

# Montana's Future at Work CTE Summit 2024



# Day 1 Agenda

**9:00 Welcome and Introductions**

*Dr. Angela McLean, Director of American Indian/Minority Achievement and K-12 Partnerships*  
*Stephanie Gray, Dean, Gallatin College*

**9:45 Opening Remarks - Regent Jeff Southworth, Chair MUS Two Year Committee**

**10:15 Break**

**10:30 State of the State – Chase Stahl, CTE & Special Projects Data Specialist**

**11:15 Industry Panel – Connecting Industry to Higher Education**

**12:15 Regional Lunch**

**1:00 Student Panel – Engaging Students in a Tourism-Based Economy Lone Peak High School**

**2:15 Keynote Speaker – Mike Halligan, Senior Advisor at The Dennis and Phylis Washington Foundation**

**2:30 Break**

**2:45 Montana’s Future at Work Spotlight – UM Bitterroot and Missoula College**

**3:00 Education Design Lab: Community College Growth Engine - Dr. Minzi Thomas, Senior Designer**

**4:00 Tour - Big Sky Chamber of Commerce**

**5:30 Reception at Rainbow Ranch, sponsored by Education Design Lab.**

**6:30 Dinner on your own**



# Welcome

*Dr. Angela McLean*

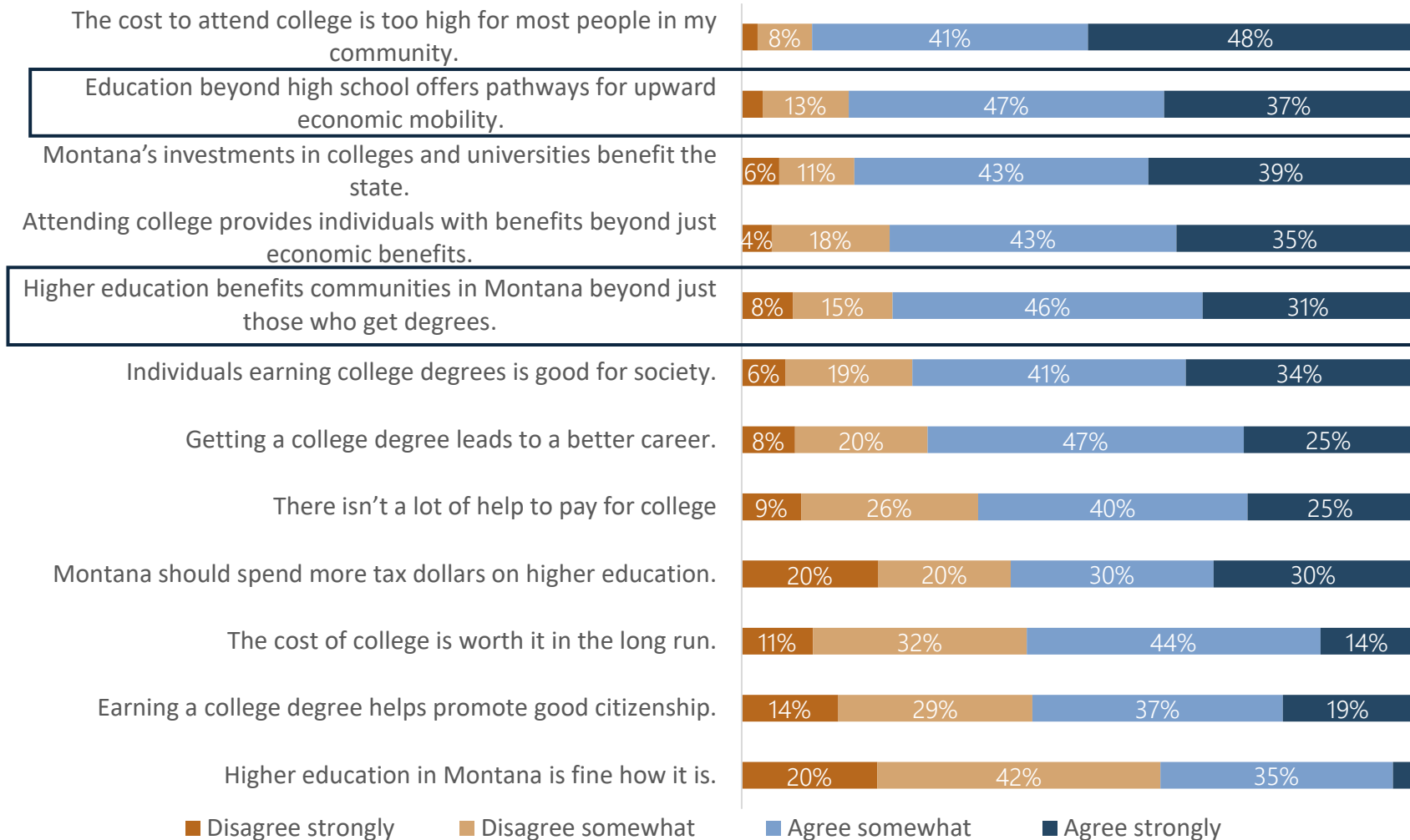
*Director of American Indian/Minority  
Achievement and K-12 Partnerships, OCHE*

*Stephanie Gray*

*Dean, Gallatin College*

# Earning a college degree provides a path to a better job and greater economic opportunity.

## Resident Agreement With Higher Education Statements



Survey findings suggest that Montanans' shared commitment to **access** is grounded in the belief that a college degree is **good for individuals** and **good for the state**.

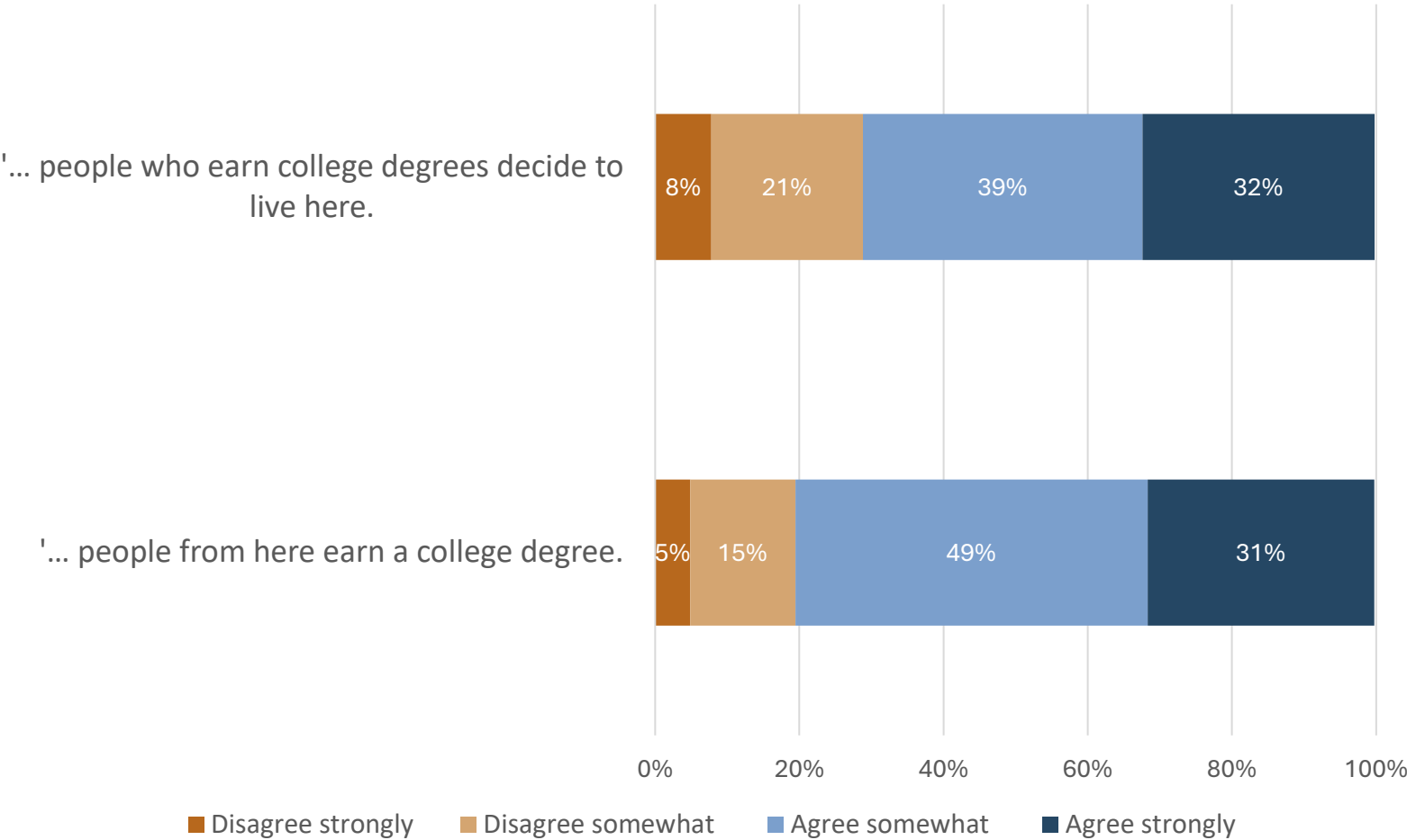
**84%** of Montanans believe education beyond high school offers pathways for upward economic mobility.

**77%** of Montanans believe that higher education benefits communities beyond just those who get degrees.



# College degrees contribute positively to communities.

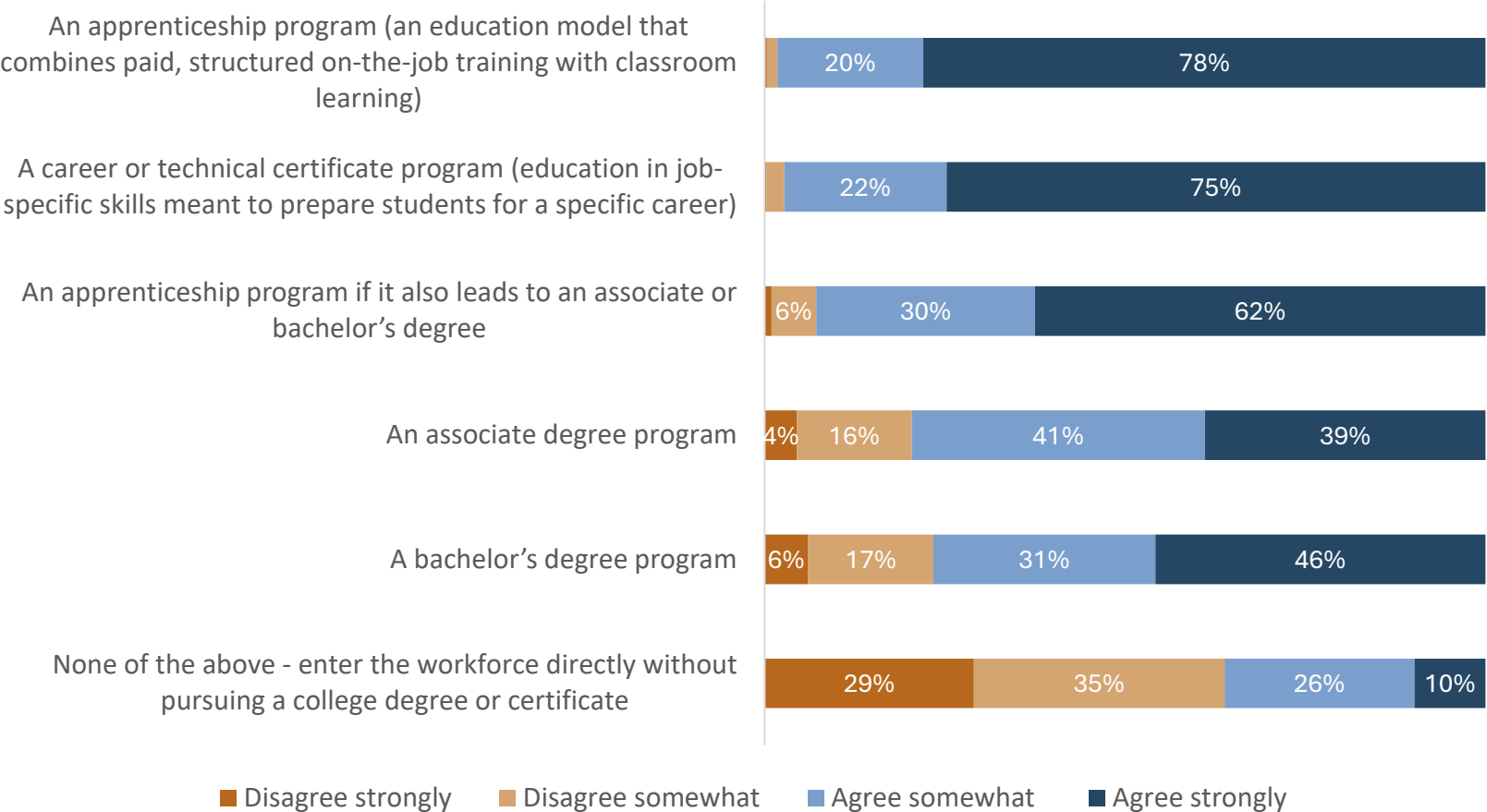
"My Community Benefits from..."



Most of the state's residents said that **communities benefit** when locals earn college degrees and when degree holders move to their community.

# Montanans value postsecondary opportunities that include experiential learning.

Residents Would Feel Comfortable Sending a Friend or Relative to...

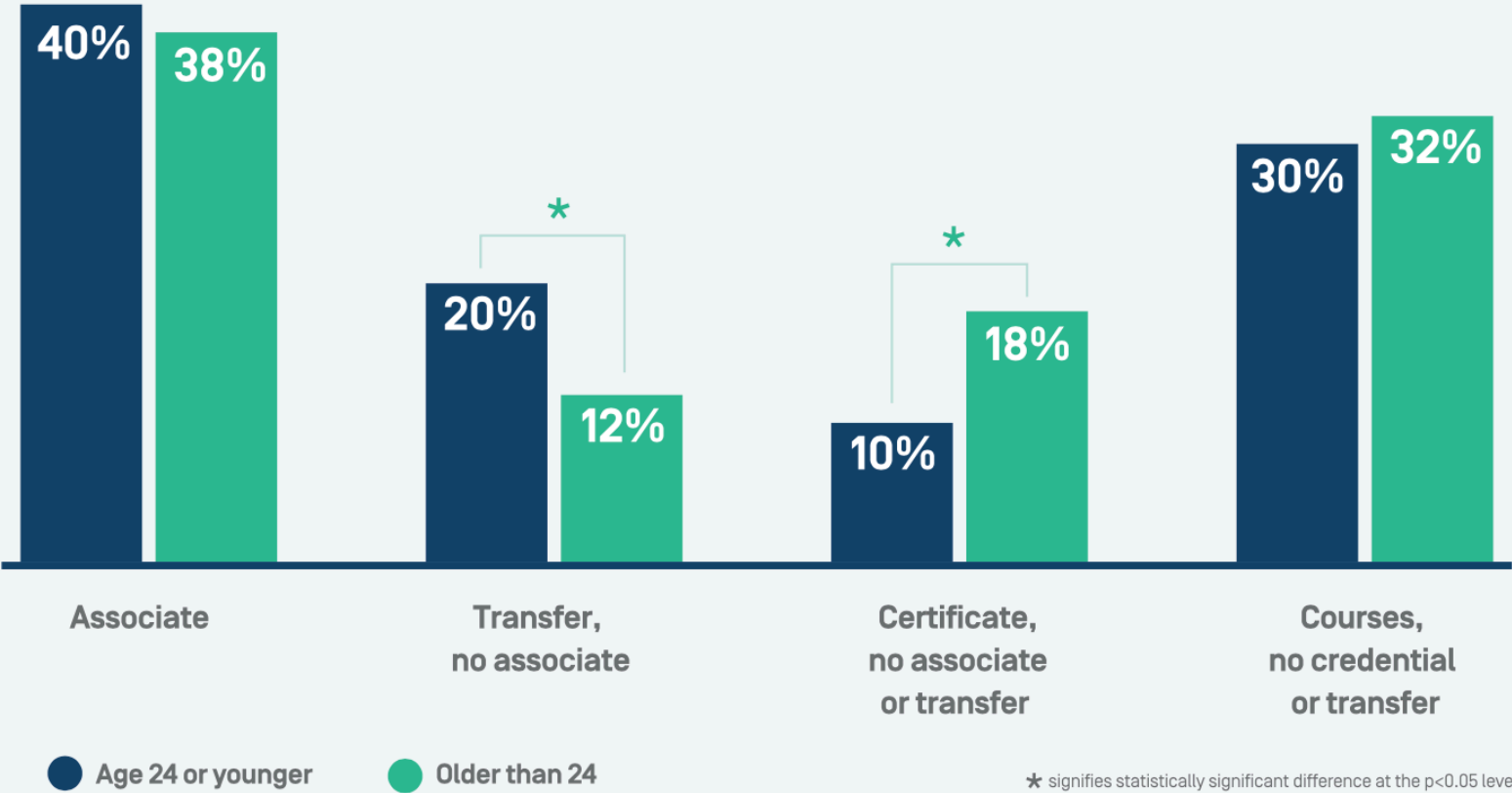


Montanans particularly value **education programs with work-based component.**

Most Montanans also **disagree** that they would recommend **entering the workforce *without* any sort of college degree or certificate.**

# When surveyed, older students indicate a growing preference for shorter training pathways

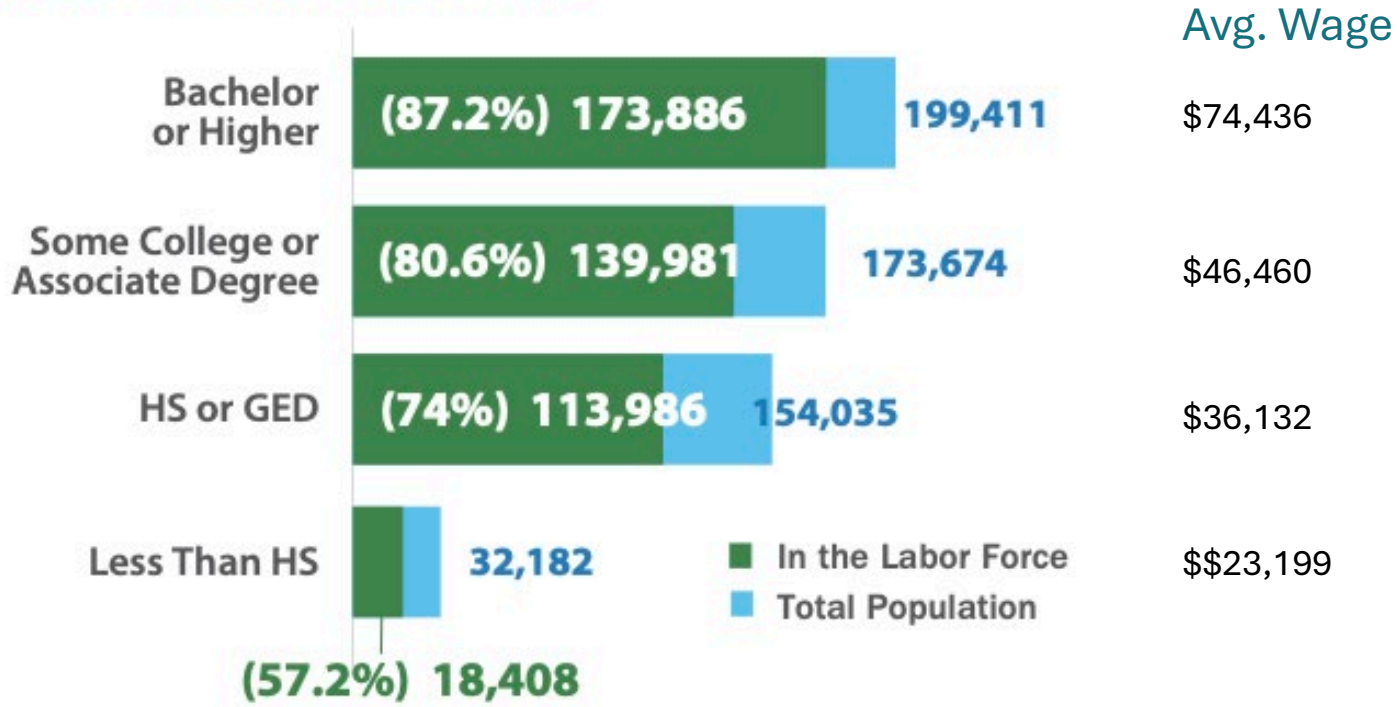
Figure 6 — Recent Community College Students' Attainment Goals by Age of Attendance



Large shares of recent community college students surveyed by Strada indicated a preference for short-term training pathways.

# Montana lags in enrolling its more than 200,000 working-age adults without a credential.

## Population and Labor Force Participation by Educational Attainment



1.8% of working age Montanans without a degree report being enrolled in college. Nationally, 3.3% are enrolled.

Source: American Community Survey 2022 1-Year Estimates, Montana. Age 25-64. Labor force participation rates are in parentheses.

# Speed Dating!!!

Get to know each other!

