



MACH/WELD Advisory Committee Meeting

Monday, November 13, 2023

AGENDA

Welcome &
Introductions

Updates and
Overview

Labor Market
Information

Industry Share
Outs

Machine &
Metals Updates
and Discussion

Welding
Updates and
Discussion

K-14
Connections
and Outreach

Summary
wrap-up



Hello!

Please share your name, role, organization.

College Updates, Trends, and Outcomes

Heather Rahman, Program Coordinator, Career Education at College of Marin

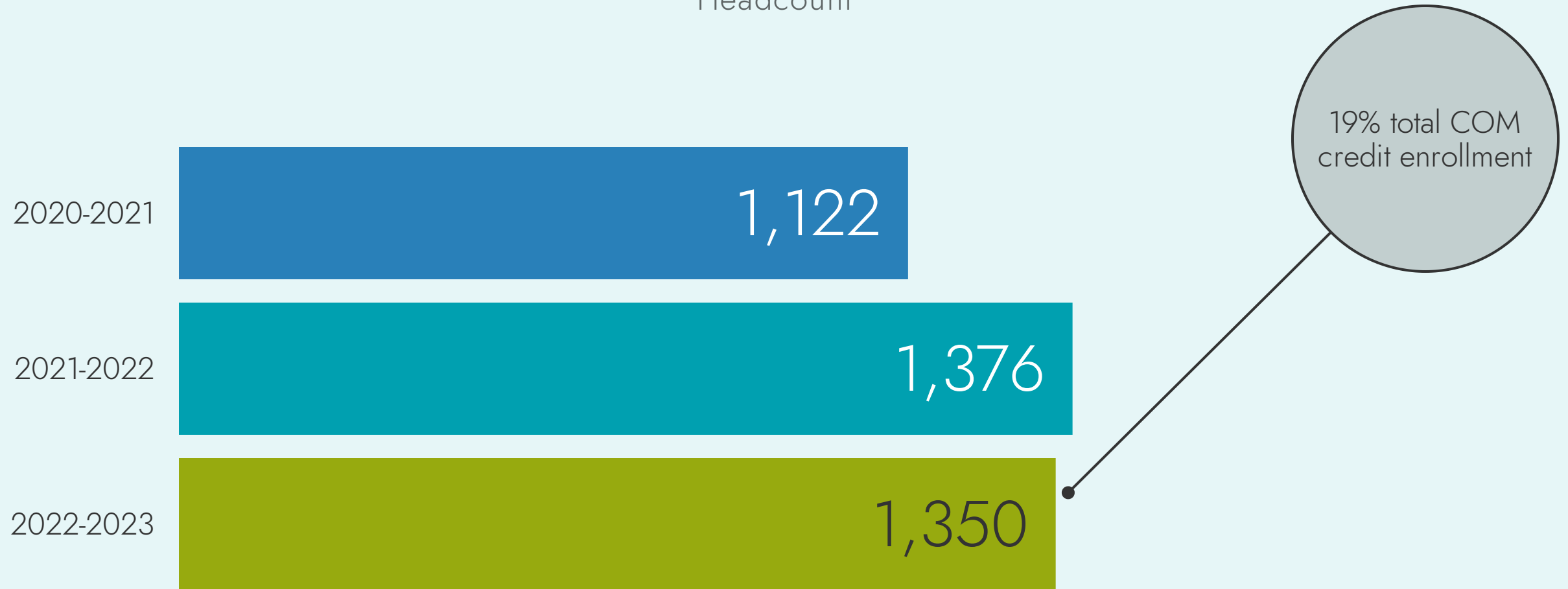
Career Education Programs



- Administration of Justice
- **Auto & Industrial**
Auto Collision Repair; Auto Technology;
Electronics; **Machine & Metals**; Theater
Technology - Stage Carpentry, **Welding**
- Business
Applied Accounting; Business Administration;
Entrepreneurship; Hospitality Management;
Real Estate
- Computers & Multimedia
Computer Information Systems; Graphic
Design; 3D, Video, Game Dev; Web Design
and Development; MS Office Specialist
Certification
- Court Reporting
- Early Childhood Education
- Health Sciences
Registered Dental Assisting; Emergency
Medical Services; Medical Assisting;
Registered Nursing; FIRE Foundry Program
- Education 2 Career (E2C)
 - Construction/OSHA 10
 - Certified Nurse Assistant/Home Health
Aide
- Summer Career Academies
- Apprenticeship Programs
 - ECEPTS-Early Childhood
 - Golden Gate Transit Bus Coach Operator

