tendency to push all kids to a college education no matter what. Many kids start college and don't finish, and they have significant debt. There's a negative perception of construction workers, people who work with their hands. The impact that these people have on our lives are enormous. Go through your daily routine: structurally sound, warm home, hot water,

TV, cooking, driving. For all that you need a carpenter, boilermaker, electrician, plumber, mechanic... The skilled trades are the fabric of our world, and people should take great pride in doing that work."

"If a guidance counselor is talking to a kid, they present going to work after HS as a less respectable option. Some welders make over \$100,000 a year. There are some big opportunities. You can earn a great living, and the work is meaningful and rewarding."¹⁰

NATIONALLY,

37% of high school seniors are prepared for college-level math and reading,

WHILE

80% of seniors taking a college preparatory academic curriculum with rigorous CTE met college and career readiness goals.

SOURCE: ASCD Policy Priorities, Spring 2017, "CTE by the Numbers"

Several well-publicized efforts, like the National Association of Manufacturers' **Dream It. Do It.** campaign, have aimed to change the public's perception about the manufacturing industry and skilled trades. But teachers, parents, and guidance counselors are still slow to encourage students to pursue high-skilled manufacturing and other technical career tracks, despite the availability of high-wage, career ladder jobs.¹¹

Todd Fields of Westbrook's Regional Vocational Center says: "People don't understand how many college credits kids earn while they're here. Some are getting two years of college, learning a profession that needs them, they're earning money, and they can pay their student loans back. Give us the respect that we deserve, and realize that we are a viable route to a college degree AND a career."

THE STRATEGY

Action 2: Launch a statewide marketing campaign to promote CTE education through a public and private partnership.

Develop and execute a statewide marketing campaign to promote the value of CTE pathways as rigorous learning that prepares students for college and for desirable, in-demand careers in Maine.

Action 3: Invite more parents with young children into CTEs to provide exposure and create positive word-of-mouth.

There are many ways to do this: summer camp programs; host PTA meetings; host field trips for elementary grade students. Whichever ways are chosen, it needs to start early—before students reach high school.

Action 4: Include a one-day course on CTE, offered on-site at CTEs around the state, in the recertification requirements for middle and high school teachers, guidance counselors, and principals.



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SOURCES: ⁹ ASCD, January 2017, op. cit. ¹⁰ Phone interview with Dan Coffey, Manager of the Cianbro Institute, March 2017 ¹¹ American Youth Policy Forum, 2008, op. cit.



STRATEGY 3: EXPAND PRIVATE EMPLOYER PARTNERSHIPS WITH CTE, AND MAKE THEM FEASIBLE FOR MORE SMALL BUSINESSES

THE OPPORTUNITY

“The skilled trades shortage is not going to fix itself. Business, education, and government need to work together and understand each other’s needs.” (Dan Coffey, Manager of the Cianbro Institute)

Effective CTE programs target high-demand sectors; combine education—both academic and technical—with work experience; and prioritize partnerships with employers.

Work-based learning teaches skills that are valued in the labor market, a powerful incentive to keep individuals engaged. For younger participants, work-based learning experiences are opportunities to explore careers while building work readiness. For older individuals who need to earn income, paid internships and jobs can be part of an incentive structure that encourages them to strive, persist, and succeed.¹²

Maine has many successful partnerships already, as is shown by the examples on this page.

THE STRATEGY

Action 5: Recruit state associations, regional growth councils, and local chambers, to act as clearinghouses connecting businesses and CTE schools and programs.

CIANBRO

The Cianbro Institute has a paid summer internship

program for 35 high school and college students. Interns work all over the company, but all start with a weeklong construction boot camp that teaches equipment, tools, and basic techniques. The Institute also hosts career day visits. Recently 20 Winslow High School students spent a half-day rotating through training stations on crane operation, electrical wiring, rigging, millwright operations, and basic math. “The kids loved the hands-on stations, and it gave us a chance to explain the importance of work ethic, attitude, and safety,” Manager Dan Coffey says. “It’s important for kids to know that non-college pathways to a good living exist, that not going to college or not wanting to go doesn’t make you a failure.”



The Biddeford-Saco Rotary acquired a vacant, abandoned home from the city, and partnered with the Biddeford Regional Center of Technology

(BRCOT) and local contractors to remodel it. Architecture students redesigned the inside; plumbing, electrical, and carpentry students completed it. First-year students are building the garage. The house will be sold this spring, and the proceeds will repay the city for back taxes and liens. The Rotary has another house lined up for students to work on in the fall. (Paulette Bonneau, BRCOT Director)



Central Maine Motors Auto Group (CMMAG) leads an

Auto Technician Training partnership in Waterville. It starts with spring job shadow openings for Mid Maine Technical Center (MMTC) juniors. Those whose interest is piqued go on to a summer job on the power wash crew. Some of these continue the next school year in an apprenticeship in which students alternate eight-week work and study stints for two years, earning both an associate degree from Kennebec Valley Community College and ASE certification. Students then begin full-time employment. CEO Chris Gaunce says, “Over time, the investment is less if you build your workforce, rather than recruit. We take the time to listen, find out what makes students tick, and identify their strengths. We then focus on those strengths in improving their opportunities.”