**Share your name, title, place of employment and describe your first job!**

# Opening Remarks

*Regent Jeff Southworth, Chair, MUS Two Year  
Committee*

# 15 Minute Break



# State of the State

## Dual Enrollment and CTE Data

*Chase Stahl, CTE & Special Projects Data Specialist,  
OCHE*

# State of the State



**Office of the Commissioner of Higher Education**

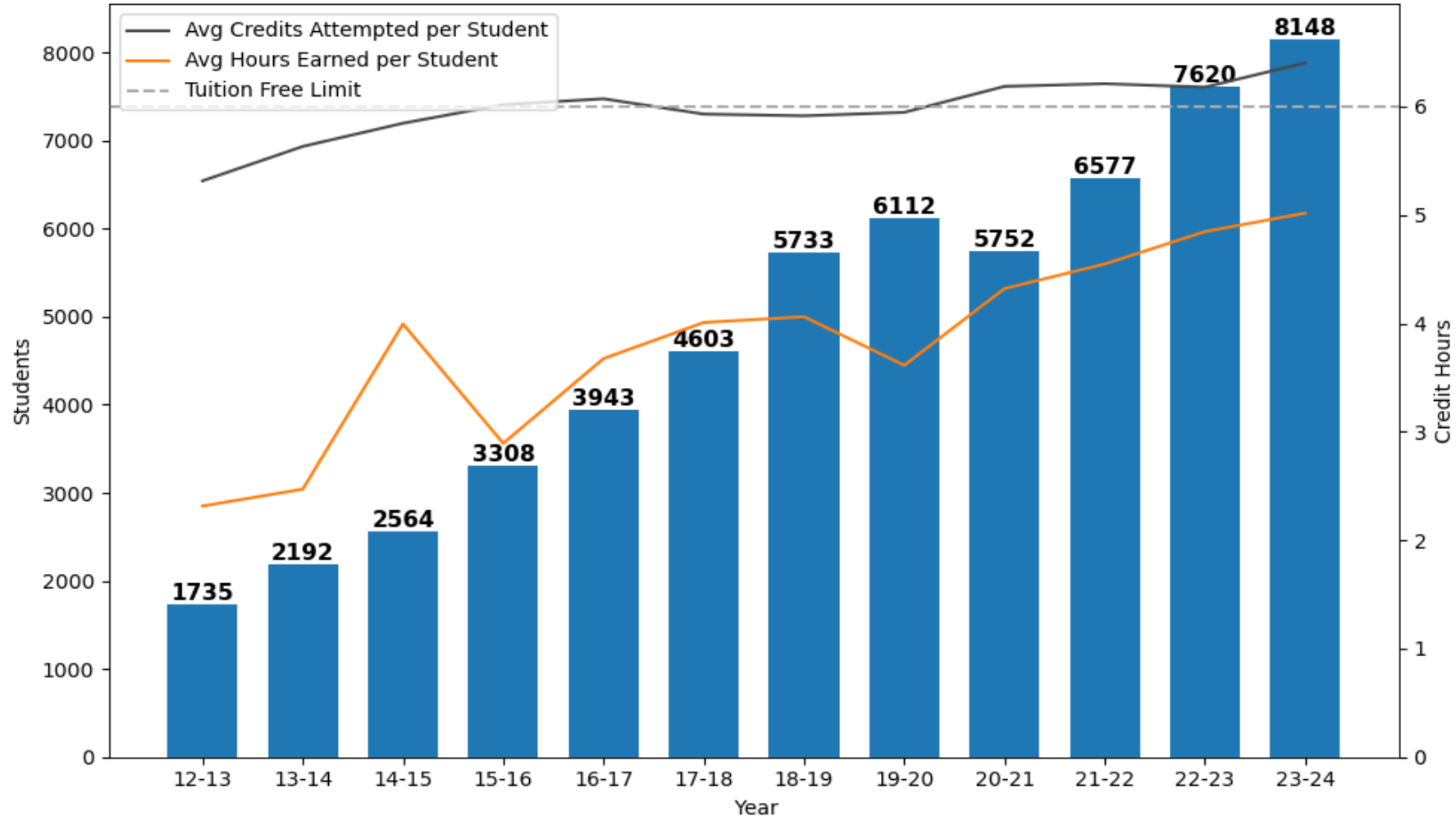
Chase Stahl, Data Specialist

# Overview

- **Career and Technical Education (CTE) in Dual Enrollment**
- **CTE Programs (Perkins V)**
  - **Consolidated Annual Report (CAR)**
- **Connecting Higher Education to Industry with Data**
- **Dashboards**
  - **MUS Student Success**
  - **Post-Secondary Employment Outcomes (PSEO)**
- **Key Takeaways & Next Steps**
- **Resources**



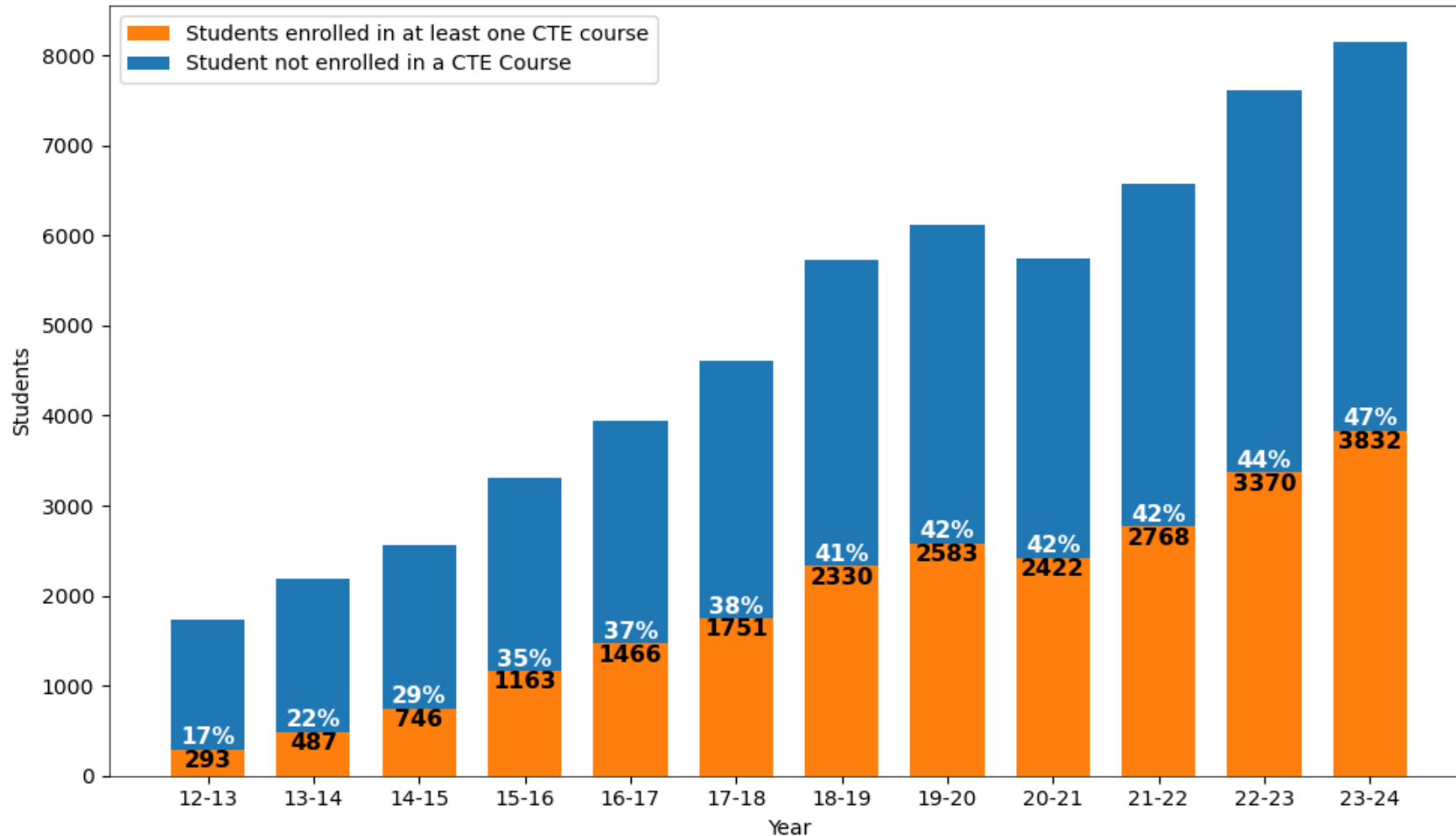
# Dual Enrollment Count by Year



**15.5% enrollment growth per year**  
**6.9% enrollment growth from 2022-23**

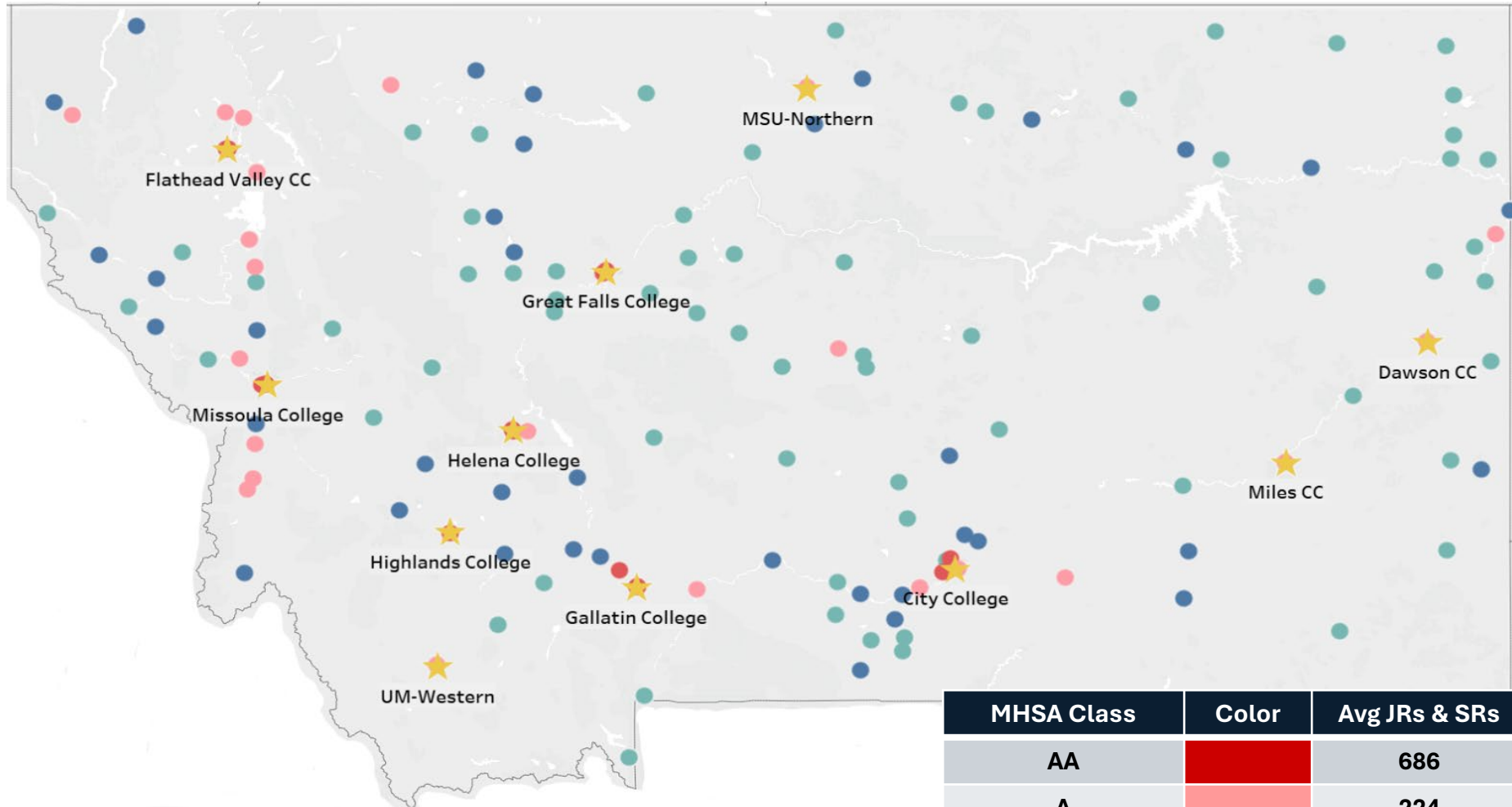
Unduplicated enrollment count

# CTE Dual Enrollment Count by Year



**15.3% CTE growth per year since 2016-17**  
**13.7% increase from 2022-23**

# 2023-24 Public HS and MHSA Classes

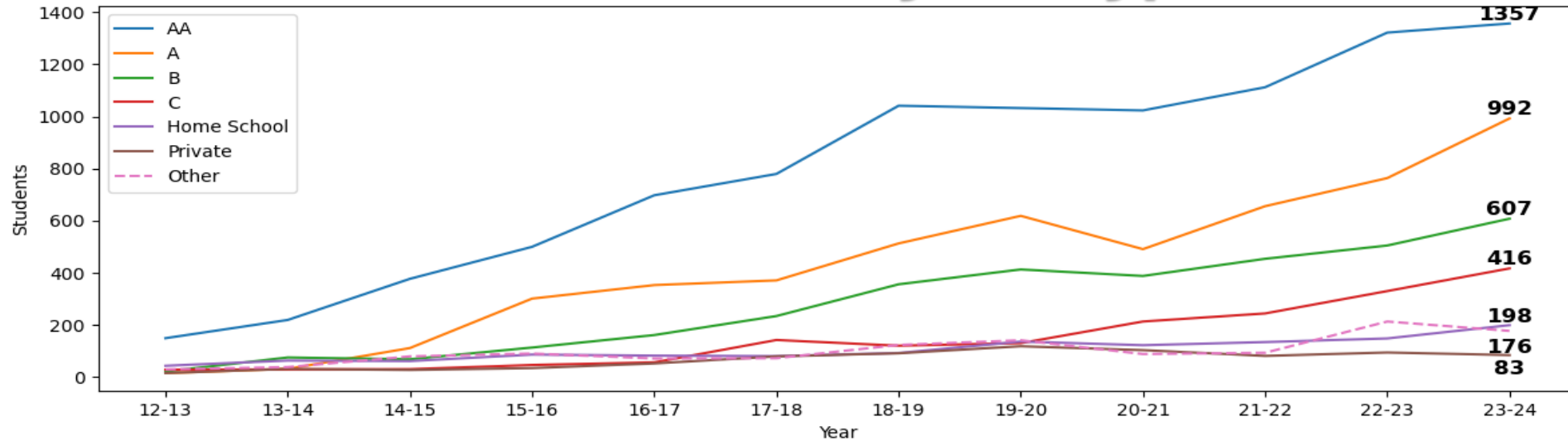


MHSA Class	Color	Avg JRs & SRs
AA	Red	686
A	Pink	224
B	Blue	80
C	Teal	21

**83% of Public HS participated in CTE DE Programs in 23-24**

Only public schools are classified by MHSA class  
All private schools participating in the MHSA are classified as private schools

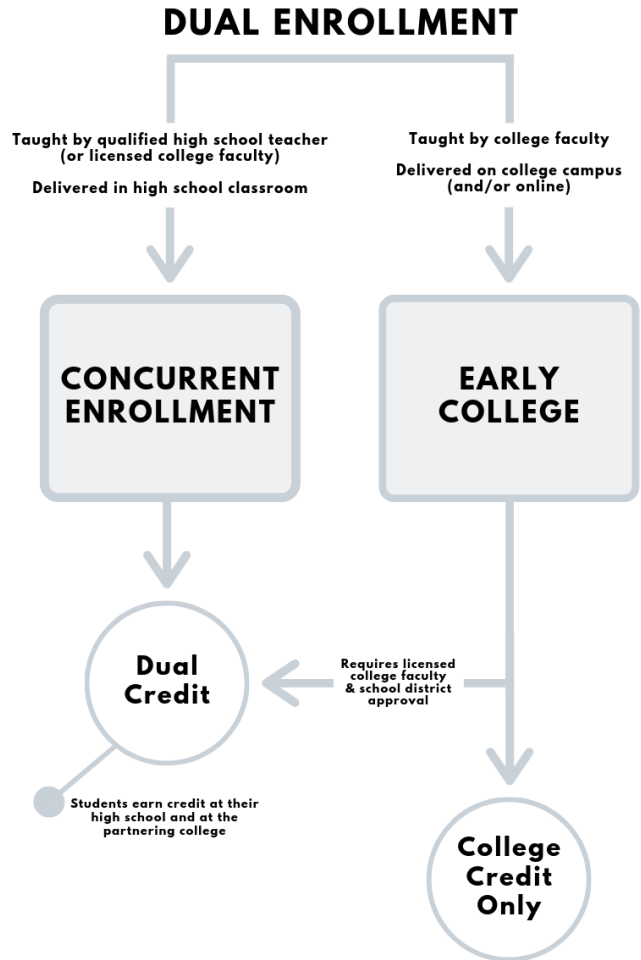
# CTE DE Count by HS Type



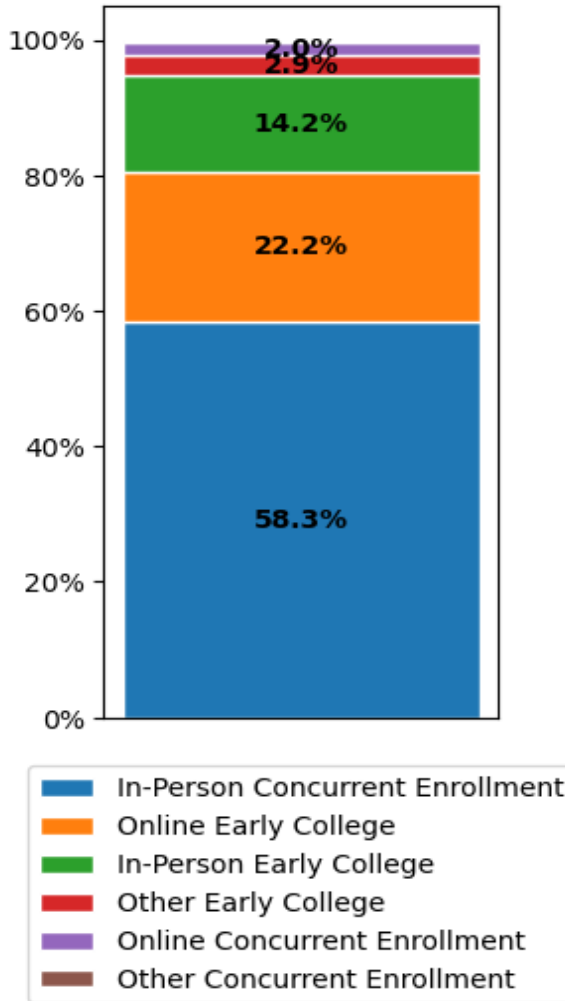
HS Type	% Change from 2022-23	2022-23 Pass Rates
AA	2.6%	73.1%
A	30.0%	58.3%
B	20.4%	68.1%
C	26.4%	83.2%
Home School	34.7%	57.0%
Private	-16.9%	84.3%
Other	-10.7%	67.4%



# CTE DE Modality & Credit Type

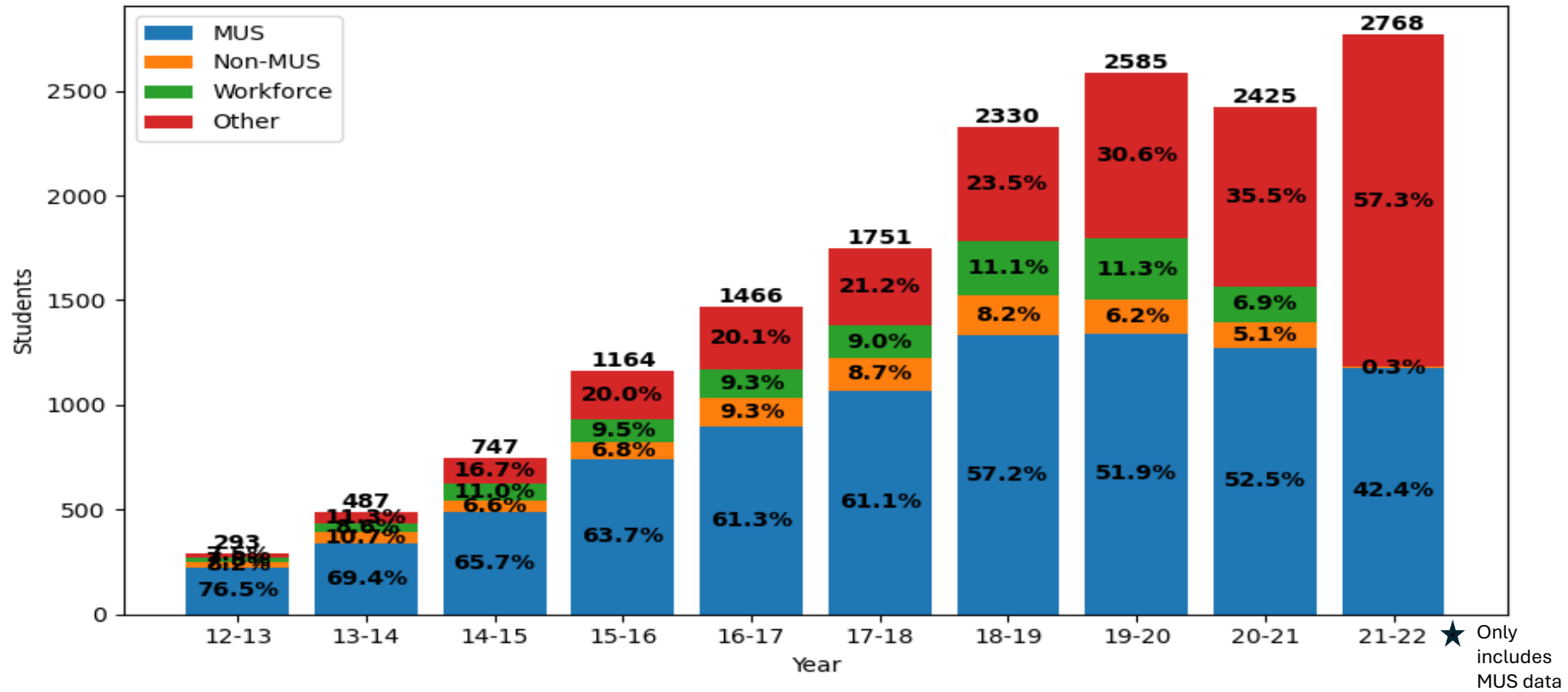


2023-24 Modality and Credit Type



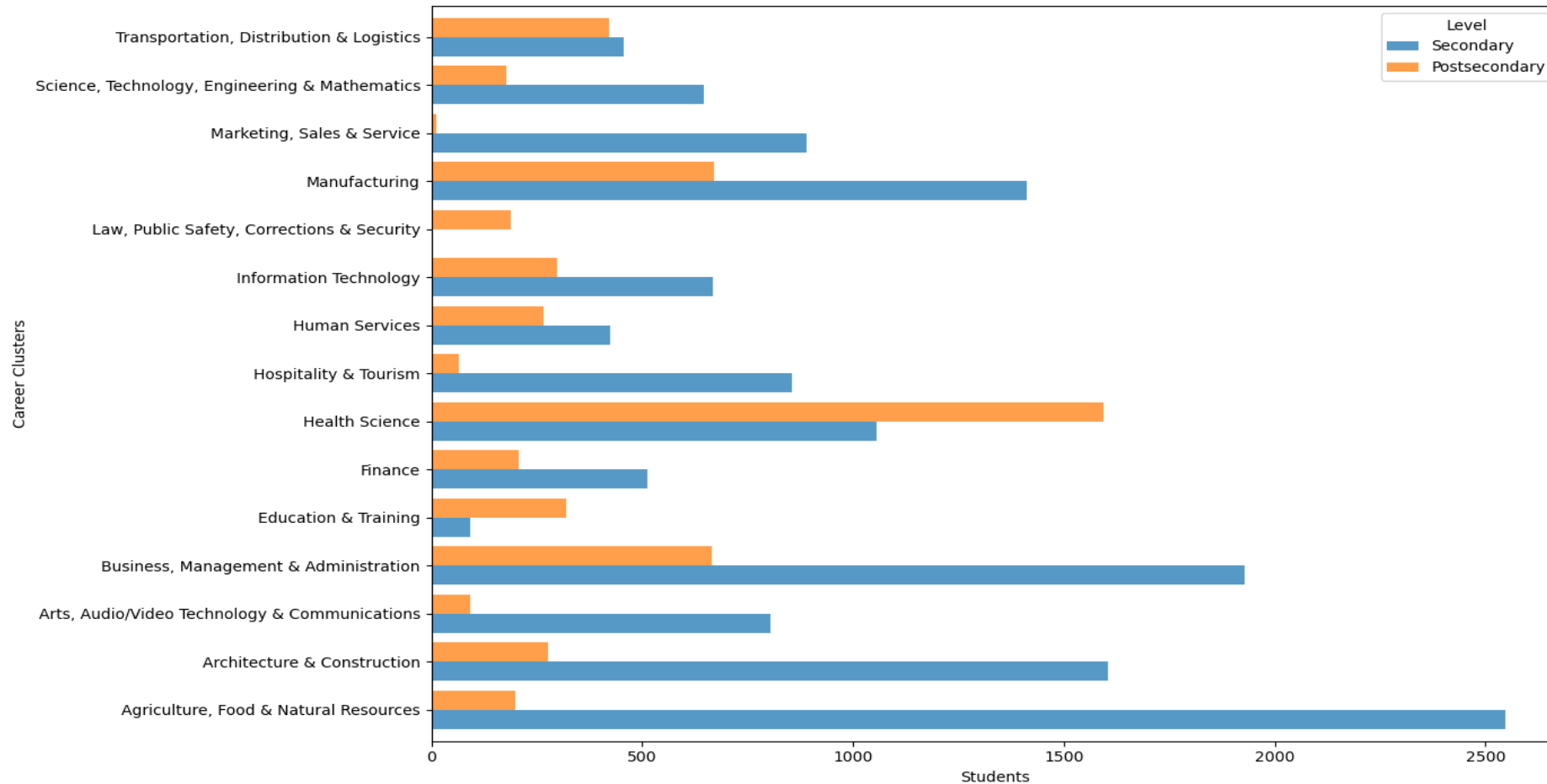
2023-24 Top CTE Courses
Intro to Public Speaking
Welding Theory I Practical
Medical Terminology
Intro to Business
Intro to Interpersonal Skills
Career Dev. & Interpersonal Skills
Welding Theory I
Welding Qualification Test Prep
Basic MS Office
Intro to Biotechnology
Intro to Computers

# Post-Dual Enrollment & Matriculation



Questions	Color
Did the student ever enroll in the MUS?	MUS
If not, did the student ever enroll outside of the MUS?	Non-MUS
If not, was the student employed in Montana 2 years after participation in DE?	Workforce
If none of the above, student categorized as other	Other

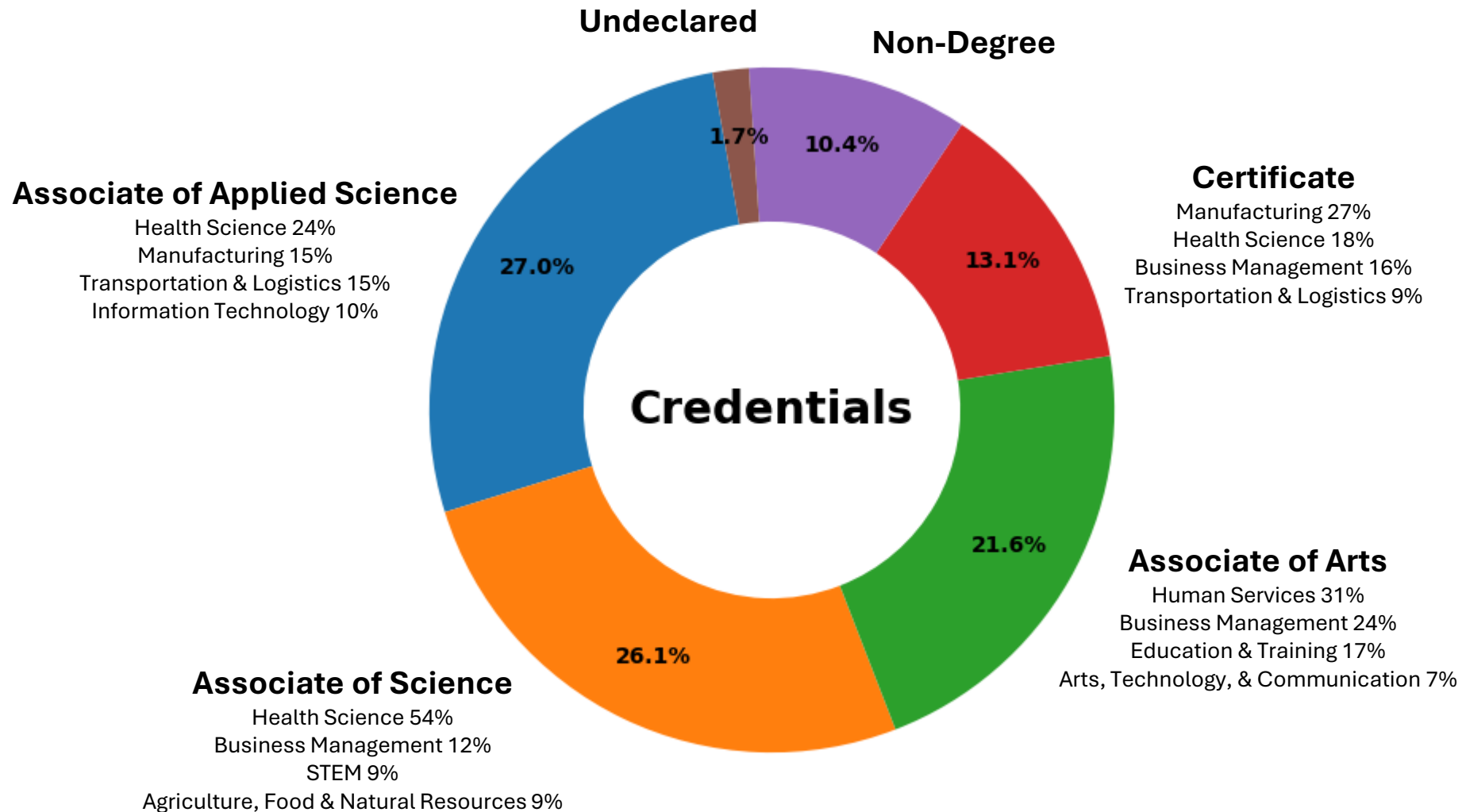
# Secondary and Postsecondary Concentrators by Clusters



**Postsecondary Concentrator-** any student that has earned at least 12 credits within a CTE Program

**Secondary Concentrator-** any student that has completed two or more CTE courses in a single program

# Postsecondary Concentrator Credentials by Clusters



# Connecting Higher Ed to Industry with Data

## CTE Graduates (CIP Codes)

Clusters	Graduates
Health Sciences	535
Manufacturing	293
Business Management & Administration	159
Transportation, Distribution & Logistics	140
Information Technology	78
Finance	77
Architecture & Construction	71

2022-23 CAR CTE Concentrator Graduates by Cluster



Are these graduates working in Montana? Are they continuing their education (in MUS)?