Career Education Unduplicated Students

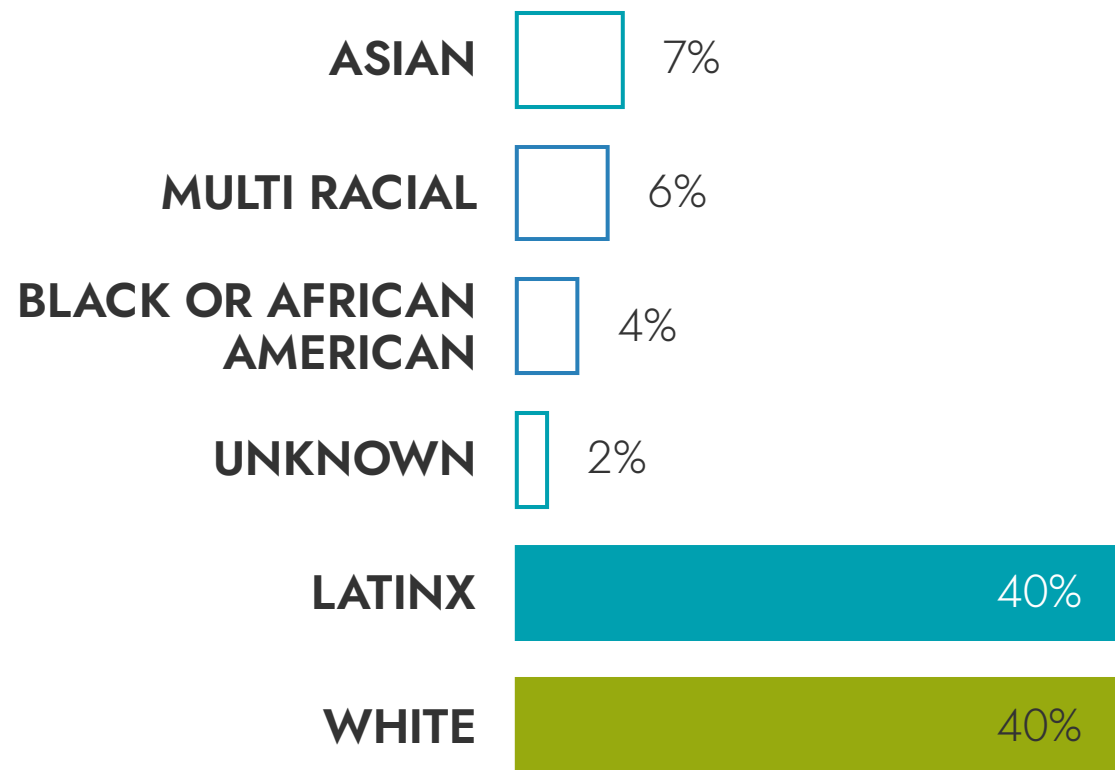
All CTE including Nursing, WEXP, ECE, Business N=21% COM Enrollment and 30% COM Unique Student Headcount



NATIVE HAWAIIAN, PACIFIC ISLANDER, AMERICAN INDIAN, ALASKA NATIVE MASKED N<1%

Career Education Student Demographics *

***2022-2023 N=2,508 for all Top CE Codes including, ECE, Business, Nursing**



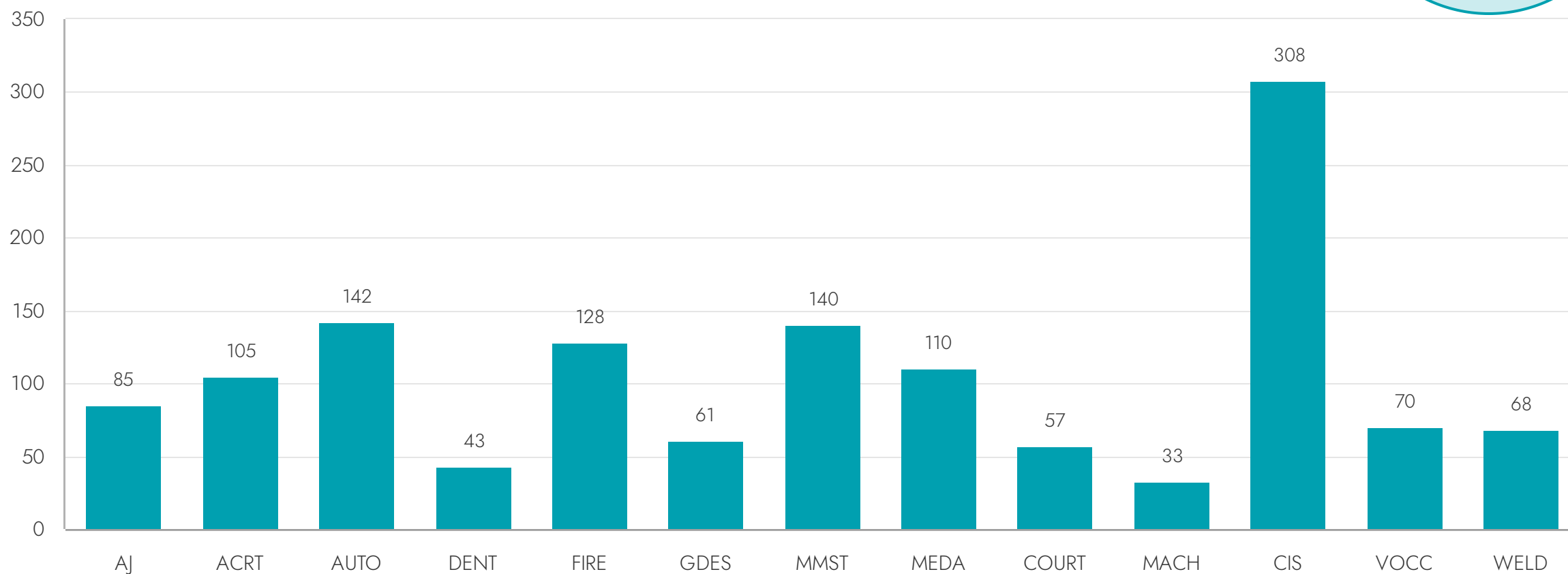
CAREER EDUCATION ALIGNED WITH ALL OTHER COM STUDENT RACE AND ETHNICITY DEMOGRAPHICS

