



Fire Technology Advisory Committee Meeting

MINUTES

Thursday, October 26, 2023

9:00 - 10:30 a.m., online via Zoom

Attended:

Joshua Dimon, F.I.R.E Foundry
Mimi Choudhury, F.I.R.E Foundry
Dean Bonfigli, Tiburon Fire Department
Ken Allen, COM, Instructor, Fire Technology
Lynne Osgood, Deputy Fire Marshal, Novato Fire
Kathleen Antokhin, College of Marin (COM), Program Coordinator, F.I.R.E Foundry
Kathleen Smyth, COM, Physiology Instructor/Chair and Coordinator for Distant Education
Lesley Pfeiffer, MCOE, K-14 Pathways Coordinator
Chief Jason Weber, Marin County Fire
Larry Pasero, Dep. Fire Marshal, Kentfield Fire
Byron Ramey, COM, Counselor
John Bagala, Fire Union President
Linda Vaughn, Regional Director Public Safety Sector, BACCC
Chris Le Baudour, EMS Administrator, Marin Health
Erich Mesenburg, Battalion Chief, Novato Fire
Tommy Hellyer, Tiburon Fire, Training Officer
Richard Pearce, Fire Chief, Tiburon Fire
John Dicochea, Battalion Chief, Novato Fire
Araceli Nunez, BACCC, Regional Director, North Bay Subregion
Ryan Goodwin, San Rafael Fire, Battalion Chief
Will Coley, COM, Counselor
Angela Olmanson, COM, Program Coordinator, Allied Health
Ron Palmer, COM, Career Ed. Chair, Automotive Technology Instructor
Alina Varona, COM, Dean of Career Education and Workforce Development
Thomas Azwell, F.I.R.E Foundry

Presenters	Topic	Notes
Alina Varona, College of Marin (COM), Dean of Career Education and Workforce Development (CEWD)	Welcome, Introductions, and College Updates	Alina shared the overview Career Education programs and objectives of College of Marin (COM). <i>Please refer to the presentation slides copied at the end of these notes. Note action items highlighted in yellow.</i> Chief Jason Weber provided updates on the new fire housing. - Barriers early in careers for potential emergency services personnel make it hard to fill much-needed positions, so the new housing at COM will be a good step forward. Old pool area will be the facility for vehicle mechanics. Building 17, the old library, will be modified with private dorms, more restrooms for COM emergency services students. Estimate \$15 million investment. - Timeline – go to COM board with schematic design by end of 2023, more finalized design in first quarter of 2024. Drawings submitted to state architect early summer, bids at the end of the year.
Open Discussion	Advisory Share Outs and Updates	The committee discussed program and work opportunities tied to Fire Technology in conjunction with housing and vehicle storage at Indian Valley Campus: - Vehicle maintenance and diesel mechanics is another related career path that is much needed. Could connect to the already-existing COM Auto department. - Ron Palmer - Currently offer an entry-level diesel mechanics course at COM and would like to expand. - John Dicochea – had experience with auto tech internship program with DeAnza College and could connect Auto students with county-run auto shops. Action: John and Alina will talk offline to share info about a learn and earn program.

		- Leslie Pfeiffer – could also incorporate the dual-enrollment NUSD Auto class students to internships - Larry Pasero – class or certificate program to onboard defensible space personnel. Think of it as being in the customer service business to build connections with the community and prioritize soft skills. - Jason Weber – Napa and SRJC Paramedic programs are full. It would be great to have a program in Marin. - Alina – The sticking point is a bottleneck for clinical rotations. - Joshua Dimon – What would it look like to build a pathway from defensible space training and vegetation control into other occupations?
Ken Allen, COM, Fire Technology, Instructor	Program Updates: EMT/EMR; EMT – Dual Enrollment NHS, AHA CPR at COM	Ken provided an overview of new opportunities in growing the Fire Technology program. Currently College of Marin and our EMT/EMR training is currently not an American Heart Association training center. We would like at least be training provider and certification site or at least an affiliated center. Would like to get affiliation with an already existing training center. After 2 years working as affiliate, can then apply for our own training program. Jason Weber suggested that Marin County Fire may be a training center. Action: Chief Weber and Ken to discuss later. - Potential for Bachelor’s program at COM for firefighters and EMS. Need at least associate’s for captain’s position, at least bachelor’s for chief position. COM already has an AA in public safety. Could do one in vocational education or emergency service management. Goal is for way for people to promote to chief or admin, or for students to train for specific position in emergency services. - Alina – Community Colleges can build a bachelor’s degree program as long as it

		doesn't conflict with other institution's bachelor's degree, we can prove livable wage jobs are available, and we can sustain the class with enough enrollments. - Richard – tech aspect of Fire is much needed. - John Bagala – Bachelor's degree would be taken by people already in the fire service. Fire fighter's schedule requirements is challenge to a degree program. - Alina – Associates degrees that give priority into bachelor's programs are the most successful.
Angela Olmanson, COM, Program Administrator, Allied Health	Dual Enrollment Updates	- Shared demographics for dual enrollment classes. Dual enrollment started spring 2021 with Novato High School. High school students will have EMT certificate when graduate and complete the program.
Mimi Chaudhury, Program Coordinator Sukh Singh, Development Officer Josh Dimon, Social and Environmental Scientist, Berkeley Disaster Lab Chief Jason Weber, Marin County Fire	F.I.R.E. Foundry Updates	- Mimi – have amended onboarding to add more students in May instead of beginning of year. - Josh – think about how to connect people to jobs in defensible space. - Frontiers of Fire – partnering with other organizations. Goal is to do more training in the field. <i>Please refer to the presentation slides copied at the end of these notes.</i>
Kathleen Smyth, COM, Department Chair Kinesiology, Health and Athletics	Development of Fitness Course for Fire and Public Safety	- Beginning Firefighting and Public Safety Conditioning course – building curriculum for this class based on City College class. Some scheduling issues. 2-unit course needs to be 6 hours of activity. COM doesn't have some of needed equipment for the course, and need plan for where to store the equipment. Instructor will put together list of equipment that is needed now. Important to have firefighters involved - instructor only has fitness background. - Equipment needed: hoses, stair climb, carrying equipment, forcible entry, ceiling breach and pull. - John shared resources for equipment. - Potentially have student exercise while wearing the equipment. - CCSF requires 2 unit of the course, SRJC required 1 so this planned course will

