



Rethinking Career Education in Nebraska

Nebraska has done much work to rethink CTE. It needs to do still more.

Rachel Wise, Matt Blomstedt, and Ryan Foor

Over the past few years, the Nebraska Department of Education (NDE) has been working with Nebraska practitioners on expanding CTE opportunities for its students. These efforts provide a solid foundation for the heavy lift to come: development of a state plan for implementing the reauthorized Carl D. Perkins Career and Technical Education Act (Perkins V) that builds on a cohesive vision and policy framework to guide CTE in Nebraska and addresses gaps in access and opportunity.

The Nebraska State Board of Education began conversations on Perkins V in spring 2019, anticipating the approval of a state plan in the spring of 2020. But when NDE began rethinking CTE in Nebraska in the early 2000s, it first developed the Nebraska Career Education Model to provide a framework for career awareness and for structuring CTE courses and programs. The model defines six major career fields: agriculture, food, and natural resources; business, marketing, and management; communication and information systems; health sciences; human sciences and education; and skilled and technical sciences. These career fields are further broken down by career clusters, which map out the courses a student needs in order to pursue a career. For example, a student interested in skilled and technical sciences might be interested in the career cluster of architecture and construction.

Within each career cluster are programs of study. A program of study is a specific series of courses designed to prepare students for postsecondary education and career opportunities. In Nebraska, a CTE concentrator is a student who has taken at least three courses in a program of study. Implementation of the Career Education Model was in line with the earlier version

of the Perkins Act, passed in 2006, and increased the focus on career clusters and programs of study.

In a second phase, NDE developed Nebraska Career Connections, a free online career planning and information tool for students and teachers to learn about career fields and pathways. It also links to the Nebraska Department of Labor's workforce trends and information. Adult learners looking for a new career or pursuing postsecondary education also use Career Connections.

To implement the Career Education Model, NDE developed a process it called reVISION, in which schools and local communities analyze current career education programs, research school and community needs, and make the adjustments needed to prepare students for postsecondary education and careers. By the end of the 2018–19 school year, 122 Nebraska school districts (half of them) had engaged in reVISION. Its purpose is to bring new understanding, energy, and commitment to CTE as a vital education, workforce, and economic development strategy.

The process relies on a collaborative work team of administrators, school counselors, CTE teachers, core academic teachers, and representatives from area community colleges and the Nebraska Departments of Labor and Economic Development. Supported by NDE staff, the teams review and analyze school, program, labor, and economic development data to identify key themes and areas for program development and improvement.

The teams draw on several resources. One is a report prepared for the state by SRI International, "Nebraska's Next Economy: Analysis and Recommendations for the Economic

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Development Ecosystem,” which helps teams understand and identify high-wage, high-skill, high-demand occupations.¹ They also review school accountability information such as graduation rates and ACT scores.

Another important data set for the teams includes information on CTE concentrators. Nebraska has had great success with CTE concentrators, given that 99 percent of its CTE concentrators graduate from high school and its graduation rate for all students is 89 percent. This evidence underscores the value of leveraging CTE to keep high school relevant and engaging for students.