Academic year 2022-2023

Enrollments by Program

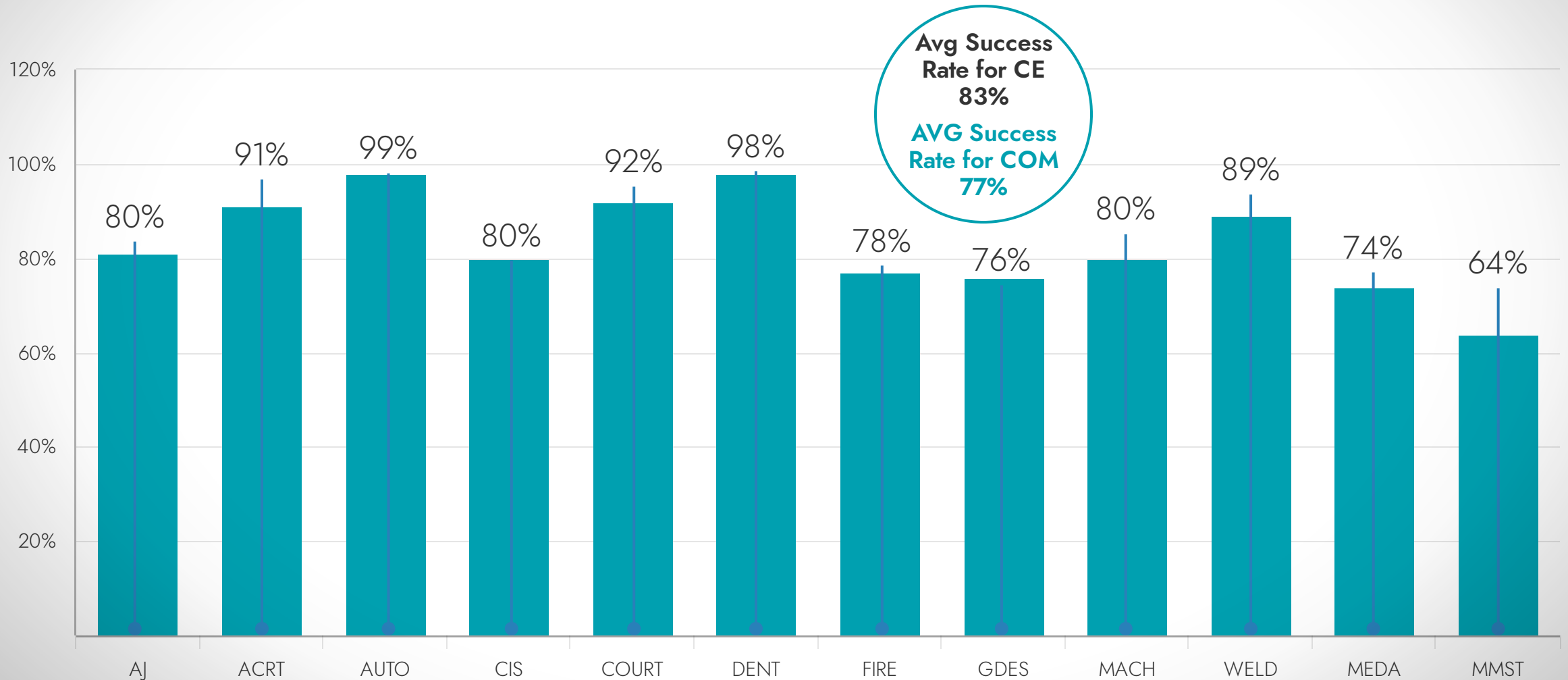
N=1,282 Credit Students

6,695 Total
COM Credit
Students 2022-
2023



Course Completion

Success percentage average across all credit programs, all modalities for 2022-2023

