



# ACCELERATING CTE EVALUATION CASE STUDY

Neosho County 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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# NCCC Service Area Profile

This case study shares findings from the evaluation of the Accelerating CTE program at Neosho County Community College (NCCC).

The main campus of NCCC is in Chanute, Kansas. The college’s service area covers three counties, Neosho, Franklin, and

Anderson, in southeast Kansas, the most impoverished region in the state. Neosho CCC serves about 2,000 students annually; the student body is about 75 percent white and 64 percent female, with an average age of 25. Just over one-third of students (34 percent) attend full time and one-fifth (20 percent) are concurrently enrolled in high school. Approximately one-quarter of students (27 percent) receive Pell Grants.

	NEOSHO COUNTY	FRANKLIN COUNTY	ANDERSON COUNTY
Population	16,209	25,559	7,840
Median age	39.7	40.0	42.2
Under age 18	24.9%	24.6%	25%
Over age 65	18.5%	15.9%	21.2%
Racial/ethnic makeup	94.6% white 1.2% black 2.7% two or more races	92.9% white 1.5% black 2.8% two or more races	95.6% white 3.5% American Indian 0.6% two or more races
High school education or higher	91.9%	92%	90.8%
Median household income	\$44,402	\$53,167	\$40,986
Individuals below poverty level	21.4%	12.5%	13.6%
Unemployment rate, December 2018	4.4%	3.2%	3.5%
Industries with highest employment	1. Manufacturing 2. Health care and social assistance 3. Retail trade	1. Retail trade 2. Health care and social assistance 3. Manufacturing	1. Health care and social assistance 2. Agriculture, forestry, fishing, and hunting 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 NCCC

For the Accelerating CTE project, NCCC built on work that started with the AO-Kansas program to improve opportunities for student success in adult education.<sup>1</sup> In Accelerating CTE, the college focused on improving persistence and completion in career and technical education (CTE) pathways in health care and welding by offering team teaching, supplemental instruction, and wrap-around support services for students. At NCCC, adult education instructors are placed in the classroom approximately half-time both in Welding Level I and Nurse Aide classes. The lead instructor in the classroom is responsible for teaching content, while the support teacher focuses on basic academic skills and employability skills, such as résumé development and appropriate workplace behavior, and also monitors student comprehension of course materials. The support teacher leads supplemental instruction outside of class time for groups and individuals to work on basic and job search skills and improve understanding of course content.

## Key Evaluation Findings

- Students persisted and completed at higher rates in both the health care and welding Accelerating CTE programs than similar students did in the baseline period.
- Students in the health care pathway continue to persist in their studies with 13% enrolled in General Education, Pre-Nursing, or Nursing courses in fall 2018.
- Neosho is extending the AO-CTE model to the college's electrician and plumber programs in fall 2019.

# Accelerating CTE Career Pathways and Student Outcomes at NCCC

This section provides information on each pathway offered at NCCC and compares student progress and completion in these programs before and during the Accelerating CTE program.<sup>2</sup>

