



ACCELERATING CTE EVALUATION CASE STUDY

Hutchinson Community College

AT A GLANCE

This report summarizes the Accelerating CTE project at one of the participating colleges. It provides details on student outcomes and the college's lessons learned, and concludes with information on how the college will build from its project experience going forward. For outcomes across all four participating colleges, see the *Reflections on Accelerating CTE* final evaluation report.

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For many individuals from underserved backgrounds, educational pathways toward upward mobility are too often not accessible or even available. Students of color, those from low-income families, and first-generation college students continue to face barriers on the way to completing credentials. Therefore, it is more important than ever to develop high-quality postsecondary CTE programs that prepare learners for high-skill, high-wage, and high-demand careers needed in the new economy. Advancing innovative models capable of driving higher persistence, completion, and credential attainment rates was our goal, in partnership with five progressive community colleges. This study presents a set of promising findings and models for CTE programs across the country to consider and build upon.

Our team at JFF wishes to thank the talented staff members and students at the participating colleges. We also want to acknowledge the amazing team at ECMC Foundation for their support and for their belief that advancing effective postsecondary CTE pathways as a means of fostering economic mobility for all students is one of the nation's most important imperatives. This investment and study add more evidence that that goal is possible.



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HCC Service Area Profile

This case study shares findings from the evaluation of the Accelerating CTE program at Hutchinson Community College (HCC).

The main campus of HCC is in Hutchinson, Kansas, the county seat of Reno County. The college's service area also includes McPherson and Harvey Counties. The college serves about 6,000 students annually. The student body is about 70 percent white and 52 percent female, with an average age of 23. One-third of the students (33 percent) attend full time, and the majority (70 percent) are eligible for Pell Grants.

	RENO COUNTY	MCPHERSON COUNTY	HARVEY COUNTY
Population	63,360	28,792	34,683
Median age	40.1	40.8	39.2
Under age 18	22.9%	23.3%	25.0%
Over age 65	18.4%	18.9%	18.4%
Racial/ethnic makeup	92.2% white 2.8% black 2.7% two or more races	94.8% white 1.0% black 2.2% two or more races	93.5% white 2.0% black 2.3% two or more races
High school education or higher	87.7%	91.4%	91.2%
Median household income	\$47,897	\$56,946	\$55,687
Individuals below poverty level	14.0%	7.6%	11.2%
Unemployment rate, December 2018	3.2%	2.3%	2.8%
Industries with highest employment	1. Health care and social assistance 2. Manufacturing 3. Retail trade	1. Manufacturing 2. Health care and social assistance 3. Educational Services	1. Manufacturing 2. Health care and social assistance 3. Educational services

Sources: American Community Survey 5-Year Estimate, 2013-2017; Bureau of Labor Statistics, Local Area Unemployment Statistics Map, December 2018.

The Accelerating CTE Model at HCC

For the Accelerating CTE project, HCC built on work that started with the Accelerating Opportunity Kansas (AO-K) program to improve opportunities for student success in adult education.¹ In the Accelerating CTE initiative, the college focused on improving persistence and completion rates in career and technical education (CTE) pathways in health care, welding, and HVAC (heating, ventilation, and air-conditioning) programs by offering team teaching, supplemental instruction, and wraparound support services for students. At HCC, the approach to team teaching is described as a mix of “complementary-supportive” and “monitor teaching.”² In this hybrid model, the lead instructor is responsible for teaching the CTE course content and an AO coach (an adult education instructor), who is present for about 25 percent of the class time, provides support, helping students with basic skills and modeling best practices for taking notes and asking questions. The AO coach also leads supplemental instruction sessions before and after class, and students meet in study groups on a voluntary basis. The coach also works closely with the college’s transition coordinator to provide wraparound services for adult education students.

Key Evaluation Findings

- Student persistence and completion improved in the welding program. The percentages of students earning both Level A and Level B certificates were higher during the program period than they were in the baseline period.
- The college’s mix of support services, including success coaching and job readiness training, was particularly important for student success in the welding program.
- Faculty buy-in for team teaching and supplemental instruction increased as a result of HCC’s participation in the Accelerating CTE program.