The Westbrook Gorham Rotary sponsors a house for Westbrook Regional Vocational Center

students to build. Gorham Sand and Gravel, Grondin Construction, and Chadwick Ba-Ross support the heavy equipment operations. The Gorham House provides work for CNAs and CSSAs, local fire and police departments work with students, and IDEXX contributes to a scholarship fund. (Todd Fields, Westbrook Regional Vocational Center Director)



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SOURCES: 12 MDRC, March 2017, www.mdrc.org/publication/power-career-and-employer-focused-training-and-education



STRATEGY 4: REINFORCE THE STRENGTH OF COLLEGE AND CTE PARTNERSHIPS

THE OPPORTUNITY

More than one-half of Maine's CTE programs have articulation agreements with postsecondary institutions, usually community colleges, so that students can earn transferable college credits. Together with dual enrollment CTE programs and the Bridge Year Program described below, 75% of CTE programs offer opportunities for earning college credit.¹³



THE BRIDGE YEAR PROGRAM

Students enter Bridge Year as juniors, and take both technical education courses in a field of their choice at their local CTE and college-level courses taught by approved high school teachers. Over two years, students can earn up to 25 college credits, which are transferable to all public postsecondary institutions in Maine and many other colleges. In the 2015-16 academic year, 224 students were enrolled in Bridge Year, earning more than 3,000 postsecondary credits. The program expects 92 graduates in the class of 2017 statewide, and all have been accepted to their first-choice college.

The Bridge Year Program continues to grow. It started at the United Technologies Center in Bangor with four high schools and Eastern Maine Community College participating. Next year there will be 16 CTEs involved.

—Fred Woodman, United Technologies Center

Maine's higher education institutions support CTE in other ways. One obvious way to expand participation in CTE is to enroll more young women, who currently make up just over one-third of current CTE students.¹⁴ **The Maine Community College System** is promoting this by sponsoring gender equity clubs, such as Women in Technology; increasing the direct advising of nontraditional students by both professional and faculty advisors; focusing recruitment efforts on nontraditional students enrolled at secondary CTEs; and hosting hands-on experiences for secondary students in nontraditional CTE programs.



The **MELMAC¹⁵ Education Foundation** (MELMAC) is committed to supporting high quality initiatives to increase educational opportunities for Maine people. The Foundation believes that the State of Maine will thrive in the new economy by providing access to the appropriate education, skills and training at all levels. MELMAC's research has found that CTE is a valuable, distinct pathway to college and career, and will continue to dedicate significant resources to initiatives designed to support CTE specific college access and career programming.

For more than a decade, MELMAC has funded grants designed to improve the ability of Maine middle school, high school and CTE students to better understand options for continuing education after high school graduation. By creating College Access Teams and implementing proven best practices, these grants aim to increase the number of students who aspire to an education beyond high school, enroll in a program of study, and persist to graduation, ultimately gaining a credential relevant to their chosen field. Since 2003, MELMAC has provided \$11.7 million in grants to more than 100 Maine middle schools, high schools, and CTEs. Fourteen CTEs currently receive grants. Of these CTEs' 2015 graduating classes, 46% enrolled in 2 or 4 year colleges and an additional 8% entered an occupational certificate program, apprenticeship, or the military.

THE STRATEGY

Action 6: Use the best practices developed by the Bridge Year programming to make similar opportunities available at all 27 CTE schools.

Action 7: Raise career and college aspirations via CTE pathways by allocating state and industry dollars to leverage MELMAC's best practices to all Maine CTE schools.



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SOURCES: ¹³ Communication with Nigel Norton, Maine Department of Education ¹⁴ Maine Department of Education, Consolidated Annual Report, op. cit. ¹⁵ <http://www.melmacfoundation.org/>



STRATEGY 5: REMOVE POLICY AND REGULATORY BARRIERS TO CTE PARTICIPATION

THE PROBLEM

Maine CTEs are not authorized to award high school diplomas. CTEs serve “sending schools,” i.e., regular high schools—usually multiple high schools, often in multiple school districts.

Most students enrolled in CTE must spend their school day at two locations, attending two distinct institutions. This presents a scheduling challenge. Important CTE classes may conflict with the schedule for a class at the home high school that is required for graduation. Even when schedules fit together, transportation may be difficult or impossible to arrange.