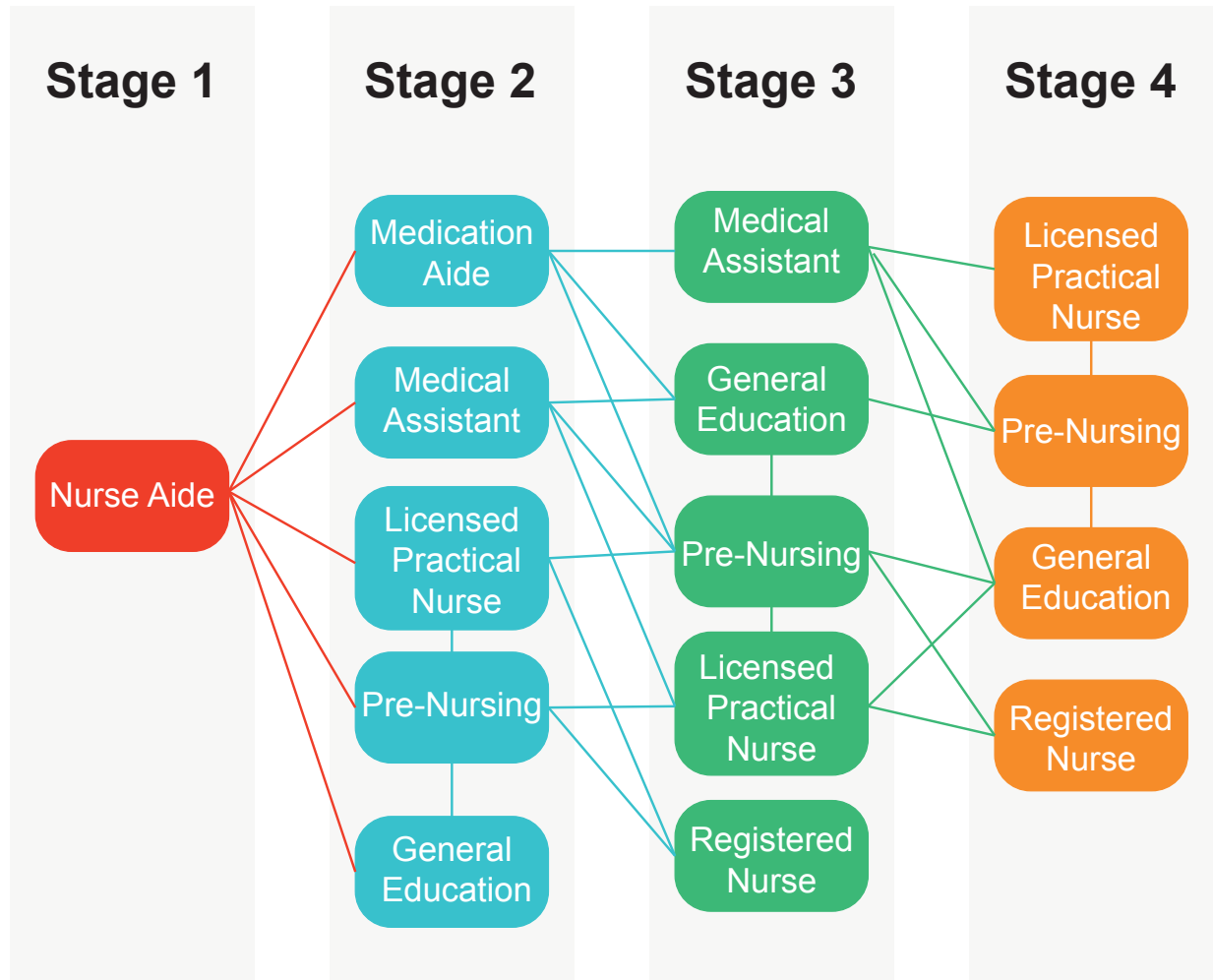
Neosho offered two career pathways as part of the Accelerating CTE program, both of which were in high demand locally: health care and welding. The pathway graphics below show the stackable credentials that students can earn; note that the time estimates are based on full-time enrollment of 12 or more hours per semester.

## Health Care Pathway and Student Outcomes

The health care pathway, as shown below, offers multiple options for students, starting from a base Nurse Aide program in Stage 1: Medication Aide, Medical Assistant, Licensed Practical Nurse, Registered Nurse, and General Education. These programs range in length from eight weeks for the Nurse Aide program to four semesters for the RN program, if students are attending full time. Often, students are co-enrolled, for example in Medication Aide and Medical Assisting or in Pre-Nursing and General Education.