		cover students who want to move on to the fire academy in either course.
Linda Vaughn, Bay Area Regional Director, Public Safety	Public Safety Regional Efforts and Bachelor's Degree Creation	- Keep in mind you don't have to carry a hose or fire a gun to have a job in public safety – non-traditional career pathways that earn a living wage are available. - Incorporate more ELL learners – learning English, and healthcare - Challenge of shortage of faculty to train people – no time to teach because of mandatory overtime hours in place - Apprenticeships – just got approval for paramedic apprenticeship. Next step – pre-apprenticeship for EMT so they get paid while completing the program. - Bachelor's degree – Miramar College was recently approved for bachelor's in Public Safety. - ACTION: Public safety regional joint venture – next meeting Dec 1 – send info to Linda if would like to attend. - John Bagala- as well as get the job, important to keep the job and be successful in career. Also need to be aware of occupational hazard of high rates of cancer, behavioral health issues from experiences in the job. Important to build resiliency through peer programs, IFF Resiliency Program. 3 curriculums in the CA State Fire Marshall's office for behavioral health and cancer support at the entry and chief officer level. Alina- Also an area where COM and Ken Allen are working to build curriculum.
Alina Varona, COM, Dean CEWD	Closing Comments, Next Steps	ACTIONS Recap: • John Dicochea to connect with Alina Varona and Ron Palmer and share information regarding diesel vehicle maintenance program. • Chief Weber to follow-up with Ken Allen to see if Marin County FIRE can transfer CPR training to COM

		• Kathleen Smyth to connect with John Bagala regarding CPAT physical fitness training, hopefully to connect to the Health and Safety Chair for the union. Perhaps connect with CalJAC to set up a testing center. Please contact Kathleen to support Kinesiology course build-out, scheduling, equipment needs. • Linda Vaughn to share the Miramar College Bachelor's degree in Public Safety. • To learn more about communities of practice: https://sites.google.com/baccc.net/public-safety/home • Follow through to learn about CPAT at https://www.fctonline.org/cpat/ • For contact information to connect with any other member of this meeting, please contact Heather Rahman, COM, Career Education Program Coordinator at hrahman@marin.edu
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FIRE/EMT Advisory Committee Meeting

October 26, 2023

AGENDA

Welcome &
Introductions

College Updates

Industry Share
Outs

Updates on
EMT/EMR; AHA
CPR

F.I.R.E. Foundry

Fitness Course

Public Safety
Expansion

Closing/Next Steps



Hello!

Please share your name, role,
organization.

College Updates, Trends, and Outcomes

Alina Varona, Dean, Career Education and Workforce Development

Career Education Programs



- Administration of Justice

- Auto & Industrial

Auto Collision Repair; Auto Technology; Electronics; Machine & Metals; Theater Technology - Stage Carpentry

- 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

- Short-Term Career Training Programs (12 Weeks)

Business Start-Up, E-Commerce and Social Media

- Apprenticeship Programs

- ECEPTS-Early Childhood
- Golden Gate Transit Bus Coach Operator

California Community Colleges Chancellor's Office

Statewide Objectives for Career Education

Prepare students for 21st century jobs and the future of work.

Degrees & Certificates

- Create Pathways & Support Momentum

Short Term Training & Workforce Development

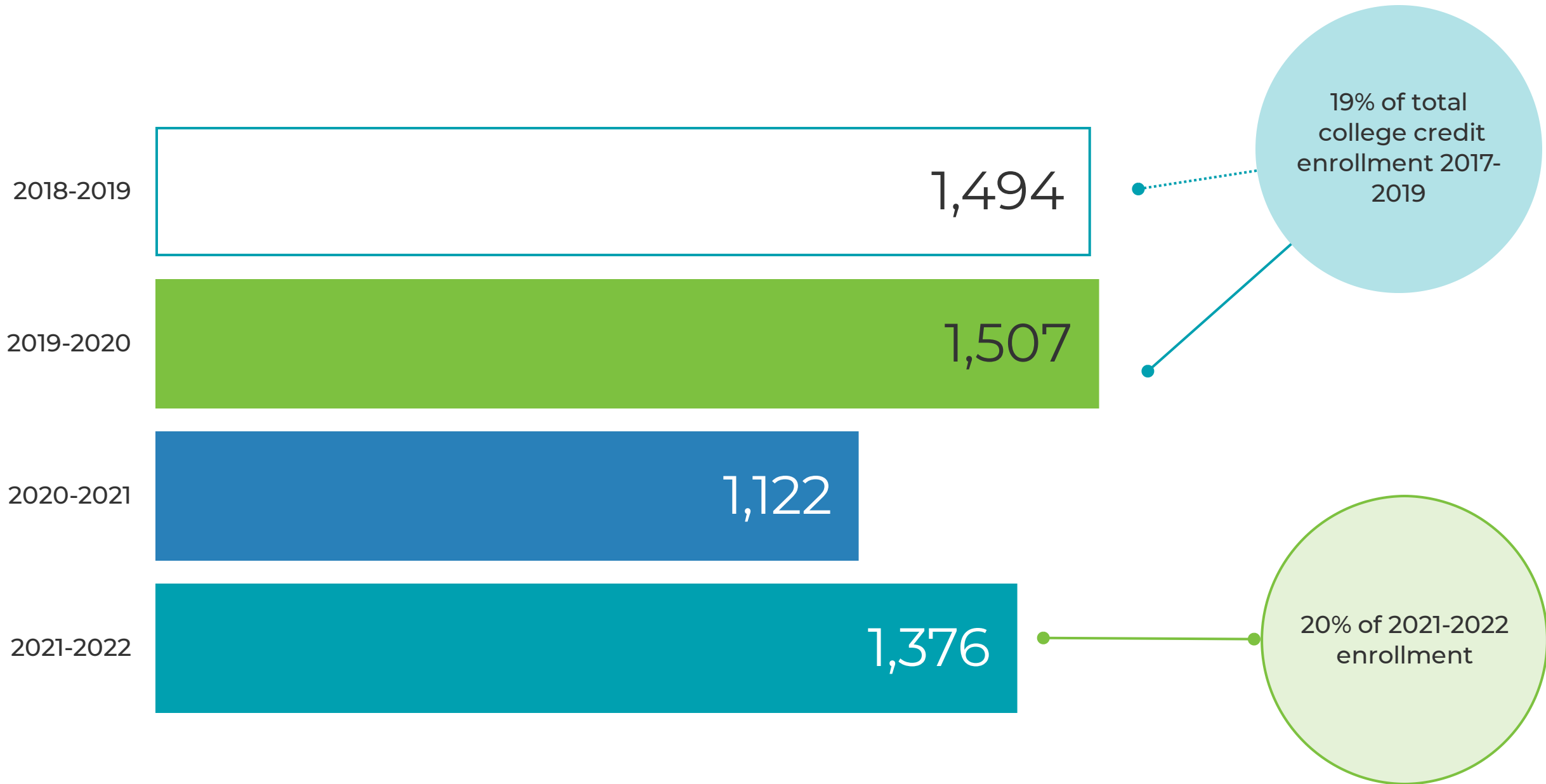
- Respond In-Time to Labor Market Needs and Connect to Employment