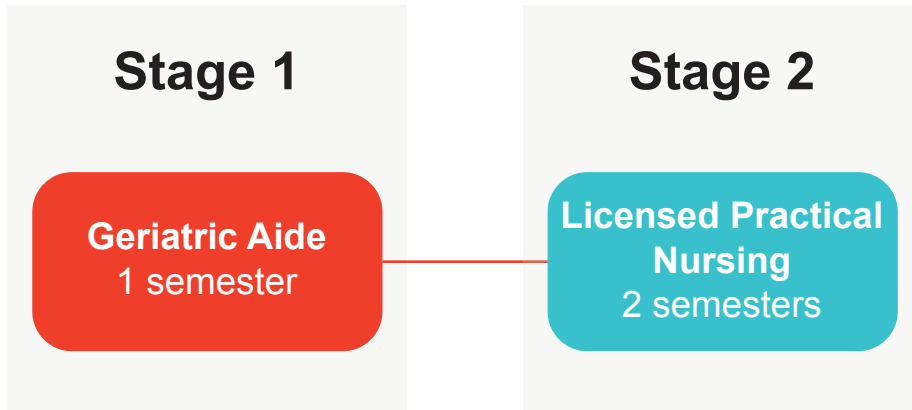
Accelerating CTE Career Pathways and Student Outcomes at HCC

This section provides information on each career pathway offered at HCC and compares student progress and completion rates in those programs before and during Accelerating CTE.³

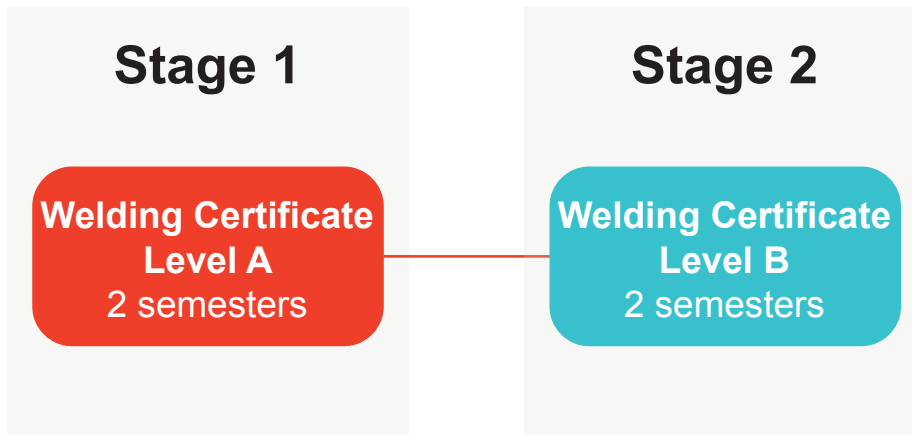
Hutchinson offered three career pathways as part of the Accelerating CTE program: one in health care and two in applied technologies. In the health care pathway, students could pursue geriatric aide training and a licensed practical nursing (LPN) program. In applied technologies, students were offered opportunities in welding and heating, ventilation, air conditioning, and refrigeration (HVAC). The pathway graphics on the next page show the stackable credentials that students can earn; note that the time estimates are based on full-time enrollment of 12 or more hours per semester.



Health Care Pathway



Welding Program



HVAC Program



Comparison of HCC Student Outcomes

In the baseline period, which lasted from the fall of 2013 through the spring of 2015, HCC served a total of 536 students in the four health care and technology CTE programs. Success rates, defined as the percentage of students completing a program and earning an industry-recognized credential, ranged from highs of 90 to 100 percent in the health care programs to lows of less than 50 percent in welding and HVAC.

In the welding and HVAC programs in particular, students' low persistence rates from one semester to the next appear to have been a factor in the low completion and credentialing rates. Whereas 85 percent or more of the students in the licensed practical nursing program typically persisted from the first semester to the second, only about two-thirds (68 percent) of the welding and HVAC students persisted, on average, between the first and second semesters. For the HVAC program in particular, persistence dropped further between the second and third semesters, averaging just 46 percent. Beyond the first credential, student persistence along a career pathway was relatively low during the baseline period, at 15 percent in welding and 8 percent in health care.