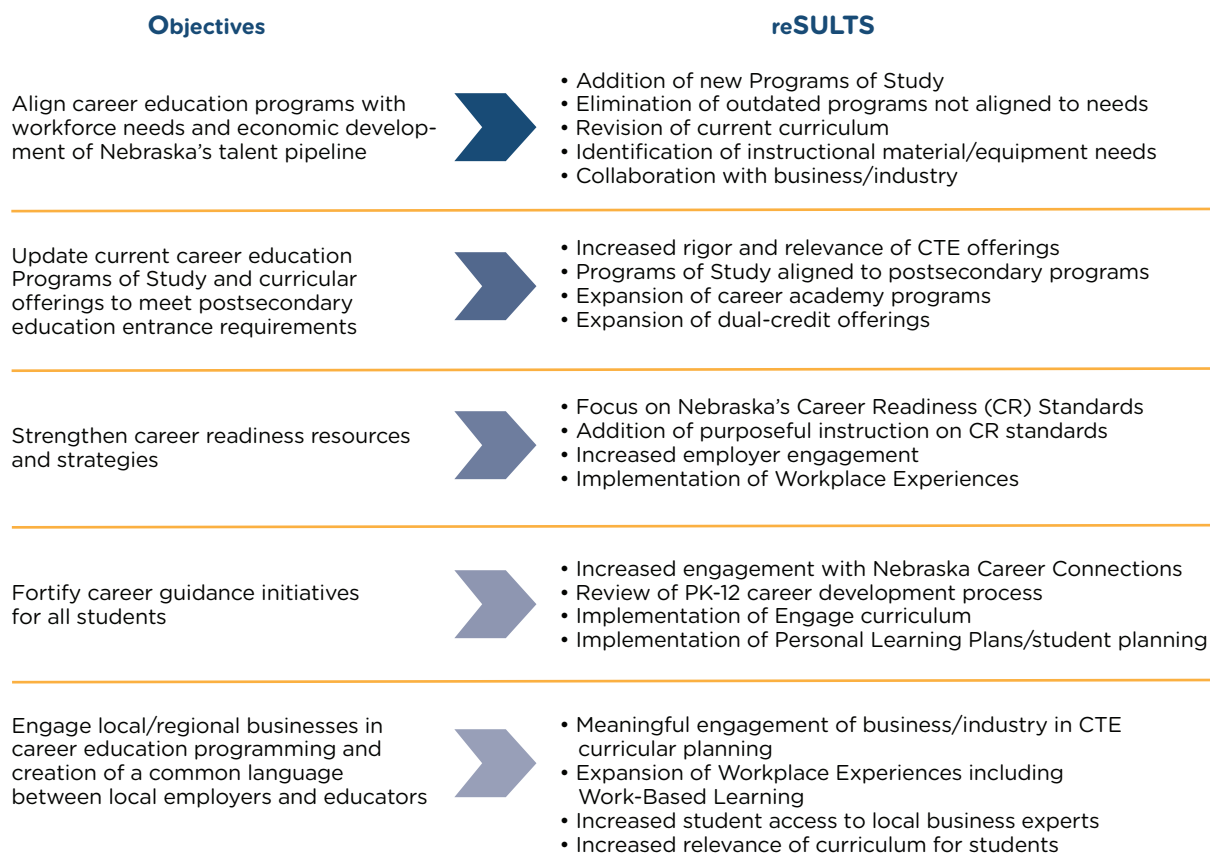
The concentrator data also point state officials toward a deeper understanding of the percentage of students enrolled in CTE and the demographic characteristics of CTE enrollment. For example, in 2016–17, 42 percent of the concentrators in all career clusters were female. However, females made up 47 percent of CTE

participants who took at least one course that year.² Is there equity of opportunity and access in our state? We can also analyze completer and participant data within and across race/ethnicity and special populations. Also important is the degree of participation in career and technical student organizations.

Once these data are synthesized, NDE and local school staff share a summary with key stakeholders in a community engagement meeting. This meeting is essential in building the initial framework for an action plan and for starting the process of seeking broad input and building support for CTE. The teams use the input from these meetings to draft three- to five-year action plans.

The outcomes of reVISION are delineated in five objectives and corresponding results (figure 1). These outcomes, along with the process used to obtain them, can serve as the framework for developing Nebraska’s Perkins V state plan.

Figure 1. Objectives and Outcomes of Nebraska’s reVISION



Addressing CTE Challenges

The reVISION process surfaced gaps, which led the Nebraska State Board of Education to make regulatory changes. The two most recent changes addressed career academies and teacher certification. Previously, schools' use of career academies was inconsistent, as was their quality. Some school districts used a national model or framework. Some schools and districts identified programs as career academies but were missing some best-practice elements.³ Through reVISION, many communities and regional collaboratives identified career academies as a method for linking rigorous academic coursework with CTE courses and programs. In 2013, the state board adopted NDE Rule 47, which outlines programmatic requirements for its approval of career academies in order to help increase quality and consistency statewide.⁴

Another challenge Nebraska faces is a shortage of certified teachers in CTE. Feedback from reVISION informed the work of a Nebraska state board study committee, which developed a teacher permit (different from a standard teaching certificate in Nebraska) to address this shortage.⁵ The career education teaching permit allows individuals with work experience or proficiency in a specific career field to teach in a local school. Individuals seeking the career education permit need not be trained through a teacher preparation program. However, they still need to meet minimum requirements expected of all teachers. Schools submit a recommendation for an individual to qualify for the career education teaching permit based on local needs. Teachers with these permits can teach courses only in the career field associated with their work experience.