Non Credit Education

- Ladder and Bridge to Basic Skills, Work, and Credit

2.1 million students at 116 colleges

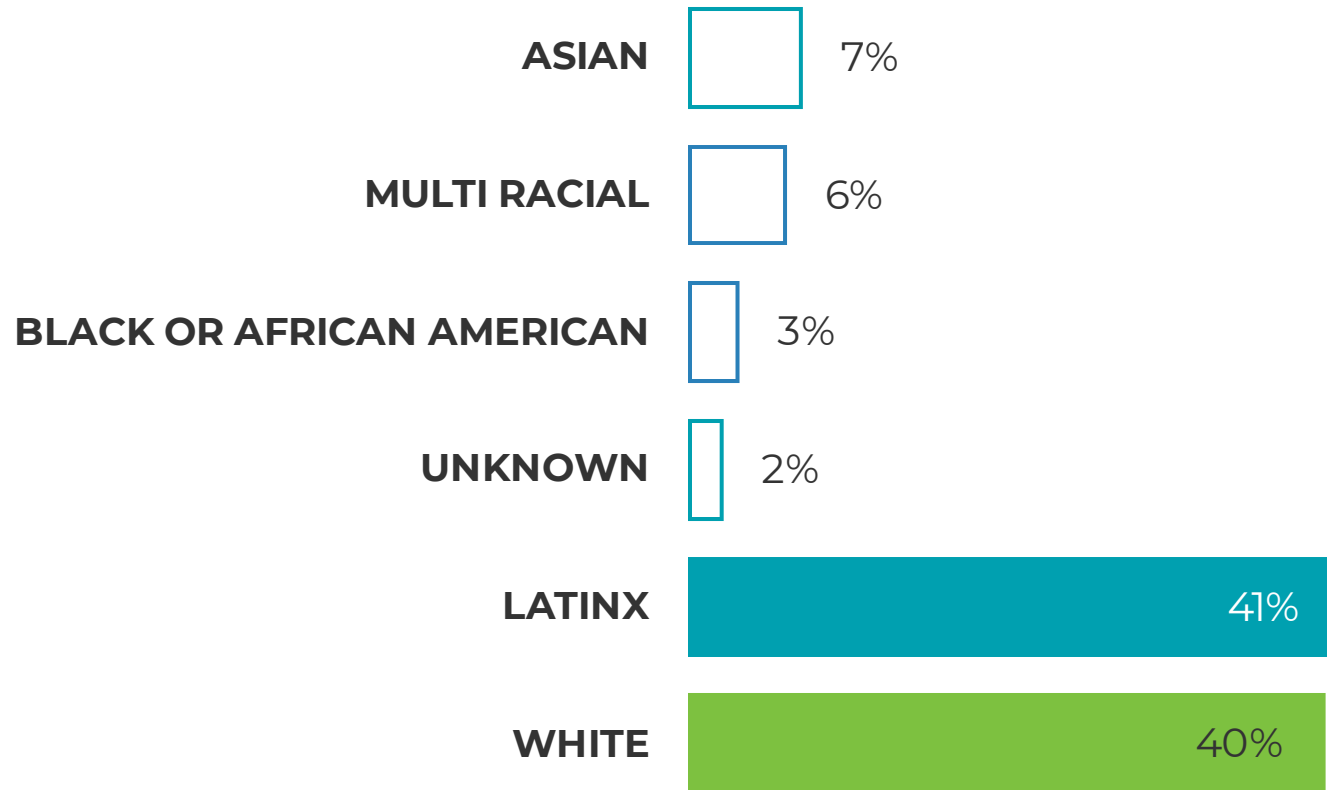
Career Education Enrollment Overview



NATIVE HAWAIIAN, PACIFIC ISLANDER, AMERICAN INDIAN, ALASKA NATIVE MASKED N<4

Career Education Student Demographics

2021-2022

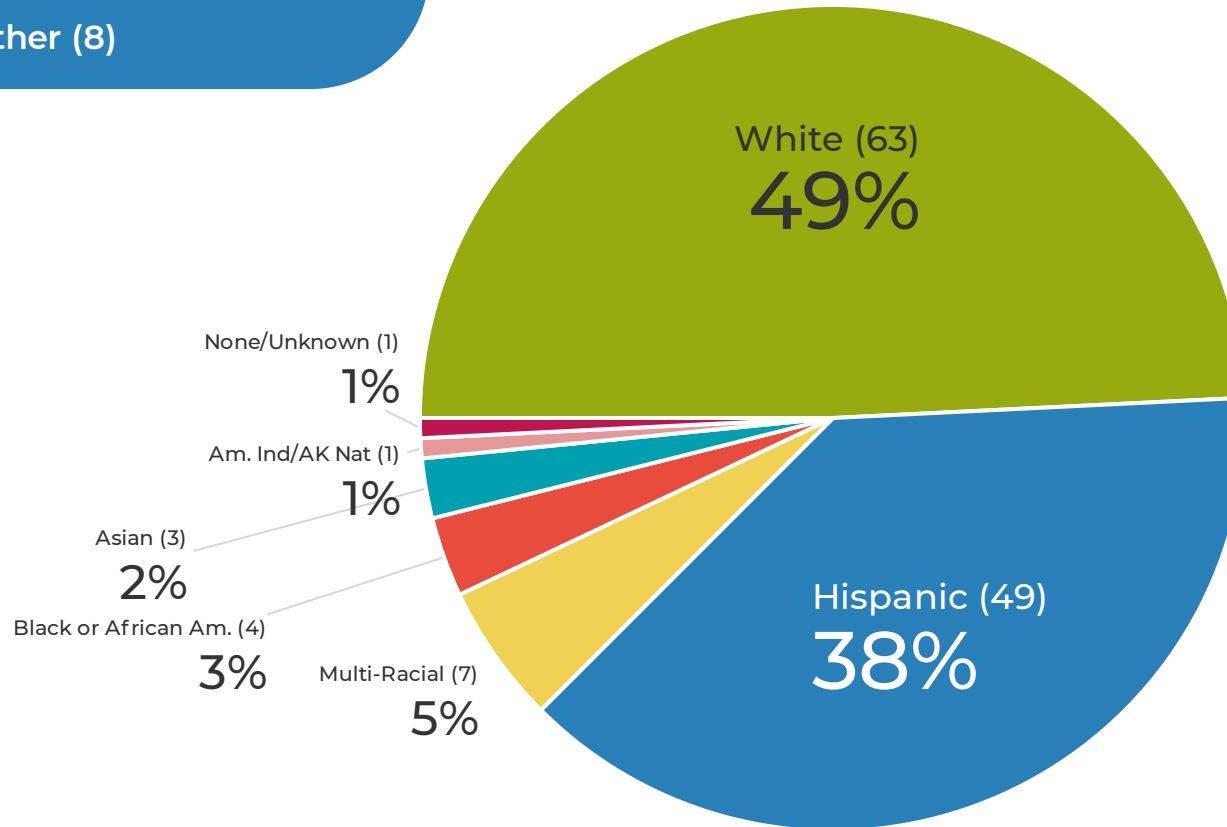


CAREER EDUCATION ALIGNED WITH ALL OTHER COM STUDENT RACE AND ETHNICITY DEMOGRAPHICS

Student Demographics