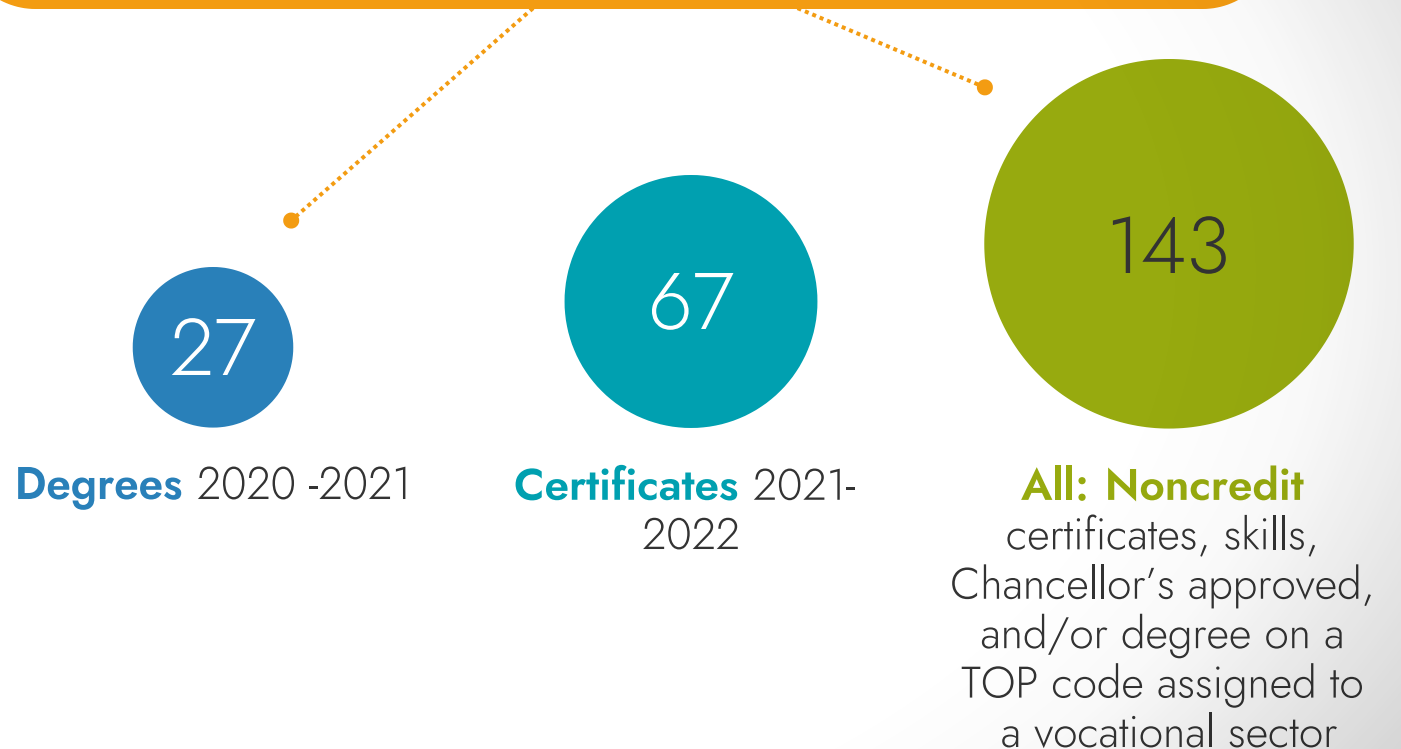


Career Education Outcomes

Source: Awards Transfers-Career Ed 2020-2022



33% of Total College Awards and Aproximately 36% of all degrees at COM



Total COM Awards 2020-2022 N= 430

Career Technical Education Outcomes Survey (CTEOS)

EMPLOYMENT DATA

18 months after college completion

85% Goal



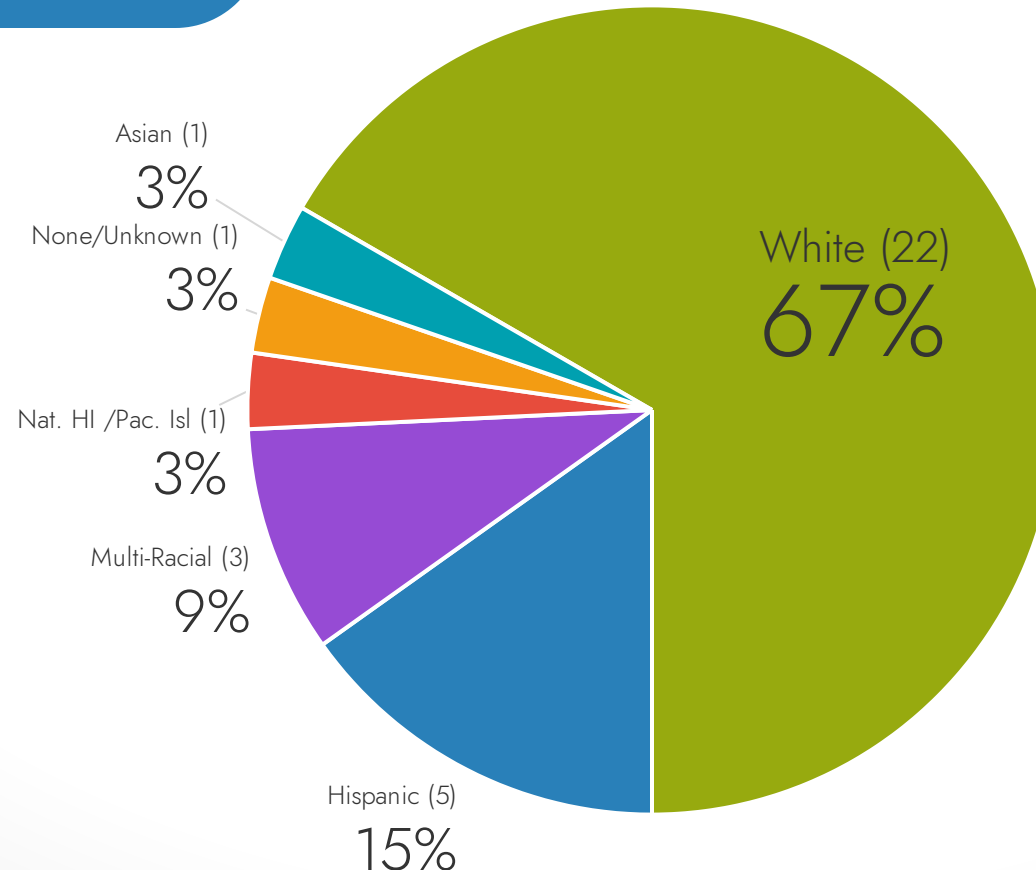
206 Student respondents

Student Demographics

MACH Program 2022 - 2023

94% Male (31)

6% Female (2)



COLLEGE OF MARIN CREDIT STUDENT CHARACTERISTICS

Gender: Male 41% Female 57%;

Median Age: 22

Race/Ethnicity:

Asian: 440 (6%)

Black/African American: 215 (3%)

Hispanic: 2245 (34%)

