



**DEPARTMENT OF FORESTRY AND FIRE PROTECTION  
OFFICE OF THE STATE FIRE MARSHAL  
Statewide Training and Education Advisory Committee**

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**Date:** March 1, 2019

Attachment 11

**To:** Ronny J. Coleman, Chairman  
Statewide Training and Education Advisory Committee (STEAC)  
c/o State Fire Training

**From:** Mark Bisbee, Battalion Chief - Training Specialist

**SUBJECT/AGENDA ACTION ITEM:**

Blueprint 2020 Gap Analysis

**Recommended Actions:**

That STEAC consider this report, and recommend priorities for continuing and/or incorporating these goals or any specific action items into a future strategic plan.

**Background Information:**

Blueprint 2020 was initiated in 2008. While many action items listed under the five major goals have been accomplished, others face completion challenges. This strategic plan was released just six months prior to a climate of fiscal contraction, and was affected by the political and financial environment following the economic downturn. The subsequent funding and staffing limitations have curtailed, but did not fully hamper, an otherwise ambitious 12-year vision for the transformation of State Fire Training (SFT).

Despite the lack of resources, SFT staff has worked hard to accomplish many action items. And with some obvious growing pains, the significant transformation from a state-centric training model to one aligned with national standards and practices is well underway. The California fire service is in a better position to embrace continued progress towards the National Professional Development Model, and is more effectively served by the limited SFT staff since Blueprint 2020 was initiated.

**Analysis/Summary of Issue:**

The status of the major goals contained in Blueprint 2020 are:

1. *Quality Improvement* – Most of these action items have been addressed in the past 11 years with existing resources. Significant progress has been made establish and maintain instructor oversight, improve course materials, delivery, and curriculum. Accreditation performance audits had been a high priority for the Firefighter 1 series, but a 66% staffing decrease in personnel assigned to this function hampered continued efforts. However, the statewide fire service community is now more accustomed to the new processes and procedures based on the national standards.
2. *National Professional Development Model* – While some important progress has been made -especially in the last year- more needs to be done to fully integrate SFT core courses into higher education. SFT staff continues to work closely with community colleges and is developing a relationship and coursework with California State University staff and faculty towards the national FESHE Professional Development Model. SFT continues this goal through on-going support of the Professional Development Pathways Program, Statewide Professional Development Summit, and in supporting the two pilot programs between Miramar Community College and CSU San Marcos in the South and with Santa Rosa Community College and Humboldt State in the North. The California Fire/EMS Professional Development Pathway for Workforce Development and Career Advancement Issue Paper (attached) serves as a current needs assessment in moving forward on this goal.
3. *Capstone Testing* – Recent efforts have focused on the Firefighter 1 testing process as an adjunct to the accreditation process. Limited progress on other professional development track capstone testing has been made due to the need to target the Firefighter 1 written and skills testing. SFT staff is continuing to work on beta testing a new written exam platform through the Acadis software system. Once this pilot process is complete, the same platform could be used for the other certification tracks.
4. *SFT Business Processes and Training Delivery* – Significant progress has been made to implement this goal, and nearly all the 18 action items have been completed. The outstanding action items should be re-evaluated to determine if they are still appropriate and meet the needs of statewide fire agencies. Some require involvement and/or approval of external agencies to implement, while others may no longer be feasible from the time they were identified 11 years ago.
5. *California Public Safety Institute* – This goal was very visionary from the start, required a dedicated -and still non-existent- funding source, and relied heavily on external agencies to support. Given the economic downturn that occurred shortly after the initiation of Blueprint 2020, the issues facing this goal's implementation were significant. However, opportunities to align with existing programs, institutions, and agencies may allow a version of this goal to become a reality. For example, pursuing partnerships with existing JPA's and/or Sacramento State University could provide tangible results towards a "brick-and-mortar" institute.

A closer look at the methodologies outlined in Blueprint 2020 indicate that much of the progress moving forward is dependent on achieving a stable funding source for SFT efforts. Blueprint 2020 calls for a POST-style type of mandatory training system and recommends several ways to achieve that level of funding.

In the needs analysis near the front of Blueprint 2020, many of the deficiencies listed have been addressed, with the notable exception of understaffing which persists to this day, and

acts as an inhibitor to implementing the methodologies. A fee increase was enacted in 2008, the gains in staffing were short-lived due to employee attrition. SFT still struggles to find qualified applicants to fill allocated Deputy State Fire Marshal (DSFM) positions that are instrumental in maintaining system quality control, accreditation standards and on-site reviews of Local Academies and Regional Training Programs. While Retired Annuitants are designated as Subject Matter Experts for curriculum development, they have been frequently used to cover the staffing gaps caused by a lack of filled DSFM positions.

The funding-staffing dynamic becomes a self-perpetuating cycle that must be addressed for SFT to move from a haphazard approach to a methodology that is more resilient, proactive, and forward-focused. For example, Blueprint 2020 calls for attention to strategic and tactical planning, regular and valid performance audits and gap analysis, and planned marketing. These types of activities have suffered due to limited resources, pointing back again to sustainable funding.

The conclusory words of Blueprint 2020 still hold true:

*“This plan is dependent on one very critical factor—funding! Without a stable and reliable funding source, increases in staff, advances in technology, and participation in the national training models simply will not happen.”*

As we approach the conclusion of Blueprint 2020, what is extraordinary is that so much progress has been made to migrate towards the national model despite resource limitations.

*Detailed Gap Analysis of Goals and Action Items*

Each Blueprint 2020 Goal and Action Item is listed below, with color codes designating progress towards implementation.

- **Green** indicates the Goal or Action Item is accomplished or that significant progress has been made.
- **Yellow** text means that some or modest progress has been made with limited existing resources (staffing, funding or logistical/infrastructure).
- **Red** text highlights that limited or little progress has been made, or that more resources are needed to make significant headway.

<b>BLUEPRINT 2020 GOALS AND ACTION ITEMS</b>	
<b>1. QUALITY IMPROVEMENT</b>	
<i>Ensure the highest levels of service and quality by implementing an oversight program that ensures the qualifications, currency, and accountability of all instructors and curriculum.</i>	
1.1	<i>Implement an Oversight Program</i>
1.1.1	Establish an oversight program to monitor instructors, courses, and delivery sites.
1.1.2	Develop currency and continuing education requirements for instructors.
1.1.3	Develop oversight program procedures.
1.1.4	Identify geographical work areas.
1.1.5	Develop employee specifications.
1.1.6	Hire Training Specialists at the appropriate level, one for each work area, and train them to perform the oversight tasks. As they come "on-line," have them conduct "pilot" evaluations, with appropriate feedback.

