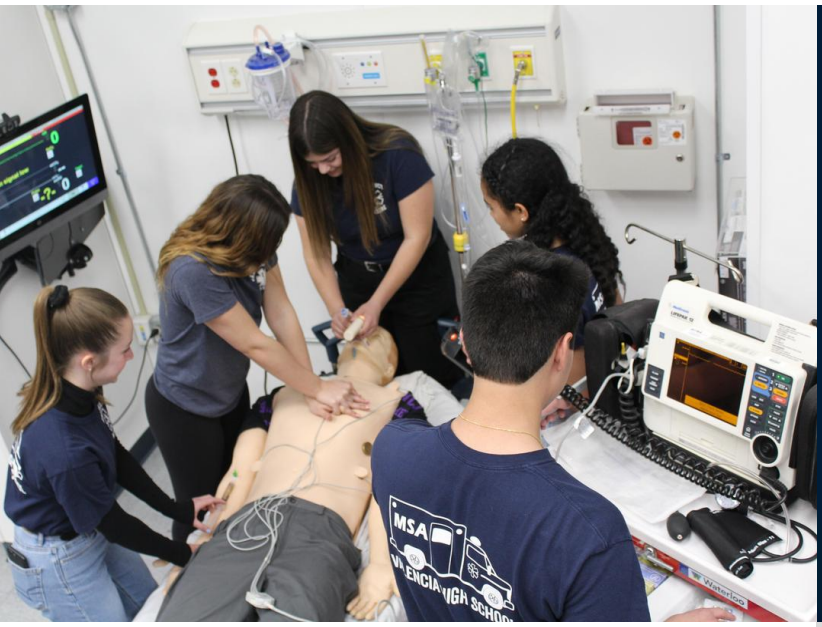


MINNESOTA BUSINESS VITALITY COUNCIL

Career & Technical Education in High Schools Working Group

Final Report and Recommendations

July 2, 2020

MINNESOTA

Purpose

The Walz-Flanagan Administration founded this working group of the Minnesota Business Vitality Council to provide recommendations for expanding Career & Technical Education (CTE) in High Schools.

One Minnesota Plan

Children and Families

- *Every student receives a world-class education.*
- *Every student attends a safe, nurturing school with caring, qualified teachers.*

Thriving Communities

- *Everyone can obtain education and training for a career that earns a family-sustaining income.*

Agency Membership

Education (MDE)
Agriculture (MDA)
Employment & Economic Development (DEED)
Higher Education (OHE)
Iron Range Resources & Rehabilitation (IRRRB)
Labor and Industry (DLI)
Natural Resources (DNR)
Transportation (MnDOT)

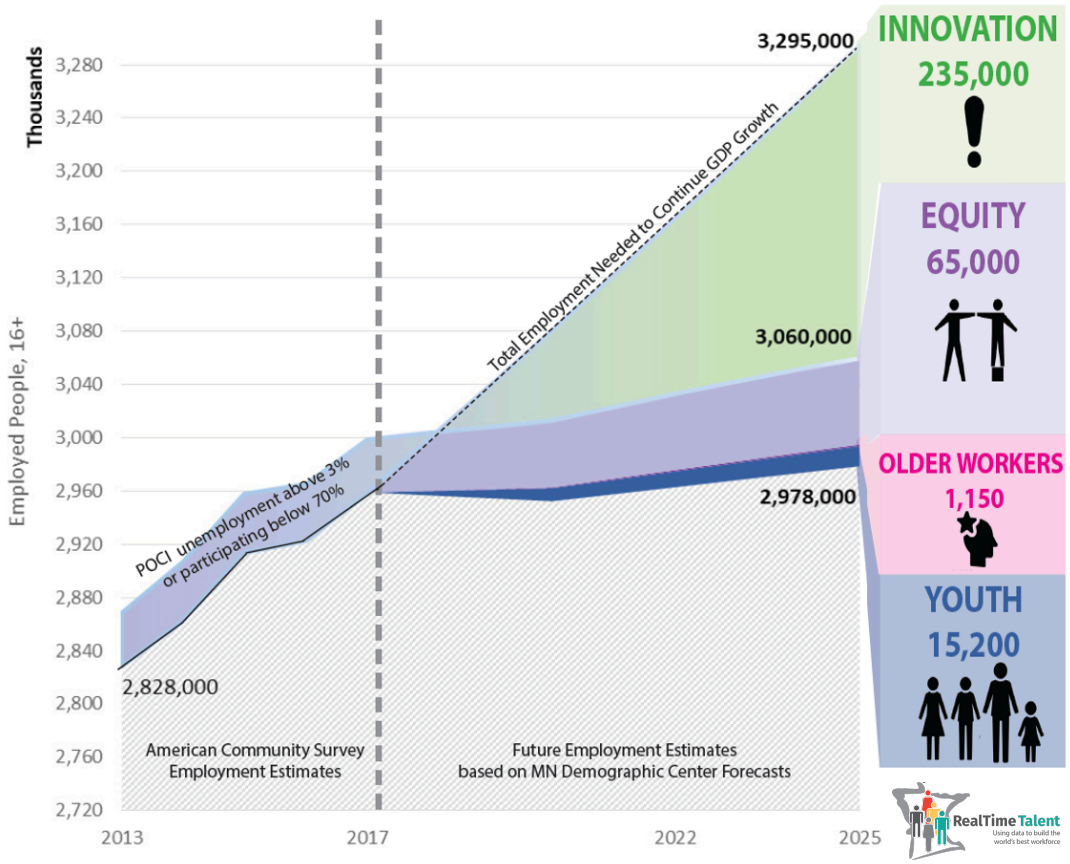
The **Minnesota Business First Stop** Commissioners heard through their business and community tours (well before the impact of COVID on the economy), that there was a clear need for a renewed commitment to increased funding and support for expanding, and in some areas establishing, CTE programs across MN.