Multi-racial: 441 (7%)

Native American: 9 (0.1%)

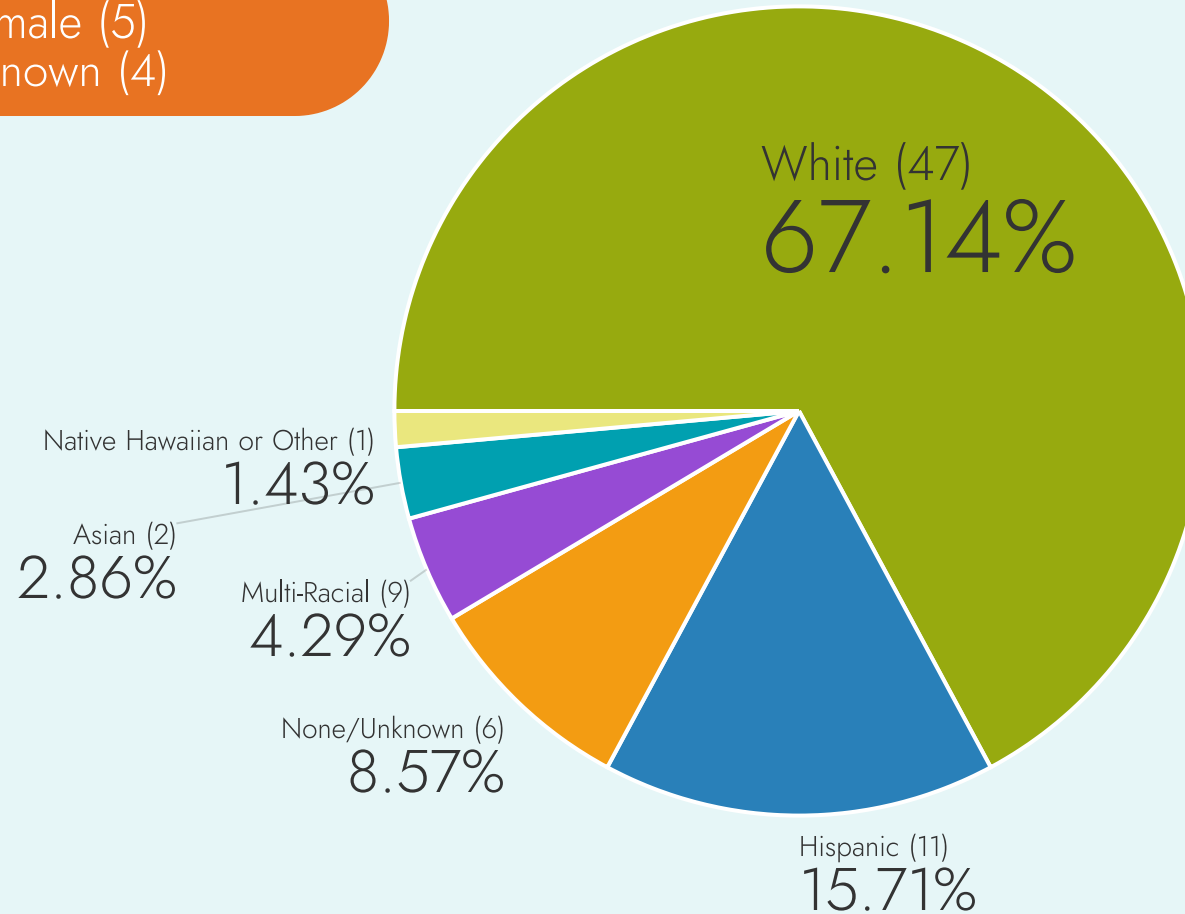
Native Hawaiian/Pacific Islander: 15 (0.2%)

White: 3135 (47%)

Student Demographics

WELD Program 2022 - 2023

87% Male (59)
7% Female (5)
6% Unknown (4)



COLLEGE OF MARIN CREDIT STUDENT CHARACTERISTICS

Gender: Male 39% Female 59%;

Median Age: 24

Race/Ethnicity:

Asian: 538 (8%)

Black/African American: 219 (3%)

Hispanic: 2,170 (31%)

Multi-racial: 445 (6%)

Native American: 15 (0.2%)

Native Hawaiian/Pacific Islander: 13 (0.2%)

White: 3,377 (49%)

Regional Labor Market Information

Sources: Centers of Excellence Demand Tables

Regional Counties:
Marin, Napa,
Sonoma, Solano,
San Francisco and
San Mateo, Contra
Costa, Alameda

"Welders starting
wage are typically
higher with benefits."

Occupation

Median Earnings

Annual Job Openings projected through 2026

CNC Machine Tool Operators

\$51,376/year (24.70/hour)

1,498

CNC Machine Tool Programmers

\$81,723/year (39.29/hour)

272

Machinists

\$56,347/year (27.09/hour)

2,351

Welders, Cutters, Solderers and
Brazers

\$57,450/year (27.62/hour)

2,865

"Top-end
employees will
make
significantly
higher wages,
even double."

"Nationwide, 2.1
million unfilled
manufacturing
jobs by year
2030"

<http://coeccc.net/>

Thoughts and
Reactions?



Discussion

Your Hiring and Staffing Needs

Grant Kerr, MACH Instructor

Padraig McGee, WELD Instructor

PRIORITIES AND CURRENT LANDSCAPE

Advisory Member Share Outs & Discussion



Staffing and Recruiting

- Where do you find your candidates?
- What wages can be expected for entry level positions?