1.2	<i>Improve Course Materials and Course Delivery</i>	
	1.2.1	<p>Update the certification training standards, revise the course objectives and outlines, and adopt commercially available text materials that come with proper instructor assistance and support the course outlines for the following:</p> <ul style="list-style-type: none"> <li>▪ Chief Officer</li> <li>▪ Fire Marshal</li> <li>▪ Fire Officer</li> <li>▪ Fire Apparatus Driver/Operator</li> <li>▪ Public Education Officer</li> <li>▪ Fire Fighter</li> <li>▪ CICCIS <ul style="list-style-type: none"> <li>➤ The OSFM, in cooperation with the California Incident Command Certification System (CICCIS) Advisory Committee, will seek to develop training exercises and simulations as alternative methods for local government fire service personnel to demonstrate competencies for position qualifications.</li> <li>➤ Implement voluntary qualifications recordkeeping and tracking processes, including software applications.</li> </ul> </li> </ul>
1.3	<i>Curriculum</i>	
	1.3.1	Ensure a process of consistent and ongoing curriculum development, manipulative training, and academic education.
	1.3.2	Implement a system, using the regulatory format, to maintain curriculum and instill verifiable professional standards for all fire service courses.
	1.3.3	Recognize California's specialized training needs, such as in the WUI and fire prevention arenas.
	1.3.4	Categorize the curricula that meet national standards.
	1.3.5	Formulate student-learning outcomes and approve curricula.
1.4	<i>Accreditation Performance Audit (IFSAC/PROBOARD)</i>	
	1.4.1	Participate in an accreditation performance audit using a national accreditation program. This action will provide the gap analysis necessary to correct shortcomings and ensure that the program stays on track for success.
	1.4.2	Complete the accreditation performance audit and receive the accreditation report.
	1.4.3	Based on the report findings, prepare an action plan (update of the strategic plan) to address the recommendations from the report.
	1.4.4	Seek administrative and legislative support for the plan as needed.
	1.4.5	Adjust the program as much as possible to meet the recommendations.
	1.4.6	Complete a second accreditation performance audit and receive the accreditation report.
	1.4.7	Prepare for accreditation review on a quinquennial basis.

1.5	In conjunction with the audit program, constant review of the curricula, teaching, and especially the testing process is necessary to maintain program credibility.
<b>2. National Professional Development Model</b>	
<i>Participate in the Fire and Emergency Services Higher Education (FESHE) National Model of fire service training and education that includes an integrated, competency-based system of fire and emergency services professional development and an integrated system of higher education from a two-year Associate degree to Doctoral degrees.</i>	
2.1	Formally initiate the process of adopting the National Model with FESHE as a guideline. Evaluate and amend the model relative to the legal and situational needs unique to the California fire service.
2.2	Facilitate the impact of the CICCIS by expanding task book completion and ICS position qualification to include incidents other than major wildland fires.
2.3	Identify those components that are appropriate to add to the model to meet those unique needs.
2.4	Develop partnerships with those states that have similar fire service circumstances.
2.5	Establish a timetable and priorities for implementation of the model and adoption of the model by the education and training providers
2.6	Continue to develop partnerships nationally and internationally, both to enhance our experience and to pass on the lessons we learn as we adopt the model.
2.7	Based on the timetable and identified priorities complete at least two pilot projects, one in education and one in training, to demonstrate the effectiveness of the model.
2.8	Validate the model for the fire service training community.
2.9	Market the model to the California fire service
2.10	Commence broad-based implementation of the model as it gains acceptance.
2.11	Commence the accreditation process.
2.12	Continue implementation of the model at various training venues and in various existing programs.
2.13	Based on the California experience, SFT should play an increasingly active role in the refinement of the national model.
2.14	Continue to reach out nationally and internationally to share the California experience, and to enhance the quality of the model.
2.15	Adjust the model to meet changing conditions.
2.16	Work closely with legislative bodies to bring California's codes and ordinances as much in line with nationally recognized models as possible. This will help reduce the disconnect between California practice and the national model.

### 3. CAPSTONE TESTING

*Administer a comprehensive evaluation tool after a candidate completes all the requirements and applies for a position certificate. Capstone testing would replace the current system of administering a written certification exam at the end of each course in the certification track.*

3.1	Develop a bank of written test items for the comprehensive capstone test using instructor-developed exams submitted to SFT in digital format at the end of each class taught.
3.2	Identify, define, and develop the testing process for one of the certification tracks.
3.3	Develop a pilot process to test the concept and identify needed corrections. Upon completion of the pilot, correct the process and put it into general practice for the specific certification.
3.4	Based on previous experience, develop testing process for the next level.
3.5	Identify, define, and develop the process for the Chief Officer series. At this level, the capstone course to prepare for the testing process will be most important. This capstone test should incorporate all the valuable experiences gained so far in the development of this process.
3.6	Reevaluate and update the testing process for all remaining certification tracks.
3.7	As an ongoing function, reevaluate and update each testing process while keeping with national standards and unique California requirements.
3.8	SFT needs to continually evaluate the testing itself to ensure that the tests are credible and linked to performance.

<b>4. STATE FIRE TRAINING BUSINESS PROCESSES AND TRAINING DELIVERY</b>	
<i>Utilize a computer-aided training and education delivery system that includes appropriate distance learning and educational material, and the ability for participants to track and access completed training and certification records.</i>	
4.1	The OSFM will analyze the implementation for delivering appropriate on-line hybrid SFT courses upon recommendation of the STEAC and SBFS.
4.2	SFT will safeguard certificates through a numbering and accounting system.
4.3	SFT will issue unique student identification and tracking numbers.
4.4	SFT will contract for an analysis of the Division's business process to improve efficiencies.
4.5	Use the most advanced, reliable data management technology applicable to the competing needs for openness and security.
4.6	The OSFM, in coordination with its Information Technology (IT) Division, establishes the specific parameters for the data management software, which will include:
4.6.1	Tracking of and access to completed training and certification records for individuals, training officers, and department leadership.
4.6.2	Testing processes.
4.6.3	Scheduling of training and education courses and programs.
4.6.4	Qualifications and registry of instructors.
4.6.5	Tracking of a universally accepted incident qualifications system for all components of the fire protection system.
4.7	The OSFM researches available data management systems that contain the necessary built-in safeguards to allow access to web-based information as appropriate to the fire service community consistent with the expectations outlined above.
4.8	The research should include other disciplines (including Peace Officers Standards and Training), and other states' fire training systems.
4.9	One concept template to consider would be the California EMS Authority's database for EMT-P licensing and tracking of continuing education.*
4.10	The OSFM purchases and/or develops the required software.
4.11	The OSFM, coordinating with IT, works closely with a subcommittee of STEAC throughout the process.
4.12	Beta test the software and make appropriate fixes. Beta testing should include volunteer as well as career-staffed departments in every size category from very small to metropolitan.
4.13	Provide system training to departments and launch the system.
4.14	Commence transferring data from existing paper and computer-based systems to ensure continuity of records.
4.15	Identify and explore technology-based instructional methodologies.
4.16	Establish an approval process for selecting the methodology for delivering technology-based courses.
4.17	Staying current as technology changes.
4.18	Maintaining systems that are familiar, consistent, and deliver reality-based training and education.

