## Primer Part II: Handout

### Learning Objectives

At the end of this webinar, you can:

* Identify potential practices that support outreach and participation for:
  + English Learners
  + Learners with Disabilities
  + Learners in Nontraditional CTE programs
  + Single Parents
* Recognize additional resources for addressing special population learners
* Discover potentially new connections

Keeping Equity in Mind: It is important to stay grounded in equity by ensuring that students get what they actually need rather than a one-size-fits-all approach.

### Perspectives and Voices

To illustrate, several themes from community listening sessions (by SciMathMN) emerged about STEM and CTE. These themes expand our understanding of worldviews and what our learners need and expect.

* Community of cultural experiences and worldview: Other perspectives, experiences, etc cannot be in a vacuum but part of all considerations in outreach, recruitment, retention and job placement
* STEM means many things to many people; for many the inclusion of arts is an important consideration of the creative processes and design
* It is important to help people explore and discover connections of these careers; to see where CTE and careers represent themselves and have meaning, purpose, and contribution to self and community

S-I-I-T-S: “Sit and Reflect!”

* Personal invitations to participate or notes of affirmation (promotes a sense of belonging and self-efficacy)
* Illicit student voice (and families) to identify and address needs, perspectives and interests, representation. Student voice is often missing from conversations to address needs, interests and challenges ( i.e. navigating systems, procedures, barriers) – (identity)
* Ensure that the right people are at the table for student success! (inclusion)
* Review and reform policies and practices/procedures for potential barriers to student participation (transformation)

### Universal Strategies

* Ensure that the right people are at the table for student success! (**inclusion**)
* Illicit student voice (and families) to identify and address needs, perspectives and interests (**identity**)
* Personal invitations to participate or notes of affirmation (**self-efficacy**)
* Utilize braided funding and collaboration to support participation in CTE programs and activities (**shared resources**)
* Review and reform policies and practices/procedures for barriers to student participation (**transformation**)

Highlight #1 Lake Superior College-- ***Student Reviews Driving Change in the Online Learning Experience***

This project gathers information about online course design and teaching directly from students, including students of color, international students, and students with disabilities. Trained in course review, students fill out a rubric noting ease of navigation, course tone, and usability. Student feedback then guides faculty to create more student-centered and responsive courses. The college creates training videos, develops targeted faculty development opportunities, and creates orientation materials for faculty and students based on the feedback.

Project Impact:

* Increase in navigation, accessibility and confidence with contacting instructors
* Overall satisfaction of online experience up by 30%
* Perceptions of online courses improved by 60% and ease of navigation perceived more positively
* Students valued the faculty’s willingness to participate

Using Data and Feedback

Data collection and sharing feedback can be done in a non-threatening way:

* contextualized,
* done in partnership and with transparency,
* frequent communication loops regarding who and how the data is used, and most importantly,
* creating a culture of impact and creating change

### Supporting English Learners

Some learners might need more help with academic reading and writing to succeed in higher education, while others are looking to improve speaking skills to enter the workforce as soon as possible.

S-E-E-K to Listen!

* Weave in cultural and multiple languages into school events and career activities, class projects (**sharing culture and language**)
* Ask what methods of communication work best for them (**exchange**)
* Provide training for creating more universal design formats (**knowledge-building**)
* Share community and district resources about EL services (**knowledge-building**)

**Take a Guess!** **True or False?**  
Remedial coursework sometimes keeps EL students from having time to take credit-bearing courses

Answer: **True.** Remedial coursework at the college level, sometimes keeps ELs from having time to take credit-bearing courses, including CTE and often takes a one-size-fits-all approach that is not relevant to individuals’ career goals and language needs. It impacts the time to complete a program, financial aid, etc. In secondary schools, EL students may automatically be placed into ESL courses not based on placement exams, which may not take all factors into account.