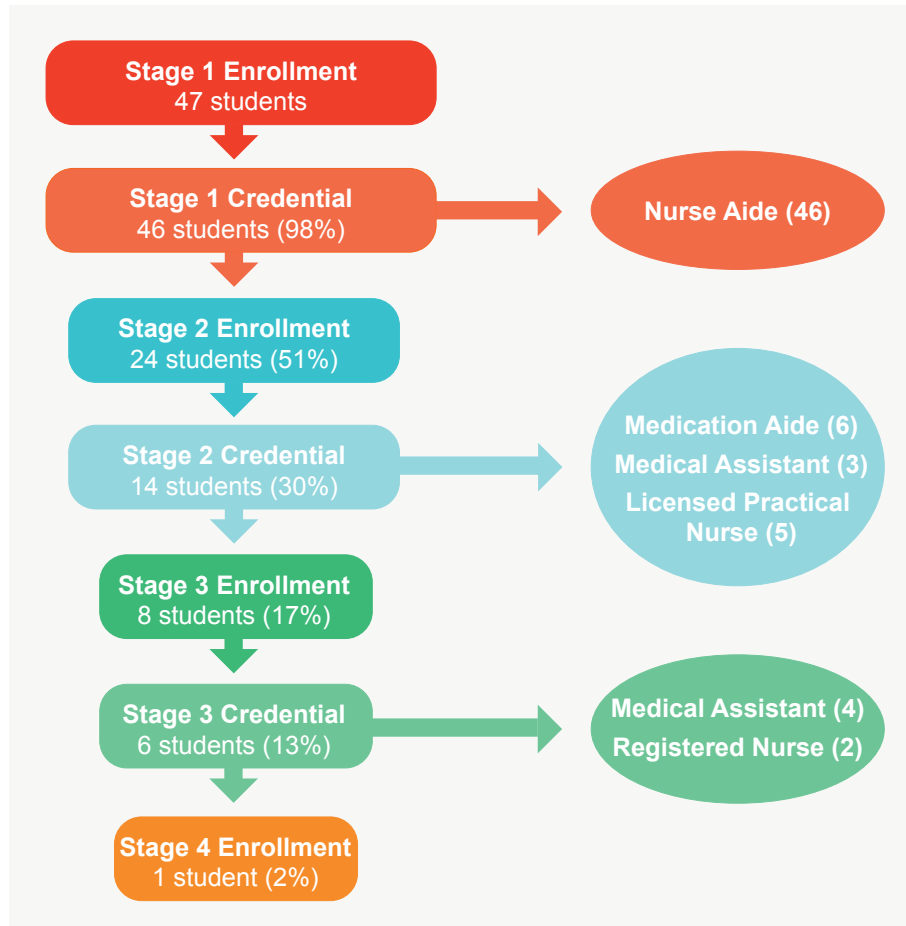
## NCCC's Health Care Career Pathways and Stages



The Nurse Aide program meets the needs of adult education and other students by offering team teaching, supplemental instruction, and other support services to help students succeed in the classroom and persist in their education. From fall 2016 to spring 2018, NCCC enrolled 47 students in the Nurse Aide program. Through fall 2018, those students have shown considerable success in pursuing their education and earning stackable

credentials in line with their career goals. The pathway has produced 46 nurse aides, six medication aides, seven medical assistants, five licensed practical nurses, and two registered nurses to date.

## NCCC's Health Care Pipeline, 2016-18



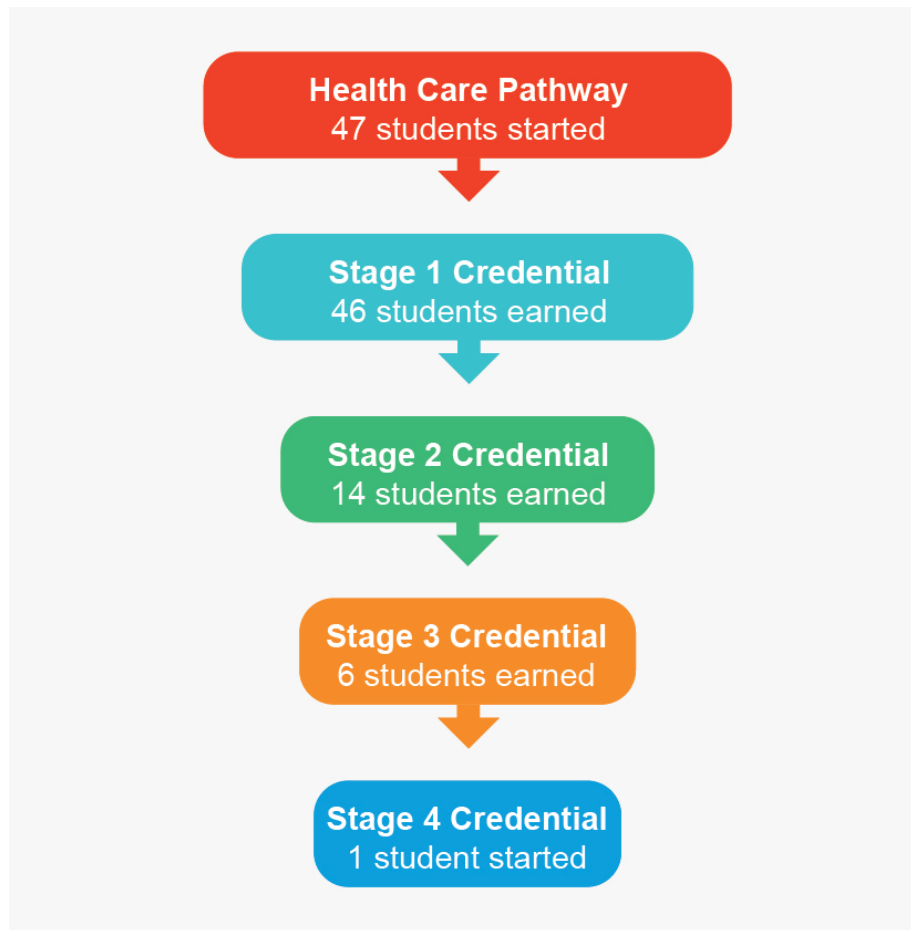
Note: Stage 1 starts include fall 2016 through spring 2018 semesters;  
 Stage 2 through Stage 4 starts include spring 2017 through fall 2018 semesters.