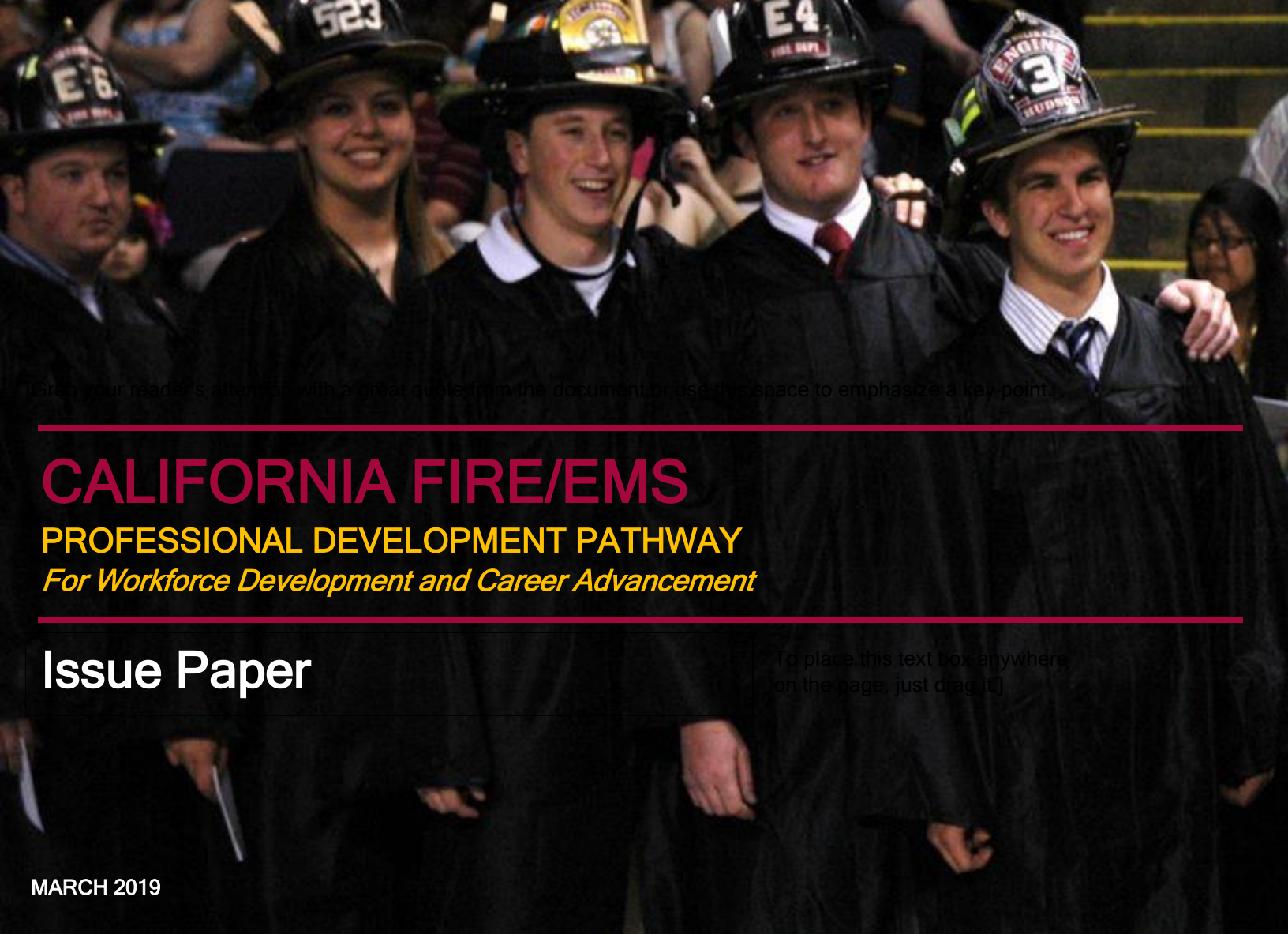
\*Not applicable

## **5. CALIFORNIA PUBLIC SAFETY INSTITUTE**

*Create a unified system that integrates all public safety training and education toward a common mission. The crown jewel of this initiative is the envisioned all-risk California Public Safety Institute (a California equivalent of the federal National Emergency Training Center).*

5.1	Develop relationships with the key cooperators in the proposed all-risk California Public Safety Institute.
5.2	Work closely with the cooperator groups on training initiatives and curricula that have a common basis to create core courses populated by all disciplines represented in the Institute.
5.3	With the support of the cooperators' groups, develop a funding goal and master plan for the development of the facility, including site location.
5.4	Continue to enhance the facility and training opportunities. Continue the process of accreditation audits by a national accreditation program.
5.5	Utilize those findings to continually improve the SFT program.
5.6	Establish honorary teaching chairs to raise the Institute's credibility.
5.7	Establish an alumni association and develop an Institute endowment fund.
5.8	Establish a doctoral program to develop faculty and enhance the professional standing of emergency service practitioners.





# CALIFORNIA FIRE/EMS

## PROFESSIONAL DEVELOPMENT PATHWAY

*For Workforce Development and Career Advancement*

### Issue Paper

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MARCH 2019



Prepared in Cooperation with the South Bay Regional Public Safety Training Consortium for:  
California Fire Technology Director's Association  
California Fire Chief's Association  
California Professional Firefighters, Joint Apprenticeship Committee (Cal-JAC)  
CalFire - State Fire Marshal's Office, State Fire Training Division  
California Community Colleges Chancellor's Office, Public Safety Advisory Committee  
California State University, Chancellor's Office, Continuing and Extended Studies



## Executive Summary

The Fire/EMS Professional Development Pathway for Workforce Development and Career Advancement is well-defined statewide, but it could be clarified and improved at specific points along the way. There are three primary issues that need to be addressed by both the California Fire/EMS industry and academic communities.

### Issue #1: Pre-Service Efforts

*“More needs to be done to strengthen elements at the pre-service point.”*

- Connections need to be strengthened between high schools, Regional Occupational Programs (ROP), County Offices of Education, and community colleges: including dual enrollment and articulation agreements to expand apprenticeship, academic, vocational, and technical skills opportunities.
- K-12 students need to be educated on the importance of practicing positive social interactions that maintain their ability to pass Fire/EMS agency background checks as part of career explorations and/or initial training.
- Encouragement of workforce diversity is paramount and needs to begin at the pathway’s origin. California Fire/EMS agency demographics should more closely reflect the residents served. There are two ways to address this. First, barriers to entry into the fire service need to be removed. Barriers to entry include:
  - The cost, in both dollars and time, of attending a FFI Academy
  - The experience requirement to attain FFI certification
  - The cost of private-provider paramedic training

Second, pre-apprenticeship programs targeting economically disadvantaged young adults, will introduce the fire service to a population that might not have thought of this as a viable choice.