**Top Jobs – jobs with the most openings that require a certification or degree (including apprenticeships) and pay twice the federal poverty level for an individual (\$25,520)**

### Montana's Top Jobs (SOC Codes)

- Bookkeeping/Accounting
  - Registered Nurses
  - Truck Drivers
- General & Operations Management
  - Nursing Assistants
- Construction & Carpentry
- Computer/User Support
- Maintenance and Repair

Department of Labor & Industry

## Tools

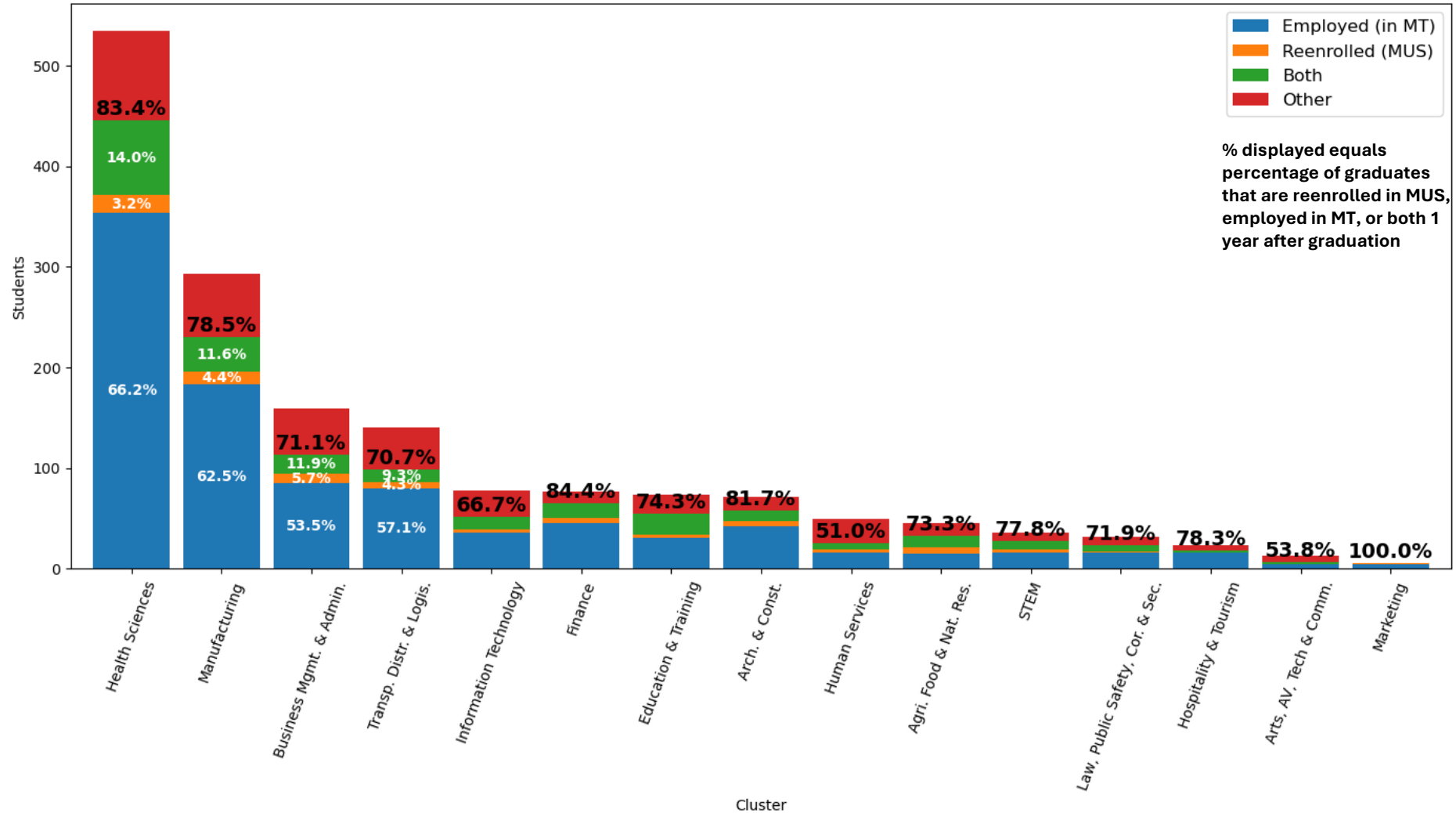
### MUS Student Success Dashboard: CIP-NAIC Codes

Tracks earnings and employment flows within the state

### PSEO Dashboard: CIP-SOC Codes

Tracks career earnings and employment flows nationwide

# 2022-23 1P1: Post-Program Placement



**77% of CTE postsecondary concentrators that graduated and were employed or reenrolled in 2022-23**

# MUS Student Success Dashboard

## Student Success In Workforce

This dashboard tracks MUS students after school and into the workforce. Data included only includes wage data from Montana. Any out of state wages earned will not be included. To allow time for a student to acquire a job after school the 1 year wage data starts a year after the student graduates or their last enrollment. Only students that are employed for the full year are included in salary data. Salary amounts may be displayed in constant dollars (2023 dollars) or nominal dollars (actual dollars earned that year). Selecting "Null" for Highest Degree Level represents students that attended the MUS but did not receive any credential. Data included is since the 2001 school year. Any data with counts of less than 5 students is masked.

Type of Dollars  
Constant

Time After Graduation  
1 Year

Highest Degree Attained  
(Multiple values)

Year of Degree Earned  
Or Last Enrollment  
for Non-Completers  
(All)

First Campus Name  
Campus student started out at  
(All)

Graduating Campus  
Campus of Highest Degree Earned  
(All)

Discipline  
(All)

Major Area  
(All)

Gender  
(All)

Pell Status  
(All)

Race/Ethnicity  
(All)

Student Resident Status  
(All)

Grouping  
 Associate Degree  
 Certificate

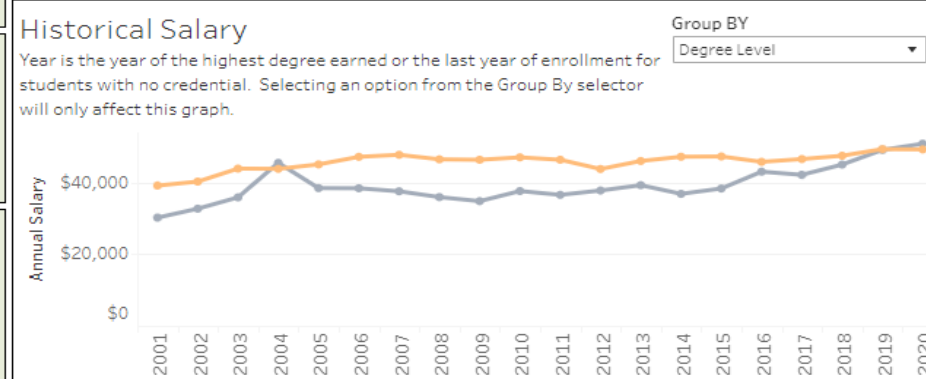
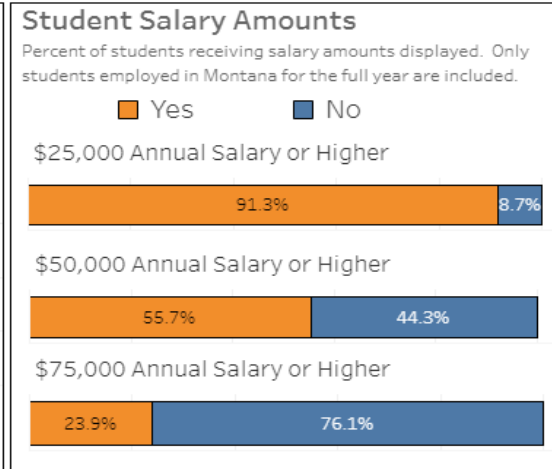
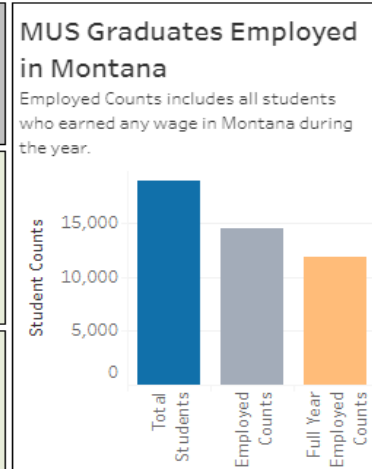
**Total Students**  
18,918

**Average Salary 1 Year**  
\$45,584

**Average Salary 3 Years**  
\$53,407

**Average Salary 5 Years**  
\$57,019

**Average Salary 10 Years**  
\$63,663



**Filtered by Associate's and Certificate Graduates**

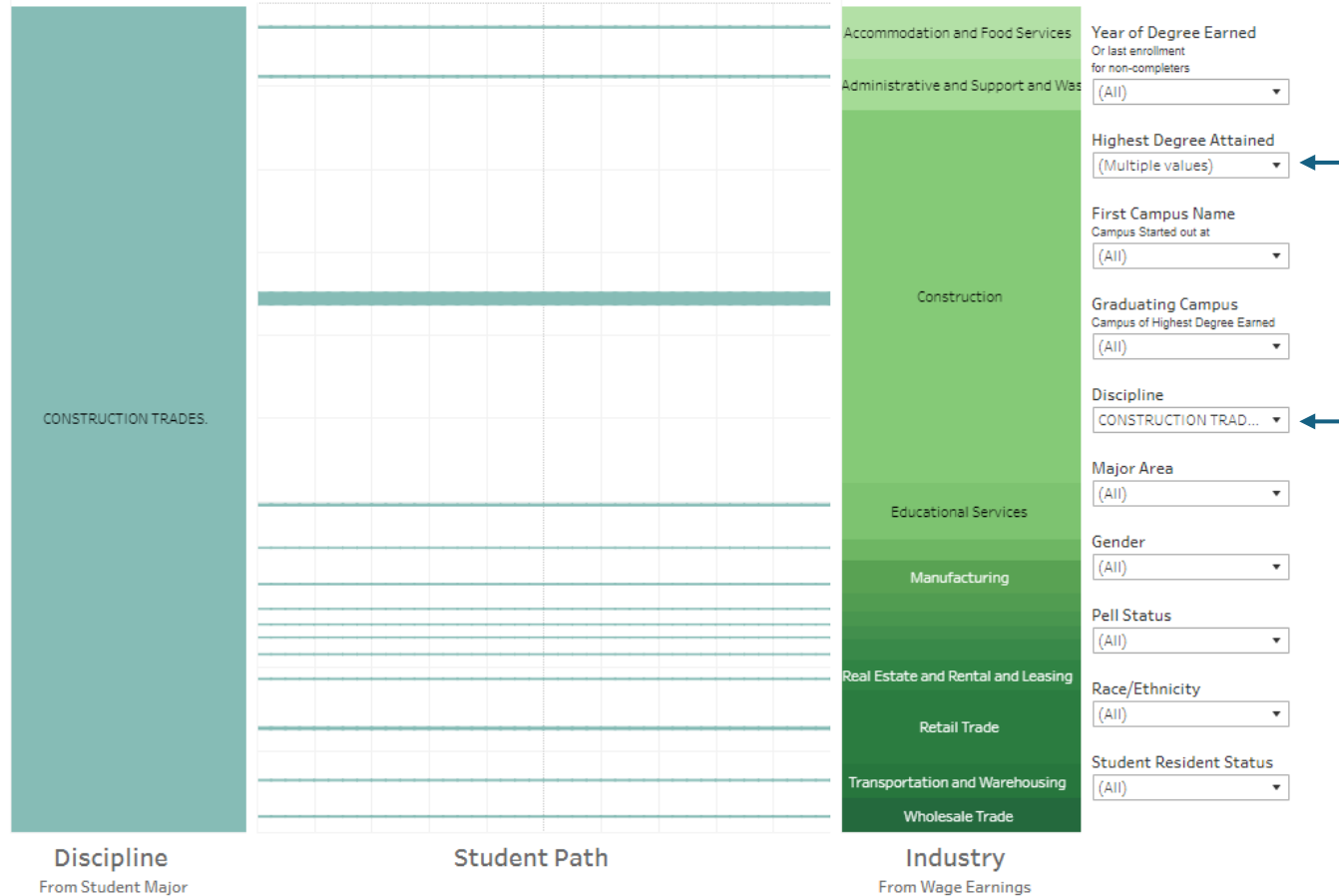


# MUS Student Success Dashboard

Student Success School | Student Success Workforce | **MUS Students to Industry**

## MUS Students from Discipline Area to Industry


Students finding employment in MT in at least one quarter of the following year. Size of line represents the size of the cohort in relation to the total. Students are assigned the industry they have the most earning for the time selected. Hover over the student path lines to see statistics about those students. **It is highly recommended to filter the specific population you are interested in rather than look at all students due to the number of students/lines involved.** Any lines with counts below 5 have been masked.



**Filtered by Construction Trades, Associate's and Certificate Graduates**

# PSEO Dashboard

Census Bureau researchers use the submitted data to provide earnings and employment outcomes for college and university graduates by degree level, degree major, institution and state.


**Post-Secondary Employment Outcomes Explorer**

[What is PSEO?](#)
[Download Data](#)
[Email Us](#)
[Tutorial](#)
[Help](#)

**Data Type**

Earnings  Flows

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**State**

Montana ▾

---

**Institution**

All Partner Institutions in Montana ▾

---

**Degree Level**

Associates ▾

---

**Graduation Cohort**

All Cohorts ▾

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**Compare Earnings by**

Time  Percent

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**Earnings-percentile Filter**

25  50  75

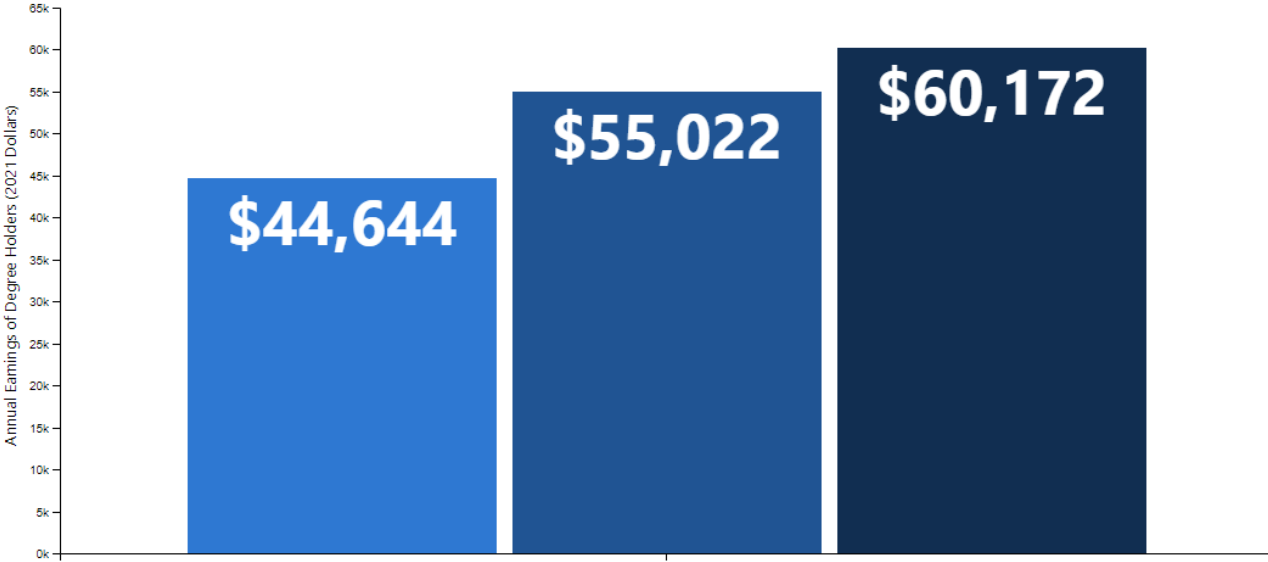
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**Legend**

1 Years Postgrad ■

5 Years Postgrad ■

10 Years Postgrad ■



Postgraduate Level	Annual Earnings (2021 Dollars)
1 Years Postgrad	\$44,644
5 Years Postgrad	\$55,022
10 Years Postgrad	\$60,172

**Program Specificity**

General  Detailed

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**Sort Program List by**

Size  Name

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All Instructional Programs	Health Professions and Related Programs	Liberal Arts and Sciences, General Studies ...	Business, Management, Marketing, and Re...
Mechanic and Repair Technologies/Technic...	Engineering/Engineering-Related Technolo...	Computer and Information Sciences and S...	Precision Production
Education	Homeland Security, Law Enforcement, Fire...	Construction Trades	Agricultural/Animal/Plant/Veterinary Scienc...
Culinary, Entertainment, and Personal Servi...	Visual and Performing Arts	Legal Professions and Studies	Multi/Interdisciplinary Studies
Transportation and Materials Moving			

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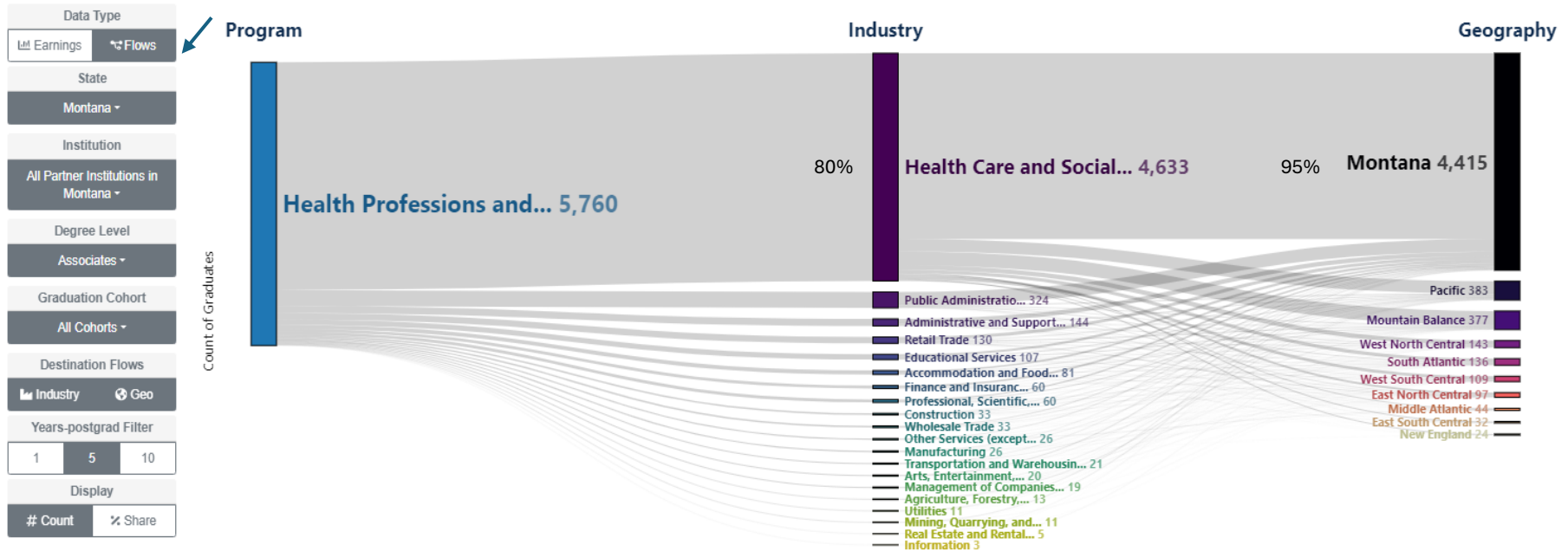
**Filtered by Health Professions and Associate's Graduates**

# PSEO Dashboard



## Post-Secondary Employment Outcomes Explorer

[What is PSEO?](#)
[Download Data](#)
[Email Us](#)
[Tutorial](#)
[Help](#)



Program Specificity				
All Other Instructional Programs	<b>Health Professions and Related Programs</b>	Liberal Arts and Sciences, General Studies ...	Business, Management, Marketing, and Rel...	Mechanic and Repair Technologies/Technic...
Engineering/Engineering-Related Technolo...	Computer and Information Sciences and Su...	Precision Production	Homeland Security, Law Enforcement, Firef...	Education
Construction Trades	Agricultural/Animal/Plant/Veterinary Scienc...	Visual and Performing Arts	Culinary, Entertainment, and Personal Servi...	Legal Professions and Studies
Multi/Interdisciplinary Studies	Transportation and Materials Moving	Natural Resources and Conservation		

Some cells are not available due to suppression.