Fire/EMT Program 2022 - 2023

56% Male (74)
38% Female (50)
6% Other (8)



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%)

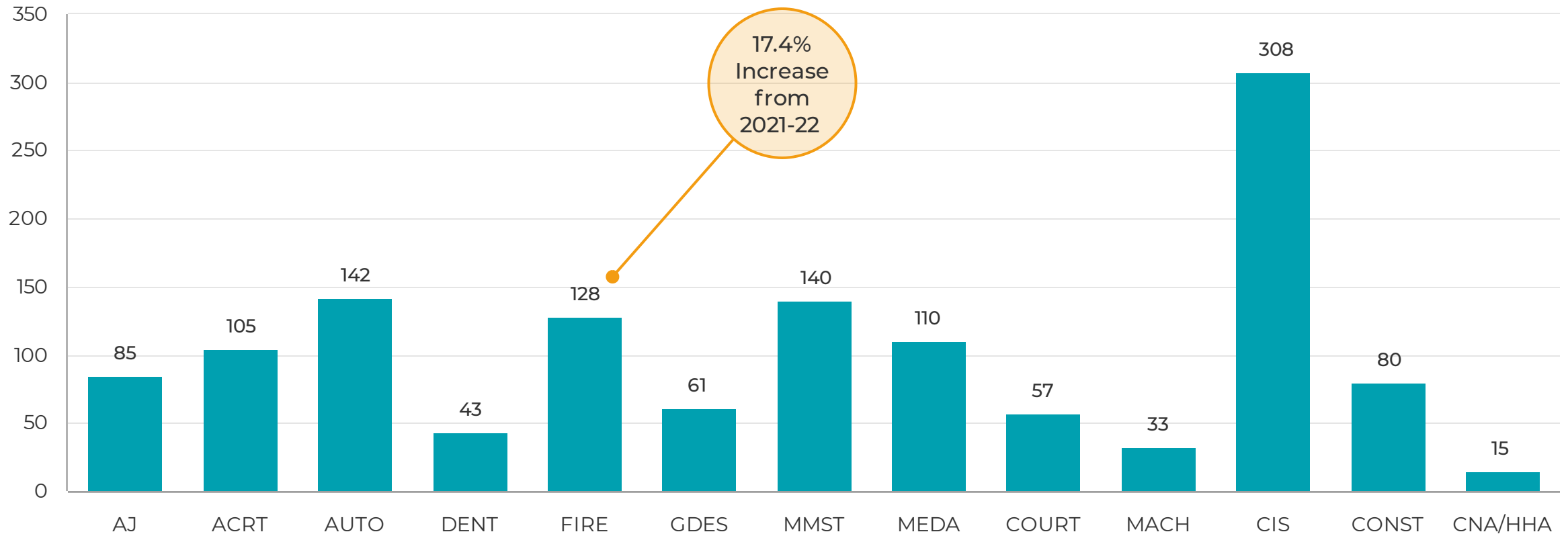
Increase in both Latinx and Women Students in FIRE/EMT

Academic year 2022-2023

Enrollments by Program

Unduplicated Headcounts

6,615 Total COM
Credit Students
2022-2023



FIRE ENROLLMENT GROWTH

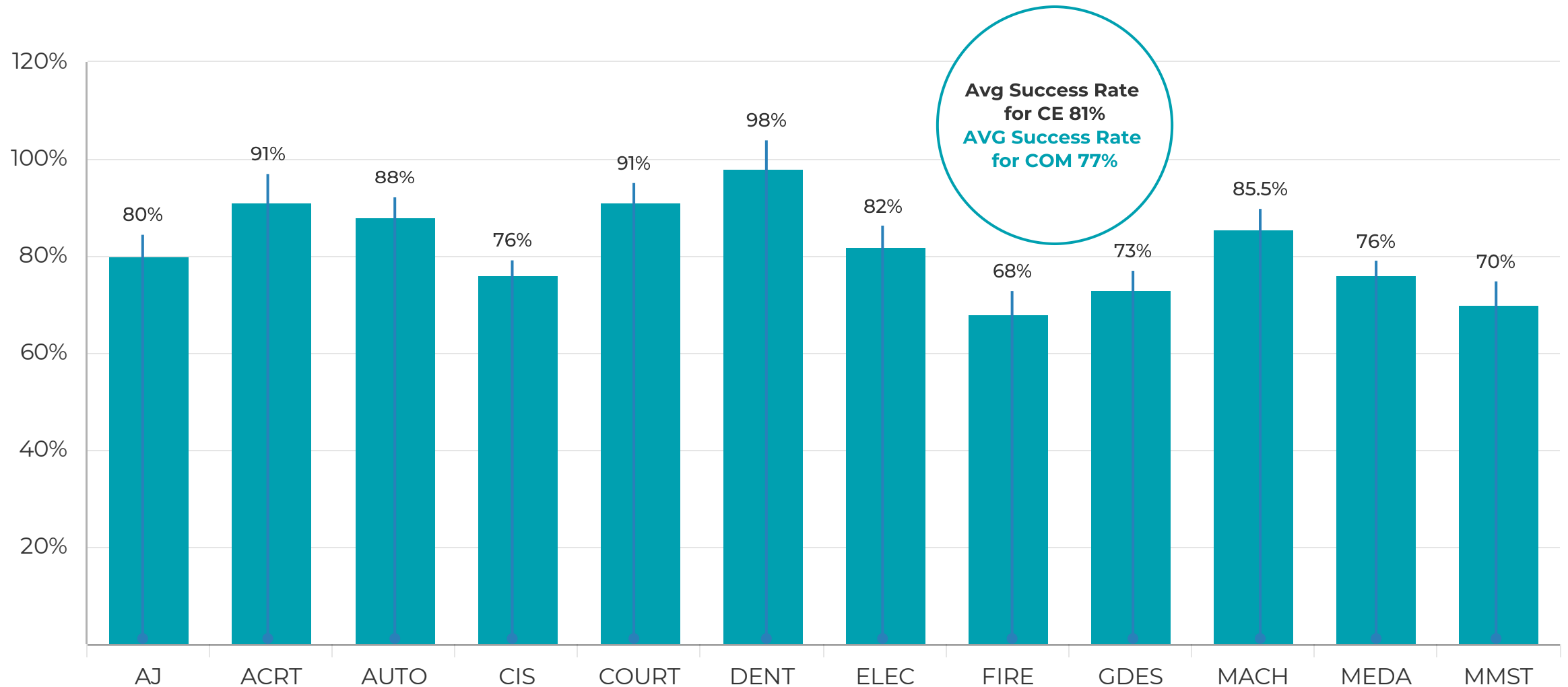
N=109 for 2018-2019 and N=88 for 2019-2020