Of the original 47 students, 98 percent earned one health care credential, 30 percent earned a second credential, and 13 percent earned three credentials in the period between fall 2016 and fall 2018. These students are recognizing the value of the stackable credentials available through Neosho CCC and building a career pathway to meet their needs. In addition, 13 percent were still pursuing their studies

in General Education, Pre-Nursing, or Nursing courses in fall 2018. Compared to similar students in the baseline period, fall 2013 to spring 2014, students in the Accelerating CTE Nurse Aide program had higher completion and persistence rates at each stage.



## NCCC's Stackable Health Care Credentials, 2016-18



### Welding Pathway and Student Outcomes

The welding pathway, by contrast, is straightforward: students who complete Welding I can enter employment and/or enter Welding II. Welding is in such high demand locally that some students stop even before completing Welding I to enter the workforce. Through Accelerating CTE, students in Welding I were offered weekly supplemental instruction before class, and benefited from team teaching during

class time that focused on helping students master the math skills involved in reading blueprints and measuring materials. Team teaching also focused on job skills development, including résumé building, mock interviews, and workplace behaviors. As the welding instructor and team teacher have refined their approach over several semesters, both see the benefit to their teaching and the students' classroom experience.

## NCCC's Welding Career Pathway



Students in the welding pathway at Neosho demonstrate strong success in the Welding Level I program, with enrollment and persistence in Level II driven primarily by labor market demand. In the Accelerating CTE period, 85 percent or more of Welding Level I students completed the program and earned the Welding Level I and OSHA certifications needed for employment in the field. In comparison to similar students in the baseline period, fall 2013 to spring 2014, students in Accelerating CTE Welding Level I had higher rates of persistence and completion.<sup>3</sup>

to surveys conducted in the fall 2017 and fall 2018 semesters, eight NCCC respondents reported that the Accelerating CTE model leads to improved student success. The respondent group, consisting of two faculty/CTE instructors, four adult education instructors, and two college administrators/program leads, emphasized different elements of the model as critical to student success, with 70 percent selecting team teaching, 60 percent selecting supplemental instruction, 40 percent each selecting comprehensive student supports and career pathways with stackable credentials, and 30 percent selecting student acceleration opportunities. As one respondent noted, *“Faculty have bought into the model and have learned to trust/lean on the co-instructor.”*

### Feedback on the Accelerating CTE Program at NCCC

Faculty and staff involved in the Accelerating CTE program at NCCC strongly support the model. In response

## Team Teaching

Most respondents (88 percent) identify the NCCC approach to team teaching as “complementary-supportive teaching” where one teacher is responsible for teaching the content to the students and the other teacher takes charge of providing follow-up activities on related topics or on study skills. All respondents feel that team teaching makes “some difference or a big difference” for students in the classroom. That difference was identified by one respondent as “*students have the opportunity to get additional help, to reinforce content and deepen understanding.*” Another noted, “*Students are more likely to complete the class with team/complementary teaching and go on to enroll in additional classes. Also, they are more likely to ask questions.*” A third reported, “*Some students that normally would struggle on certain things are helped because they have the possibility of seeing possibly the same thing from two different angles... one teacher could explain something one way that the student may not understand, but the other teacher could explain it in a way the student could understand.*”