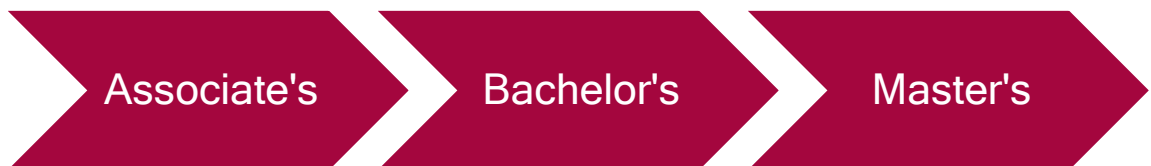
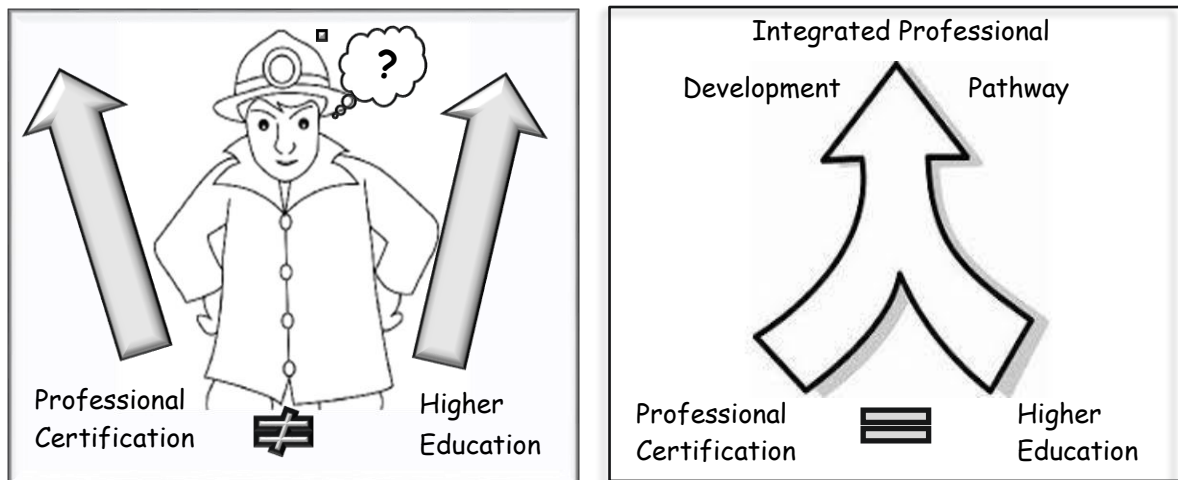
## Issue #2: Integrating Certification, Education and Apprenticeship

*“Certification, higher education and apprenticeship are three separate tracks that simply do not connect, inhibiting educational attainment and workforce succession planning efforts.”*

- The California Fire/EMS community struggles to translate existing State Fire Training (SFT) courses into higher education degrees.
- Most community colleges -and at least one CSU- offer Associate and Bachelor degrees based on the Fire and Emergency Services Higher Education (FESHE) national model curriculum, which does not include common state certification courses needed for career entry or advancement.
- Many California firefighters put in years of apprenticeship training which does not translate into college credits.

The dilemma presented to entry level and working Fire/EMS professionals is that they need both certification and higher education, but due to lack of an existing integrated path, both are pursued separately.

A comprehensive, confluent and inclusive program needs to be developed to integrate certification courses of increasing complexity and apprenticeship into advanced higher education degrees.



### Issue #3: Annual Professional Development Summits

*“The Fire/EMS community, in partnership with labor and institutions of higher education, should convene a Professional Development Summit to address these pathway issues.”*

By following the U.S. Fire Administration’s (USFA) recommendations for convening a Professional Development Summit, key stakeholders from Fire/EMS organizations, community colleges and our California State University (CSU) system can collaborate on strengthening our Professional Development Pathway to address important pre-service issues as well as the higher education dilemma facing working Fire/EMS professionals.





## Introduction

### *The California Fire/EMS Professional Development Pathway*

The California Community College Chancellor's Office has recently embarked on efforts through its Public Safety Advisory Committee to define more clearly Fire/EMS Career Technical Education (CTE) pathways throughout the career spectrum. This Issue Paper discusses several findings from that effort.

The Regional Joint Ventures Project of the Bay Area Community College Consortium (BACCC) supports CTE programs, Economic and Workforce Development Initiatives, and the Chancellor's Office to 1) improve the academic, vocational, and technical skills education; 2) strengthen connections between secondary and postsecondary education; and 3) prepare individuals for occupations in demand that pay family-supporting wages. During the BACCC forum early in 2018, several discussions touching on professional development challenges emerged, and identified the urgency to act toward tangible results.

**The result of these discussions was the realization that tangible, measured steps can be taken to incrementally improve specific glitches in an otherwise stellar education and training system.** Making improvements to the Professional Development Pathway that our state Fire/EMS professionals trek throughout their careers is a wise investment in our state's current and future workforce.



The following chart represents a sampling of common California Fire/EMS ranks and/or positions, projections for industry growth and workforce demand over the next five years. The next column outlines the goals for academic attainment tied to each level, with acceptance/articulation of lower levels to maximize efficiency. The last column lists other programs with best practice features that should be considered or retained as part of the Professional Development Pathway.

<b>California Fire/EMS Workforce Development and Career Advancement Needs</b>			
<b>Fire/EMS Rank/Position</b>	<b>Growth Projection*</b>	<b>Academic Attainment Goals</b>	<b>Selected Best Practice Programs</b>
<b><u>Pre-Service</u></b> Cadet Reserve Explorer	<b><u>Firefighter</u></b> Total Positions: 31,158 5-yr. Openings: 12,591 Projected Growth: 6%	HS Diploma/GED Dual Enrollment with CC's	ROP County Office of Education BSA Fire Explorers <i>Women in Fire and Emergency Services:</i> Fire Camps
<b><u>Entry Level</u></b> Firefighter/EMT Firefighter/Paramedic EMT/Paramedic Fire Inspector	<b><u>Paramedic/EMT</u></b> Total Positions: 19,122 5-yr Openings: 9,063 Projected Growth: 20%	AA/AS Degree with articulation to BA/BS	Dual Enrollment & Articulation Agreements: <ul style="list-style-type: none"> <li>• SFT</li> <li>• Cal-JAC - Perdue Global</li> <li>• Berkeley Unified School District</li> </ul>
<b><u>Apparatus Operator</u></b> Firefighter/Driver Engineer Senior Inspector	<b><u>Fire Prevention</u></b> Total Positions: 905 5-yr Openings: 555 Projected Growth: 8%		CSU - Long Beach Emergency Services Program
<b><u>Supervisor</u></b> Lieutenant/Captain Deputy Fire Marshal Staff Officer: EMS Fire Prevention Training Dispatch	<b><u>Supervisors</u></b> Total Positions: 2,340 5-yr Openings: 971 Projected Growth: 11%		John Jay College, NYC: In-Service Program
<b><u>Manager/Administrator</u></b> Battalion Chief Division Chief Fire Marshal EMS Chief Emergency Manager	<b><u>Emergency Managers</u></b> Total Positions: 886 5-yr Openings: 382 Projected Growth: 7%	BA/BS Degree with articulation to MA/MS	Northeastern University: Co-Op Program
<b><u>Executive</u></b> Assistant/Deputy Chief Fire Chief		MA/MS Degrees	Drexel University: "Stackable" Credentials
			Other Higher Education: <ul style="list-style-type: none"> <li>• Maryland Fire/Rescue Institute (MFRI)</li> <li>• Columbia-Southern University</li> <li>• ASU: Fire Master's Program</li> </ul>

\*Source: 5-Year Projections from Public Safety Occupations, Economic and Workforce Development, California Community Colleges



## Issue #1: Pre-Service Efforts

**Issue Statement:** *“More needs to be done to strengthen elements at the pre-service point.”*

### Strengthening Connections

The focus of K-12 efforts should be to better prepare the next generation of Fire/EMS professionals for their careers. Expanding dual enrollment agreements between high schools, Adult Schools, Regional Occupational Programs (ROP), county offices of education, and local community colleges may be possible through the adoption of model language at the Chancellor’s Office to expand programs at community college campuses statewide.