Nebraska's state board, in partnership with the commissioner of education, has elevated equity as a central part of its mission.⁶ NDE made these commitments for equity in education, which the state board included in a supporting resolution:

- equity of opportunity by ensuring all Nebraskans are college, career, and civic ready;
- equity of achievement by measuring and tracking academic progress;
- equity of access by leading and supporting educator effectiveness;

- equity of access by supporting quality instructional materials; and
- equity of access and opportunity by engaging Nebraskans.

These statements are becoming the foundation of education policy development in Nebraska.

Planning for Perkins V

NDE and the state board must develop and submit a Perkins V state plan that outlines how the state will comply with the provisions of the federal law, passed in 2018. The state board sees this process as an opportunity and responsibility to build a vision and policy framework around CTE. Although we used our regulatory authority in the past to address pieces of the CTE puzzle, now is the time to step back and ensure that the state's policies and regulations build a cohesive system of career education from elementary through high school. A good state plan will point Nebraska toward effective use of regulatory authority that will align policy with practice and fill gaps at the policy and practitioner level.

Nebraska has benefited from several valuable resources to guide CTE policy development. One such resource was Advance CTE and the Association for Career and Technical Education (ACTE)'s summary of the major tenets of Perkins V:⁷

- maintains a commitment to driving improvement through programs of study;
- introduces comprehensive local needs assessment, which requires data-driven decision making;
- lifts the previous restriction on spending funds below grade 7;
- focuses on disaggregation of data—and referencing attention to this disaggregation and identified performance gaps; and
- increases the focus on serving special populations.

There are other policy decisions states must make as they develop their state plans. Nebraska's equity commitments provide vision and direction for responding to the major tenets of Perkins V, and its implementation of reVISION serves as a model for stakeholder engagement in development of the Perkins V state plan.

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Perkins V is a real-time opportunity for NDE to implement its equity commitments.

Box 1. Omaha Schools and Zoo Team Up on Career Academy



Photo Credit: Henry Doorly Zoo and Aquarium

In addition to its hundreds of species and distinctive habitats, the world-class Henry Doorly Zoo and Aquarium in Omaha is also home to Zoo Academy, a leader in STEM learning and career exploration related to the life sciences and the first of its kind. Started in 1996 in partnership with Omaha Public Schools, the academy serves 120 high school students from across the metropolitan Omaha area, who typically attend for half a day.

Students receive integrated instruction in science, math, English, and social studies, with classroom teachers working directly with zoo staff. In science class, for example, they work with zoo geneticists or animal management to apply what they have learned. In government class, they might address environmental and conservation policies.

Academy students can pursue Nebraska's Animal Science Pathway or Conservation Research Pathway. In both, they master STEM skills and engage in zoo-related research and animal medical procedures, and they are called upon to suggest solutions to problems that arise in zoo management. Alumni have gone on to become veterinarians, museum educators, and nutritionists, for example.

"A huge benefit is that quite a few employees have come from the Zoo Academy program," said Elizabeth Mulkerrin, the zoo's vice president of education. The program is "a win-win for students and businesses and school districts," she said. "We hope others replicate it." —*Valerie Norville*

Another valuable resource is a guide from the Council of Chief State School Officers.⁸ It provides considerations for moving beyond the required stakeholder engagement provisions in Perkins V and suggests ideas and strategies for

different stakeholders groups: state policymakers and agencies; districts; postsecondary institutions and staff; and families and communities. Like many other states, the Nebraska state board over the next few months

will be engaging in discussions with a range of stakeholders on a state plan to comply with Perkins V.

We have also used a state education policy checklist and a brief on career readiness and workforce development as a valuable primer on CTE policy-related decisions that the state plan will reflect.⁹ With the revisions to the state's school accreditation rule also under way, opportunities will certainly emerge to rethink and expand on the existing requirements related to CTE. For example, NDE Rule 10 indicates that "career education is included in the middle grades program." While there are more specific requirements for high school programs, the NDE can look to how other states have supported middle school programs. In addition, NASBE's recent *Power of the Question* report gives states valuable, policy-minded resources to ground and frame state board work.¹⁰

Perkins V is a real-time opportunity for NDE to implement its equity commitments. In its resolution in support of these commitments, the state board said, "Nebraska will lead the way in addressing inequities of the past by focusing on opportunities to learn for all students and by adopting a relentless focus on outcomes that ensure all stakeholders deliver on the promise of equity..."