Minnesota is home to an over-representative number of *Fortune 500* companies due to its highly educated and skilled workforce. Federal educational reform over the last 20 years (i.e., NCLB and the prioritization of reading and math) has resulted in a decreased emphasis and funding for career preparation and training. Minnesota's workforce is experiencing an employment gap, disparities for underrepresented populations, and a significant talent and skill misalignment. To revitalize our economy and create a better **One Minnesota** that provides a world-class education and training for careers that earn a family-sustaining income, it is urgent that we invest in CTE.

"Looking ahead to the economic aftermath of COVID19, there will be significant demands by learners of all ages for fast, but quality, upskilling and reskilling programs that result in careers with family-sustaining wages."
Advance CTE (ACTE), 2020

BACKGROUND AND NEED

Minnesota's Economic Workforce Talent Gap and Misalignment



Ratio of Jobs in Minnesota's Economy

1 ***master or doctorate***

2 ***bachelor/four-year***

7 ***technical/two-year***

Minnesota CTE Program Areas

More than 1,000 secondary CTE programs across 342 school districts prepare more than 180,000 students each year for careers and opportunities in Minnesota's major workforce industries:

a) Agriculture, Food, and Natural Resources,
b) Business and Marketing, and Communications,
c) Family and Consumer Sciences/ Human Services,
d) Health and Medical Occupations, and
e) Trade and Industry.

(*see Appendix: Career Fields and Clusters Wheel*)

Need: State Funding Source for CTE

Federal Innovation

Perkins V (federal grant) - $6.7 million (FY19-20)

Proposed State Expansion

CTE Incentive (state grant) - $11.5 million (TBD)

Local Sustainability

CTE Levy (local tax) - $28.1 million (SY18-19)

Total MN CTE Expenses – $80.2 million

Methods of the Work Group

The MBVC CTE work group embraced the challenge of the Walz-Flanagan Administration to expand Career & Technical Education (CTE) in High Schools. The work group explored models from the Illinois and California Departments of Education that have existed since the 1980s and have proven records of enhancing and expanding CTE in their states.

California's incentivized funding model has been extraordinary successful. For example, within one career industry, CTE enrollment doubled since 1983. Students in that CTE area are more than 50% Hispanic (representative of the state) and more than 80% of students are engaged in work-based learning and leadership development. Based on the model's success, the CA Legislature expanded the program in 2017 to further strengthen CTE.

Both states presented their models to the MBVC work group. Proven elements of these models include:

- **incentivized criteria**,
- **matching grants to districts**, and
- **regional staff** to provide mentoring, training, and accountability support.

The work group adapted lessons learned of these states to meet the needs of Minnesota and our economy.

Early Minnesota Pilot

In May 2020, the US Dept. of Agriculture (USDA, NIFA, SPECA) awarded the University of Minnesota, Department of Education, and MN FFA Association a $300,000 grant to pilot California's model for 24 High School Agriculture, Food, and Natural Resources programs over the next three years. The pilot will provide **matching grants** to districts as they implement **incentivized criteria** (teacher development, 100% work-based learning and leadership development), and receive **support from regional staff** at FFA and MDE.