**Filtered by Health Professions; Associate's Graduates**

# Key Takeaways

- **Continuous DE growth and CTE DE growth**
- **In-Person Concurrent DE is the primary modality and credit type for CTE DE**
- **Health Sciences and Manufacturing have largest Postsecondary CTE Concentrator enrollment**
  - **Two of the top three highest job placement and reenrollment rates**
- **77% job placement and reenrollment rates for all clusters**
- **MUS Student Success & PSEO Dashboards track post-secondary employment and salary outcomes**

## Next Steps

- **DE Report & Dashboard**
  - **Where are students coming from?**
  - **Where are students going after DE?**
  - **What are DE pass rates?**
  - **How do they perform in the MUS compared to MT HS graduates?**
- **Transfer Dashboard**
  - **National Student Clearinghouse (NSC)**
  - **Incorporating NSC data into Student Success dashboard**
- **Exploring State Wage and Interchange System (SWIS) data (US Dept. of Labor)**
- **Program-level data for Perkins V programs in CAR Campus Reports**

# Resources

- **MUS Dashboard:**  
<https://www.mus.edu/data/WorkforceTool/index.html>
- **PSEO Dashboard:**  
<https://lehd.ces.census.gov/applications/pseo/?state=30&type=earnings&compare=postgrad&specificity=2&institution=30&degreelevel=03&gradcohort=0000-5&filter=50&program=51,12>
- **Dept of Labor & Industry Job Projections:** <https://lmi.mt.gov/projections>
- **Perkins CAR Reports**
  - **State-** [https://www.mus.edu/Perkins/documents/report-cards/2022-2023/State\\_Report\\_2023.pdf](https://www.mus.edu/Perkins/documents/report-cards/2022-2023/State_Report_2023.pdf)
  - **Campus-** <https://www.mus.edu/Perkins/perkins-archive.html>

# Contact

**Chase Stahl**

**Data Specialist**

[cstahl@montana.edu](mailto:cstahl@montana.edu)

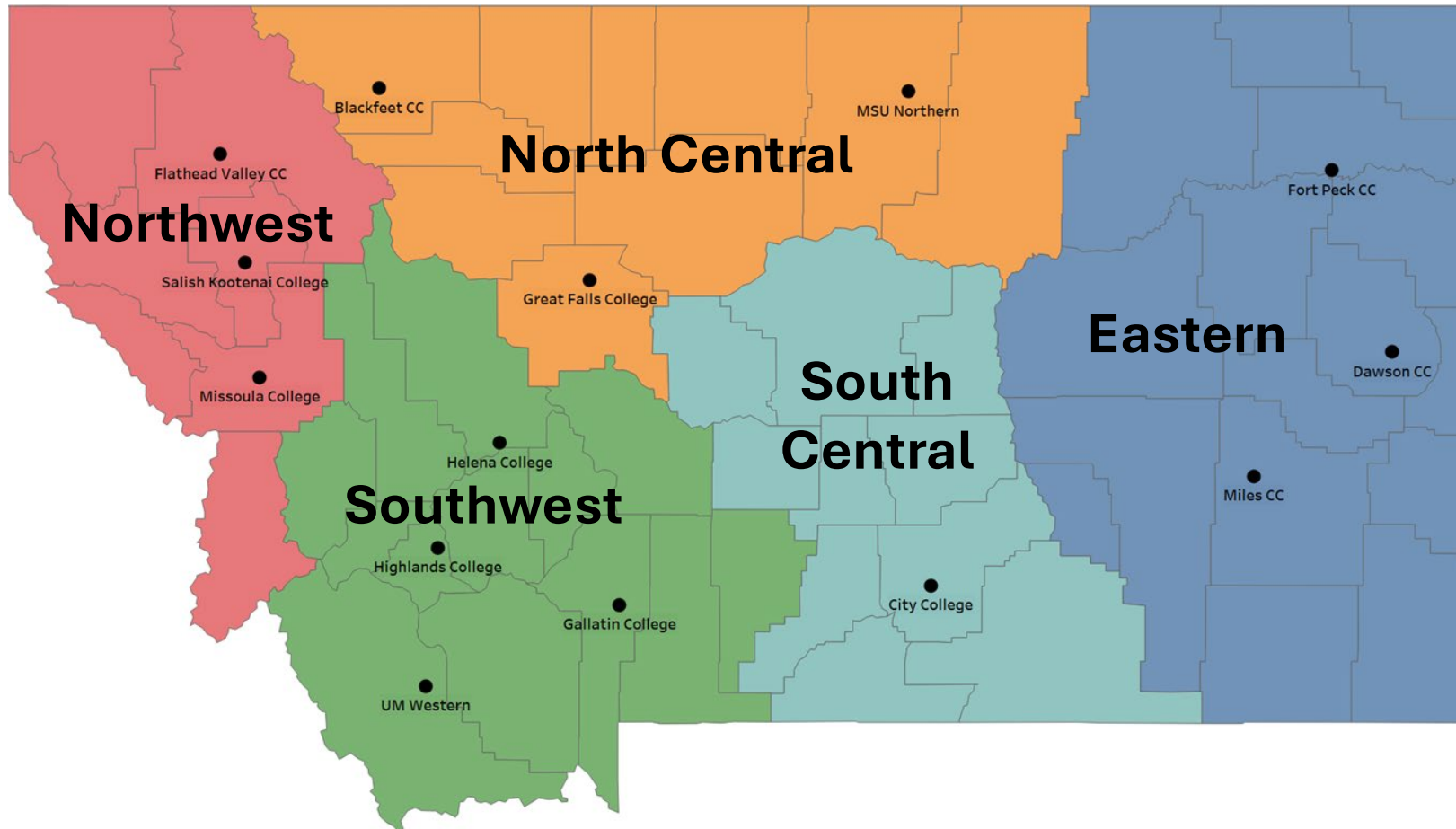
# Connecting Industry to Higher Education

## *Panelists*

- **Mollie Bryan**, General Manager, Element Hotel, Bozeman
- **Brian McMillan**, Systems and Sales Manager, Granite Technology Solutions
- **Joe Perrelli**, Market President, Big Sky, Martel Construction
- **Ashley Olsen**, Manufacturing Operations Manager, Aurora
- **Eva Oruste**, Director of Career Services and Director of Native American Career Technical Education Programs, Salish Kootenai College
- **Morgan Tiberi**, MT Fabrication and Welding



# Lunch - Sit with your Region.



# Engaging Students in a Tourism Based Economy

## *Lone Peak High School Student Panel*

- **Anna Masonic**
- **Haley Hodge**
- **Jose Chairez**



# Keynote Speaker

**Mike Halligan**, *Senior Advisor,*  
*Dennis and Phyllis Washington Foundation*

**Jon Bennion**, *Executive Director,*  
*Dennis and Phyllis Washington Foundation*



15 Minute Break

# Montana's Future at Work Spotlight

*UM Bitterroot and Missoula College*

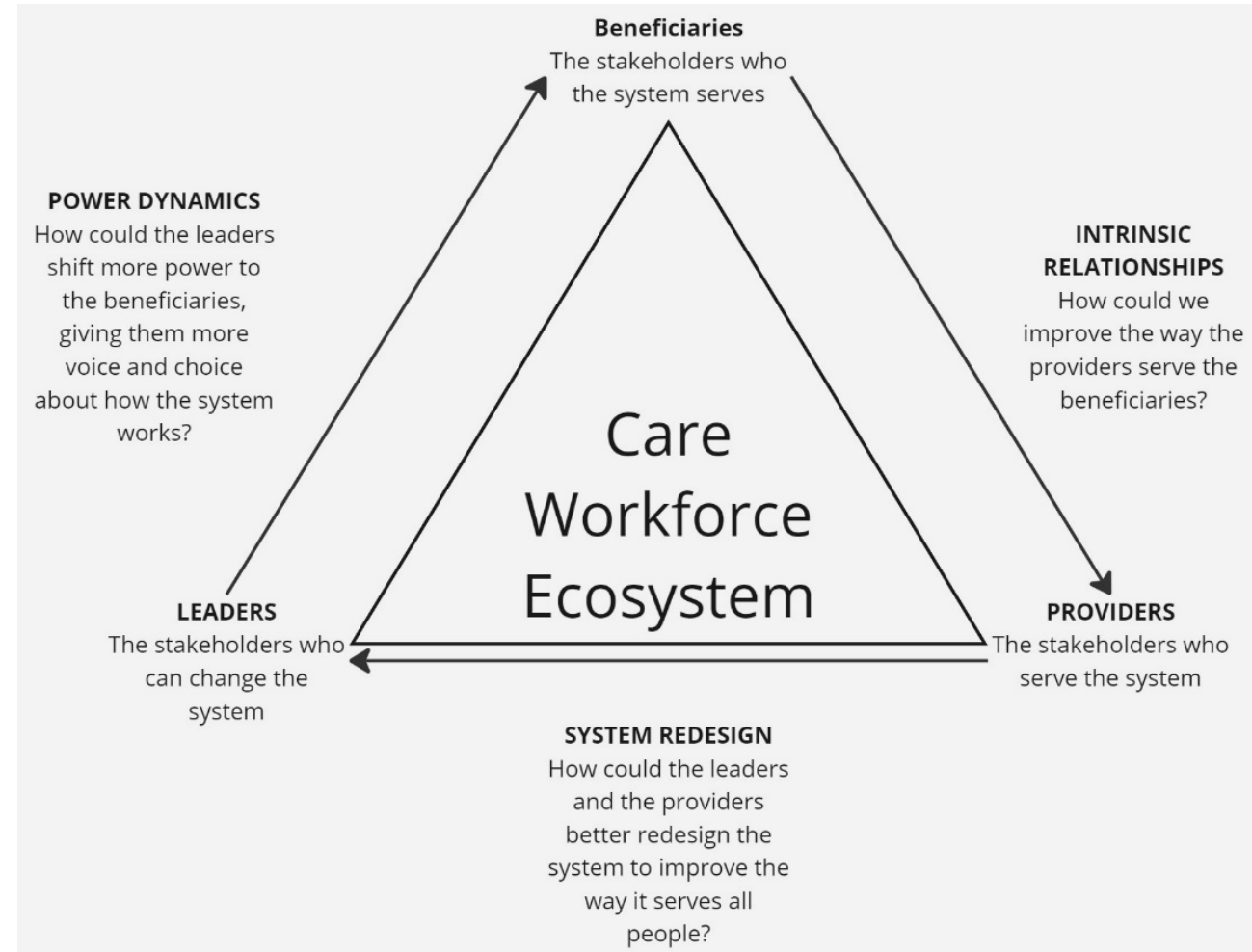


# Rural Careers Pathways Program (RCPP)

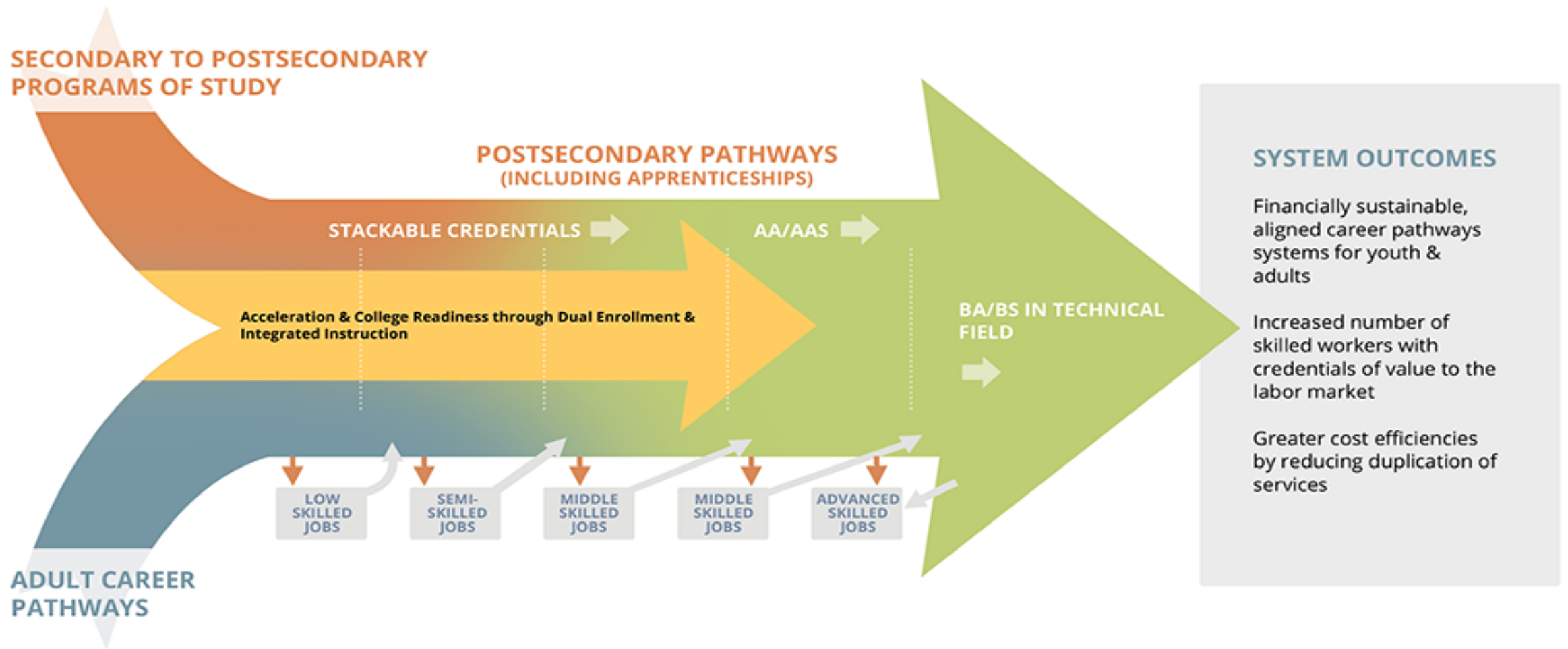
- **Guiding Principle**
- **What can we do together that we could not do alone?**
  
- **Goals**
- **Increase the number of healthcare + early childhood education and career opportunities in rural Montana**
- **Support students through high school → postsecondary → employment by providing both academic and success support services/resources**
- **Support rural healthcare and early childhood facilities to address the healthcare and early childhood workforce shortage**

# Program Activities

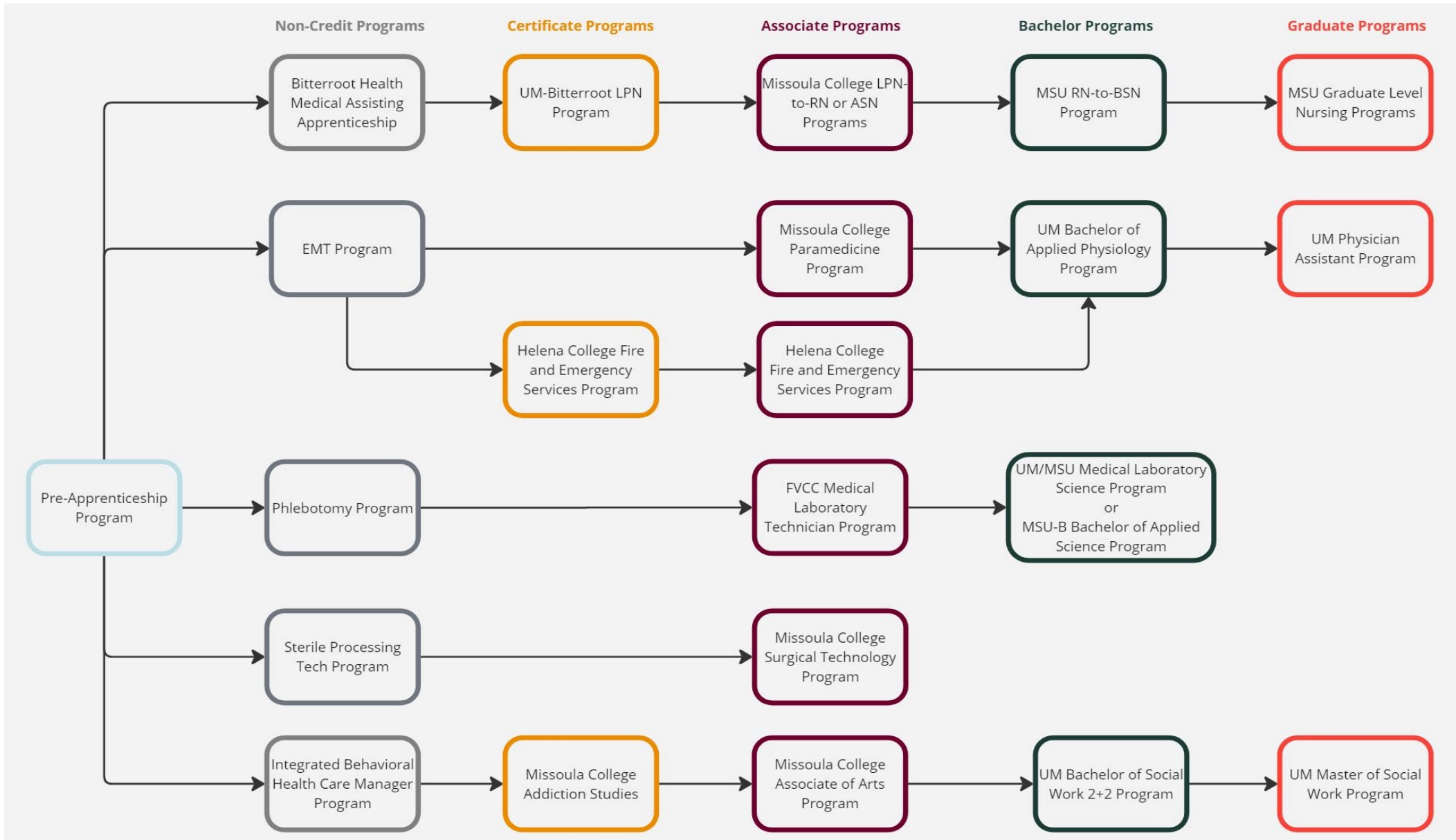
- Utilize a systems-based approach to address this guiding question: How do we build and sustain a holistic workforce ecosystem based on the unique needs of our population in rural Montana?
- Focus on fostering relationships to dissolve care workforce system problems
  - Stakeholder mapping
  - Solve for one, extend to many
  - Technical assistance
- Develop and implement a comprehensive career pathway
  - Pre-apprenticeship and apprenticeship components
  - Dual credit and stackable credentials
  - Both high school and adult learner pathways



# Integrated Career Pathways Model







## High School Pre-Apprenticeship

Pre-Apprenticeship Requirement	Credit/Hours
W 101	3 credits
AHMS 144: Medical Terminology or PLTW Principles of Biomedical Science or Bitterroot Health Year 2 Course	3 credits
BIOH 104/105: Basic Human Biology or PLTW Human Body Systems or PLTW Medical Interventions	4-5 credits
PSYX 101: Introduction to Psychology	3 credits
Healthcare job shadowing experience or CNA training or HOSA participation	50 hours
BLS CPR Certification	

## UM-Bitterroot LPN Program

LPN Courses	Credits
BIOH 104/105	5
M 121	3
PSYX 101	3
W 101	3
<b>Semester 1</b>	
NRSX 130 and 131	3 Classroom + 3 Lab
NRSX 135 and 136	3 Classroom + 1 Lab
NRSX 152 and 153	2 Classroom + 2 Clinical
<b>Semester 2</b>	
NRSX 140 and 141	4 Classroom + 2 Clinical
NRSX 142 and 143	3 Classroom + 1 Clinical
NRSX 148 and 149	2 Classroom + 1 Clinical

## Missoula College LPN-to-RN Program

LPN-to-RN Courses	Credits
BIOH 201/202	4
BIOH 211/212	4
M 121	3
PSYX 101	3
W 101	3
<b>Semester 1</b>	
NRSX 230	3 Classroom
NRSX 236 and 237	2 Classroom + 1 Clinical
NRSX 254 and 255	3 Classroom + 1 Clinical
NRSX 260	1 Lab
SOCI 101	3 Classroom
<b>Semester 2</b>	
NRSX 256	3 Classroom
NRSX 246 and 247	2 Classroom + 1 Clinical
NRSX 244 and 245	3 Classroom + 2 Clinical
CHMY 121/122	4 Classroom + 1 Lab
<b>Semester 3</b>	
NRSX 259 and 261	3 Classroom + 2 Clinical
NRSX 266 and 267	2 Classroom + 2 Clinical
BIOM 250/251	3 Classroom + 1 Lab

## Non-Credit MA Training

UM-Bitterroot Non-Credit CMA Training	Hours
9 Week Online, Foundational Classroom Training	Approximately 126 hours
9 Week In Person, Foundational Lab Skills	Approximately 95 hours
9 Week Foundational Clinical Training	Approximately 108 hours
Advanced Skills Training (Online + Lab Skills Instruction)	Approximately 100 hours
Apprenticeship: On-the-Job Training	2,000 hours

→ = Credit for Prior Learning Possibility

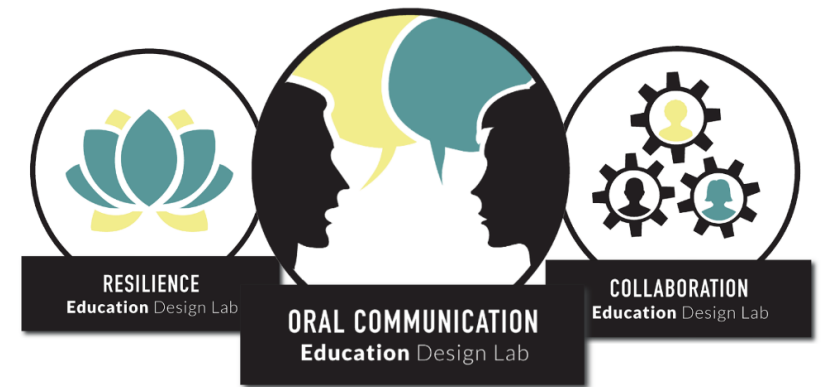
→ = Pre-req completed

■ = Pre-Requisite Courses

■ = Students can test out of courses

# Education Design Lab : Community College Growth Engine

*Dr. Minzi Thomas, Senior Designer*



**Education** Design Lab

**Community College  
Growth Engine**

*Future at Work CTE  
Summit*

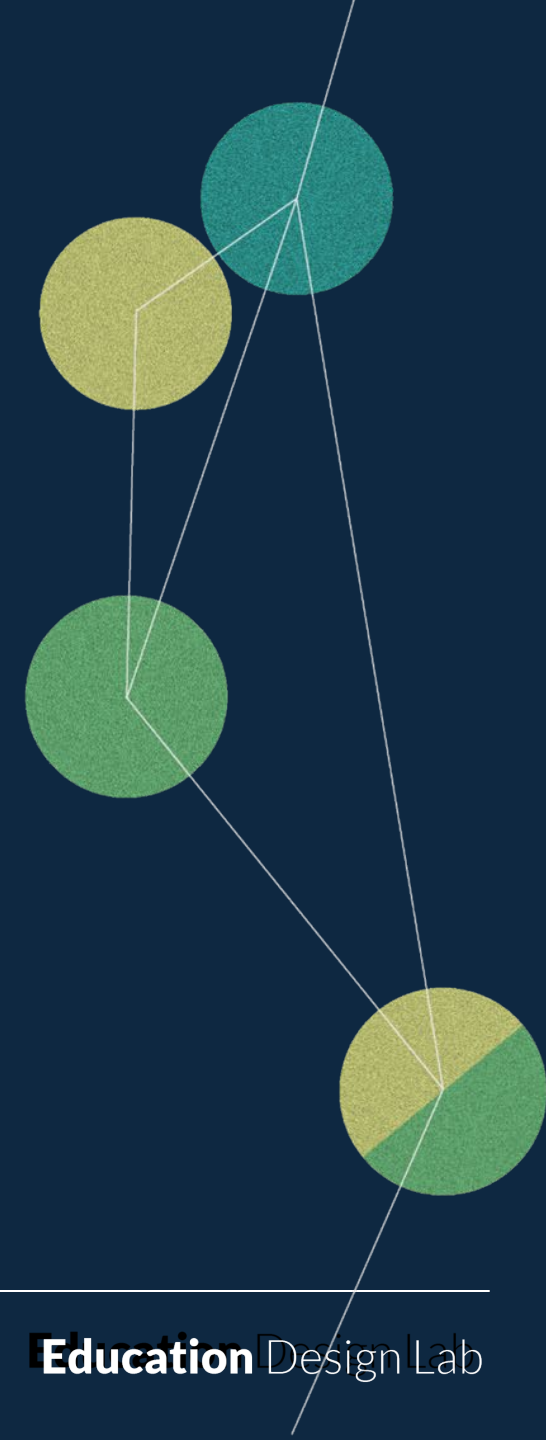
**October 15, 2024**



# Today's Agenda

- **Welcome + Introductions**
- **The Community College Growth Engine**
- **Year-to-Career Initiative**
- **The Micro-Pathways**
- **What's Next?**
- **Q&A**

# Introductions





# MUS *Year-to-Career* Team

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**Dr. Minzi A. Thomas**  
Senior Education Designer  
Education Design Lab