Training & Professional Development

- What are the skills required? For which levels?
- Any emerging technology skills that should be considered?



Community Partnership & Impacts

- How should we best prepare our students to be qualified and competitive?



Needs and Priorities

- What are your current priorities and needs for hiring?



Other Key Items?

- What should we be aware of to support our future students?
- Potential technology, training, or emerging sectors?

Machine & Metals Technology (MACH)

Grant Kerr, MACH Instructor

MACH Discussion Points

- **Curriculum**

New Course MACH 100 - Career, Precision Measurement and Math for Industry

CAD/CAM and CNC modernization

- **Fab Lab**

A landing pad for new students

Project-based learning

- **Expansion Ideas**

ESL Support

Apprenticeship program

Strategies to increase enrollment, attract career minded students and diversify student population

- **Equipment**



Machine and Metals Technology Program

A.S. Degree and Certificate Options Available

- MACH100 - Careers, Precision Measurement and Math for Industry (4 units)
- MACH101 - Introduction to Machine Technology (4 units)
- MACH102 - Intermediate Machine Technology (4 units)
- MACH103 - Machine Tool Processes (2 units)
- MACH104 - CAD 3D Modeling and Drafting (3 units)
- MACH105 - CAD-CAM Production (3 units)
- MACH106 - Introduction to CNC Machining (2 units)
- MACH107 - CNC Programming for Mills and Lathes (2 units)

Total of **24 units**

MACH Discussion Points

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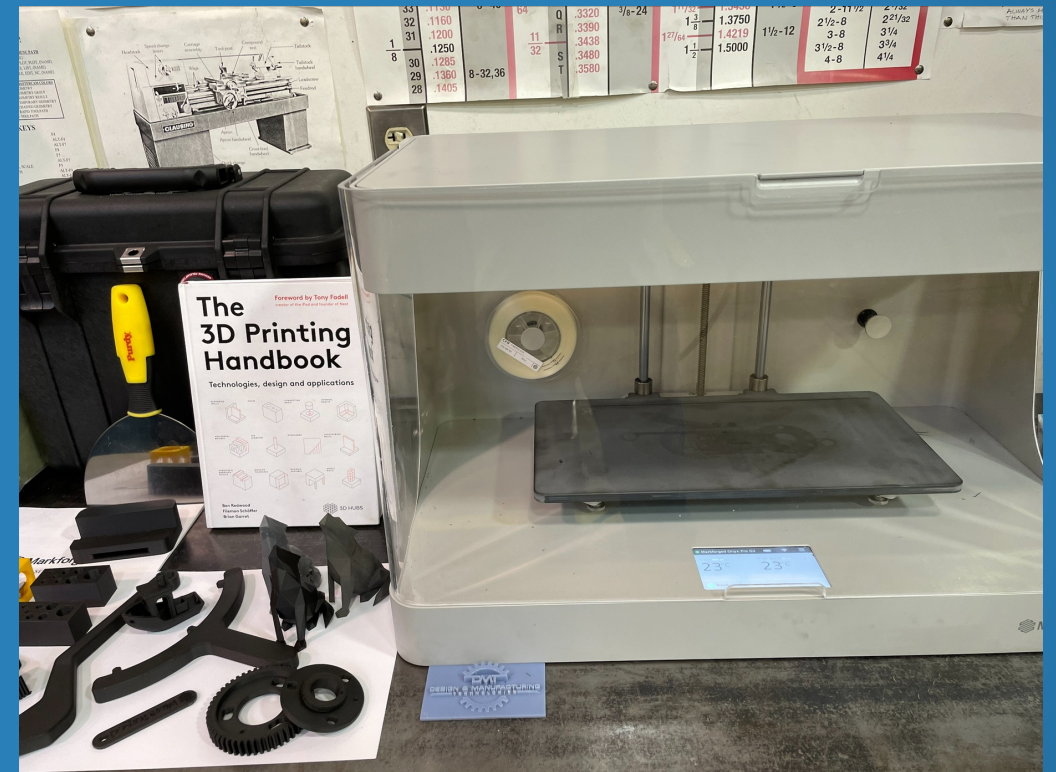
ESL Support

Apprenticeship program

Strategies to increase enrollment, attract career minded students and diversify student population

- **Equipment**





Newest Equipment

Welding (WELD)