While the pilot will provide useful results for expanding CTE, it only targets one industry. Minnesota will need to scale up the project to have a significant impact on our economy and solve our talent/skill and equity gap (*see Appendix: Career Fields and Clusters Wheel*).

Barriers to Expanding Secondary CTE

Industry - *workforce needs and shortages; talent/skill gap*

Teachers - *not enough licensed CTE educators/teachers*

Students - *equity of access to CTE programs and career development experiences*

Curriculum - *flexibility in and fulfilling required credits (licensure, finite school time, etc.)*

Equipment - *industry-aligned, and up-to-date equipment and technology/tools*

Accountability - *awareness of viability of career in CTE, resources to move the needle and build on local improvement; build and enhance existing systems and resources (e.g., WIOA, federal Perkins, local CTE levy).*

Executive Leadership – Phase One

Approach led by MDE of quality CTE criteria and regional support. ***Funding: $15 million.***

Incentivized funding in 50-50 matched grants to schools, statewide projects, and regional specialists to provide support, training, leadership, and accountability.

Quality Criteria

State develops quality program criteria that advances and enhances CTE in Minnesota. ***No/Low Cost.***

For example:

i. Qualified teachers and professional development for knowledge experts: (a) Each CTE teacher attends a minimum of X professional development activities within their specific CTE content area, (b) Novice (years one to three) and alternatively certified teachers participate in a CTE-content specific mentoring program.

ii. Student Work-Based Learning: (a) Work-based learning and authentic work experiences are intracurricular and embedded into CTE program coursework, (b) A minimum of X% of students participate in at least X hours of work-based learning or authentic work experiences annually as verified by student and program records.

iii. Student Leadership Development: (a) All students enrolled in CTE program are affiliated with the student leadership organization aligned to that program; students are not charged a membership fee to participate, (b) A minimum of X% of students participate in at least X leadership development activities annually.

Incentive Grants

Local programs develop plans to meet criteria and apply for incentivized funding. Plans include teacher development, student development, industry advisory committees, equipment and technology, curriculum, and accountability procedures. Funding incentivizes the plans of local CTE teachers, reflective of local business and industry needs. Districts match the grants: 50% match; leveraging, not supplanting.

Funding Needed: *Total Grants: $11.5 million (match by district = $23 million of support).*

Statewide Projects & Regional Support

Experts in a specific CTE content area provide professional development and training, mentoring and support, and accountability; under the MDE and State CTE Specialists. Regional Supervisor for their CTE area reviews programs in person every three years; in off years their local industry advisory committee and administration reviews. Statewide Projects, including a marketing and communications plan, scale up capacity and integrated projects (e.g., teacher recruitment and preparation, work-based learning adoption, academic standards and CTE integration).

Funding Needed*: Statewide Projects: $1 million. Regional Specialists and Support: $2.5 million.*

RECOMMENDATIONS

Industry Leadership – Phase One

Statewide Career & Technical Education Advisory Committees

Committee of leading statewide and regional employers and government agencies (e.g., MnDOT, DNR, MPCA, MDA) to assist and plan the direction of each CTE content area, curriculum alignment and development, equipment alignment, possibly securing matching funding for statewide goals, and respond to industry needs; provide reports to Governor.

No/Low Cost. *Minimal fiscal impact. Integrated into statewide projects.*

Legislative Leadership – Phase Two

Statewide Career & Technical Education Legislative Councils

Governor appointed council of legislators, educators, government, industry, and community organizations for each content area (e.g., MN Agricultural Education Leadership Council, MAELC: lead by Agriculture committee chair and vice chair in senate and house, business, industry, and educational leadership, MDE, MDA, DNR leadership). Potential to secure matching industry funding dollars, additional federal grants, etc. for statewide goals.

Minnesota Career and Technical Education Incentive Grant (CTIG)

Equipment
- Safe Facilities
- Industry Aligned Equipment and Technology
- Materials

Industry
- Local Business and Industry Advisory Committees
- Program Plans and Goals

Students
- Work-Based Learning
- Leadership Development
- Access and Equity

Teachers
- Professional Development
- Student-Centered Methods

Curriculum
- Standards and Integrated Curriculum
- Pathways and Certification
- Career Guidance

Accountability
- Data and Outcomes
- Equity and Parity

Minnesota Career Fields, Clusters & Pathways

■ Marketing
> Merchandising
> Marketing Management
> Marketing Communications
> Marketing Research
> Professional Sales

■ Business, Management, and Administration
> Administrative Support
> Operations Management
> Business Information Management
> Human Resources Management
> General Management