In addition, developing increased fire agency support for Fire Explorer programs, youth academies, summer camps, mentoring, and first aid training is crucial for pre-service programs to succeed.

### Preparing Future Fire/EMS Workforce Members

Pre-service high school efforts should also include preparatory courses for public safety careers which explain personal history questionnaires and the background check process. This will encourage and motivate potential candidates towards high school academic achievement and community service that may enhance their ability to succeed through the application and vetting process required by public safety agencies.

Education and academic advisement of middle and high school students should also focus on STEM core subjects that will facilitate their entry into the Fire/EMS field. Advocacy towards funding for CTE programs at the K-12 level may enhance this goal. Positions of Firefighter, Emergency Medical Technician, Paramedic, and Apparatus Operator are all science-centric, including tasks like measuring medication dosages, calculating hydraulic pressure, and determining weather factors that affect wildfire rate of spread.



Current successful pre-service model programs that should be expanded are the California Firefighter Joint Apprenticeship Committee (Cal-JAC) program, sponsored by the California Professional Firefighters (CPF) and the California State Fire Marshal’s Office (CSFM). From its

inception, Cal-JAC has focused on professionalizing recruitment efforts, breaking down barriers to qualified candidates and building vital bridges between firefighter candidates and the departments for whom they wish to work. Lately, Cal-JAC has expanded outreach with an EMT academy and Pre-Apprenticeship training.

Cal-JAC's Firefighter Candidate Testing Center (FCTC) is the catalyst to providing candidates a pathway to the fire service. Providing both entry level firefighter written testing and physical ability testing, FCTC is focused on recruitment regardless of ability to pay. Candidates who qualify can receive grants to cover the entire cost of the testing process. FCTC also offers classes to prepare candidates to be successful in passing FCTC's Written Test and Candidate Physical Ability Test (CPAT). Once candidates have passed the testing process they are placed on FCTC's Statewide Eligibility List (SEL) which is currently used by over 90 fire agencies throughout the state as part of their hiring process.

### **Demographic Diversity**

According to the NFPA, in 2016, Women comprised 4% of career firefighters, African Americans comprised 7.9% followed by Hispanics at 9% of the workforce. The pre-service stage is an optimal time to address and encourage diversity balance efforts. Emergency responders should adequately represent the demographics of the community in which they serve, and aspiring Fire/EMS candidates seek a reflection of opportunity and possibility modeled for them by the current workforce; being able to observe and interact with emergency responders who look like them: "*You can't be what you don't see.*" Achieving an industry that more accurately reflects the population it serves must begin at the earliest pathway entry point.

Due to the open enrollment and public nature of the community college system, closer ties and collaboration with labor groups can help to develop programs that will achieve the desired result of increasing diversity. Cal-JAC has developed an extensive outreach plan for increasing diversity in the state Fire/EMS workforce. Cal-JAC's Women's Commission, established in 2005, is laser-focused on building a more representative fire service offering recruitment and mentoring services. Comprised of women of varying ranks from fire departments throughout the state, the mission of the Commission is to boost interest and to educate young women about the firefighting profession and all the opportunities that are available in this rewarding career.



The Cal-JAC partnership brings management and labor together under the banner of apprenticeship to build a structure for addressing training and recruitment - issues of common concern to firefighters and fire management alike. Cal-JAC is uniquely positioned to conduct direct outreach to underrepresented groups, and through its recruitment division holds annual Firefighter Career Expos at their four FCTC testing facilities to give attendees exposure to fire recruiters, department apparatus and hands-on time on the physical ability course. Reaching out to high school athletes and sponsoring field trips to CPAT locations is a great introduction for potential candidates. Cal-JAC also participates in a variety of outreach events such as community cultural events, high schools located in under-represented areas, and fire department sponsored camps designed to give high school and college aged women an interactive experience with women firefighters. At these camps, young women get to experience wearing turnouts, pulling hose, raising ladders and many other fire related activities. Other outreach includes FCTC's effective social media activity through it's "Becoming a Firefighter" Facebook and Twitter portals.

In addition to recruitment efforts, the Cal-JAC also runs a model pre-apprenticeship EMT Academy. With the goal of increasing diversity in the California fire service, and utilizing grant dollars to achieve that goal, the Cal-JAC recruits young adults who are economically disadvantaged. The individuals who qualify for the Academy are given an introduction to the fire service as a career. They attend a six-month EMT course with all expenses paid. They receive uniforms, stipends for travel and childcare, and Academy hours are set at times that accommodate those who work or have children. This model program is an example to all fire departments that want to reach out to those in their communities who might not have thought of the fire service as a career. A future focus on paramedic training as a baseline should be considered, as many agencies and community colleges already offer basic Firefighter 1 level training.

Utilizing the Cal-JAC model, recruiting activities should include outreach at community cultural fairs that include education for the entire family/candidate support system and targeting athletes to encourage non-traditional cultures to consider Fire/EMS as a career option. More assertive marketing should be considered, especially during economic upsurges when the private sector tends to draw potential candidates away and shrink the hiring pool. Lastly, smaller agencies

tend to lose prime personnel when they serve as “feeders” to larger agency hiring pools, affecting previous successes in developing a diverse workforce.



## Issue #2: Integrating Certification, Education, and Apprenticeship

**Issue Statement:** “*Certification and higher education are two separate tracks that simply do not connect; inhibiting educational attainment and workforce succession planning efforts.*”

### A Tale of Two Tracks

California Fire/EMS professionals have historically struggled to integrate, define, and fund training and education efforts for decades. Unlike statewide law enforcement’s Peace Officer Standards Training (POST) which is in part funded through citations and court fees, fire service agencies fund California’s State Fire Training Program through the State Fire Marshal’s Office themselves. Early efforts to partner and align with the State Office of Education, and subsequently with the Community College Chancellor’s Office, proved fruitful. Funding for apprenticeship programs are generated through the K-14 partnership, which has provided funding for Cal-JAC for over 40 years, servicing over 170 agencies statewide. But Cal-JAC funding at the K-14 level also has produced an issue with apprentices being able to receive community college credits due to Title 5 regulations, so a solution needs to be developed to allow college units to be earned for apprenticeship training and education. The Community College system has traditionally funded educational and in-service training programs for agencies that are not members of Cal-JAC and for journey-level firefighters. Numerous studies and Career Development documents have been developed over the years, each one bringing more clarity to statewide Fire/EMS training and education. The integration of certification, education and apprenticeship is paramount to achieving and maintaining a strong workforce.