**Gabby Billiot**  
Associate Education Designer  
Education Design Lab

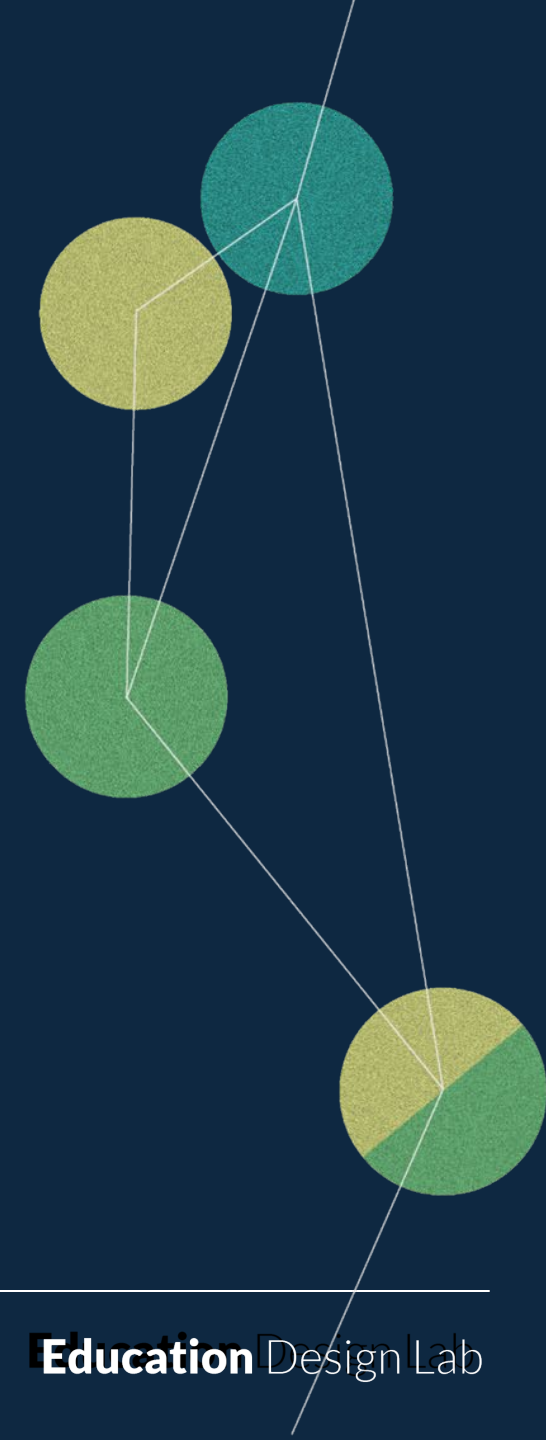


**Terry Berkhouse**  
Program Manager  
Education Design Lab



**Dr. Angela McLean**  
Director of American  
Indian/Minority Achievement  
and K-12 Partnerships,  
MUS + OCHE

# The Community College Growth Engine





## The “Design Accelerator” Question

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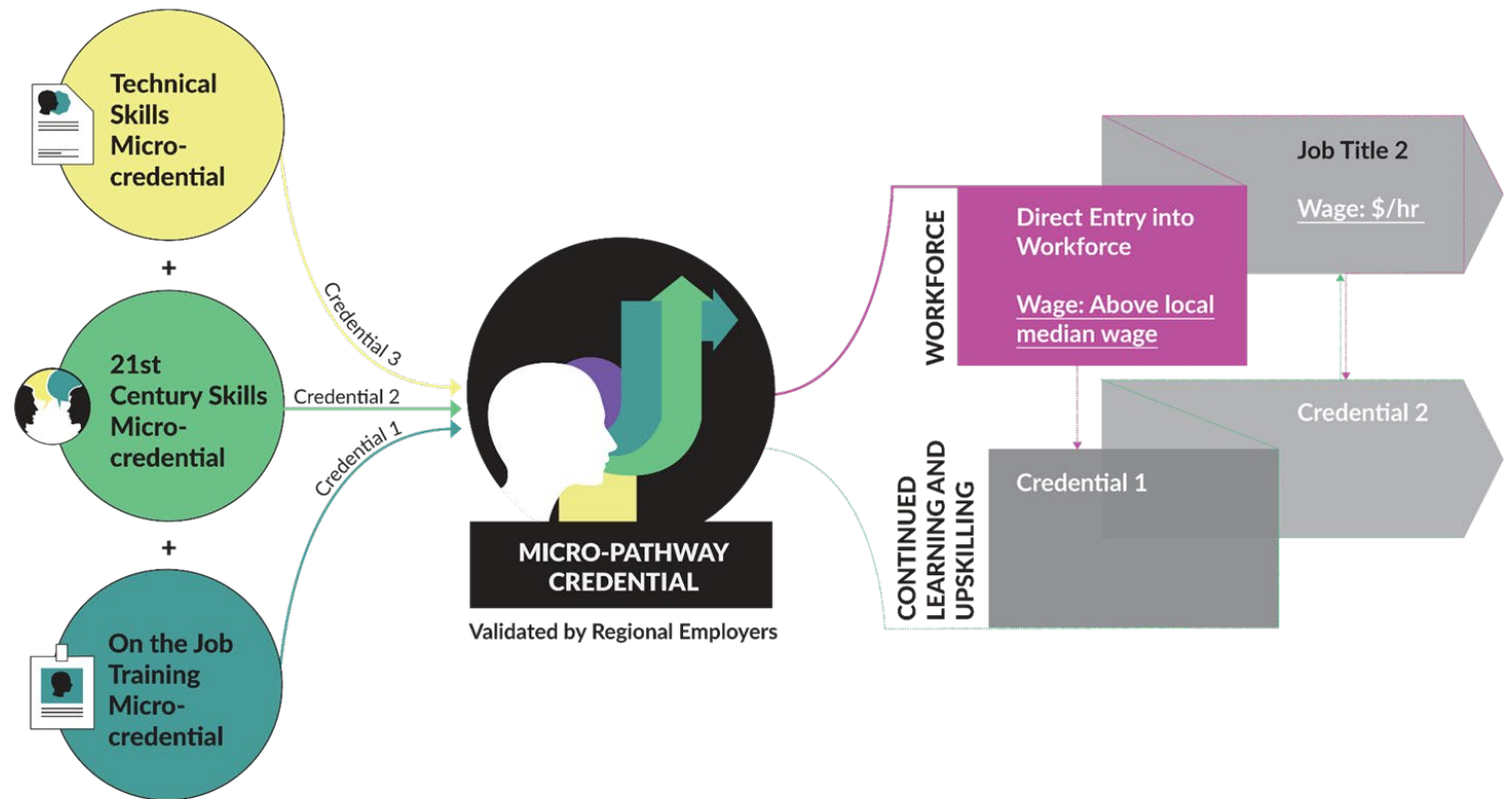
**How might we design equitable and accessible micro-pathways toward high-growth careers endorsed by employers and visible to learners moving from post-secondary education into the workforce?**

# Defining Micro-pathways

In this new time, we need a new class of credential that is more aligned to the market, designed for learner needs, and faster than traditional offerings.

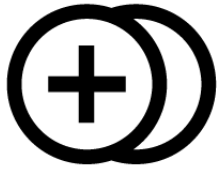
## Micro-pathways:

A new model to better address program **affordability, flexibility, relevance, portability, and visibility** to meet the needs of a rapidly changing knowledge economy.

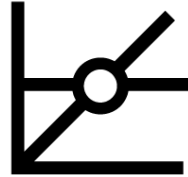


# Design Criteria

In order to meet the needs of New Majority Learners and employers, micro-pathways must:



Include **two or more credentials** that are **stackable, portable, + track toward a degree**



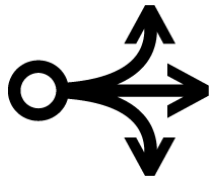
**Align to dynamic regional labor market employment + wage data**



**Be employer-initiated + validated**



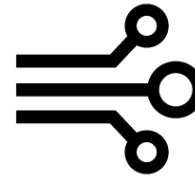
**Be completed in one year or less**



**Be offered in a flexible delivery format**



**Be affordable**



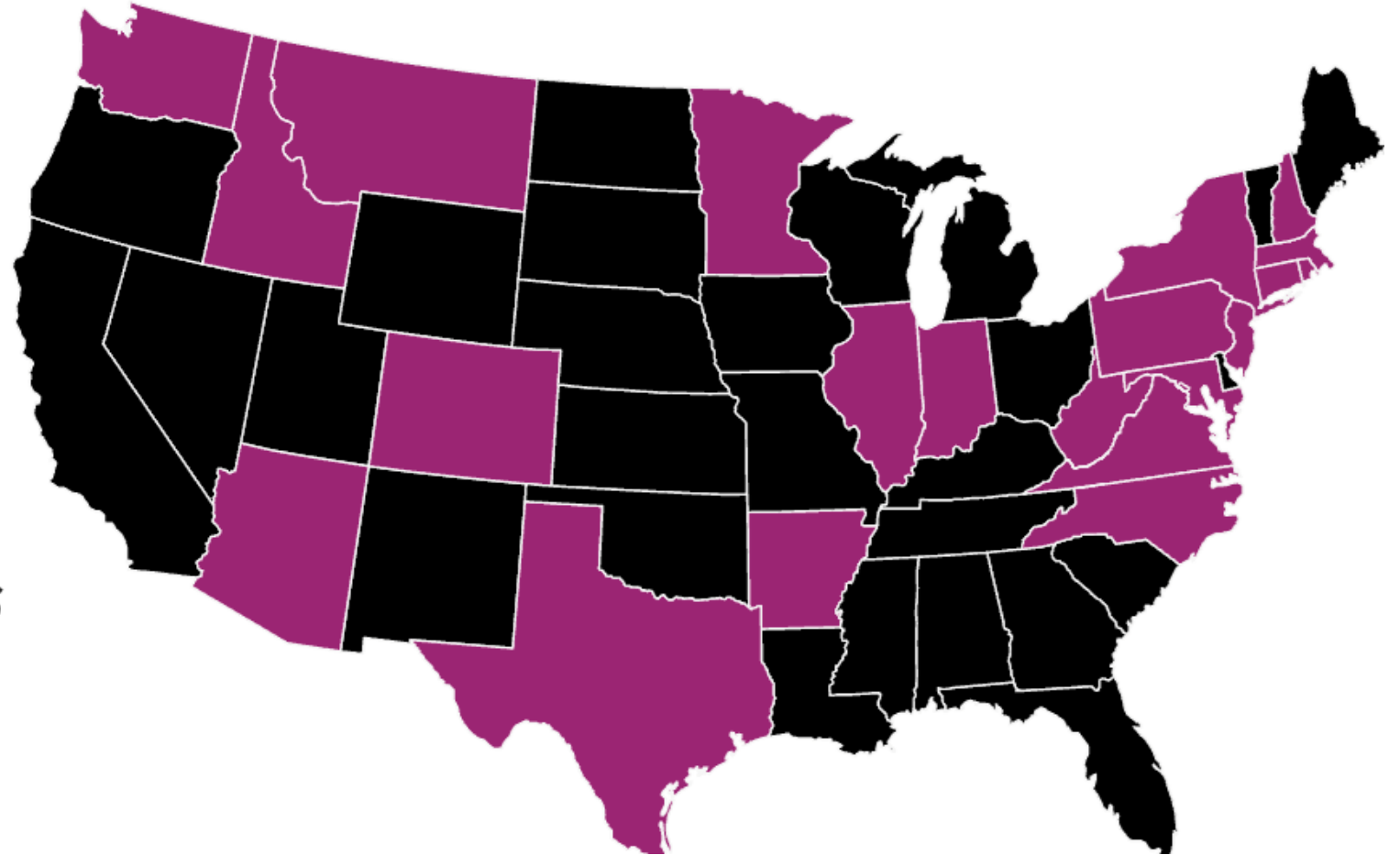
**Be digitally discoverable**



**Integrate technical + 21st Century skills**

# Community College Growth Engine

- *20 States*
- *75+ Colleges*
- *6 partial systems*
- *1 state system*
- *430+ employers and multiple K12 partners*
- *100+ Micro-Pathways*



*As of July 2024*

# Cohort I has shown us...

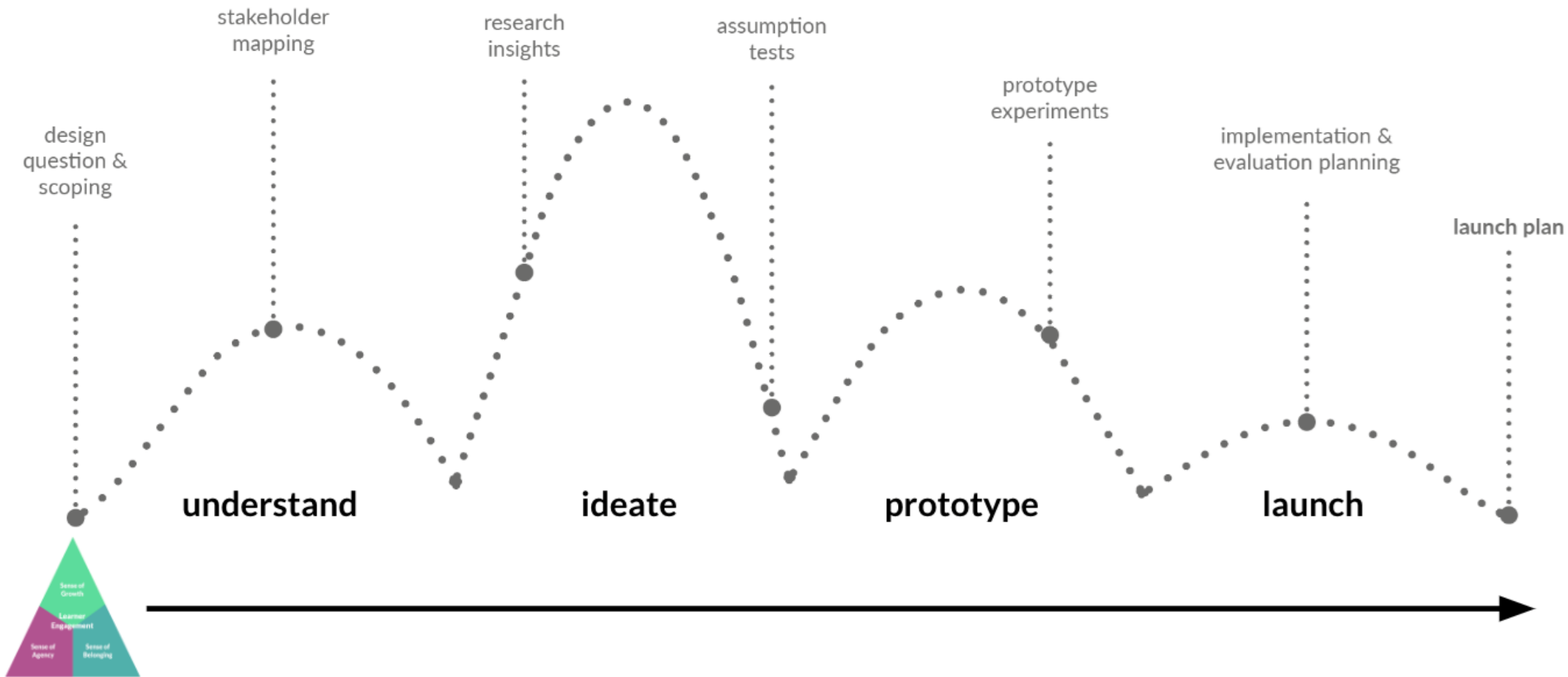
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Designing micro-pathways can serve as a “gateway” for community college transformation through:

- Stackable Program Design
- Employer Engagement
- Marketing to New Majority Learners
- Noncredit to Credit Alignment
- Data Collection

*This kind of institution-wide transformation must be driven by senior leadership.*

# The Lab's Design Process



# The T-Profile Session

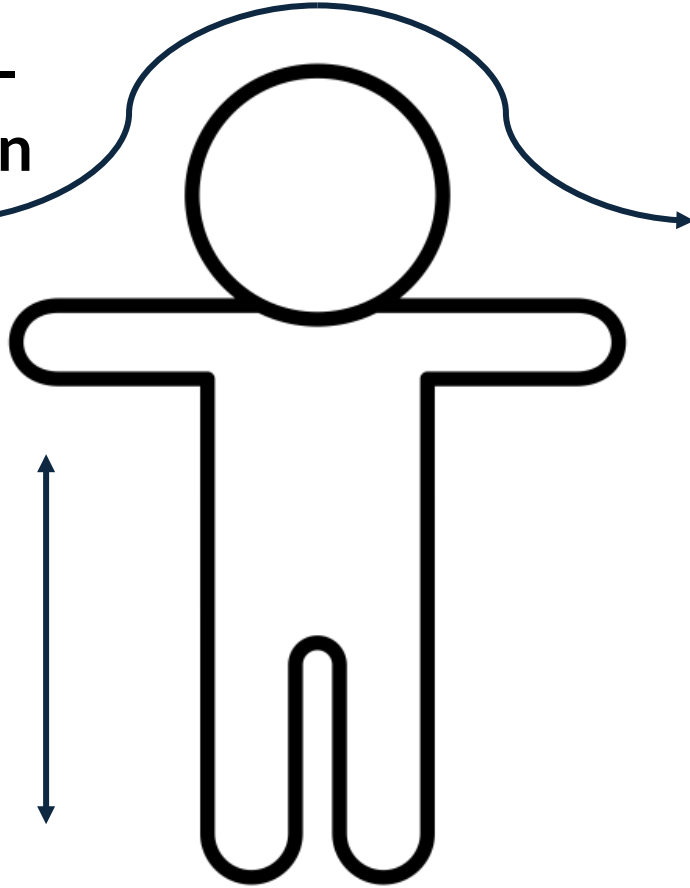
An interactive dialogue where employers clarify and deepen our understanding of the optimal technical and durable skills required to be career-ready for a given a role, in a skills mapping session using a tool called a T-profile.

## Benefits:

- a. Employers provide input into designing a targeted program to meet their needs.
- a. We create alignment of talent supply and demand around competencies.
- a. We cultivate precision, clarity, and understanding of occupations for the employer, college, and I(earner).

# T-Shaped Learner

Cross-domain skills



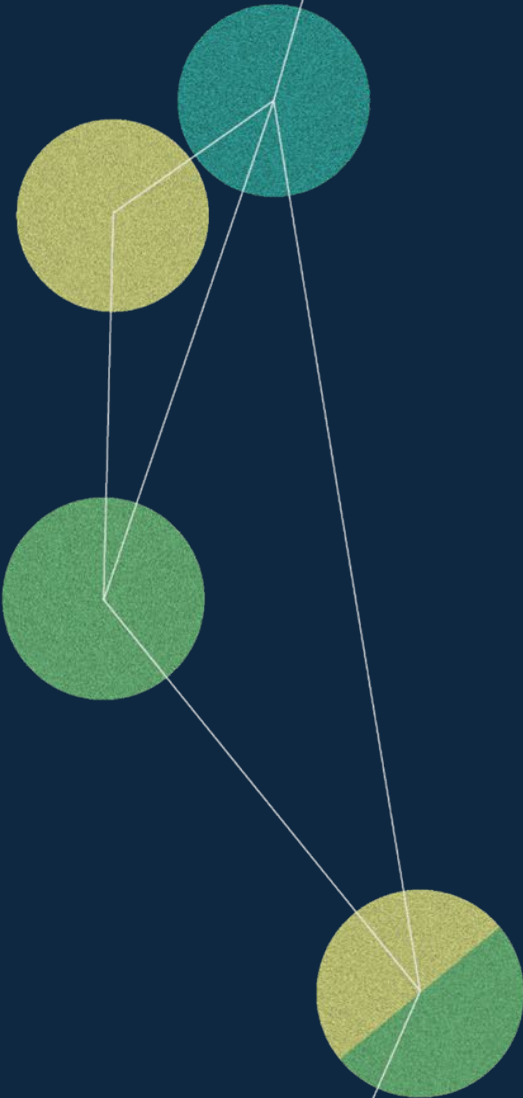
Deep knowledge of a domain

21ST CENTURY SKILLS				
<b>INITIATIVE</b> ACT AS CATALYST 1 SELF AWARENESS 2 LEARN FROM EXPERIENCE 3 LEAD WITHOUT TITLE 4	<b>COLLABORATION</b> STRENGTHEN RELATIONSHIPS 1 LISTEN ACTIVELY 2 DIVERSE PERSPECTIVE 3 FOCUS ON SOLUTIONS 4	<b>CREATIVE PROBLEM SOLVING</b> ITERATION 1 CONVERGENT/DIVERGENT THINKING 2 IDENTIFY PATTERNS 3 MANAGE AMBIGUITY 4	<b>CRITICAL THINKING</b> IDENTIFY PATTERNS 1 DRAW CONCLUSIONS 2 QUESTION ASSUMPTIONS 3 GATHER RELEVANT INFORMATION 4	<b>INTERCULTURAL FLUENCY</b> DIVERSE PERSPECTIVES 1 CHALLENGE BIASES 2 CURIOSITY 3 SELF-AWARENESS 4
<b>EMPATHY</b> VALIDATE OTHERS' FEELINGS 1 LISTEN ACTIVELY 2 DIVERSE PERSPECTIVES 3 RECOGNIZE NEEDS 4	<b>RESILIENCE</b> FOCUS ON SOLUTIONS 1 LEARN FROM EXPERIENCE 2 SELF-AWARENESS 3 EXHIBIT FLEXIBILITY 4	<b>ORAL COMMUNICATION</b> STORYTELLING 1 ADOPT TONE/WORD CHOICE 2 LISTEN ACTIVELY 3 CLARITY/PRECISION 4	<b>SELF-DIRECTED LEARNING</b> INITIATE LEARNING 1 FOCUS ON LEARNING 2 COMMIT TO LEARNING 3 REFLECT ON LEARNING 4	<b>OTHER</b> OTHER-1 1 OTHER-4 2 OTHER-3 3 OTHER-2 4

CREDENTIALS	TECHNICAL SKILLS
No Preferred, Willing To Train	fdaf Required, Upon Entry
ew Required, Upon Entry	aside Preferred, Upon Entry
fa Required, Willing To Train	copy and paste Required, Willing To Train
fasdf Preferred, Upon Entry	dads Preferred, Willing To Train



# Year-to-Career Initiative



# Year-to-Career Initiative: The Highlights

- Thirteen Montana community colleges are participating in a two-year transformation to enhance their role as sustainable engines of economic growth, establishing at least 12 micro-pathway programs.
- The three primary sectors of interest include healthcare, technology, and trades, with medical assisting and welding being the top occupations identified as having the greatest workforce need.
- We identified three critical areas of opportunity to streamline our micro-pathway design and implementation strategy: employer and industry engagement, marketing and communications, and credit for prior learning.

# Working Groups & Objectives

## Employer & Industry Engagement

Communicate the value of micro-pathway programs to our industry and employer partners across the State.

Establish a strategy to ensure we have created a shared understanding of the technical and durable skills associated with each of the micro-pathway badges.

Develop a communications plan to keep employers informed about program launches and program completers.

## Marketing and Communications

Develop and distribute templates for marketing and recruitment collateral that colleges can tailor to their needs and brand.

Design and launch a marketing email campaign to market the micro-pathway programs.

Explore system level marketing strategies and create a plan to ensure there is system-to-college webpage synergy.

## Credit for Prior Learning

Develop a shared taxonomy around badging, credit for prior learning, and prior learning assessments.

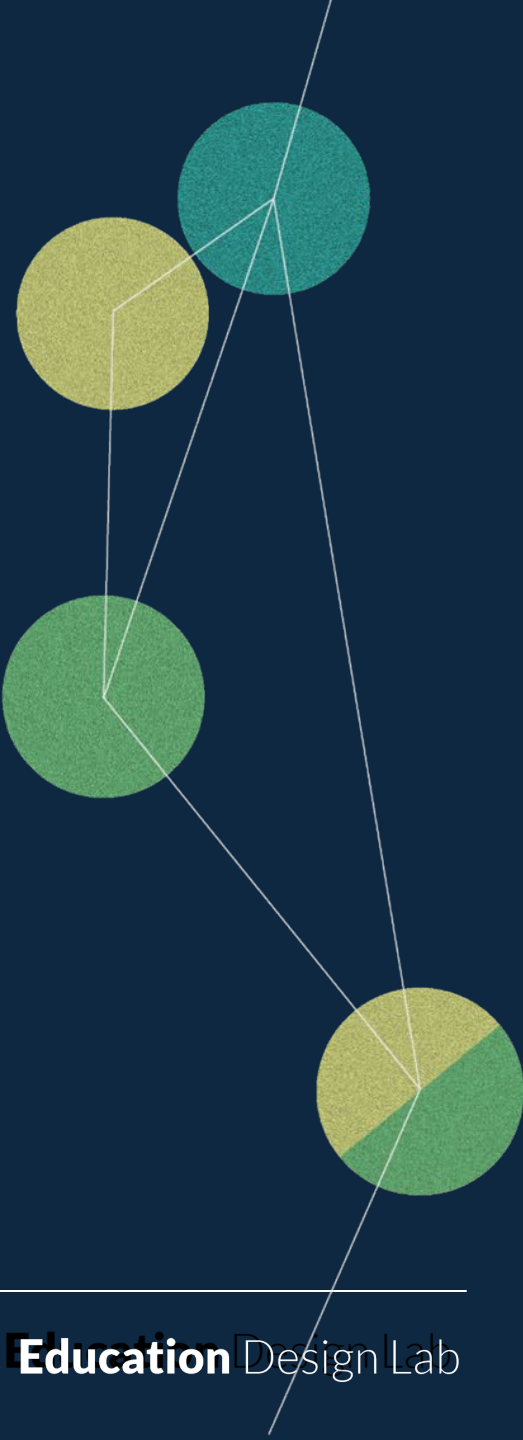
Identify and document inputs and outputs of common learning experiences and credentials.