Understanding Language

Create connections with those who understand culturally diverse uses of language and social norms:

* Idioms
* Concepts
* Expressions or Gestures
* Communications and Relationships (including differing educational systems)

Identifying Barriers

* Examine the data about participation
* Gather feedback and perspectives from students, parents and staff and teachers that identify potential themes
* Identify systemic practices in place resulting in access/opportunity barriers for English learner students to participate in CTE
* Identify if there are any administrative or other barriers for CTE and EL teachers

Strategies

* Ask what methods of communication work best for them (**exchange**)
* Provide training for creating more universal design formats (**knowledge-building**)
* share community and district resources about EL services (**knowledge-building**)
* Weave in cultural and multiple languages into school events and career activities, class projects (**sharing culture and language**)

Highlight #2 MN State Mankato-- ***Experiential Tapestries Project***: ***Interweaving Hispanic Studies and Computer Sciences through Languages and Cultures***

The *Experiential Tapestries Project* is developing a curricular pathway that integrates a new Hispanic Studies minor with the Computer Information Technology major and engages students in experiential learning and internships with partners who work in Spanish-speaking contexts.

The goal is to create an integrated academic experience within the two disciplines, thereby interweaving the cultural and linguistic heritage of Hispanic/Latinx communities into the computing sector beginning in southern Minnesota and expanding to a national level.

#### Resources

* EnGen: online CTE training platform  
  <https://getengen.com/course-catalog>
* Making a Promise: English Learners  
  <https://careertech.org/resource/making-good-on-the-promise-improving-equity-and-access-to-quality-cte-programs-for-english-learners/>
* Tips for Supporting ELL Students in CTE (attached handouts)

### Supporting Learners with Disabilities

Additional highlights and information are included in last year’s Disability Inclusion in CTE series:  
Refer to the link for the archived 2022-23 webinars for May 11, June 1st and June 8, 2023: <https://www.minnstate.edu/system/cte/professionaldevelopment/monthly-webinars.html>

**Take a Guess!** *Which disability has the highest unemployment rate?*

1. Hearing Impairment
2. Cognitive or psychological disabilities
3. Visual impairment
4. Mobility
5. Intellectual/developmental disabilities

Answer: **E**

*Intellectual and Developmental Disabilities:*

*"IDD" is the term often used to describe situations in which intellectual disability and other disabilities are present.* ***Developmental disabilities****, a broader category, include autism, behavior disorders, brain injury, cerebral palsy, Down syndrome, fetal alcohol syndrome, intellectual disability, and spina bifida.* ***Intellectual*** *functioning or intelligence, which include the ability to learn, reason, problem solve, and other skills; and Adaptive behavior, which includes everyday social and life skills.*

CNBC story:   
<https://www.cnbc.com/2023/08/03/this-is-americas-most-ignored-workforce-with-80percent-unable-to-find-work.html>

What are inclusive systems?

Inclusive CTE spaces are when disabled students…

* Learn and work alongside non-disabled peers
* Are held to high expectations
* Have goals based on strengths, interests, and what they can learn
* Are accepted and valued as full participants and contributors

Universal Support Strategies:

* Training on accommodations but also recognizing bias
* Partnerships and networks help support staff and student success
  + TRIO programs
  + Campus or District Accessibility Services
* Training for faculty/teachers in universal design strategies

The 5 F’s – Disability Employment (from the Disability Inclusion in CTE series)

* Food - food preparation and service
* Filth - cleaning and janitorial service
* Flowers - simple landscaping or decoration
* Factories - light assembly work
* Friendly – greeters

These prescribed pathways lead to sub-minimum wages that lead to poverty, social isolation, and poor health outcomes, and severed community belonging. Many disability employment programs still track people into the 5 F’s.

I re-emphasize the message that these jobs are worth doing – they are very necessary and important jobs that deserve respect.

The difference is having the CHOICE of what they WANT to do based on their strengths and interests, be paid (1) a minimum wage, (2) not be segregated from the community.

However, there are more options than these. Consider where Food or Flowers can be about entrepreneurship or Friendly can be about nursing or other healthcare education careers that lead to a community health advocate, for example.