The concept of building skills through apprenticeship has been successful since the Middle Ages, using the experience of one generation to train the next. This same model of academy, apprenticeship and journey-level status should be thoroughly integrated within a clearly defined Fire/Ems professional development pathway. The Cal-JAC model of an Academy followed by concurrent Related and Supplemental Instruction (RSI) while apprentices are also engaged in work processes could be expanded to include Position Task Book (PTB) completion for those

seeking California Incident Command Certification System (CICCS) qualifications or State Fire Training task books for certification.

In creating a clearly defined Professional Development Pathway, the inclusion and integration of all industry best practices should be considered. A good example is the relationship between the Cal-JAC and Purdue Global University, where the university grants college credit for apprenticeship journey certificates.

Within the last decade, great strides have been made to move away from a state-centric, cumbersome, and high-maintenance Fire/EMS curriculum system. In its place, a streamlined system based on National Fire Protection Association (NFPA) standards, in alignment with other states, has been developed. This transition has allowed SFT to seek accreditation from the International Fire Services Accreditation Congress (IFSAC) and Pro Board, beginning at the firefighter level. These changes reflect recommendations initially identified in Vision 20/20, then further developed into the *Blueprint 20/20*-SFT's Strategic Plan- which was formally approved by the State Training and Education Advisory Committee (STEAC) in 2008.

### Blueprint 2020

#### Vision:

To provide a training system that will serve the needs of fire fighters from entry level- then continue to serve them for the span of their careers- 30 years later.

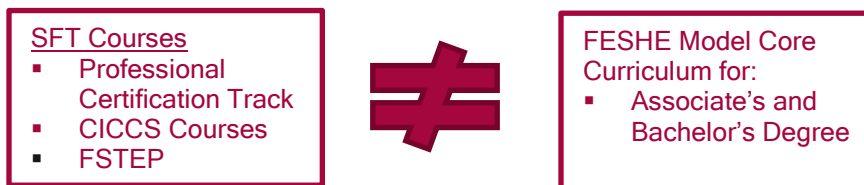


Nationally, the U.S. Fire Administration (USFA), in cooperation with the fire and emergency services community created a national professional development program that integrates training, education, experience, and certification, called the Fire and Emergency Services Higher Education (FESHE) model. One component of FESHE includes a standardized model core curriculum for Associate and Bachelor degrees. This model core curriculum is now part of most state community college Associate degree programs and is also part of Cal State LA's Bachelor degree program.

While the FESHE model core curriculum provides a broad and solid foundation for fire service education, it does not include any of the current, common SFT Professional Certification Track courses that are the mainstay of California Fire/EMS agency requirements.

The disconnect between the SFT Professional Certification Track courses and the FESHE model core curriculum for higher education adversely impacts the Fire/EMS workforce,

especially for senior Fire/EMS members who are inhibited in academic achievement as they progress through their careers and promote up through the ranks. With the current disconnected tracks, they must choose between completing Professional Certification Track required courses or pursuing educational achievement, because there is no integrated pathway that accomplishes both concurrently. Unfortunately, higher education is usually bypassed in order to focus on professional certifications, impacting Fire/EMS workforce education levels and succession planning efforts.



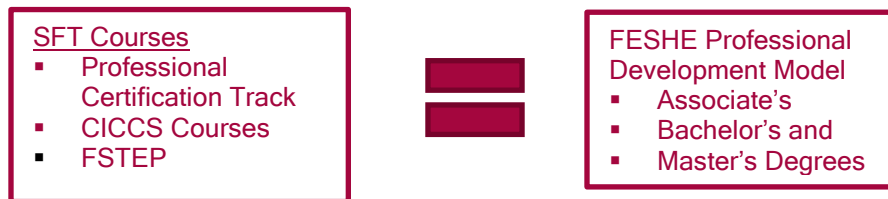
The FESHE core curriculum still has academic merit and relevancy for specific areas of concentration and should not only be maintained, but expanded to more CSU campuses where applicable. In addition, an AS degree with a FESHE core curriculum should be able to articulate with the FESHE model for higher education, providing a parallel path to the Professional Certification Track curriculum.

Currently, SFT courses are not generally articulated beyond lower division units for *all* courses at *all* levels, resulting in the accumulation of hundreds of junior college lower division units for workforce members throughout their career. In addition, many different courses are often categorized under one blanket in-service catalog course. This has resulted in an over-abundance of lower division units at the community college level and none at the Bachelor's or Master's level, even for executive officer level courses.

While Cal-JAC has been able to successfully articulate its curriculum through an agreement with Purdue Global University, and to pursue Continuity of Education articulation agreements with Cabrillo Community College for catalog rights for its members, there is currently no comprehensive, systemwide approach that is outlined for all agencies. Cal-JAC's approach is on the right page and needs to be expanded, integrated and/or emulated so that a consistent approach works for all participating agencies, colleges, and universities. In the end, it's not that the state's Fire/EMS workforce isn't already doing the work; members just aren't getting educational credits consistently and at the appropriate level.

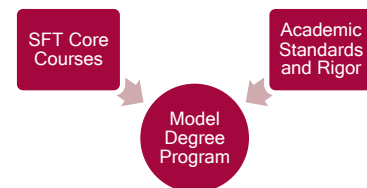
Fire/EMS supervisors, managers and executive chief officers are educationally inhibited until these two tracks connect into one seamless pathway that integrates the SFT Professional Certification Track courses of increasing complexity with appropriate higher education degrees. California needs a clearly-defined Professional Development Pathway that confers appropriate lower division, upper division, and graduate units based on selected core SFT courses. Universities in other states offer Associate's, Bachelor's, and Master's degrees based on NFPA Fire Officer courses as part of the core curriculum.

With the recent adoption of NFPA professional standards in the new SFT curriculum and updates to the California Incident Command Certification System (CICCS), the California Fire/EMS and academic communities are well positioned to integrate selected existing SFT courses towards higher education degrees for working Fire/EMS professionals. In fact, the FESHE Professional Development Model calls for an Associate's degree for Company Officers, a Bachelor's degree for Chief Fire Officers, and a Master's degree for Chief Fire Executive Officers.



To this end, in May 2018, the California Fire Technology Directors Association (CFTDA) identified a draft Associate's degree using the new SFT Company Officer curriculum as part of the core requirements. As the Community College Chancellor's Office moves to approve the draft Company Officer Associate's degree, any Associate's degrees earned by the Fire/EMS workforce should be seamlessly articulated towards a Bachelor's and then Master's degree track as practicing professionals advance through their careers.