During the Accelerating CTE program, which lasted from the fall of 2015 through the spring of 2018, HCC served a total of 566 students in the four CTE programs.

In the health care programs, student success rates, defined as the percentage of students completing a course of study and earning an industry-recognized credential, were about the same as they were during the baseline period—ranging from 91 to 100 percent. Nine percent of students who completed the geriatric aide coursework went on to enroll in pre-nursing coursework during the project period, though none earned a nursing credential.⁴ Four LPN students went on to earn associate degrees during the project period.

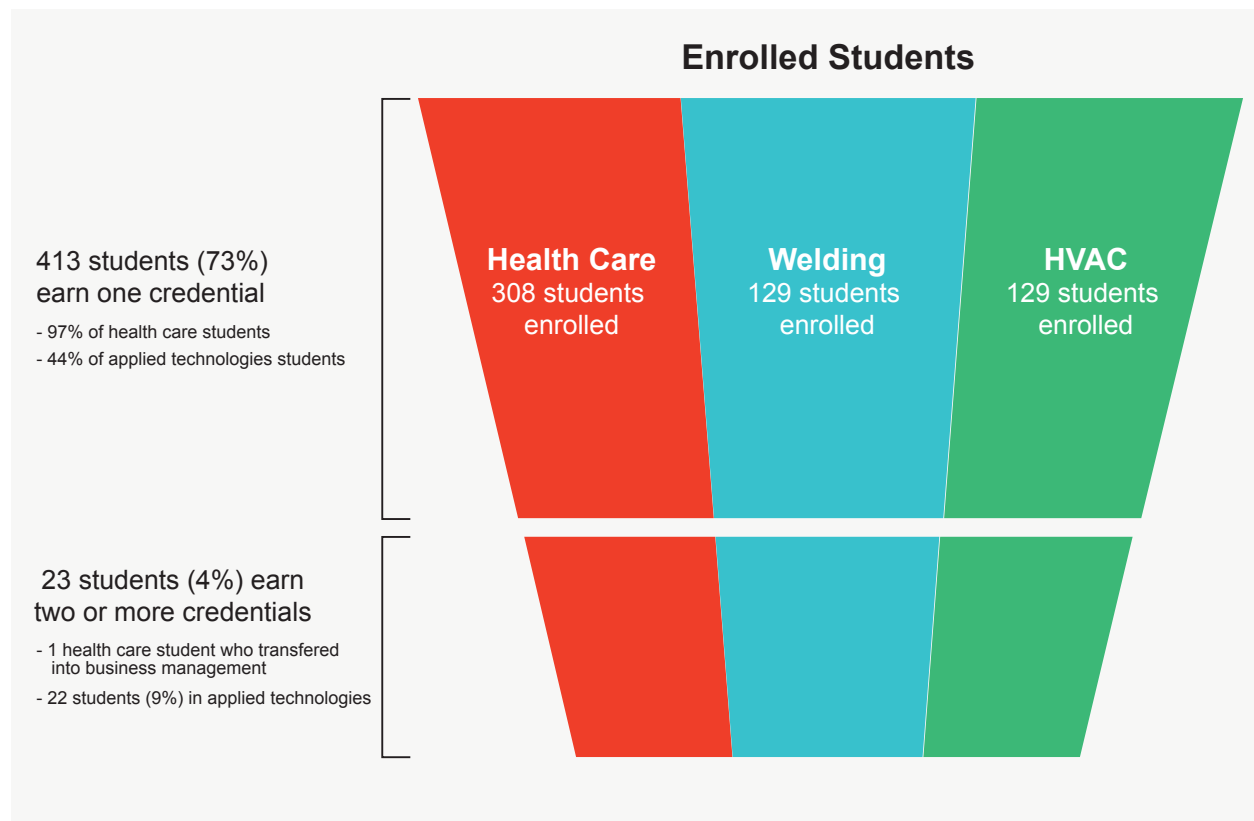
In the welding program, success rates improved during the program period, reaching 69 to 76 percent in several cohorts. That improvement appears to be connected with stronger student persistence from the first semester to the second, with the persistence rate averaging between 80 and 88 percent during this time period. The percentage of Accelerating CTE welding students who remained in the program long enough to complete the Level B certificate (22 percent) was higher than it was during the baseline period.