Develop a shared badging process and procedure for micro-pathway completers.

## Year-One Insights

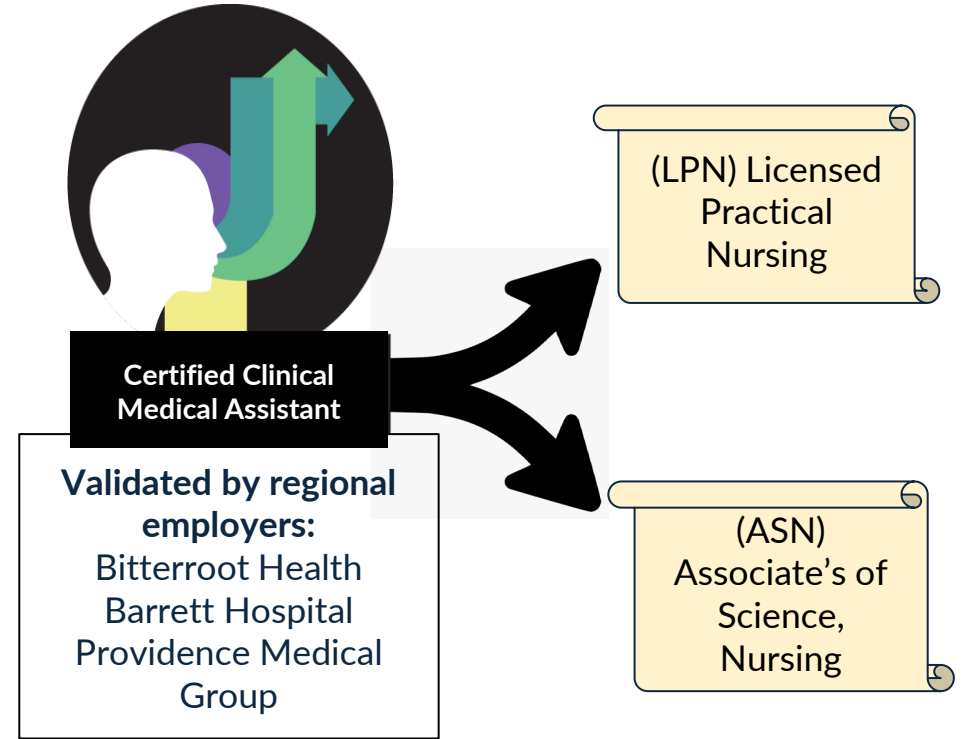
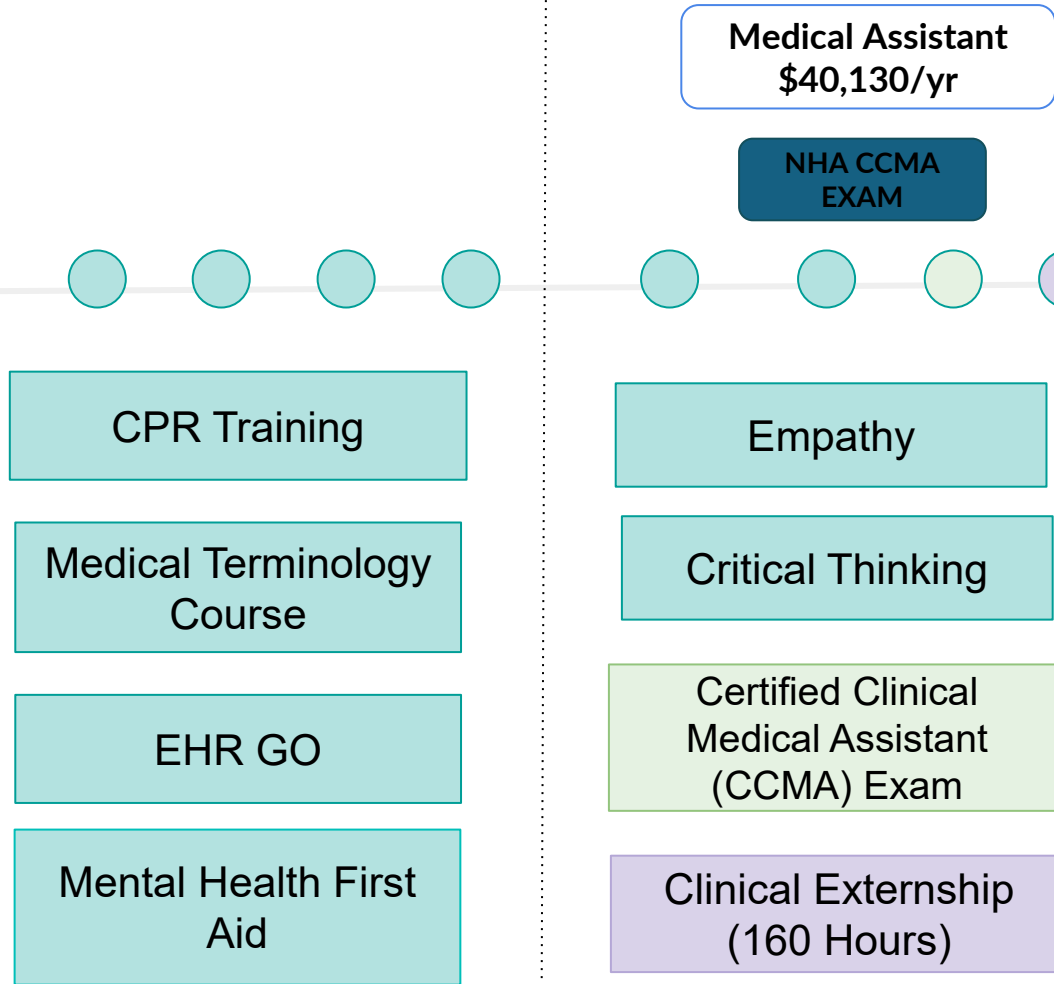
- Through our design process, we've been able to validate what is and has been working effectively, around existing curriculum, ecosystem partnerships, and student support services.
- Job descriptions may not accurately reflect the evolving skills employers need, creating an opportunity for us to support the recredentialing of roles.
- System level support that includes cross-college collaboration is critical to the sustainability of our statewide micro-pathway and short-term training strategy.

# The Micro-Pathways



# Bitterroot College: Certified Clinical Medical Assistant

← 4-6 months (part-time) →



indicates Microcredentials

# Great Falls College: *Dental Assistant Micro-pathway*



← 16 weeks (part-time) →



- CPR
- Infection Control
- Chairside Basics
- Radiology

Dental Assistant  
\$38,396/yr

- Empathy
- Critical Thinking



Dental Assistant  
Validated by regional employers:  
Riverstone Health

(AAS) Dental Hygiene

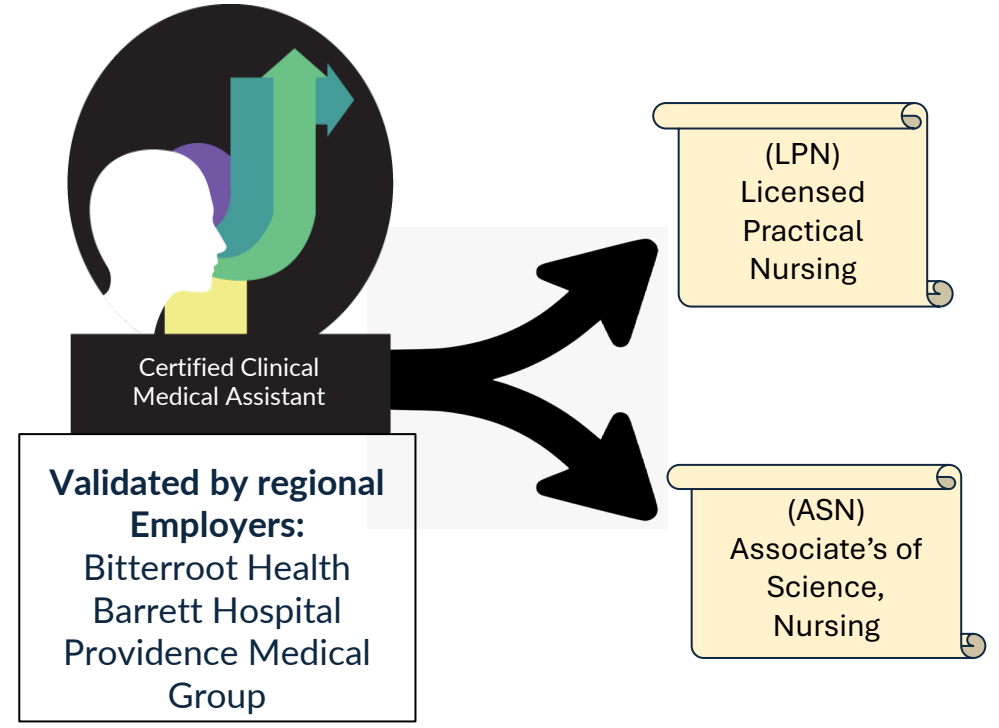
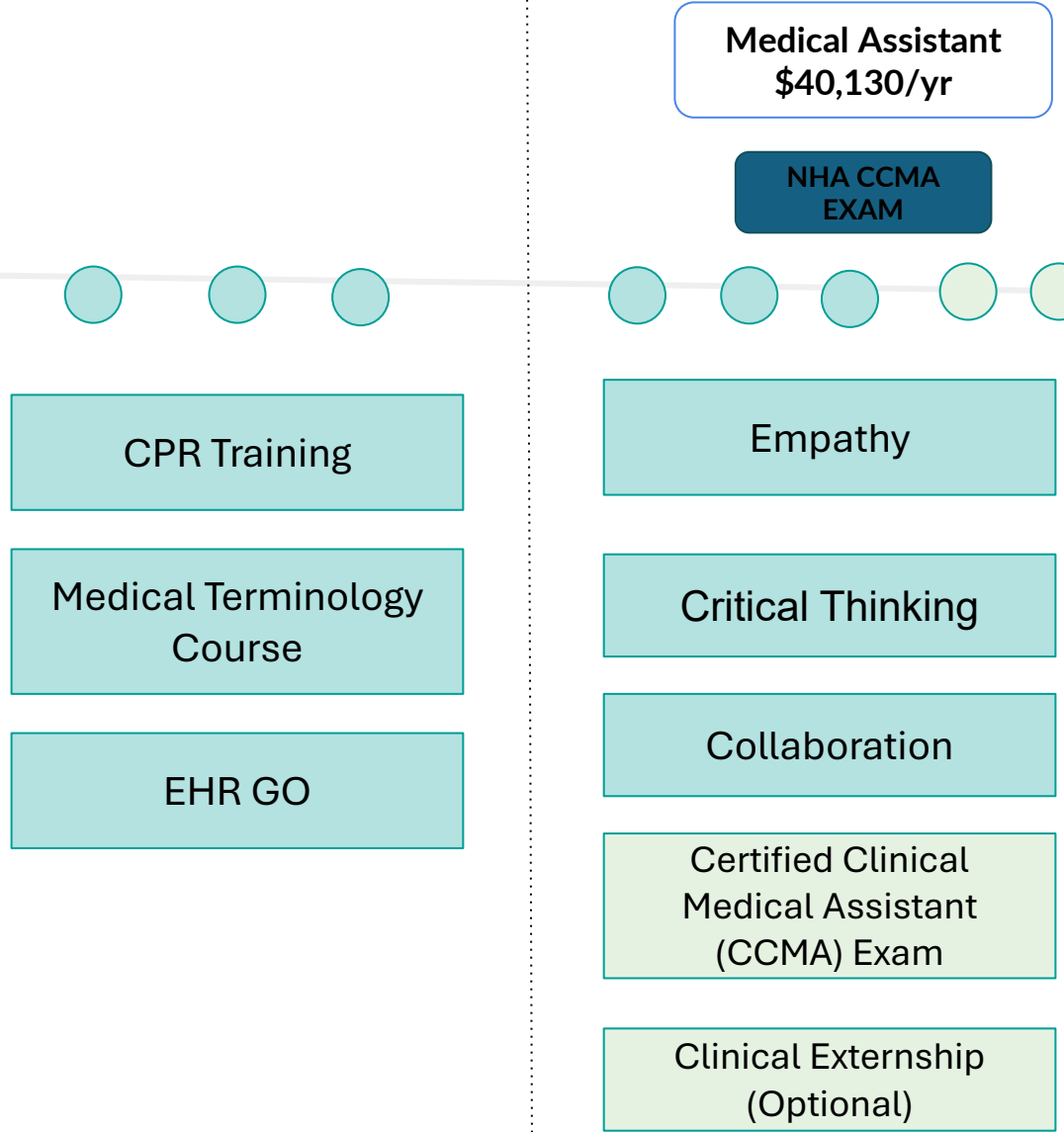
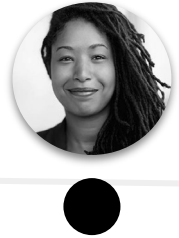
(CAS) Certified Dental Assistant



# Montana Western: Certified Clinical Medical Assistant



← 4-6 months (part-time) →



indicates Microcredentials





# Flathead Valley: HVAC Technician



← 6 months(part-time) →      ← 16 weeks (part-time) →

- HVC 101: HVAC Fundamentals
- HVC 130: HVAC Electrical
- Optional Pre-Apprenticeship

HVAC Technician  
\$49,150/yr

EPA 608 Federal License

HVC 150: Installation & Sheet Metal Fabrication

Creative Problem Solving

Critical Thinking



HVAC Technician

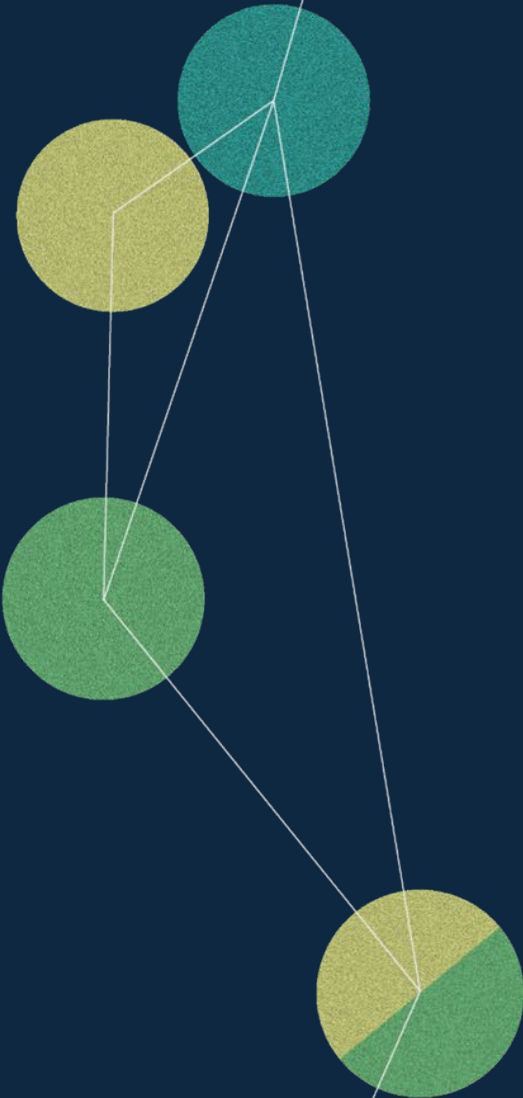
Validated by regional employers:  
Thomas McDade

(CTS) HVAC Apprentice

indicates Microcredentials



# Tracking + Reporting



# Job Quality & Expected Growth -

## Job Growth:

- Using labor market data, we are tracking the projected growth rate for occupations across the state.
- Significant job growth is expected in key sectors over the next decade, particularly in construction and healthcare, with additional opportunities emerging in technology and manufacturing.

## Job Quality:

- Using data and job descriptions collected from T-Profile sessions, we are tracking the quality of jobs (living wage, benefits, etc.).
- While employers generally offer competitive benefits packages, there is a need for salary transparency across sectors like healthcare and manufacturing.

# Valued Durable Skills -

The data below highlights the durable skills identified by employers as critical, across three sectors:

## Healthcare

- **Critical Thinking:**  
Highly valued across all healthcare roles
- **Empathy:**  
Particularly important for EMTs and CMAs
- **Resilience:**  
Crucial for EMTs and CMAs
- **Interpersonal Communication:**  
Essential for CMAs

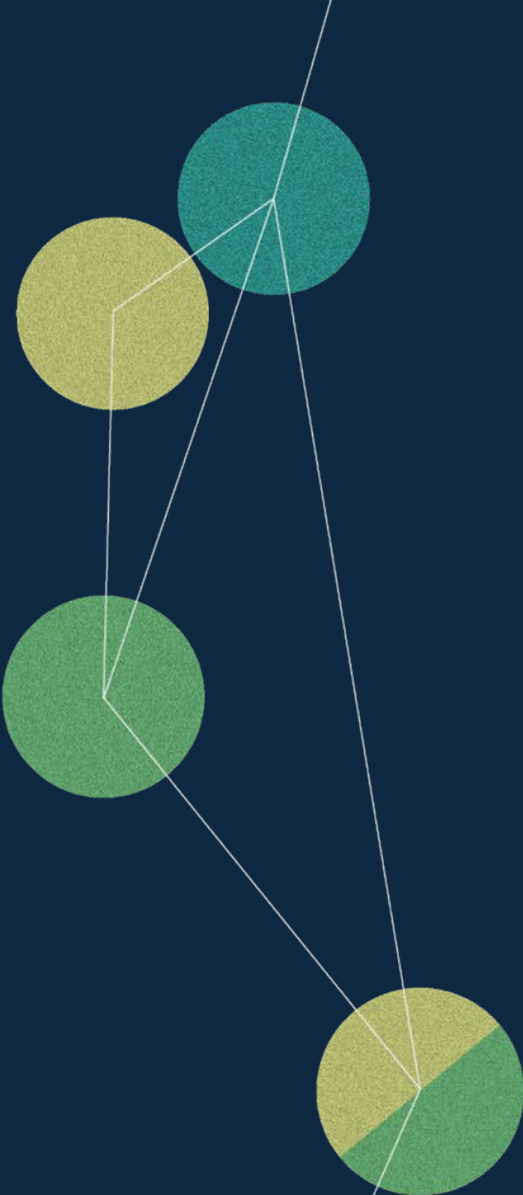
## Trades

- **Creative Problem Solving:**  
Especially important for welders
- **Critical Thinking:**  
Valued across welding positions
- **Initiative:**  
Highlighted for some welding roles
- **Oral Communication:**  
Emphasized in welding positions
- **Resilience:**  
Important for HVAC technicians

## Information Technology

- **Collaboration:**  
Highly important
- **Critical Thinking:**  
Emphasized strongly
- **Resilience:**  
Considered crucial

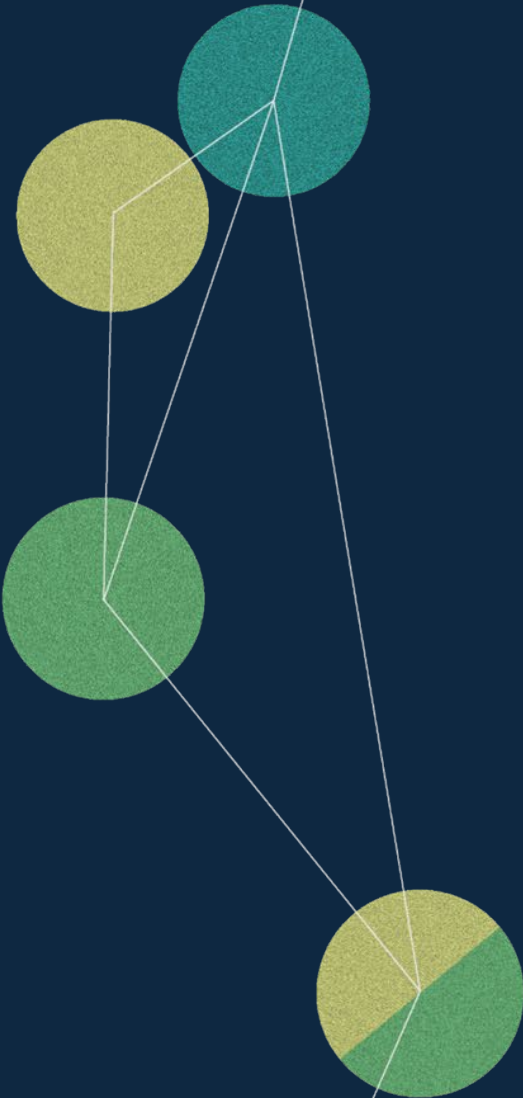
# Next Steps



# What's next?

- **Statewide Strategy:** We are finalizing our cross-system plan to deliver, track, and assess high-quality short-term training opportunities that fulfill workforce needs and advance students along clear pathways.
- **Data Collection:** Through the Lab's data collaborative, we are building a data infrastructure that will track and collect enrollment and completion data, to understand who our learners are and the impact these programs have on their careers.
- **Micro-Pathway Implementation:** Along with medical assisting, we've designed or are designing pathways slated to launch next spring or fall in welding, dental assisting, emergency medical technician, early childhood education, behavioral health, and HVAC technician.

Questions?



# Thank You!

To learn more about the Education Design Lab and to sign up for our Innovator Network, please visit [eddesignlab.org](https://eddesignlab.org)

 @eddesignlab  
 Education Design Lab  
 [connect@eddesignlab.org](mailto:connect@eddesignlab.org)

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**Gabby Billiot**  
*Associate Education Designer*  
E. [gbilliot@eddesignlab.org](mailto:gbilliot@eddesignlab.org)



# Day One Wrap-Up

**4:00 pm** Tour, Big Sky Chamber of Commerce

**5:30 pm** Reception at Rainbow Ranch. *Sponsored by Education Design Labs.*

*Dinner on your own.*

*Join us back here tomorrow at 8:15 am to start our morning with coffee and reflection.*

# Day 2 Agenda

**8:15 Coffee and Day One Reflection**

**8:45 Montana Future at Work Spotlight**

*MSU Billings & Highlands College  
Flathead Valley CC  
UM Dual Enrollment  
MSU Billings*

**9:45 SNAP E&T – Mary Claire Houlihan, Project Director, Maximus**

**10:30 Break**

**10:45 Table Work**

**12:00 Lunch**

**12:45 Industry Connection Action Plan Development**

**2:00 Adjourn**



# Day One Reflection

Reflecting on yesterday's industry panel, how do you plan to connect with industry once you return to your communities?

# Montana Future at Work Spotlight

- *MSU Billings and Highlands College*
- *Flathead Valley Community College*
- *University of Montana Dual Enrollment*
- *MSU Billings*

# Montana's Future at Work Spotlight

*MSU Billings and Highlands College*



**HIGHLANDS COLLEGE**  
OF MONTANA TECH



# From Classroom to Care

Your Certified Nursing Assistant (CNA) Training Journey

Certified Nurse Assistants (CNAs) play a vital role in healthcare, providing essential care to patients and supporting nurses and medical staff.