Padraig McGee, WELD Instructor

WELD Discussion Points

- **Curriculum**

History

Updates and Proposed Certificate of Achievement

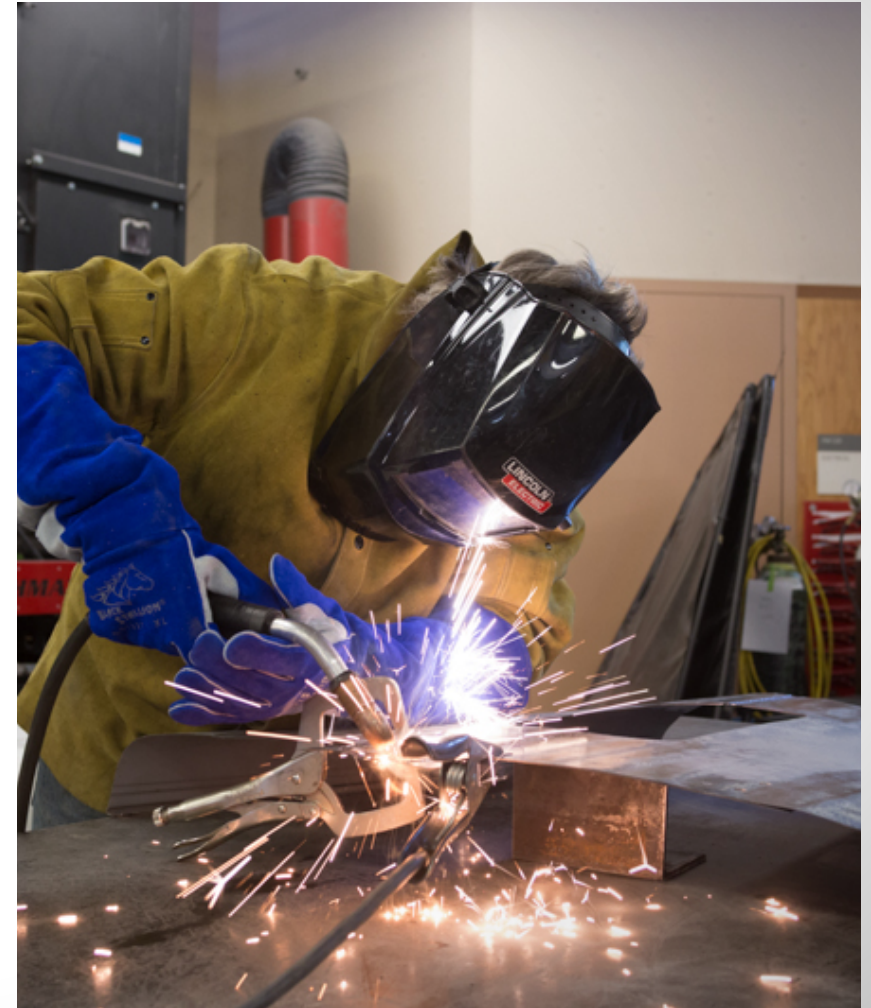
- **Enrollments - Outreach suggestions?**

How to increase enrollments

Where to recruit career-oriented students

Diversify

- **Equipment**



History of Welding Discipline

- College of Marin has been offering Welding classes for over 40 years.
- The Welding program was originally located on the Kentfield campus.
- It moved to IVC & became part of the Career Ed program in the 80's.
- Welding was originally its own discipline and merged with Machine Metals in early 2000.
- Recently Welding has been moved back to its own discipline. There are now 2 *separate* disciplines; Machine Metals and Welding.
- The Advisory Committee and the instructors of the Welding discipline have recommended creating a Certificate of Achievement.
- The Welding faculty & Department Chair have created a new Welding Certificate of Achievement.

Certificate of Achievement, Welding Technician

Catalog Description

Welding Technology Program provides an extensive background in cutting and welding processes, such as Oxyacetylene Cutting and Welding, Plasma Cutting, Carbon Arc Cutting, Shielded Metal Arc Welding, Flux Core, MIG and TIG. Welding include structural metal fabricator, pipe and steamfitter, welding inspector, and welding engineer. Welders who can qualify in these specialty areas such as TIG, Pipe Welding, and the welding of stainless steel and aluminum are always in demand. Many artists also learn to specialize in metalwork by taking welding courses.