In the HVAC program, completion and credentialing rates were low during the Accelerating CTE program period: Approximately 27 percent of HVAC students completed the program, and about 23 percent earned a credential. The low success rates appear to be due in part to low persistence rates, which averaged about 64 percent from the first semester to the second and just 45 percent from the second semester to the third.



The graphic below shows a summary of the CTE program pipeline at HCC during the Accelerating CTE project.

HCC's Accelerating CTE Pipeline, 2015-18



Source: JFF analysis of college data.

Feedback on the Accelerating CTE Program at HCC

Faculty and staff involved in the Accelerating CTE program at HCC strongly support the model. In surveys conducted in the fall semesters of 2017 and 2018, all 10 HCC employees polled reported that the Accelerating CTE model leads to improved student success.

The respondent group, which was made up of five faculty/CTE instructors, two team teachers, two advisor/navigators, and one program lead, consistently emphasized that core elements of the Accelerating CTE model were critical to student success: 90 percent selected team teaching, supplemental instruction, and comprehensive student supports as factors that helped students succeed, while 40 percent also identified career pathways with stackable credentials and 20 percent cited student acceleration opportunities.

Here are some of the answers respondents offered when asked how the program had changed over the last three years:

- *“Better support within the classroom for students.”*
- *“It has become more consistent now that the [AO coach] has been in that role for the last couple of semesters.”*
- *“The CTE programs participating have become more aware of student support instructors and their role with student success.”*

Team Teaching

The majority of respondents (80 percent) to the survey of HCC employees agreed that team teaching makes “a big difference” for students in the classroom. Describing that difference, one respondent said, *“There is a second resource for the student. The teaming approach recognizes student need more efficiently.”* Another said that team teaching is effective because *“it holds the students more accountable, and it shows a level of caring from the instructors.”* A third offered this observation: *“The faculty collaboration, student support, and basic skills focus contributes to success.”*

The respondents did say that implementing team teaching involves some challenges, including finding the right balance between the two roles (cited by 30 percent of the respondents), finding the right match with another instructor (cited by 20 percent), and understanding the course content (20 percent).

Instructors and other staff members noted that their approach to teaching had changed as a result of their participation in the Accelerating CTE program. One said, *“I look at the whole process of teaching*



differently, [because I rely] on my team teacher to provide feedback on issues related to concepts that I might have not taught clearly.” Another noted that with a team teaching approach, there is “more awareness for support elements and using interventions to help students who struggle with basic skills.”

Supplemental Instruction

At HCC, all students can participate in supplemental instruction, which is typically offered before or after a CTE course. Most (80 percent) of the Hutchinson faculty and staff members who responded to the survey reported that supplemental instruction made “a big difference” for student success in the classroom. Several noted that students who would otherwise have not passed a class were successful because of the additional support available in the supplemental sessions.

One respondent summarized the impact of supplemental instruction this way: *“Students are more willing to ask for help. Students are more willing to participate in class. Students have passed classes that they would not have passed without the extra assistance.”* Another noted that the supplemental instruction *“provides identified student supports that are effective.”*

Some respondents did say that implementing supplemental instruction involved some challenges, with 50 percent noting that scheduling could be tricky, 20 percent expressing concern about student engagement, and 20 percent reporting that coordinating with course instructors could be a challenge.

Student Support Services

Hutchinson takes an individualized approach to comprehensive student support services, with success coaches using one-on-one interactions with students to identify both on-campus and community-based supports, depending on student needs.

As one respondent to the staff survey said, *“Our college does a very good job working with partners such as Workforce and [the] Department for Children and Families to assist students with their needs outside of the classroom in order to support their success in the classroom. We have direct contacts in community organizations that can be tapped when a student need arises.”*

Success coaching, employment services, and housing assistance were identified as support services the college would like to expand to better support student success. Asked about the biggest factor limiting student success, 40 percent of the HCC instructors and staff members polled

identified the need for students to build basic skills, 30 percent cited students’ family responsibilities, and 30 percent pointed to students’ workloads and their limited financial resources.

The survey concluding by asking faculty and staff members what the college should do to improve student success. Many of the suggestions involved basic skills support and opportunities for basic skills integration in more CTE programs.