The respondents did identify some challenges with implementing team teaching, including finding the right match with another instructor (38 percent),

finding the right balance between roles (38 percent), and communicating with students about the approach (25 percent). As a result of their participation in Accelerating CTE, instructors and staff noted that their approach to teaching had changed, with one calling it “*more collaborative*” and another stating “*we work really well together and it benefits our students.*”



## Supplemental Instruction

At NCCC, all students can participate in supplemental instruction, which is typically offered once per week. All faculty and staff respondents reported that supplemental instruction made “some difference or a big difference” for student success in the classroom. Several noted that math skills, in particular, were improved through the supplemental instruction. As one summarized it, *“additional attention and support is vital for many of these students to be successful.”* Staff noted that the most challenging aspects of implementing the supplemental instruction component were student engagement (33 percent), finding space/ other resources (33 percent), and scheduling/coordinating with course instructors (33 percent).

## Student Support Services

Neosho takes an individualized approach to comprehensive student support services, with staff using one-on-one interactions with students to identify both on-campus and community-based supports depending on student needs. The range of student support services at NCCC during the Accelerating CTE period included intrusive advising,<sup>4</sup> success coaching, first-year experiences, financial aid, employment services, and health/mental health services. Neosho staff identified

success coaching as the most critical to student success, though one respondent noted, *“I believe that students need access to a variety of individualized services in order to be successful.”* When asked about the biggest factor limiting student success, instructors and staff identified “family responsibilities” (50 percent) and limited basic skills (25 percent), along with limited employment/ advancement opportunities (13 percent). Finally, faculty and staff were asked what their college should do to improve student success. Pathway development and expansion topped the list of recommendations, along with expanding team teaching, and efforts to support basic skills enhancement.

## Student Feedback on the Accelerating CTE Program at NCCC

In response to surveys conducted in spring and fall 2017, ten NCCC welding students provided feedback on their experiences in the Accelerating CTE program. More than one respondent noted that *“[the support teacher] is really helpful,”* while others noted that *“the résumé was helpful,”* *“the math has been helpful,”* or *“satisfied with the class.”* Sixty percent of the students reported that they would have benefited from more time in a team-taught classroom. Outside of the classroom, the welding students reported that they

participated in supplemental instruction, including individual one-on-one tutoring (80 percent), working with an instructor in small groups (60 percent), and meeting with a coach or advisor in an extra class session (30 percent). Sixty percent of respondents thought they had the right amount of assistance outside of class, while 40 percent said they would have benefited from additional support.

Nine in ten respondents reported that the program was preparing them “well or very well” for work in the welding field, and 80 percent feel “well or very well” prepared for further education. All would recommend the program to a friend or family member.

## Conclusions from NCCC’s Accelerating CTE Experience

Neosho County Community College made great strides toward increasing student persistence and completion rates during the Accelerating CTE grant period, with students in both health care and welding showing gains over the baseline. One of the largest successes for the college was faculty buy-in. Particularly in the nursing pathway, licensed teachers were initially resistant to have an adult education instructor as their team teacher. Based on surveys and site visits, it is clear that

trust has been built and both student and faculty have been satisfied with increased progress. Team teaching in welding classes has also produced more Level 1 and OSHA certificates than the baseline period. The Accelerating CTE model is becoming institutionalized at Neosho; the college is developing two skilled trades programs, electrician and plumbing, building on the Accelerating CTE model. These programs are being reviewed by the Kansas Board of Regents, and the college has already identified the instructor, location, and curricula for the courses, which are expected to launch in fall 2019. Neosho is also working with a local company to pilot a noncredit industrial maintenance mechanic program leveraging some of the company’s lead employees as CTE instructors. This pilot will adapt elements of the AO-CTE model into a core class to build needed skills prior to entry in the technical training program.

Administrators at Neosho reflected on their Accelerating CTE experience, noting that it allowed the college to serve more people indiscriminately and that students who participated were more likely to complete the class resulting in more entry-level credentials earned and better wages. As one administrator noted about the model, *“Our students view this as a normal part of class. It is no longer considered special but has become mainstream.”*

# 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. Neosho 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.
3. College staff declined to provide aggregate student outcomes for the baseline welding program, but confirmed that student outcomes were better in the Accelerating CTE program period.
4. Intrusive advisors follow students through the entire enrollment and class scheduling process, monitor student attendance and class progress, and follow up with students as needed.



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