- Practical experience
- Skill development
- Networking opportunities
- Enhanced employability
- Understanding workplace dynamics
- Confidence building



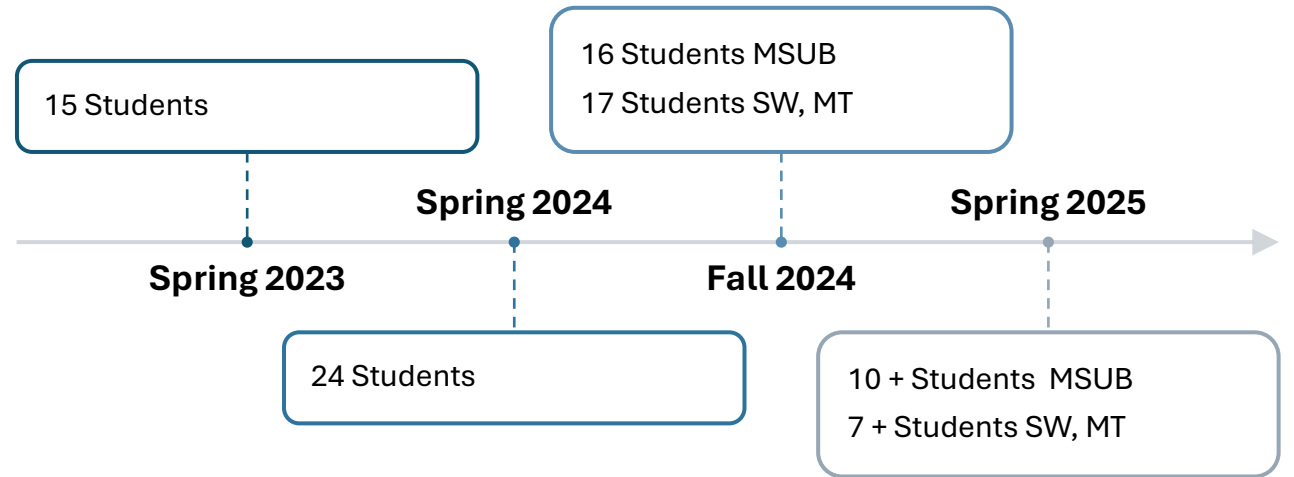


## Funding Sources

ACCELERATE MT (Spring 2023- Fall 2024)

Butte Silver Bow ARPA (Spring 2023- Fall 2024)

Montana's Future at Work (Fall 2024-Spring 2025)







# Foundations of Healthcare Program Overview

## High School Students age 16+

- Apply
  - Application
  - 2 Letters of recommendation
  - Letter of intent
  - High school transcript
  - Vaccination records
  - Valid Government issued ID
  - 2-Step TB Skin Test (TST)

## Dual Credit Courses

- College writing: 3 credits (WRIT 101)
- College level math: 3 credits (100+)
- Intro to Health Careers: 3 credits (HTH 101)
- Certified Nursing Assistant Course: 4 credits (NRSG 106)

## Apply for graduation

# Becoming a Certified Nursing Assistant

50 Theory Hours

1 day skills lab

First Aid / CPR

25 Clinical Hours

State Licensure Exam

HIGHLAND COLLEGE  
CNA - SCIENTS WORK



# Pathway to Success

Moriah Reich



# CALLING ALL HIGH SCHOOL STUDENTS!

## EXPLORE THE FOUNDATIONS OF HEALTHCARE

- 13 CREDIT SCHOOL TO WORK OPPORTUNITY -



### ENTER THE EXCITING WORLD OF HEALTHCARE.

Complete your 13 credits online and/or in the high school.  
Upon completion of credits, clinicals, and turning 16 years of age you will  
be eligible to take the Montana Certified Nurse Aide Licensing Exam.

**ENROLL TODAY** to learn the basic information and skills needed to provide care to  
residents and patients in assisted living and/or long-term acute care facilities.

### ENROLL IN THIS EXCITING PROGRAM NOW!

FOR MORE INFORMATION CONTACT:

Kinsley Rafish  
406-496-4684 | krafish@mtech.edu

This program is not eligible for financial aid available through the FAFSA



**EXPLORE DIFFERENT HEALTHCARE CAREERS.**



**FIND OUT IF HEALTHCARE IS FOR YOU.**



**BONUS! SIT FOR THE MONTANA CERTIFIED  
NURSE AID LICENSING EXAM.  
JOB DEMAND FOR CNA'S TO GROW 8% FROM  
2020+2030. (U.S. Bureau of Labor)  
MEDIAN ANNUAL WAGE \$30,850**

**HIGHLANDS COLLEGE**  
OF MONTANA TECH

# Outreach and Marketing

- Social Media Blast
- News Paper Articles
- School Presentations
- Career and Technical Education (CTE) Fairs
- HOSA Leadership Conference



The background of the image is a vibrant teal color, densely populated with numerous speech bubbles. Each bubble is a different color, including shades of red, yellow, pink, and white. Inside every speech bubble is a large, bold, dark blue question mark. The bubbles are scattered across the frame, creating a pattern that suggests a constant stream of questions or inquiries.

Questions

## **Montana Future at Work Spotlight *Flathead Valley Community College***





# Empowering Tomorrow's Workforce: CNC Essentials Training Program, Lincoln County

**Lisa M. Blank, Executive Director, Workforce Development**  
*Fostering Manufacturing Career Pathways*









ALPINE PRECISION INC. LOCATED IN NORTHWEST MONTANA.  
Alpine Precision proudly provides services world wide. We are a well established company, in business since 1994. Our new 10,000 square foot facility is built with modern technology and is energy efficient.

INDUSTRIES SERVED ARE:  
AEROSPACE / DEFENSE / SEMICONDUCTOR / FIREARM



## JOB OPENINGS

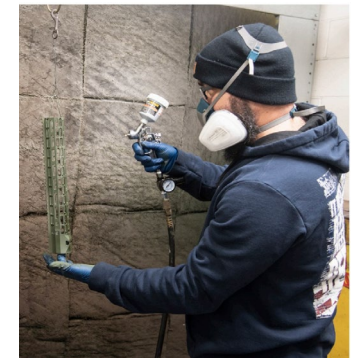
All Job Category ▾ All Job Type ▾ All Job Location ▾

### CNC MACHINIST

🏢 CNC Machinist  
📍 Libby, Montana  
[More Details →](#)



## Fostering Manufacturing Career Pathways





Manufacturing community meeting in partnership with MT DLI, Fall 2023.

Evening welding course, Spring 2024.



Montana Future's  
At Work Funding

## *Fostering Manufacturing Career Pathways*



CNC  
Infrastructure  
Development

Teacher Professional  
Development  
Curriculum Development

**CNC Essentials**  
Introduction to CNC  
Employability Skills  
Blueprint Reading  
ToolingU

Integrated Education  
Training Pathway  
Pre-apprenticeships

## *Fostering Manufacturing Career Pathways*





**Digital  
Marketing  
Parent Newsletter**



**Open House  
Virtual Tours  
Website**



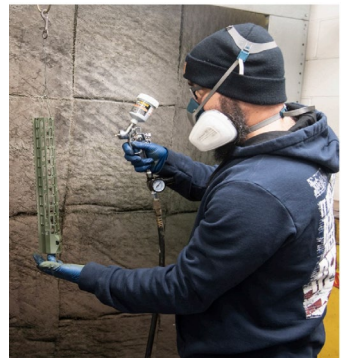
**Creating Valuable Content**  
Infographics  
Blog  
Website



**Industry Partners**  
Internships  
Job Shadowing  
Guest Lectures  
Job Services  
DLI



## *Fostering Manufacturing Career Pathways*





# Want to learn more?

[lblank@fvcc.edu](mailto:lblank@fvcc.edu)

*Fostering Manufacturing Career Pathways*



# Montana's Future at Work Spotlight

*University of Montana Dual Enrollment*





# Montana's Future at Work Spotlight

*University of Montana Dual Enrollment*

<https://youtu.be/KGLeyfdXr1g>



# Montana's Future at Work Spotlight

*MSU Billings*





# Emergency Services Certifications

## EMT and Wildland Firefighting

Kaili Payne, Director of Dual Enrollment

Alan Lohof, Program Director and Instructor for Fire Science



# Certifications

## EMT

National Registry of Emergency Technicians

\*EMT-Basic

## WILDLAND FIREFIGHTING

National Wildfire Coordinating Group Firefighter Type 2

\*Incident Qualification Card, i.e., Red Card

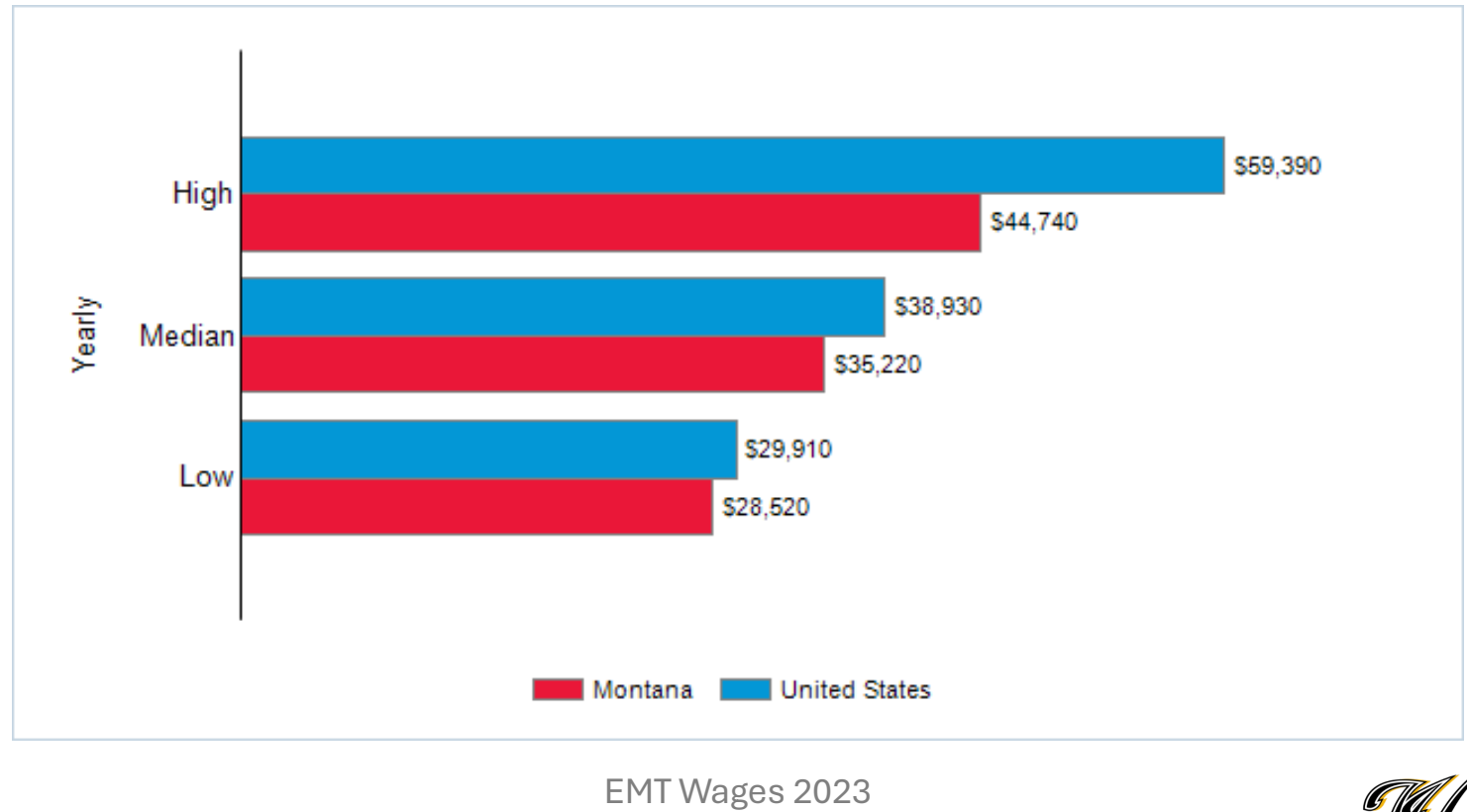
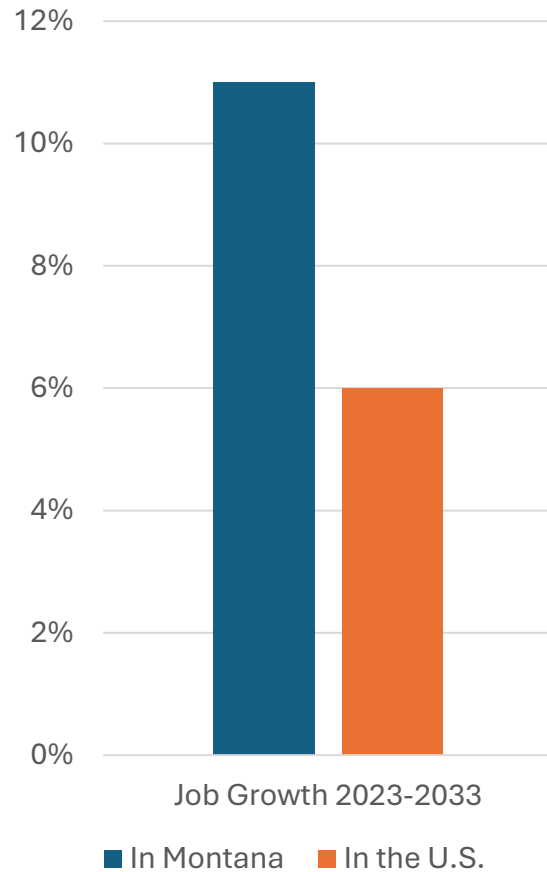


# Emergency Medical Technician (EMT)

- ECP 291—Emergency Medical Technician
  - 6 credit class
- Red Lodge High School
  - One semester
  - 12 students
- Lockwood High School
  - Two semesters
  - 26 students
- Billings Career Center
  - Two semesters
  - 31 students



# EMT Employment Trends



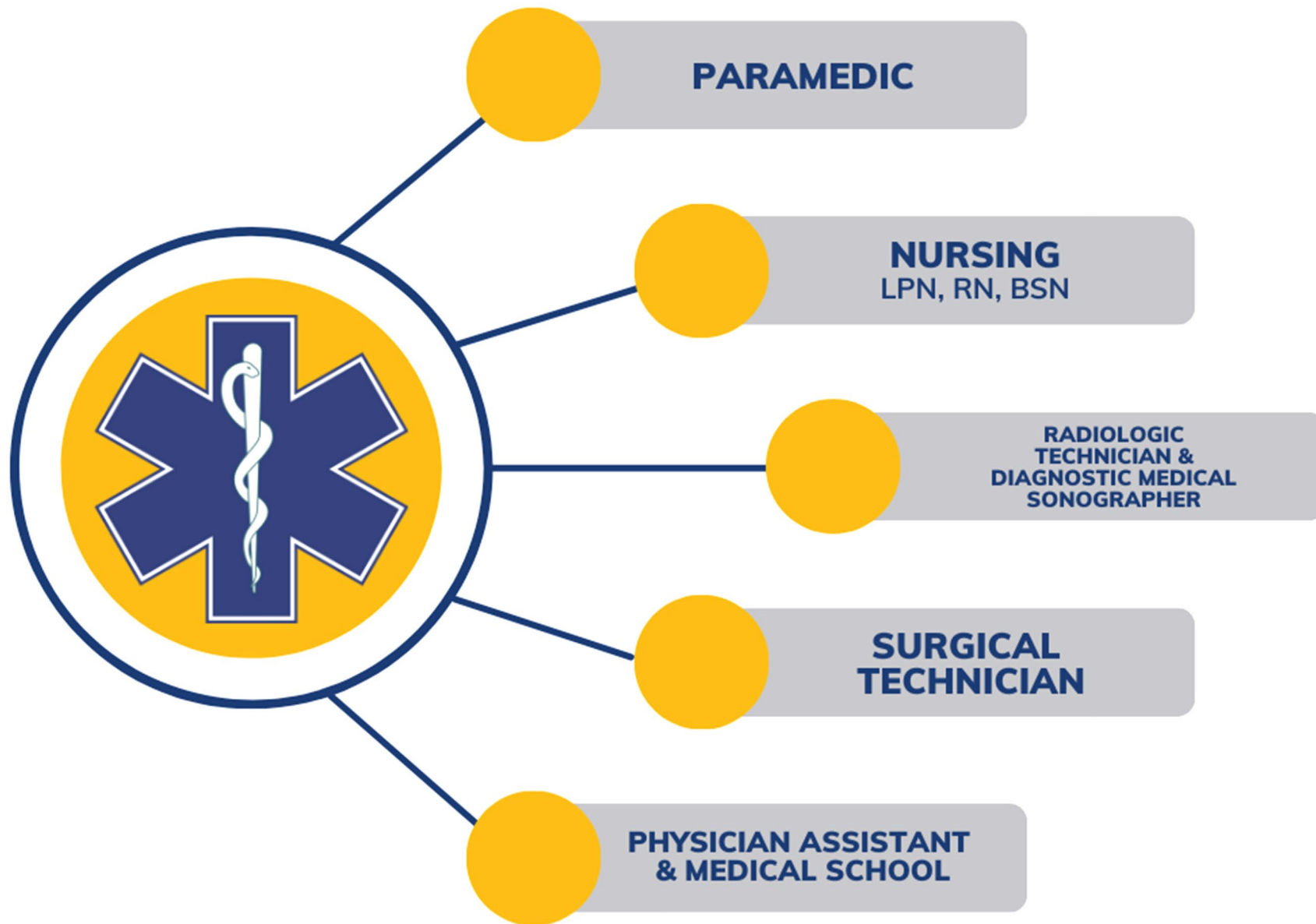
\*Data courtesy of onetonline.com and bls.gov



# EMT Employment Opportunities

- Private Ambulance Services
- Fire Departments
- Police Departments
- Hospitals
- Clinics
- Allied Health Organizations
- National Parks
- Large Industrial Centers
- Contract Medic
  - Amusement Parks
  - Concerts
  - Large Hotels
  - Cruises
  - Festivals





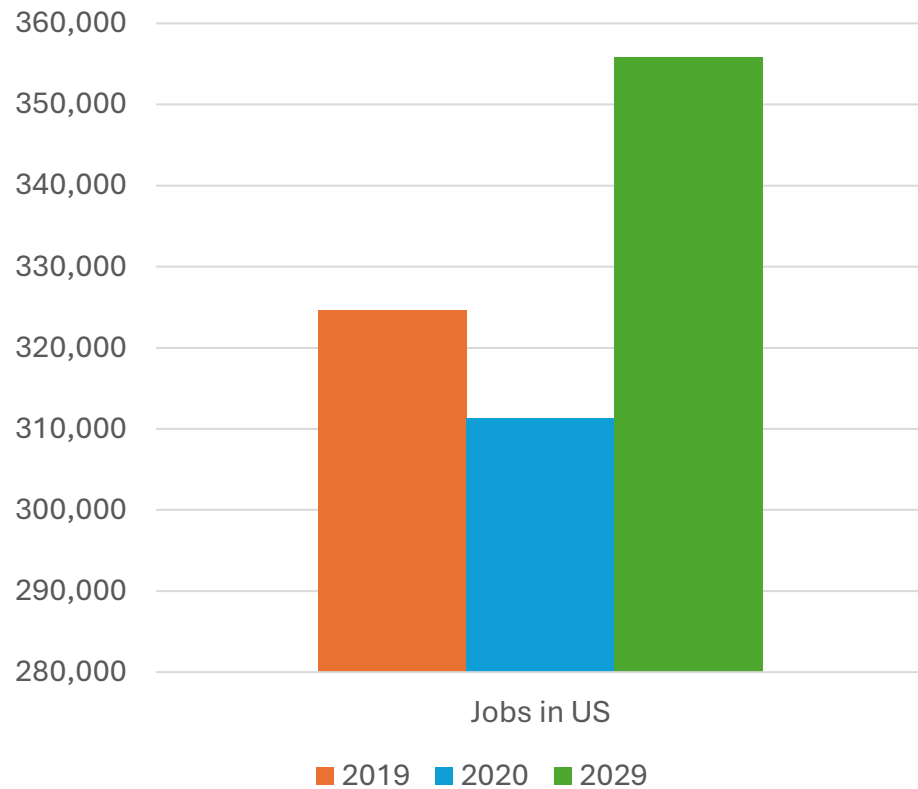
# National Wildfire Coordinating Group Firefighter Type 2

- FIRE 106—Wildland Firefighting
  - 20-30 Students
  - Two Modalities
    - In-person
    - Online
  - Two Locations
    - City College
    - Red Lodge High School
- Completion of the National Wildfire Coordinating Group Modules
  - S-130 Firefighter Training
  - S-190 Introduction to Wildland Fire Behavior
  - L-180 Human Factors on the Fireline
  - ICS 100 Introduction to the Incident Command System
  - ICS 700 National Incident Management System, An Introduction
- Field Day

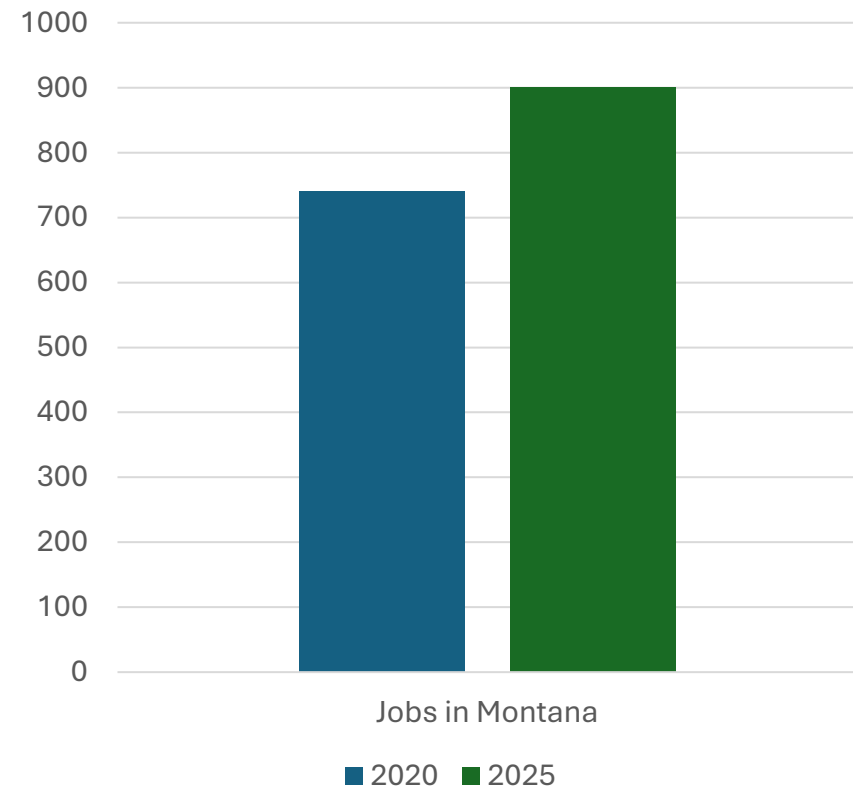


# Wildland Firefighting Employment Trends

## National Job Growth



## Montana Job Growth



\*Data courtesy of recruiter.com, zippia.com, and Taig O'Donnell with the Bureau of Land Management

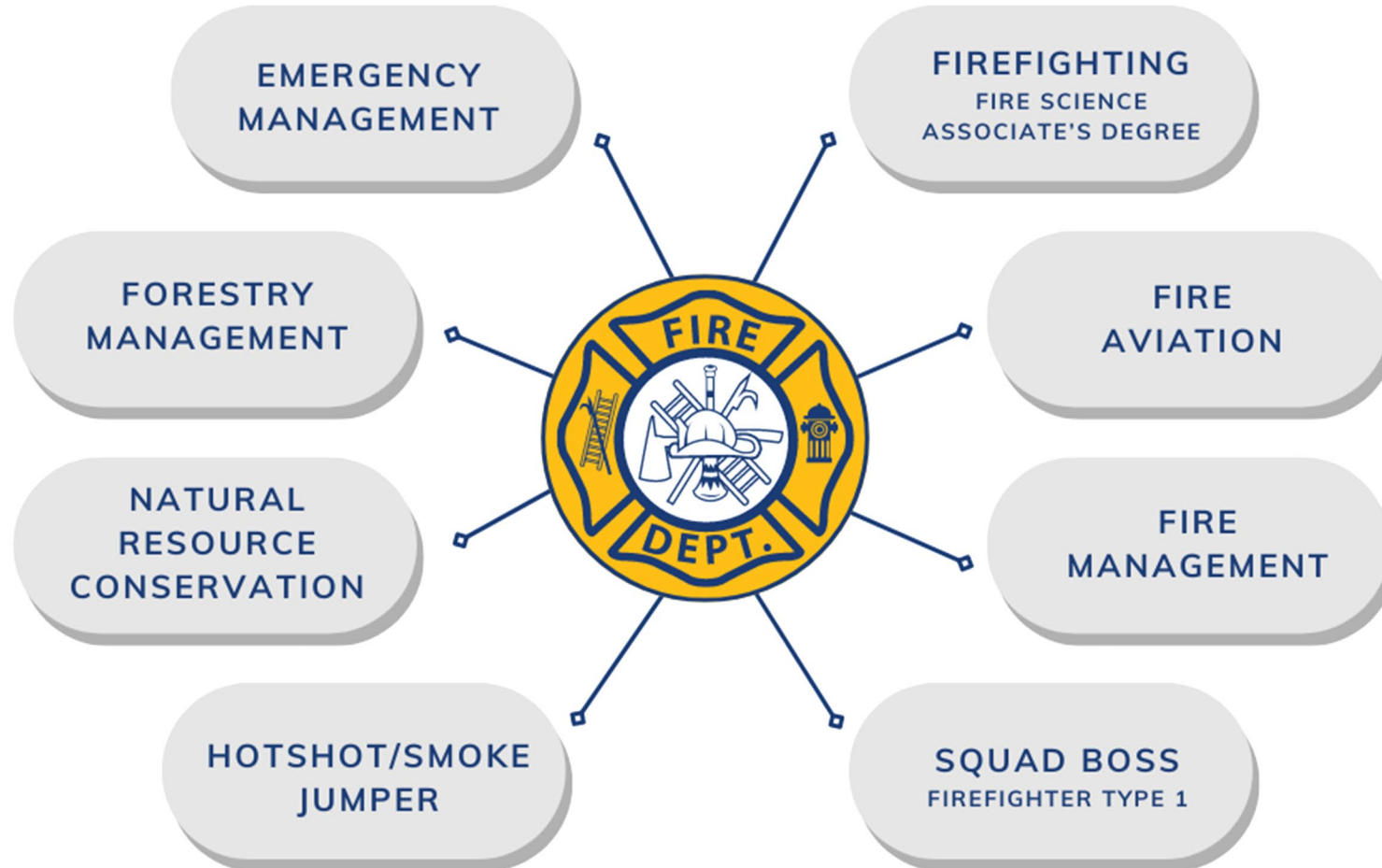




# Wildland Firefighting Employment Opportunities

- Local Community
  - Volunteer and Paid Positions
- Montana Department of Natural Resources and Conservation
- U.S. Department of Agriculture Forest Services
- Department of Interior
  - Bureau of Indian Affairs
  - Bureau of Land Management
  - National Park Service
  - U.S. Fish and Wildlife Service
- Private Contractors