Certificate of Achievement, Welding Technician

Weld 100 - Career Math and Precision Measurement - 4 Units

Weld 101 - Introduction to Welding - 4 Units

Weld 102 - Intermediate MIG Welding - 2 Units

Weld 103 - Advanced MIG Welding - 2 Units

Weld 104 - Intermediate TIG Welding - 2 Units

Weld 105 - Advanced TIG welding - 2 Units

Weld 106 - SMAW Welding - 2 Units

Weld 107 - OFW and Welding Fabrication - 2 Units

Total Units: **20 Units**





Miller Dual Shield Welder



WELD Discussion Points

- **Curriculum**

History

Updates and Proposed Certificate of Achievement

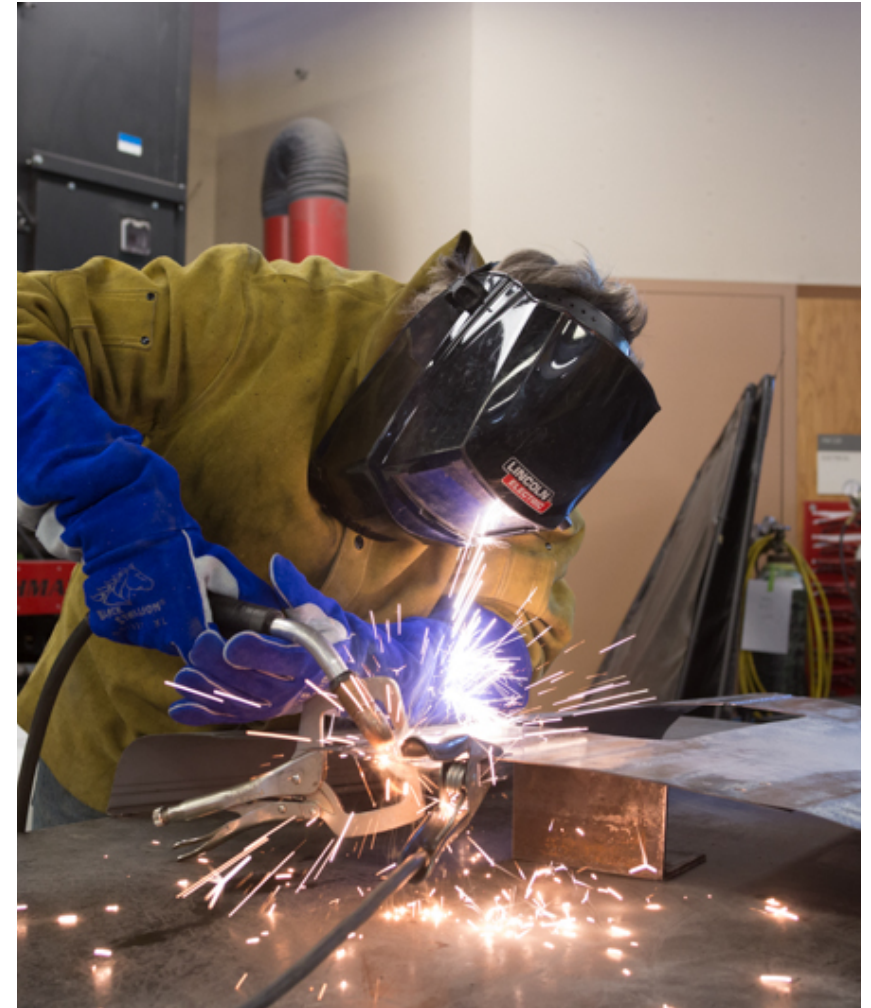
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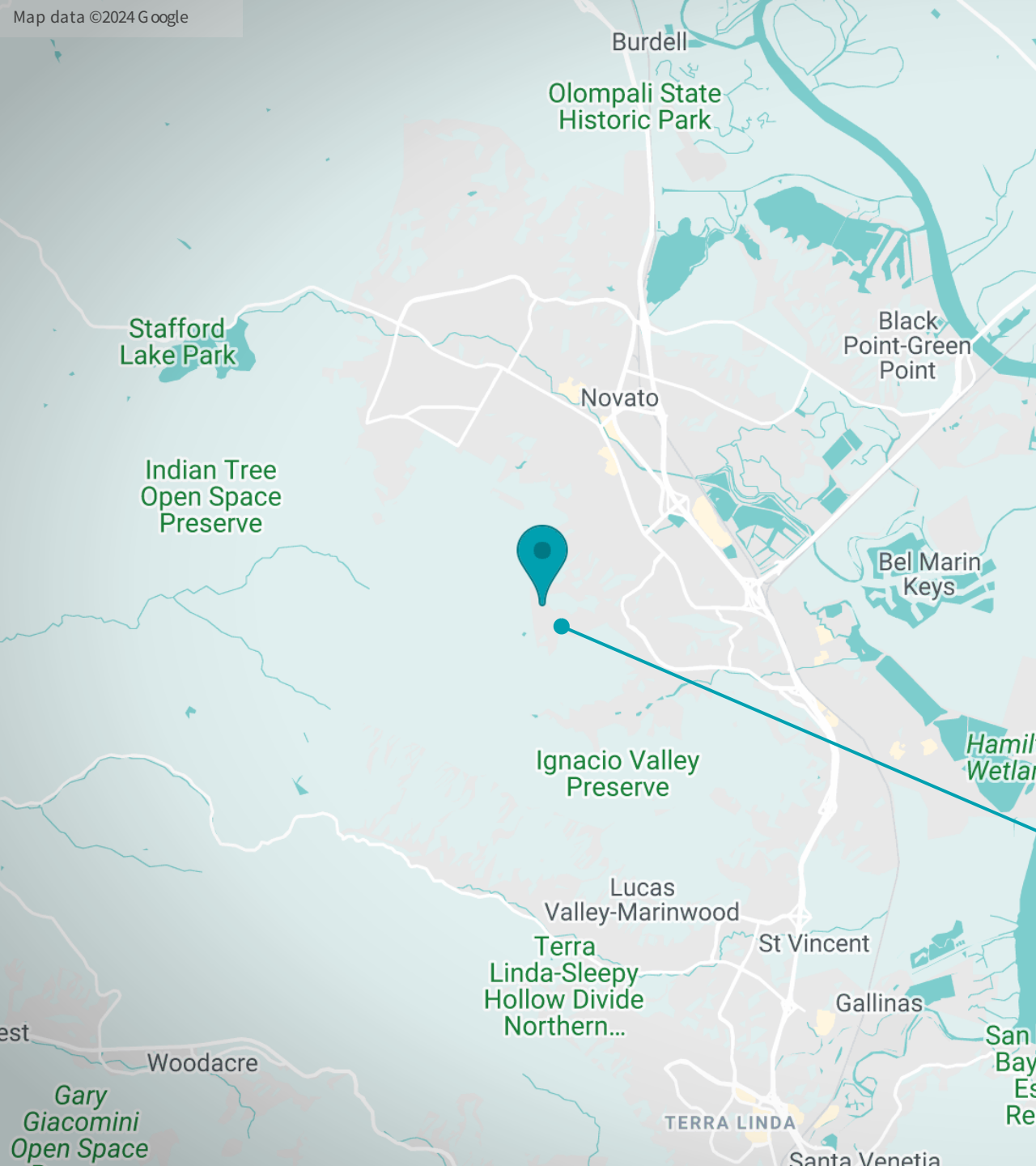
Diversify

- **Equipment**



Summary/Wrap-up
Thoughts? **Questions?**
NEXT STEPS





Thank You!

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College of Marin, Indian Valley Campus