It is paramount that the Fire/EMS community partner with at least one California State University (CSU) campus to adopt appropriate SFT curriculum that grants units at the appropriate levels, leading to advanced degrees. Any newly approved core curriculum based on SFT courses would constitute a different degree program with separate areas of concentration from the nationally standardized FESHE model core curriculum. And any new degree program for working professionals should not take away or diminish from those institutions that currently offer the FESHE core curriculum.



At all levels, there should be sufficient areas of emphasis to foster and support special areas of interest/concentrations in fire prevention/investigation, training, EMS, emergency management, special operations, and wildland. Bachelor's and Master's degree programs could also serve as areas of concentration under current CSU programs in management or public administration.

In addition, the academic rigor contained in the current National Fire Academy (NFA) Executive Fire Officer Program (EFO) curriculum should be considered either as a model for, or for inclusion into, an Executive Fire Officer Master's Program. This could emulate NFA alignment with the FBI Academy as a proven program for executive law enforcement officers. It would be important to consider either adoption of current EFO curriculum into the CSU system, or to pursue an articulation agreement with the NFA and approval for West Coast EFO program delivery in order to make this curriculum highly accessible to California executive fire officers.



The direction to be taken on all of these matters should be determined by a balanced cross-section of the fire service and educational communities working together to form a cohesive model based on best practices that can be utilized by both educational institutions and fire/EMS agencies. This direction should be provided through the existing State Training and Education Advisory Committee (STEAC) with input from the larger educational and fire/EMS communities through an annual Professional Development Summit.



### **ISSUE #3: Professional Development Summit**

**Issue Statement:** *“The Fire/EMS community, in partnership with labor and our institutions of higher education, should convene a Professional Development Summit to address these pathway issues.”*

The California Fire/EMS community, in partnership with labor and institutions of higher education, should convene a professional development summit focused on addressing these specific Professional Development Pathway issues following the National Professional Development model. According to the USFA:

*Fire service personnel typically accumulate college transcripts with unnecessary courses and dozens of training certificates in an effort to acquire an associate or bachelor's degree and/or the next desired level of certification. During this process of professional development, time and money is often wasted as these efforts may be redundant.*

*The U.S. Fire Administration (USFA) and fire and emergency services professional development community addressed this problem of a stove-piped system by creating national models that integrate training, education, experience and certification.*



*The National Professional Development Matrix (NPDM) moves the models from concept to reality. The NPDM is a planning tool for use by states, training centers, response agencies and institutions of higher learning to develop a plan for fire service professional development. It is designed for training and certification agencies and academic emergency response programs to assist the emergency services personnel they serve in their professional development planning. The matrix cross-walks Fire Officer I – IV competencies with "national" level courses that include National Fire Academy training courses, model associate and bachelor's courses, general education courses recommended by the International Association of Fire Chiefs (IAFC) in its "Officer Development Handbook," and personal experience. States and fire departments are urged to customize the matrix by adding their own standards, job performance requirements (JPRs), training and college courses.*

*USFA encourages states to convene professional development summits comprised of fire departments, emergency response agencies, academic fire programs, associations and other key stakeholders to transpose the "national" officer development competencies to its own JPRs, customize the matrix with training and college courses, and agree to standard documentation that each entity will accept for appropriate credit.*

***Customizing the matrix through professional development summits:***

*States are urged to convene professional development summits to transpose the "national" officer development competencies to its own JPRs, customize the matrix with training and college courses, and agree to standard documentation that each entity will accept for appropriate credit.*

*The leaders of the state stakeholder cadre are:*

- *State offices responsible for fire and emergency services training and certification.*
- *K-12, Adult Education, Colleges and universities with fire-related degree programs.*
- *State organizations representing fire chiefs, firefighters, volunteers, instructors and other vital constituencies.*

### ***Elements of a state professional development plan***

*In addition to spelling out who should be responsible for learning at each level of certification and/or competency development, a plan should prescribe for all the state's fire and emergency services degree, training and certification programs the:*

- *Extent to which certifications can be applied for academic credit.*
- *Extent to which academic credit can, if possible or appropriate, be accepted towards satisfaction of standards or JPRs.*
- *Emergency response course requirements, including those from the model core and non-core curriculum.*
- *Required general education courses and crosswalk to the competencies in the matrix.*
- *Types of degrees: Associate of Arts/Science degrees transferable to baccalaureate programs (including and/or in-state schools) and Associate of Applied Science degrees (including whether they are transferable or nontransferable).*

*Only state fire and emergency services leaders can make this happen.*

The goal of the summit is to develop an enhanced Professional Development Pathway that features the following.



1. Pre-Service discussions at the summit should include action items to address:
  - Collaborative, defined pathways from K-12 throughout the entire range of career fields that is seamlessly integrated with advancing levels of academic achievement.



- Expanded articulation agreements, such as dual enrollment between community colleges and K-12, cross enrollment between Community colleges and CSU's (e.g., CSUMB-Cabrillo nursing program), and articulation agreements awarding college credit for apprenticeship.
- Model pre-service curriculum for use by various stakeholder groups that includes education on the importance of maintaining positive social interactions that encourage student's eligibility to successfully pass agency background checks
- Meaningful discussions with actionable outcomes on how to achieve a more balanced workforce demographic that more accurately reflects our state's population, including the encouragement of non- traditional groups to consider Fire/EMS career opportunities.
- Changes in current hiring practices that discourage underrepresented candidates from pursuing a fire service career. One example is the experience requirement to FFI certification. If agencies with an MQ of FFI certification would consider accepting completion of a FFI Academy or completion of FFI certification within one year of hire, more young adults from underrepresented ranks would be eligible for hire.

## 2. Higher education items to be addressed:

- Validation of the draft Company Officer Associate's degree and articulation acceptance by the CSU system for this program as the lower division requirements for a Bachelor's degree.
- The acceptance of SFT Chief Fire Officer and Executive Fire Officer courses along with selected NWCG courses as core curricula with electives leading towards Bachelor's and Master's degrees, respectively. This core could be developed as a management, public administration, or emergency services degree with concentrations in specific areas of interest (e.g., EMS, administration, all-hazards incident management or wildland fire and fuels management).
- The stipulation that additional general education requirements would also have to be met. Students in enrolled in degree programs would be required to complete additional coursework that meet the academic rigors of the sponsoring institution of higher education for the student to receive upper division and graduate level credits.
- Ideally, if more than one CSU participates, there would be curricula alignment between campuses in order to provide a reasonable measure of consistency within programs.



## Professional Development Pathway Timelines

It's anticipated that this will be a multi-year process to develop and implement an inclusive Professional Development Pathway that aligns with higher education. Below are suggested timelines from initiation to completion.

- ✓ November 2018: Kick off the process by hosting a Professional Development Summit in conjunction with the Fresno Training Symposium.
- 2019: Work with stakeholder groups to develop model pre-service action steps and in-service degree programs that will articulate up through the educational attainment spectrum by selecting specific SFT courses as core curriculum.
- 2020: Begin implementation of pre-service action items and move the identified courses through the Community College and CSU curriculum development processes.
- 2021: Begin instructional delivery and pilot programs.