Over the next year, Nebraska will be building on the strong foundation of the reVISION effort to address current gaps in the CTE system. The primary challenge will be linking the Perkins V state plan with work to implement the Every Student Succeeds Act (ESSA), the Individuals with Disabilities Education Act (IDEA), and the Workforce Innovation and Opportunity Act (WIOA). Useful in this effort is the American Institutes for Research's resource, "Developing a College- and Career-Ready Workforce: An Analysis of ESSA, Perkins V, IDEA, and WIOA." By linking the Perkins V state plan with other related federal legislation, Nebraska will be making progress toward its commitments to equity, in particular "ensuring all Nebraskans are college, career, and civic ready."

Aligning policy and practice through the Perkins V state plan is no easy task. While Nebraska has promising practices in place—like Rule 47 for career academies and Rule 21 for career education teaching permits as well as the reVISION engagement strategies—Nebraska

must consider a long-term vision for CTE.

Nebraska's equity commitments provide a starting point. By using available policy resources, state boards of education can ensure that their states will develop meaningful state plans that not only comply with federal law but also keep the best interests of students, schools, families, and communities in mind. Career and technical education can provide equitable education opportunities for all learners. Equitable, relevant, and innovative Perkins V state plans will help states deliver these opportunities. ■

¹Roland Stephen et al., "Nebraska's Next Economy: Analysis and Recommendations for the Economic Development Ecosystem," Contract No: 16-01-082 (Omaha: Nebraska Department of Economic Development, 2016), http://opportunity.nebraska.gov/files/govsummit/Nebraskas_Next_Economy_Analysis_and_Recommendations_web.pdf.

²Female students accounted for 6,973 of a total 16,534 concentrators in Nebraska, and there were 98,637 total participants in at least one course out of the 323,391 students in Nebraska schools in 2016–17. Data are from the federal government's Perkins Data Explorer, <https://perkins.ed.gov/pims/DataExplorer>, and the Nebraska Department of Education's Nebraska Education Profile, <http://nep.education.ne.gov/>.

³The National Career Academy Coalition publishes National Standards of Practice, which provide an initial lens for elements and best practices. See <https://www.ncacinc.com/nsop>.

⁴Title 92, Nebraska Administrative Code, Chapter 47 (NDE Rule 47): Regulations for Career Academy Programs Established by School Districts, Nebraska Department of Education, www.education.ne.gov/legal/current-nde-rules-regulations/.

⁵Title 92, Nebraska Administrative Code, Chapter 21 (NDE Rule 21): Regulations for the Issuance of Certificates and Permits to Teach, Provide Special Services, and Administer in Nebraska Schools, www.education.ne.gov/legal/current-nde-rules-regulations/.

⁶In Nebraska, the state board and commissioner are one entity: the Nebraska Department of Education. The state board is elected and appoints the commissioner. This governance structure allows for congruence in the development of policies and regulations for the Nebraska education system.

⁷"Strengthening Career and Technical Education for the 21st Century Act (Perkins V)" (Silver Spring, MD: Advance CTE and the Association for Career and Technical Education, August 2018), <https://careertech.org/Perkins>.

⁸"Stakeholders and Perkins V: Meaningful Engagement for Student Success" (Washington, DC: Council of Chief State School Officers, February 2019).

⁹See Aspen Institute, "State Education Policy Checklist" (2015), <http://www.aspendr.org/portal/browse/DocumentDetail?documentId=2822>; "Career Readiness and Workforce Development" issue brief (Washington, DC: Aspen Institute, Education Strategy Group, and ExcelinEd, December 2018), https://assets.aspeninstitute.org/content/uploads/2018/12/Career_Readiness_Issue_Brief-short.pdf.

¹⁰Kris Amundson, "Five Questions State Boards Should Ask to Advance College and Career Readiness," *Power of the Question* 3, no. 1 (Alexandria, VA: National Association of State Boards of Education, 2019)

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Rachel Wise, Ph.D., is in her sixth year as a member of the Nebraska State Board of Education and is currently the chair of NASBE's Board of Directors. Dr. Wise was a CTE teacher and administrator in Nebraska. Matt Blomstedt, Ph.D., is the Nebraska commissioner of education, appointed by the state board in 2014. Dr. Blomstedt serves on the CCSO board of directors and was named NASBE's Policy Leader of the Year in 2018. Ryan Foor, Ph.D., the state board relations & rules and regulations officer for the Nebraska Department of Education, was previously a CTE teacher and teacher educator.