	FALL 2022	SPRING 2023
Fire 110	NA	16
Fire 112	13	18
Fire 120 A	0	5
Fire 120 B	0	1
Fire 215 IVC	20	27
Fire 215 NHS	NA	29
Total	33	95

Course Completion

Success percentage average across academic years fall 2018-spring 2021 and across campuses and modalities.



Program Outcomes

Fire/EMT Academic Year 2022- 2023

Course Retention by Gender (%)

Fall 2022 - Spring 2023

- Female: **99%**
- Male: **88%**

Program Retention Overall:

94%

81% Retention Rate for
past 3 years

Course Success by Class Fall 2021 - Spring 2022

- FIRE 110 - Fire Protection
Org.: **93.8%** (*one semester*)
- FIRE112 - EMT I: **53%**
- FIRE120A - EMT Refresher A:
100% (*one semester*)
- FIRE 120B - EMT Refresher
B: **100%** (*one semester*)
- FIRE 215 - Advanced First
Aid/First Responder: **72%**

Overall success rate is:

76.8%

What's Next?



crew carrier buildings

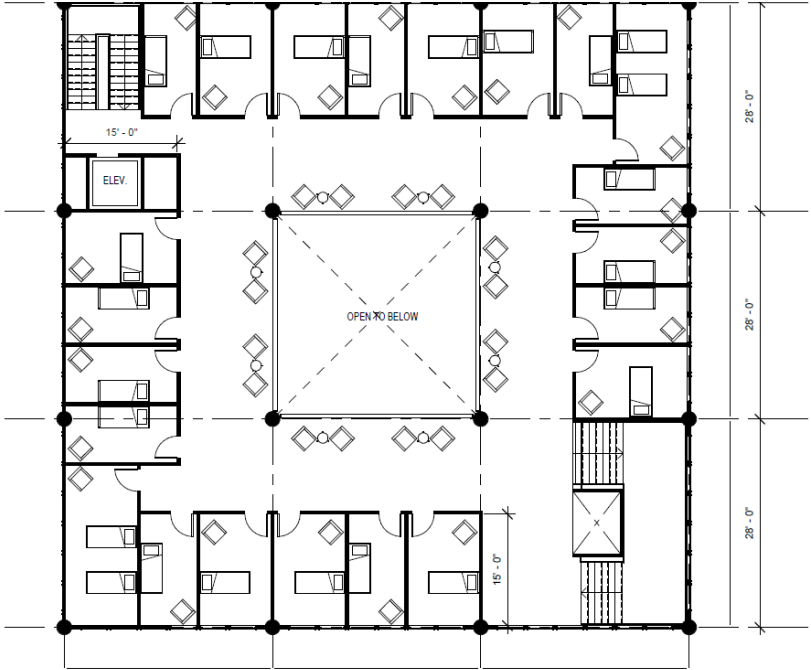
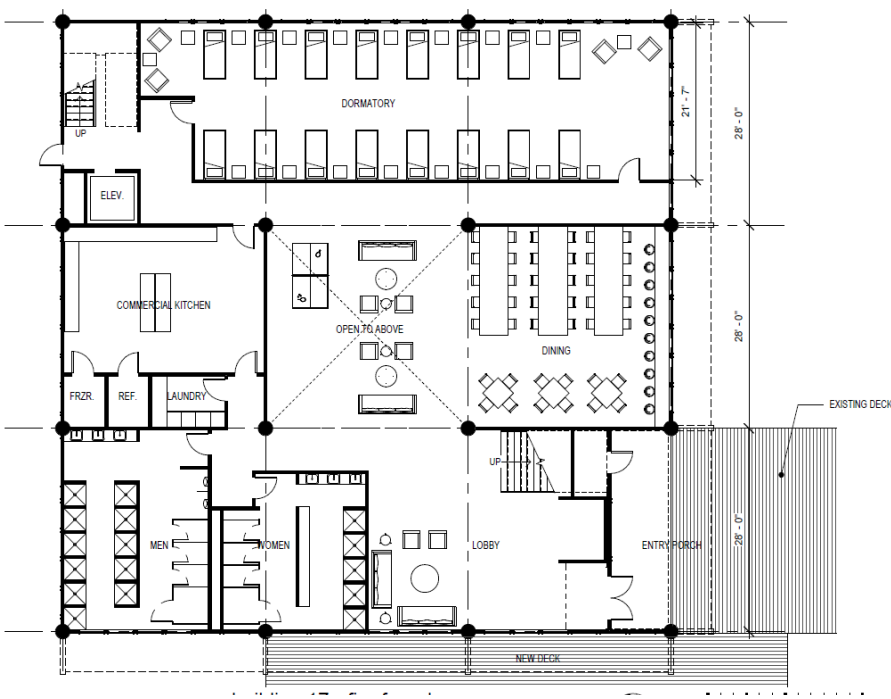


SITE PLAN



crew carrier building elevation

VIEW 1 - SOUTHWEST CORNER



SECOND FLOOR PLAN

Thoughts and
Reactions?



PRIORITIES AND CURRENT LANDSCAPE

Advisory Member Share Outs & Discussion



Staffing and Recruiting



Community Partnership & Impacts



Other Key Items?

- What should we be aware of to support our future students?
- Potential technology, training, or emerging sectors?
- How should we best prepare our students to be qualified and competitive?