Examples from the Field:

* South Central College program: People with Autism trained in machine tool technology
* Central Lakes College Technical programs: Occupational Skills Program
  + Instructors training to expand flexibility and adapt to meet needs of all students (universal learning design)
* Riverland Occupational Skills Program
* Bethel University integrated skills and student life

#### Resources:

* MnACTE – Special Needs Personnel (SNP)  
  [https://mnactesnp.wordpress.com/](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fmnactesnp.wordpress.com%2F&data=05%7C02%7CEva.Scates-Winston%40minnstate.edu%7C55d2984d58794000d67e08dc4ac36014%7C5011c7c60ab446ab9ef4fae74a921a7f%7C0%7C0%7C638467453253751091%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C0%7C%7C%7C&sdata=3F5BhFmgm0qC%2FyuVXXJOEoCW%2FVURbbcxnOQgxYfI76A%3D&reserved=0)
* E1MN Network and Regional Contacts  
  <https://www.theimprovegroup.com/regions-e1mn-collaboration-meeting-series>
* National Technical Center for Transitions (NTACT)  
  <https://transitionta.org/>
* MN Higher Education Consortium, MIHEC  
  <https://mihec.ici.umn.edu/about>
* MN Association of Higher Education and Disabilities (AHEAD)  
  <https://www.ahead.org/about-ahead/about-overview/affiliates/minnesota>
* *Making a Promise: Supporting Students with Disabilities in CTE*  
  <https://careertech.org/resource/making-good-on-the-promise-improving-equity-and-access-to-quality-cte-programs-for-students-with-disabilities/>

### Supporting Students in Nontraditional Career Participation

**Take a Guess!** *Women represent what percent of workers in occupations requiring less than a bachelor’s degree, paying less than $30,000 per year?* **Answer: 83%!**

Example: STEM Day at the Capitol – How did the women enter a STEM career? Most said they became **aware of these careers through exposure and education** about areas they’d never heard of or had considered. Few had a family member or someone they knew who was in a STEM career who could be a **mentor, a coach or a guide**. The person they **connected with engaged them in learning more about programs and other opportunities available**. In each case, the women made more connections and were **inspired to develop outreach programs that expose other underrepresented youth** to learning and engaging with what STEM is all about. **Exposure** is also about giving opportunities to become familiar with tools of the trade, jargon, real-world context and connections and to discover what STEM, for example, means personally to that individual.

Awareness, Outreach and Recruitment

* Consider other approaches and audiences:
  + Military Services or Veterans, ROTC
  + Youth Development organizations
  + Target “undecided majors”
  + Target areas where programs are full or waitlists
* Provide information, activities, and training on non-discriminatory policies and practices
* Educate counselors and teachers on the impact of bias and stereotype threat to understand the potential barriers for students

Engagement Examples:

* Weave content about, for, and by women/girls, men/boys into every aspect of the curriculum. Current and historical figures – have them find example!
* Provide exercises that expose students to examples of inclusion within the course content.
* Provide exercises that teach counselors and teachers to recognize gender inequities in curriculum and materials.
* Utilize the CTE regional reports or other materials to create “startling statements” or other messaging for use in classrooms, advisory committees, teachers and other discussions
* Promotional material can send positive messages as well as videos or panel discussions that highlight students (or alumni). Utilizing students to share positive messages and their experiences. The challenge I share is HOW this information will be used strategically not just where distributed. (e.g. part of a lesson plan; career course in AVID, other?)

Highlight #3 North Country School Districts: ***Interweaving Indigenous Culture with CAD and CNC applications***

This was an equity capacity grant award where indigenous culture is interwoven with learning about STEM, particularly manufacturing. This project connects with the Indian Education programs, driven by their educators in nearly every North Country district, where language, native cuisine, beadwork, clothing construction, and other topics are part of the usual curriculum. Here, the partnership was to help students, especially girls learn more about how manufacturing and the use of CAD and CNC can be used in their customs to design and create jewelry and other meaningful items.

Working with counselors (these are tribal members) from Indian Ed, District 31, the project will refine the curriculum and introduce and provide skill development in areas of CTE technologies. Elements of computer design software (CAD), digital transfer to a computer numerically controlled (CNC) machine, and industry-level application of the pieces created will be foundational in traditional ribbon skirt construction and jewelry.

Highlight #4: Saint Cloud Boys & Girls Clubs

This was a partnership with the school district and workforce center to provide career exploration through field trips and sessions to learn about careers

Impact:

* Connecting with the community and building new relationships
* Great access for youth who may not participate or consider those careers
* Increased exposure and interest in exploring career options

Highlight #5: Mount Wachusett Community College (MWCC)

MWCC’s Recruitment Plan identified the noncredit BioTech Manufacturing course as an important target audience for recruiting female students and it turned out to have the highest conversion rate.