It is imperative that a Professional Development Summit be convened annually, until all goals have been accomplished.



**CALIFORNIA FIRE TRAINING  
OFFICERS SYMPOSIUM:  
PROFESSIONAL DEVELOPMENT SUMMIT**





## Conclusion

It is recommended that the Office of the State Fire Marshal - State Fire Training Division, in conjunction with the State Training and Education Advisory Committee (STEAC) accept this Issue Paper as a baseline needs assessment within the gap analysis of Blueprint 2020. This paper is provided in support of efforts towards the attainment of Blueprint 2020 Goal #2.

<b>Goal #2: National Professional Development Model</b>	
<i>Participate in the Fire and Emergency Services Higher Education (FESHE) National Model of fire service training and education that includes an integrated, competency-based system of fire and emergency services professional development and an integrated system of higher education from a two-year Associate degree to Doctoral degrees.</i>	
2.1	Formally initiate the process of adopting the National Model with FESHE as a guideline. Evaluate and amend the model relative to the legal and situational needs unique to the California fire service.
2.2	Facilitate the impact of the CICCIS by expanding task book completion and ICS position qualification to include incidents other than major wildland fires.
2.3	Identify those components that are appropriate to add to the model to meet those unique needs.
2.4	Develop partnerships with those states that have similar fire service circumstances.
2.5	Establish a timetable and priorities for implementation of the model and adoption of the model by the education and training providers
2.6	Continue to develop partnerships nationally and internationally, both to enhance our experience and to pass on the lessons we learn as we adopt the model.
2.7	Based on the timetable and identified priorities complete at least two pilot projects, one in education and one in training, to demonstrate the effectiveness of the model.
2.8	Validate the model for the fire service training community.
2.9	Market the model to the California fire service
2.10	Commence broad-based implementation of the model as it gains acceptance.
2.11	Commence the accreditation process.
2.12	Continue implementation of the model at various training venues and in various existing programs.
2.13	Based on the California experience, SFT should play an increasingly active role in the refinement of the national model.
2.14	Continue to reach out nationally and internationally to share the California experience, and to enhance the quality of the model.
2.15	Adjust the model to meet changing conditions.
2.16	Work closely with legislative bodies to bring California's codes and ordinances as much in line with nationally recognized models as possible. This will help reduce the disconnect between California practice and the national model.



**Acknowledgements:**

**Stephanie Allan**, CTE Program Advisor, Berkeley Unified School District

**Taral Brideau**, Education and Training Director, California Firefighter Joint Apprenticeship Committee (Cal-JAC)

**Randy Collins**, Associate Dean of Public Safety, Santa Rosa Jr. College and President, California Fire Technology Director's Association

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**Gerry Kohlmann**, Fire Chief, South San Francisco FD

**Jeff Meston**, Fire Chief, City of South Lake Tahoe and President, California Fire Chief's Association

**Jake Pelk**, Fire Captain, Training Officer, Central San Mateo County FD

**Mike Richwine**, Acting California State Marshal

**Demond Simmons**, Fire Program Coordinator, Merritt College and Battalion Chief, Oakland Fire Department

**Wyn Skeels**, CTE Program Manager for Berkeley Unified School District

**David Sprague**, Assistant Chief, Training and EMS, Berkeley Fire Department

**Daniel A. Stefano**, Fire Chief, Costa Mesa FD

**Dr. Sheila A. Thomas**, D. Ed., Dean, Extended and Continuing Education, CSU Chancellor's Office, Long Beach

**Dr. Brian Tietje**, Vice Provost, International, Extended and Graduate Education, Cal Poly SLO

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Office of the State Fire Marshal  
State Fire Training



**Blueprint 2020**  
**STRATEGIC ANALYSIS WORKSHEET**

**Directions:**

For each strategy listed, consider its current validity. Is it A) Strongly valid, B) Moderately valid and/or needs modification, or C) not valid? If the wording needs to be modified, how should it be re-worded to increase its validity while retaining its intent? If the strategy is still valid, then consider the other listed items (priority, implementations steps, tasks, etc.).

**Goal #2: National Professional Development Model**

*Participate in the Fire and Emergency Services Higher Education (FESHE) National Model of fire service training and education that includes an integrated, competency-based system of fire and emergency services professional development and an integrated system of higher education from a two-year Associate degree to Doctoral degrees.*

State Fire Training will participate in the Fire and Emergency Services Higher Education (FESHE) National Model of fire service training and education. The International Association of Fire Chiefs, the National Fire Academy, and the National Fire Protection Association all promote and support the FESHE National Model.

The National Model contains these features: 1) An integrated, competency-based system of fire and emergency services professional development and 2) an integrated system of higher education from a two-year Associate degree to Doctoral degrees. This results in well-trained and academically educated fire and emergency services.

There will be partnerships with other states and national recognition of educational achievement and training certification. State Fire Training will form a partnership with the national program and accreditation will follow national standards.

There will be elements of national recognition and equivalency. SFT will continue to be a leader in the innovation and development of standards, curricula, and new techniques particularly in those aspects of training unique to California.

<b>Strategy</b>	<b>Priority</b>	<b>Implementation Steps (Tactics)</b>	<b>Tasks</b>	<b>Lead &amp; Team Members</b>	<b>Resources</b>	<b>Completion Date</b>
2.1 Formally initiate the process of adopting the National Model with FESHE as a guideline.	1					
2.2 Evaluate and amend the model relative to the legal and situational needs unique to the California fire service.	1					
2.3 Facilitate the impact of the CICCS by expanding task book completion and ICS position qualification to include incidents other than major wildland fires.	1					
2.4 Identify those components that are appropriate to add to the model to meet those unique needs.	1					
2.5 Develop partnerships with those states that have similar fire service circumstances.	1					
2.6 Establish a timetable and priorities for implementation of the model and adoption of the model by the education and training providers.	1					
2.7 Continue to develop partnerships nationally and internationally, both to enhance our experience and to pass on the lessons we learn as we adopt the model.	1					

Strategy	Priority	Implementation Steps (Tactics)	Tasks	Lead & Team Members	Resources	Completion Date
2.8 Based on the timetable and identified priorities complete at least two pilot projects, one in education and one in training, to demonstrate the effectiveness of the model.	1					
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2.12 Commence the accreditation process.	1					
2.13 Continue implementation of the model at various training venues and in various existing programs.	1					
2.14 Based on the California experience, SFT should play an increasingly active role in the refinement of the national model.	2					
2.15 Continue to reach out nationally and internationally to share the California experience, and to enhance the quality of the model.	2					

Strategy	Priority	Implementation Steps (Tactics)	Tasks	Lead & Team Members	Resources	Completion Date
2.16 Adjust the model to meet changing conditions.	2					
2.17 Work closely with legislative bodies to bring California's codes and ordinances as much in line with nationally recognized models as possible. This will help reduce the disconnect between California practice and the national model.	3					

**Notes/Comments:**