Reflecting on their experiences in the Accelerating CTE initiative, most HCC staffers offered positive feedback. One said, *“This has been a very productive experience for all administrators and instructors. It is a continuing process of meeting student needs and recognizing what makes a student successful in college.”* Another offered this response: *“Please keep it going, it isn’t perfect, but it is making a difference in people’s lives.”*

Student Feedback on the Accelerating CTE program at HCC

In surveys conducted in the fall of 2016, the fall of 2017, and the spring of 2018, 39 HCC students provided feedback on their experiences in the Accelerating CTE program. Most of the respondents (77 percent) were from the welding program.

Asked about the components of the Accelerating CTE model, 77 percent of the students reported that they were in at least one class with a team teacher some or all of the time. One-third (33 percent) reported that they would have benefited from more team-taught classes. Almost half of the respondents said that they had participated in supplemental instruction outside of class time, including one-on-one tutoring, supplemental instruction with small groups of students, and separate meetings with a success coach or an advisor. One-third (33 percent) reported

that they would have benefited from additional instruction or support outside of the classroom.

Asked to reflect on their time in the program, several respondents reported that it was a good experience and one said, *“Continue with the team teacher.”* Most of the students (90 percent) reported that the program was preparing them “well or very well” for work in their targeted fields and for further education. A majority (92 percent) said they would recommend the program to a friend or family member.



Conclusions from HCC's Accelerating CTE Experience

Overall, Hutchinson Community College used the Accelerating CTE program to build on gains made in AO-K. The variation in pathway outcomes at Hutchinson Community College likely reflects many factors, including pathway design; variation in the implementation of team teaching and supplemental instruction implementation; staffing challenges; and labor market factors. Support services, including supplemental instruction on topics such as résumé building and email etiquette, helped students succeed.

Rates of persistence in the health care pathway were about the same during the baseline period and the Accelerating CTE program period, with 90 to 100 percent of the health care students earning at least on credential. Students made significant gains in the welding pathway during the program period, as the number of participants completing and earning welding Level A and Level B credentials increased from the baseline period. Staff members noted that the welding program traditionally has low persistence and completion rates because welding students often find jobs in the field after they complete one semester of training. Support

services were particularly important for welding students, who often have not yet developed the professional skills they need to confidently navigate the job application process. Because most students enter welding looking for well-paying jobs in the local area, the program benefits students and local employers alike, helping students achieve their personal goals and fulfilling the labor demands of local employers.

The HVAC program did not fare as well, with less than one-third of the students completing or earning a credential. It is difficult to determine why the rates were so low because students in the HVAC program offered limited feedback.

Administrators at HCC reported that faculty buy-in for integrated pathways, including team teaching and supplemental instruction, increased during the program period. Reflecting on their lessons learned, administrators noted that *“The [Accelerating CTE] project work illustrates how cooperative teaming, concentrated instruction for basic skills, and a clear perspective on student needs will help students be successful.”* Hutchinson administrators also highlighted a new culture of collaboration and student support in technical programs as a lasting impact from the project. Looking ahead, HCC plans to expand the integrated pathways approach to other CTE programs.

Endnotes

1. See Lauren Eyster, Theresa Anderson, Robert Lerman, Daniel Kuehn, Burt Barnow, Maureen Conway, Ranita Jain, and Marcela Montes (2018). *Findings from the Accelerating Opportunity Evaluation*. Washington, DC: Urban Institute.
2. In “complementary-supportive teaching,” one teacher is responsible for teaching the content to the students and the other teacher takes charge of leading follow-up activities on related topics or on study skills. In “monitor teaching,” one teacher assumes responsibility for instructing the entire class and the other teacher circulates throughout the room, observing students to assess their behavior and their understanding of the material.
3. Hutchinson provided aggregate student persistence and outcome data for each career pathway in the baseline period and in the Accelerating CTE program period. Researchers then calculated differences in completion and credential attainment between the two periods. Because the evaluation is based on a simple comparison of aggregate data, findings are suggestive but should not be considered a confirmation of impact.
4. One student who started in geriatric aide training did earn an AAS in Business Management during the program period.



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