This intensive 2-week course included 40 hours of content and was provided on campus and remotely or at local employers' facilities. It was designed as a feeder and bridge to the credit course, with fundamentals that they could use at their current or future job, and helped students build confidence and piqued their interest to do even more.”

Reference: IWTTS. https://womentech.iwitts.org/casestudies

Highlight #6: Dakota County Technical College:--*Student to Student Shadows*

High school students shadowed college students, experienced hands-on activities and tours, and took a mock college placement test to determine their knowledge and preparedness. They also talked with employers who visited the college. The key impact was the changed perception students had about a CTE program, in this case, architectural drafting, [their] learned about the flexibility that the employer offered employees along with other views of the work environment, including speaking with role models that are more representative of themselves.

#### Resources

* Her Own Words  
  [Her Own Words**®**Women in Nontraditional Careers materials](https://nam02.safelinks.protection.outlook.com/?url=https%3A%2F%2Fnontraditionalcareers.us4.list-manage.com%2Ftrack%2Fclick%3Fu%3D98668a5682f843e19d07bf79b%26id%3Ddd32c6e0aa%26e%3D90332b8b29&data=05%7C01%7Ceva.scates-winston%40minnstate.edu%7C0ef8d62596214653ec7a08db411102ce%7C5011c7c60ab446ab9ef4fae74a921a7f%7C0%7C0%7C638175313544750628%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=SakXHEdSXHcCI4cnwTAtJiIKSOHM9y20O7vhI8dON%2FE%3D&reserved=0)
* Women's Economic Security Act (WESA) grants  
  <https://mn.gov/deed/programs-services/adult-career-pathways/grants/wesa/>
* Women in Apprenticeships and Nontraditional Occupations (WANTO) Grants  
  <https://www.dol.gov/agencies/wb/grants/wanto>
* Institute for Women in Trades, Technology and Science (IWITTS) Case Studies <https://www.iwitts.org/>
* National Alliance for Partnerships in Equity (NAPE)  
  <https://napequity.org/about-us/>

Supporting Single Parents (students who are parenting)

Outreach and Support Examples

* Campus Outreach Events
  + Providing childcare at events
  + Family-centered approach
  + Community Services events
* Student Parent Centers
  + Minneapolis College
  + Riverland College
  + Winona State University
  + Metropolitan State University
  + Pine Technical College

More Supports

Financial:

* North Star Promise Scholarship (OHE)  
  <https://www.ohe.state.mn.us/sPages/northstarpromise.cfm>
* Student Parent Support Initiative (MDH/OHE)\*\*  
  <https://www.ohe.state.mn.us/mPg.cfm?pageID=2601>

*\*Student Parent Support Initiative (MDH)  
In 2023, the Minnesota Legislature allocated $3 million over the next biennium to support the SPSI as a competitive grant program administered in partnership with the Minnesota Office of Higher Education (OHE). History: The pilot research program ran from 2014-17.*

Employment & Training Support:

* <https://www.dhs.state.mn.us/main/groups/agencywide/documents/defaultcolumns/dhs16_192826.pdf>
* <https://www.schoolhouseconnection.org/wp-content/uploads/2019/01/Strategies-for-Parenting-Students.pdf>

Wraparound Services

* Connections to community referrals and social services:
  + SNAP/Thrive program
  + EBT
  + Emergency Assistance
  + Assistance for childcare or housing
  + MFIP education and training options
  + Title I funding (ESSA)

Highlight #7: Mesabi Range: *Creating a culture of community and family*

* Provided holiday activities and other family-friendly events
* Disseminated information about CTE programs and student services with staff available to answer questions
* Provided quick tours of program areas
* Supervised activities for the children

### Action Steps – *Equity in Action means*…

* Providing resources to thrive – academically, socially and emotionally
* Recognize systemic inequities that may discriminate
* Reform/enact policies and practices that mitigate the identified inequities
* Recognize and acknowledge how personal perceptions impact bias and educational equity