Training & Professional Development



Needs and Priorities

Labor Market Information

Heather Rahman, Program Coordinator, Career Education

Does this seem true for the current climate of relevant occupations?

Feedback in 2022:

- EMT jobs do offer have much better pay now.
- 911 companies are hurting (“starving”) for EMT candidates.
- Firefighters with paramedic training, the salary can start at \$120,000/year. The pay varies from seasonal firefighters to full-time, professional paid.
- Private institutions salaries are rising. They are realizing that if they want to retain employees they will have to pay better

	O*Net Online onetonline.org	Industry Demand
Emergency Medical Technicians	\$43K - 101K/year	13,100 CA projected openings through 2032; faster than average growth - 8%
Emergency Medical Responders; First Responders	\$31K - 51K/year	1,400 CA projected openings through 2032
Firefighters	66K - 128K/year	26,400 CA projected openings through 2032; average industry growth at 3%
Paramedics	\$71K - 166K/year	5,100 CA projected openings through 2032; faster than average growth - 11%

Salary range reflects the Bureau of Labor Statistics for all Bay Area Counties

Program Updates EMR/EMT and CPR Training

Ken Allen, COM Fire Tech/EMT Instructor



American
Heart
Association®

AHA CPR/First Aid Training Affiliation

* Contracting with an Established Training Center



Bachelor's Program at COM

For Firefighters & EMS Professionals



**BS: Ecosystem Restoration/
Applied Fire Management**



**BS: Vocational Education
Emergency Service Management**



AA: Public Safety

BA: Emergency Management

- Firefighter/First Responder Health & Safety
- Wildland Firefighting Specialist
- Frontiers of Fire/Fire Technologies
- Fire/EMS Administration Courses
- Automotive Apparatus Maintenance
- Defensible Space/Vegetation Management
- Intro to Emergency Dispatcher





OFFICE OF THE STATE FIRE MARSHAL

The mission of the State Fire Marshal is to protect life and property through the development and application of fire prevention engineering, education and enforcement.

Reciprocity with CSFM & CAEMSA Courses



Paramedic Program?

- Preceptors & Instructors Needed



Dual Enrollment

Angela Olmanson, Program Administrator, Allied Health

DUAL ENROLLMENT

at **Novato High School (NHS)**

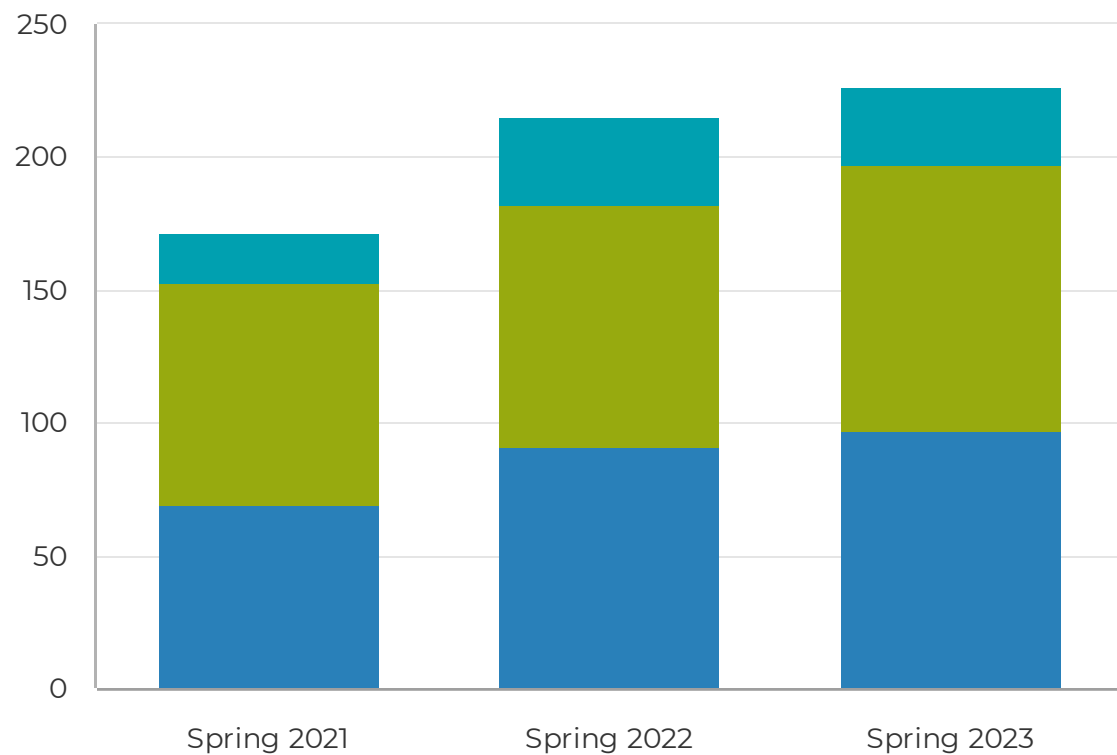
Emergency Medical Responder (EMR)

- **30** Medical Careers Pathway **students enrolled** in an EMR dual enrollment course at **Novato High School**
- **29** of students **successfully completing**
- **26** of students identified as **female**
- **20** identified as **students of colorx**