## Field Day Spring 2024

Video filmed by Alan Lohof, City College &  
Greg Roper, Billings Fire Department





**Be Brave. Be Bold.** *Become.*

Kaili Payne  
kaili.payne@msubillings.edu

u

Alan Lohof  
alan.lohof@msubillings.edu

du



# SNAP E&T

Mary Claire Houlihan, Project Director, Maximus



# SNAP Employment & Training

*Program Overview*



**maximus**



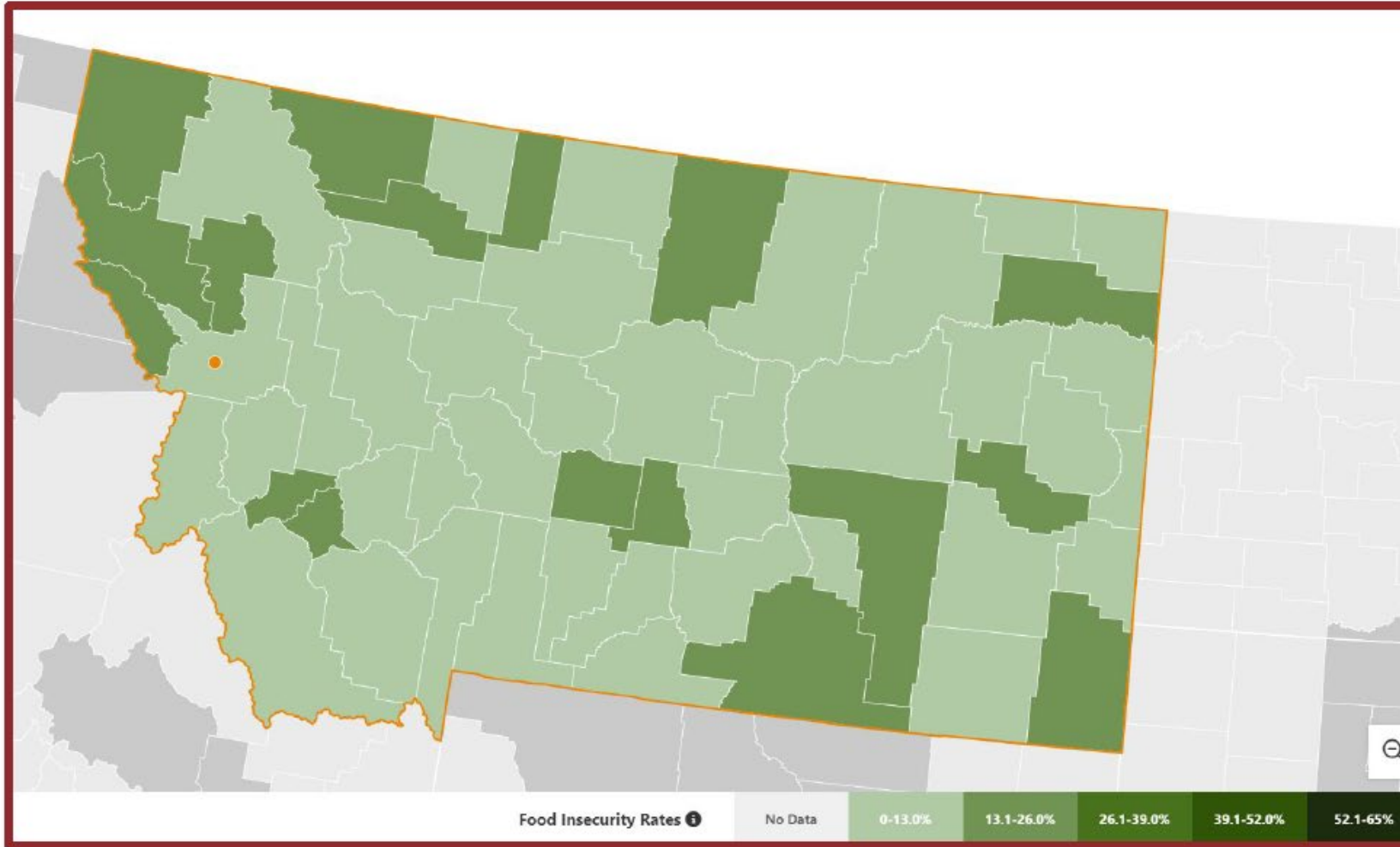
# Introduction & Ice Breaker

- Take 5-7 minutes at your table to discuss the following:
  - What is food insecurity? What challenges may an individual who is experiencing food insecurity face?
  - Have you ever encountered an individual (or been someone) who was experiencing food insecurity?
  - Are you familiar with the resources in your community that support individuals who may be experiencing food insecurity? Share them with your table.

# According to the USDA...

- Food insecurity is an official term from the USDA. It's when people don't have enough to eat and don't know where their next meal will come from.
- An estimated 1 in 9 Montanans, including 1 in 6 children experience food insecurity. (Montana Food Bank Network)

# Food Insecurity Rates Across Montana



Source: Feeding America  
<https://map.feedingamerica.org/county/2022/overall/montana>

# Montana's SNAP Program

## What is it?

- SNAP provides food benefits to low-income families to supplement their grocery budget so they can afford the nutritious food essential to health and well-being.
- SNAP benefits are electronically transferred to participants via an Electronic Benefits Transfer (EBT) card.
- Participants use the EBT card, along with their personal identification number (PIN), to purchase food items from grocery stores, farmers' markets and other authorized food retailers.
- 79% of eligible Montanans utilize the SNAP program.

## Who is eligible?

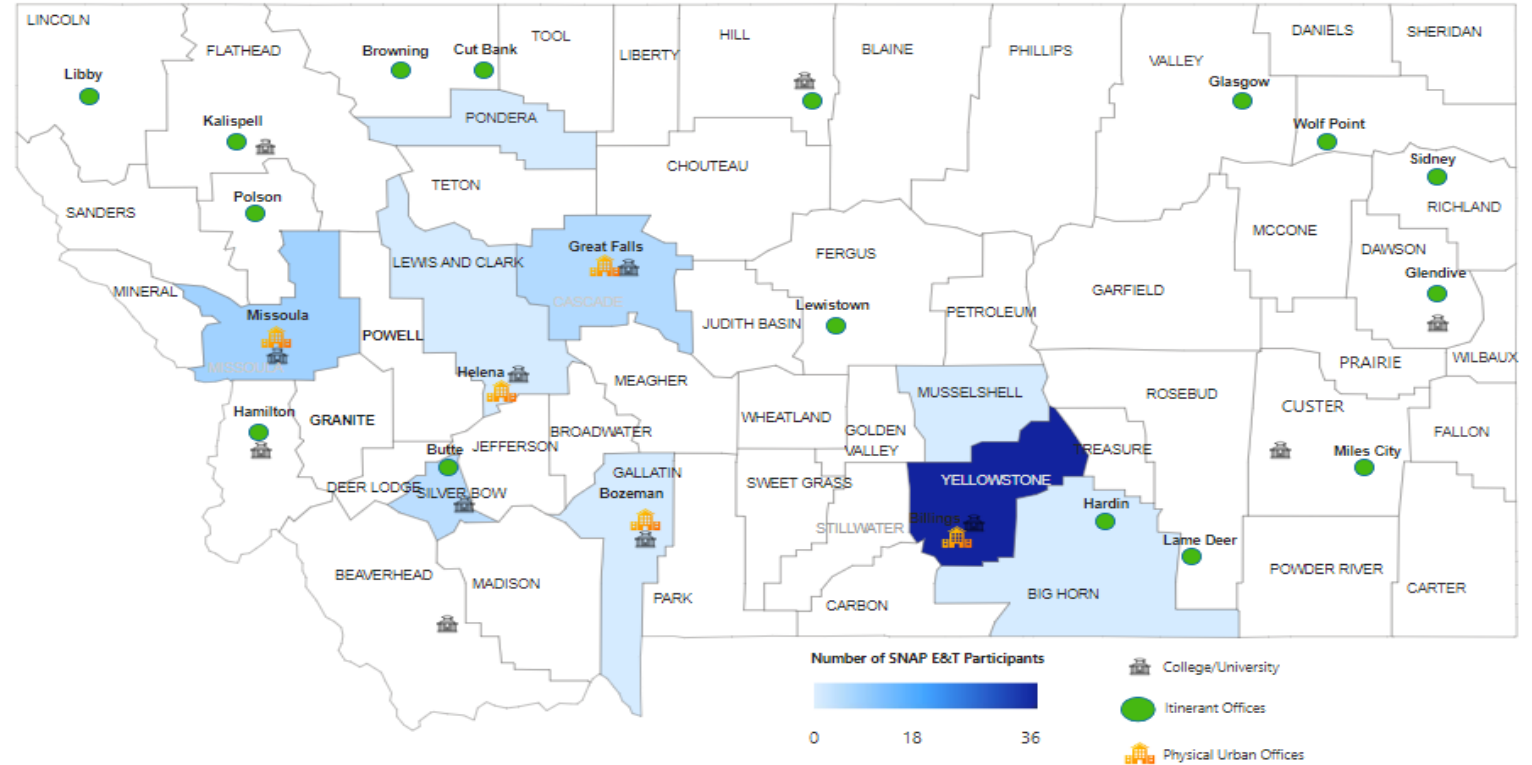
- People who live together and buy food and prepare meals together are grouped as a "household" for SNAP.
- Household members that wish to be included must be U.S. citizens or legal aliens.
- Household members that wish to be included must furnish or apply for a social security number.
- Income and resource guidelines listed in this overview must be met.
- Able-bodied household members who are age 16 through 59 must register for work and may be required to participate in a SNAP Employment and Training Program unless a specified exemption is met.

# SNAP Employment & Training

- Funded by a grant with US Department of Agriculture (USDA), Food and Nutrition Services (FNS).
- Only assists SNAP recipients
- Focuses on Able Bodied Adults without Dependents (ABAWDS).
- Skills training, work, or experience that will increase a participant's marketability and ability to obtain a job
- Maximus operates the SNAP E&T program on behalf of the Department of Health and Human Services (DPHHS) across the State of Montana.

# Counties Offering SNAP E&T

- Missoula
- Yellowstone
- Lewis & Clark
- Big Horn
- Deer Lodge
- Gallatin
- Silver Bow
- Cascade
- Flathead
- Lincoln



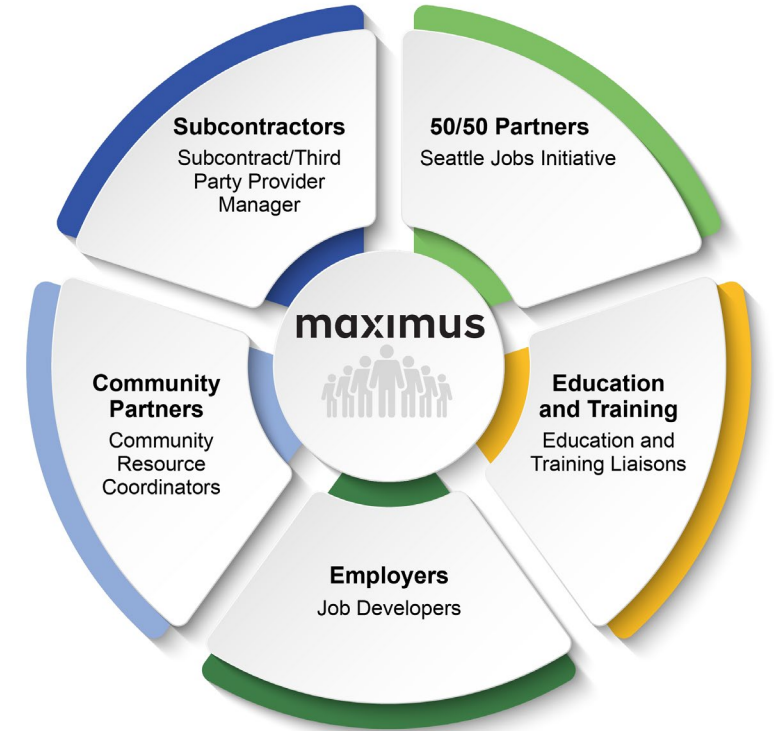
County	Count of SNAP E&T Participants
Yellowstone	36
Missoula	7
Cascade	5
Silver Bow	4
Big Horn	1
Gallatin	1
Lewis and Clark	1
Musselshell	1
Pondera	1
<b>Total</b>	<b>57</b>



# Counties with SNAP, Workforce, and Higher Ed Assets Each Have Food Insecurity Rates over 10%

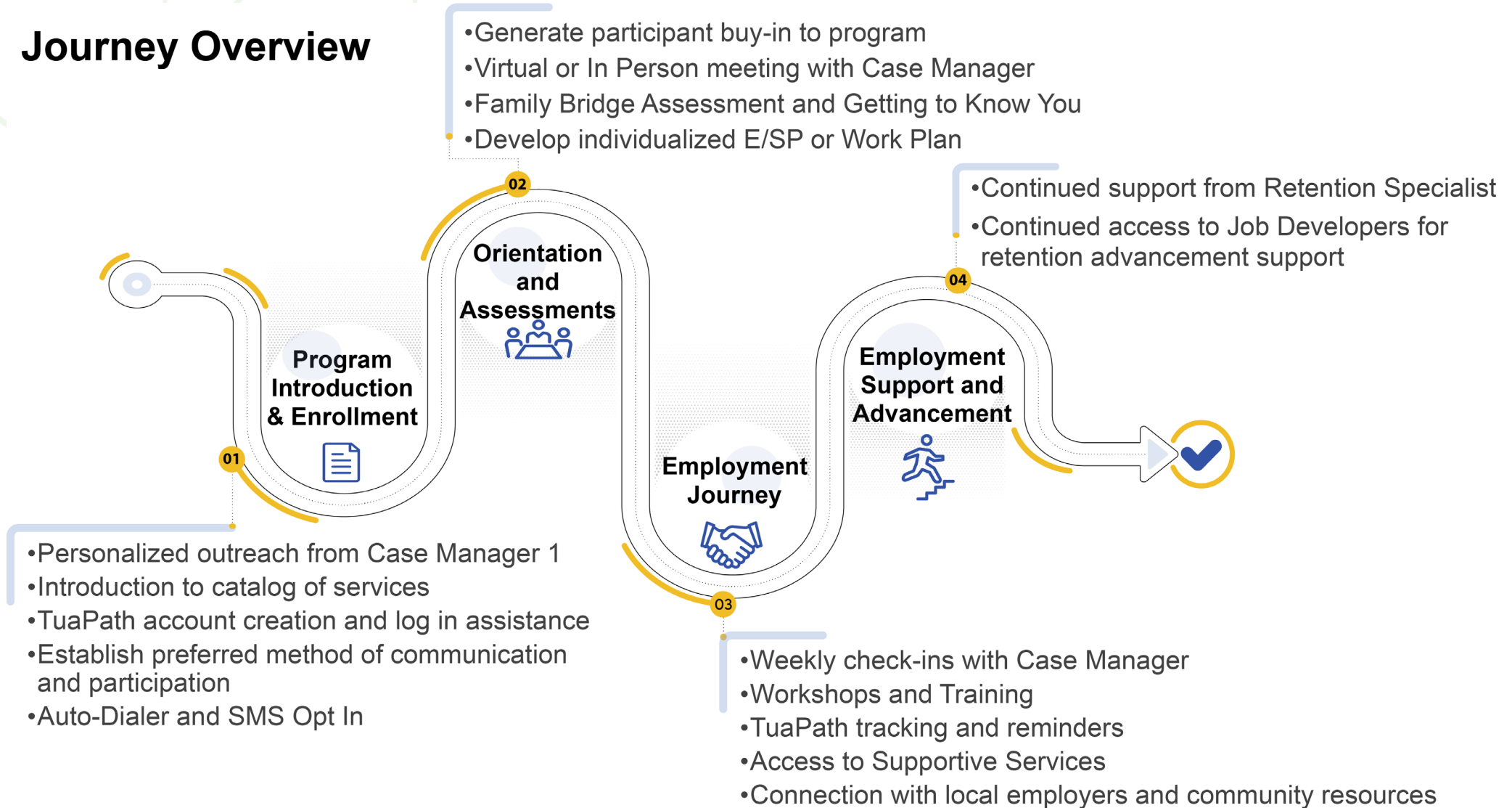
County	Total Population	Food Insecurity Rate	% Below SNAP Threshold	% Above SNAP Threshold
Yellowstone County	170,843	10.50%	57%	43%
Missoula County ★	121,849	11.20%	64%	36%
Flathead County	113,679	10%	65%	35%
Cascade County ★	84,900	12%	65%	35%
Lewis and Clark County	75,011	10%	58%	42%
Silver Bow County	36,360	13.50%	68%	32%

# SNAP E&T Program Model



# SNAP E&T Journey Overview

## Journey Overview



# Maximus Partnerships



# What does it mean to be a 50/50 provider?

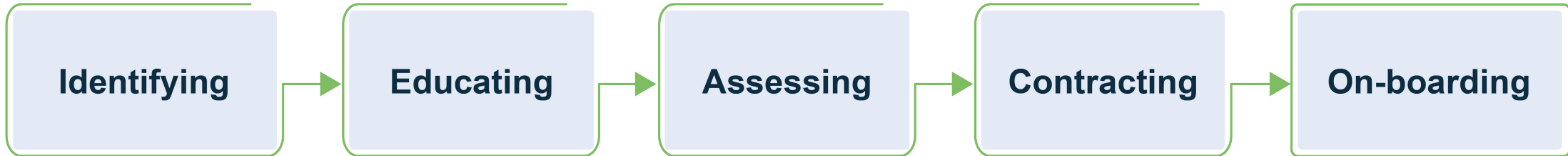
- FNS provides funds to each state to operate SNAP E&T programs
- Third-party providers are contracted to provide SNAP E&T services to eligible participants
- Providers use their own eligible funds to deliver SNAP E&T services, then receive up to 50% reimbursement (75% for Tribal Colleges)

# 50/50 Program Benefits

- Allows for rapid, short-term training for eligible participants that is funded in part by the Federal government
- Leads to expanded access
- Partial reimbursement for services being provided
- Financial support for students through E&T supportive service funds
- Wraparound services such as employment assessments, case management assistance, job search assistance, retention services, etc.



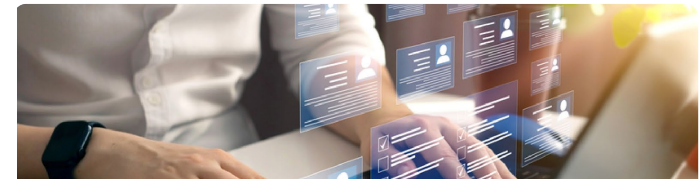
# Establishing a 50/50 Framework



**Technical Assistance**



**Peer Network**



**Service Delivery Toolkit**

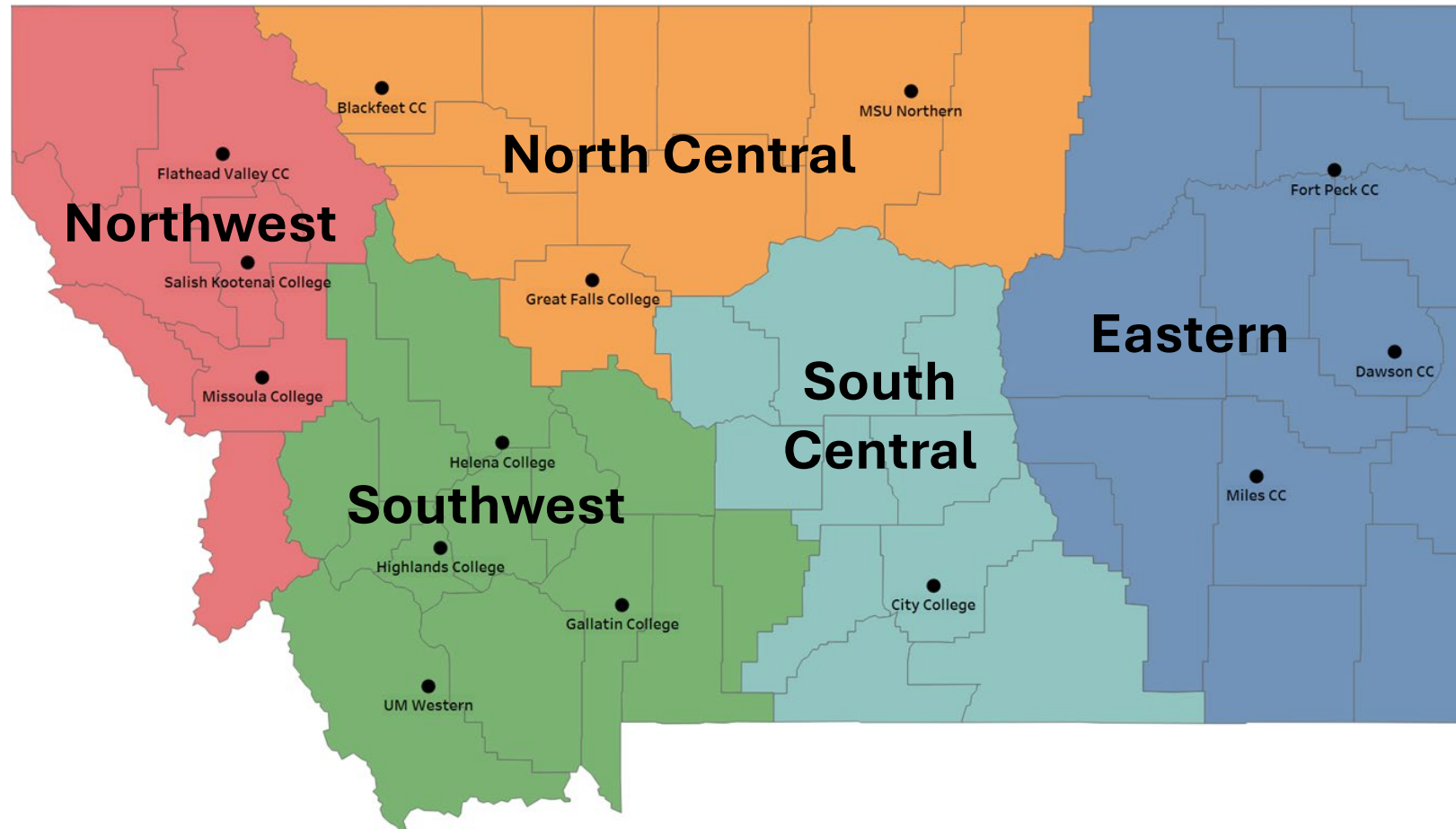
**Framework**

# How does it work?

- Once an organization is an established 50/50 provider, they may start invoicing for services provided
- Invoices are sent directly to Maximus
- Up to 50% of funds are reimbursable for eligible participants

# Questions?

# Sit with your Region



**15 Minute Break**

# Table Work - *Sit with your regions*

*A reflection of what students shared/beginning conversations with industry.*

- Where to spend your energies and strategic planning?
- Who is going to champion this work?
- What is my role?
- How do campuses adjust their work to meet the changing college demographics?



# Sticky Wall

*Write one action step that you plan to take when you return to your community.*

# Lunch

# Industry Connection Action Plan Development

*Sit with your region*

Goal: Develop a roadmap that identifies responsibilities/roles and outcomes that align with institutional goals.

Thank you for joining us and see  
you next year!



Safe travels!