Sometimes the sending high school discourages CTE participation by offering similar (but not comparable in quality) course offerings. For example, a Maine high school that offers a class on house design, using AutoCAD technology, diverts students from the local CTE architectural designing and engineering class. Besides being a duplication of costs for equipment already available for students at the CTE, the high school class does not use industry standards, nor is it part of a sequence that leads to an industry certification.

High schools need to coordinate master schedules to give CTE equal priority to academic courses, and to ensure that participating in a CTE program of study does not limit students from taking college preparatory or Advanced Placement courses.¹⁶ CTE Directors report that a recent state policy requiring that all high schools sending to the same CTE develop similar master schedules with no more than five

uncommon days have eased these challenges, but that more work is needed to ensure that students can regularly attend their full CTE courses. For example, late start and early release days at the sending high school often prevent students from attending CTE course sessions.

The Maine Legislature and Department of Education direct high schools to have multiple pathways to graduation. National research suggests that this should include “a well-defined role for CTE with academically rigorous expectations.”¹⁷ Maine has recently enacted legislation and regulatory language that lay out how students can earn proficiency-based diplomas through CTE.¹⁸ Now CTEs and high schools need to work together to fully implement these ideas.

Many southern states are leaders in expanding and improving CTE, transforming policies and practices, and investing state dollars to implementing innovative CTE programs. In Tennessee, schools are “working hard to dispel the old notion that students face an either/or decision: career and technical education or a bachelor’s degree...The message now is that CTE studies open the door to good jobs, while simultaneously serving as the first step toward a technical college, community college, or baccalaureate institution.” —**Education Week, May 2017, “Pruning Dead-End Pathways in Career and Technical Ed.”** and **ASCD Policy Priorities, Spring 2017, “Career Technical Education: Pathways Toward Postsecondary Success.”**

Action 8: Eliminate scheduling barriers and fully articulate the CTE proficiencies that contribute to earning a high school diploma through improved high school-CTE collaboration and through regulatory changes, pilot efforts, and funding incentives.

Action 9: Create schedule and class opportunities for discreet CTE experiences during elementary and middle school.

The Oxford Hills Aspire program offers a good example where middle school students engage in a team effort to build, market, and run a racecar.



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SOURCES: ¹⁶ Maine Education Policy Research Institute, March 2017, http://usm.maine.edu/sites/default/files/cepare/Proficiency-based_High_School_Diploma_Systems_in_Maine_Implications_for_Special_Education_and_Career_Technical_Education_Programming_and_Student_Populations.pdf ¹⁷ American Youth Policy Forum, 2008, op. cit. ¹⁸ Maine Department of Education, April 2017, “CTE Diploma Pathway in Law,” <https://mainedoenews.net/2017/04/03/cte-diploma-pathway-in-law>



STRATEGY 6: DRAMATICALLY EXPAND CTE PRE-APPRENTICESHIP OFFERINGS

THE PROBLEM

In most other industrialized countries, students begin preparing for careers during high school. Many countries see the value in developing career and college-based competencies through CTE. “In short, CTE around the globe is not a track away from a successful adulthood, but rather a path towards it.”¹⁹

Switzerland has what many consider the world’s best vocational education system, and—not coincidentally—one of the most competitive economies.²⁰ 70% of students and about one-third of employers participate in the national apprenticeship program. Students visit various job sites and research careers before choosing which positions to apply for. After completing a three- to four-year apprenticeship, young people can either enter the workforce or apply to university. It is not uncommon for people to complete an apprenticeship, work for a few years, then go on to higher education.²¹

Apprenticeships combine industry-based, on-the-job training with classroom instruction. Apprentices are paid and earn college credit or industry-recognized certifications. The U.S. still has “a long way to go to establish apprenticeship to serve a wide array of education and training needs,” particularly for young people.²² “The development of registered pre-apprenticeship programs for youth and adults in Maine’s high-growth, high-wage industries can help sponsors streamline the recruitment process of new apprentices, align preparatory training with

apprenticeship standards, and increase the retention rate for registered apprenticeship participants.”²³

The state of Maine has an apprenticeship program for people ages 16 and older with high school diplomas. 1,376 people participated in apprenticeships in 2015. Federal and state funds through the Department of Labor reimburse employers for classroom training costs involving apprentices.²⁴

Increasing resources for and employer participation in this program, paired with more pre-apprenticeship openings for CTE students, would contribute to better-defined career pathways, prepare more skilled workers for in-demand occupations, and improve public perceptions about CTE. The intermediaries discussed above could play a key role in expanding these offerings.

THE STRATEGY

Action 10: Raise employers’ awareness of Maine Career Center resources available to support apprenticeships and pre-apprenticeships.

Action 11: Raise the public profile of apprenticeships as a desirable pathway to good careers.