■ Finance
> Banking Services
> Business Finance
> Securities and Investment
> Accounting
> Insurance

■ Hospitality and Tourism
> Lodging
> Recreation, Amusements and Attractions
> Restaurants and Food/Beverage Services
> Travel and Tourism

■ Agriculture, Food, and Natural Resources
> Animal Systems
> Agribusiness Systems
> Environmental Service Systems
> Food Products and Processing Systems
> Natural Resources Systems
> Plant Systems
> Power, Structural, and Technical Systems

■ Arts, Audio/Video Technology, and Communications
> Audio/Video Technology and Film
> Journalism and Broadcasting
> Performing Arts
> Printing Technology
> Communications Technology
> Visual Arts

■ Information Technology
> Information Support and Services
> Network Systems
> Programming and Software Development
> Web and Digital Communications

MINNESOTA STATE
Career and Technical Education

DEPARTMENT OF EDUCATION

■ Law, Public Safety, Corrections, and Security
> Correction Services
> Emergency and Fire Management Services
> Law Enforcement Services
> Legal Services
> Security and Protective Services

■ Human Services
> Consumer Services
> Counseling and Mental Health Services
> Early Childhood Development and Services
> Family and Community Services
> Personal Care Services

■ Government and Public Administration
> Revenue and Taxation
> Foreign Service
> Governance
> National Security
> Planning
> Public Management and Administration
> Regulation

■ Education and Training
> Administration and Administrative Support
> Professional Support Services
> Teaching/Training

■ Health Science
> Biotechnology Research and Development
> Diagnostic Services
> Support Services
> Health Informatics
> Therapeutic Services

■ Transportation, Distribution, and Logistics
> Facility and Mobile Equipment Maintenance
> Health, Safety, and Environmental Management
> Logistics Planning and Management Services
> Sales and Services
> Transportation Operations
> Transportation Systems/Infrastructure Planning, Management, and Regulation
> Warehousing and Distribution Center Operations

■ Architecture and Construction
> Construction
> Design/ Pre-construction
> Maintenance/ Operations

■ Manufacturing
> Production
> Manufacturing Production Process Development
> Maintenance, Installation, and Repair
> Quality Assurance
> Logistics and Inventory Control
> Health, Safety, and Environmental Assurance

■ Science, Technology, Engineering, and Mathematics
> Engineering and Technology
> Science and Mathematics

Contact Us
www.MinnState.edu/System/CTE

Legend:
■ = Career Cluster
> = Career Pathway
Explanation provided on reverse side.




Definitions

Career Pathway

A group of occupations within a career cluster that provides a plan for advancement through a career field. Career pathways combine rigorous and high quality education, training, and other services that align with the local and regional need, prepares an individual to be successful in any of a full range of secondary or postsecondary education options including work-based learning, apprenticeships, accelerates the educational experience and career advancement, that enables an individual to attain a secondary diploma (or recognized equivalent) and at least one industry-recognized or postsecondary credential, and provides career advancement. (*Workforce Innovation and Opportunity Act, 2015*)

Industry-Recognized Credential

A credential that is sought or accepted by employers within the industry or sector involved as a recognized, preferred, or required credential for recruitment, screening, hiring, retention or advancement purposes; and, where appropriate, is endorsed by a nationally recognized trade association or organization representing a significant part of the industry or sector. (*Association for Career and Technical Education, 2019*)

Program of Study

A coordinated, non-duplicative sequence of academic and technical content at the secondary and postsecondary level that incorporates challenging state academic standards, that includes both academic and technical knowledge and skills that are aligned with state-approved frameworks, including employability skills, that is aligned with local and regional needs, progresses in specificity (beginning with all aspects of an industry or career cluster) and leading to more occupation-specific instruction, has multiple entry and exit points that incorporates credentialing, and culminates in the attainment of a recognized postsecondary credential. (*Strengthening CTE for the 21st Century Act, 2018*)

Secondary Teacher Licensure

To operate an MDE-approved CTE program, which qualifies for access to state levy funds as well as federal Perkins resources, a program must be taught by an appropriately licensed CTE instructor. The secondary CTE program, license, and course list (Table C) displays a crosswalk between all CTE program codes and teacher licensure. (*Minnesota Department of Education, "Career Technical Education Licensing," 2019*)

Work-Based Learning

Sustained interactions with industry or community professionals in real workplace settings, to the extent practicable, or simulated environments at an educational institution that foster in depth, firsthand engagement with the tasks required in a given career field, that are aligned to curriculum and instruction. (*Strengthening Career and Technical Education for the 21st Century Act*, 2018)