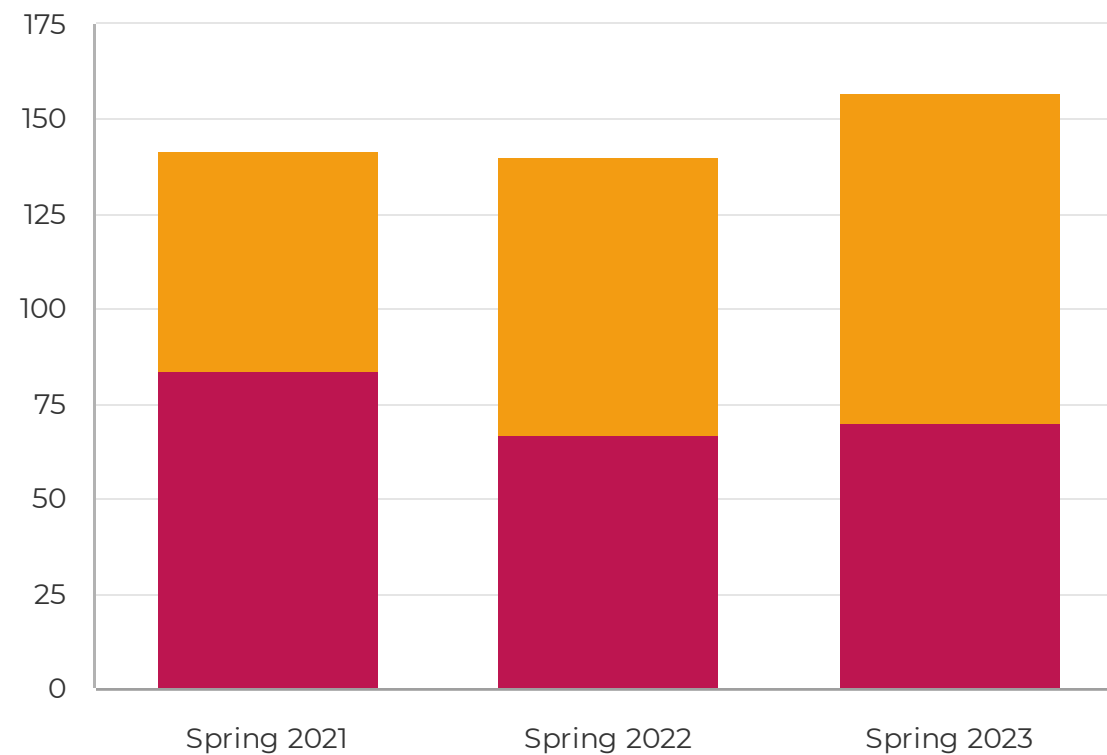


Dual Enrollment

Retention - Success - Gender - BIPOC



● Enrollment ● Retention ● Success



● Female ● BIPOC

F.I.R.E. Foundry

Mimi Choudhury, Program Coordinator

Sukh Singh, Development Officer

Josh Dimon, Social and Environmental Scientist,
Berkeley Disaster Lab

and **Chief Jason Weber**, Marin County Fire



IGNITE YOUR FUTURE
UNLEASH OPPORTUNITIES
IN FIRE SERVICES WITH FIRE FOUNDRY

Program Highlights:

Tailored Training: Access cutting-edge training and workshops designed to equip you with the skills needed for a thriving career in fire services.

Expert Mentorship: Learn from experienced professionals, including prior recruits and industry leaders, who are dedicated to guiding you towards excellence

Inclusive Community: Join a diverse and supportive community that fosters collaboration, growth, and lifelong connections

Partnership Power: Benefit from partnerships with UC Berkeley, College of Marin, and Marin County Fire Department, ensuring top-notch education and opportunities.



Scan QR code
to learn more:



Apply Now:

Apply: Complete the online application and let us know why you're passionate about a career in fire services.

Engage: Immerse yourself in tailored training, workshops, and mentorship to build a solid foundation.

Elevate: Rise through the ranks with the confidence and skills needed for a rewarding career.

To apply to FIRE Foundry, you must be 18+, have a high school diploma/GED, proficient in English, and eligibility to work. An interest in fire service careers is key. All eligible applicants, including Marin County residents and beyond, are welcome. Marin County residents will have priority.



F.I.R.E FOUNDRY

Fire Innovation, Recruitment, & Education

Agenda - 15 mins

- **Growth in DSpace & Veg Management**
- **More Jobs and New Skill Sets**
- **FIRE Foundry & Frontiers of Fire**
- **Updates + Highlights**
- **Closing**

The Growth

Wildfire Protection, Management, and Prevention Spend

\$800M
State of California
2005-2006



\$3.3B
State of California
2020-2021

\$15B+
PG&E Liability
Damages

4x+ increase in spend in less than 20 years

More Jobs



New Skills and Gaps

- Tech/Software Skills
- Local Ecology and Geography
- Soft Skills

Frontiers of Fire



**ECOLOGICALLY
SOUND
PRACTICES
PARTNERSHIP**



Frontiers of Fire

- Practical Real-World Case Studies
- In-the-Field Instructors
- Made possible by collaboration with CoM, UC Berkeley, MWPA ESP, Marin Fire, NASA, and Beyond.



CoM & FIRE Foundry

- **Ken is fantastic, we're lucky to have him, and recruits love him.**
- **Kathleen has been fantastic in supporting every aspect of FIRE Foundry from her role.**
- **We're excited to have Angela back in the mix and continuing on to the 3rd year of FIRE Foundry!**

Highlights from 23'

- **Anai was accepted to and completed a NASA Fellows internship.**
- **Kimberly planned and organized trainings at county stations for fellow recruits based on evaluated needs.**
- **We launched our Marinterns program, a CalFire supported internship program focused on advanced digital skills and community ed.**
- **5 recruits did seasonal DSpace**
- **3 Advanced Recruits are participating at Marinterns to build adjacent skills in their off-season.**

Thank you for your ongoing support





Reach out to Mimi for general
questions:

mchoudhury@marincounty.org

Reach out to Josh for Frontiers
of Fire/Training questions:

josh@firefoundry.org

Technology/Grants:
sukh@firefoundry.org

Learn more: firefoundry.org

Development of Fitness Course for Fire Tech and Public Safety

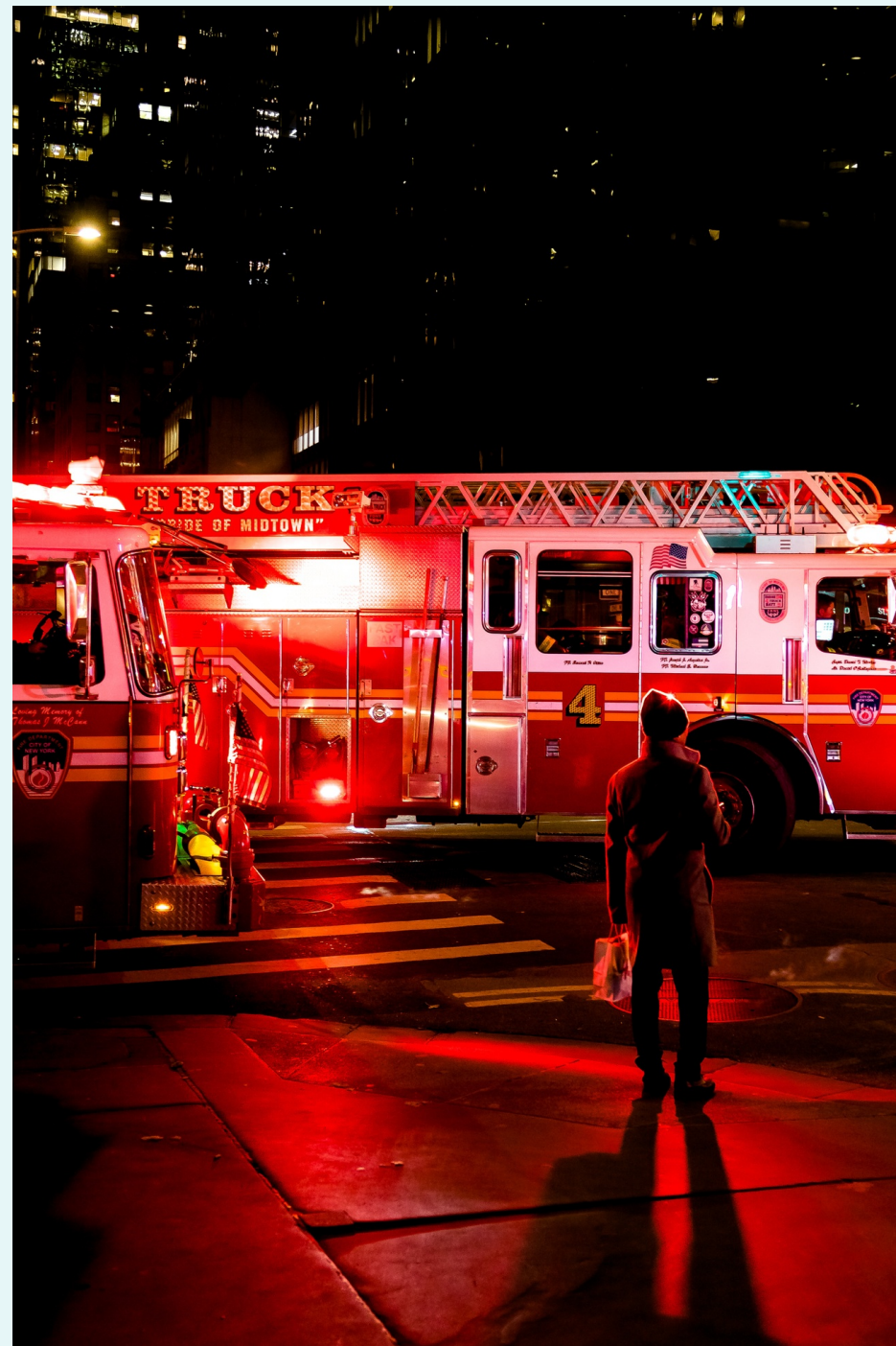
Kathleen Smyth, College of Marin, Department Chair
Kinesiology, Health and Athletics



Public Safety Regional Efforts and Bachelor's Degree Creation

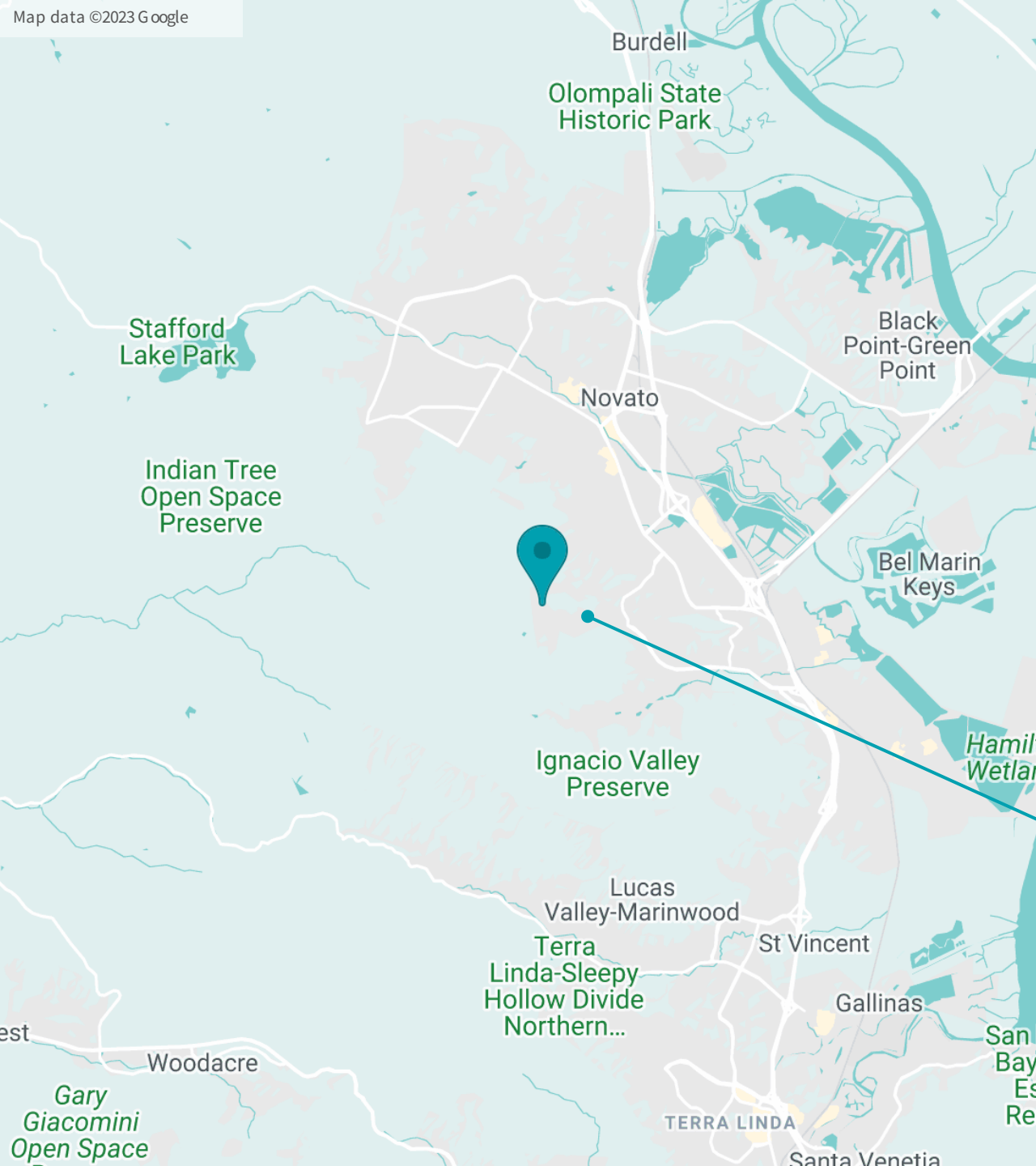
Linda Vaughn, Bay Area Regional Director

Public Safety Sector



Summary
Thoughts? **Questions?**
NEXT STEPS





Thank You!

1800 Ignacio Boulevard Novato, CA 94949

@ ARVarona@marin.edu

@ AOImanson@marin.edu

@ KAllen8@marin.edu

(415) 883-2211 x8200

College of Marin, Indian Valley Campus