

Date of Hearing: August 27, 2018

ASSEMBLY COMMITTEE ON HIGHER EDUCATION

Jose Medina, Chair

SB 774 (Leyva) – As Amended August 21, 2018

SENATE VOTE: Not Relevant

SUBJECT: Research program: firefighting: wildland and wildland-urban interface.

SUMMARY: Requires the California State University (CSU) Trustees to oversee a competitive process to award funds to the Wildland and Wildland Urban Interface (WUI) Wildfire Research Grant Program to one or more campuses of the CSU, as specified; and, appropriates \$5 million from the General Fund to the Trustees in order to oversee the program. Specifically, **this bill**:

- 1) Establishes the Wildland and WUI Wildfire Research Grant Program to be overseen by the CSU Trustees at one or more campuses of the CSU.
- 2) Requires that in order to participate in the Wildland and WUI Wildfire Research Grant Program, one or more campuses of the CSU must demonstrate an ability to fulfill the following criteria:
 - a) Offers a degree in wildfire-related studies;
 - b) Works in partnership with the California Department of Forestry and Fire Protection (Cal Fire) and associations or organizations representing state and local agency firefighters;
 - c) Identifies risks to firefighter safety in the WUI;
 - d) Has expertise, tools, technologies, and operational strategies for wildland firefighting; and,
 - e) Has expertise in materials, combustion, physics, environmental science, and associated laws, regulations, and policy related to wildland fire.
- 3) Specifies that the Wildland and WUI Wildfire Research Program shall be established for all of the following purposes:
 - a) Conducting research on the following:
 - i) Critical areas of advancement and reform in fighting wildfires;
 - ii) Issues vital to the state's advancement in the understanding of fires in the WUI, with a focus on improving firefighters' health and safety, and attack effectiveness;
 - iii) Strategies to minimize and mitigate the health and safety risks experienced by firefighters in the field;
 - iv) Improvement in the understanding of the concomitant staffing needs necessary to protect our communities;

- v) Identification of short- and long-term exposures of, and acute and chronic impacts to, firefighters;
 - vi) Identification of, and recommendations for, strategies and tools to improve identification of threats and exposures to wildland firefighters;
 - vii) Analyzing strategies and tools to improve the identification of threats and exposures to wildland firefighters;
 - viii) Analyzing strategies to improve attack effectiveness and community protection; and,
 - ix) Provision of independent scientific and technical responses to research and development program at the Cal Fire.
- b) Conducting symposiums on wildland and WUI;
 - c) Prioritizing education, training, and public outreach; and,
 - d) Establishing a mechanism for the dissemination of the results of the research through advanced education and training programs for firefighters, first responders, and other professionals that have significant responsibilities in the WUI.
- 4) Requires the Trustees, on or before July 1, 2020, and every July 1, thereafter, to provide a report to the Legislature on the research and activities of the program.
 - 5) Appropriates \$5 million from the General Fund to the Trustees in order for the Trustees to oversee the Wildland and WUI Wildfire Research Grant Program.

EXISTING LAW:

- 1) Establishes the Donahoe Higher Education Act, setting forth the mission of the CSU (Education Code (EC) Section 66010, et seq.).
- 2) Requires the CSU offer undergraduate and graduate instruction through the master's degree in the liberal arts and sciences and professional education, including teacher education; specifies that research, scholarship, and creative activity in support of its undergraduate and graduate instructional mission is authorized in the CSU and shall be supported by the state; and, specifies that the primary mission of the CSU is undergraduate and graduate instruction through the master's degree (EC Section 66010.4).
- 3) Confers upon the CSU Trustees the powers, duties, and functions with respect to the management, administration, and control of the CSU system (EC Section 66606.)

FISCAL EFFECT: Unknown

COMMENTS: *Assembly Rule 77.2.* This measure was referred to this Committee pursuant to Assembly Rule 77.2.

Background. According to data from numerous entities, including, in part, National Public Radio, in just a span of a few weeks, the state has encountered some of the most destructive

wildfires in the history of the state. To note, this fire season has been deemed the deadliest fire season for firefighter personnel since 2008.

Additionally, as of August 12, 2018, more than 13,000 firefighters from California and beyond have responded to over a dozen aggressive wildfires that have burned (as of August 12, 2018) 726,329 acres throughout the state. According to Cal Fire, as of August 13, 2018, 1,458 individuals fighting the wildfires come from local agencies. Additionally, Cal Fire has 3,413 people fighting fires, and there are 526 others from 22 states, plus 53 people from other countries.

Wildland urban interface. According to Cal Fire 2881 (representing employees of Cal Fire), fighting fires in the WUI is one of the least understood hazardous occupations.

To note, WUI is generally understood as the zone where natural areas and development meet.

Current wildland fire research efforts. The University of California (UC) operates a Center for Fire Research and Outreach, at the Berkeley campus. The Center provides a forum for coordination on emerging research and tools regarding wildland fire in California. Additionally, the Center facilitates working groups devoted to a specific field or topic of research and management that relates to fire.

The Center has the primary goals of: facilitating collaboration on innovative solutions to wildfire changes; supporting education and training efforts focused on interdisciplinary approaches to wildfire research and management; and, cooperating with stakeholders to fill their need for information and resources before, during, and after wildfires.

Purpose of the measure. According to the author, "California wildfires are increasing in frequency and intensity. As a result, more firefighting personnel are responding to fire events and spending longer periods of time in the field."

The author contends that the state needs to develop a better understanding of WUI and come up with strategies to minimize the health and safety risks experienced by firefighters, thus improving firefighters' effectiveness in combating fires in the WUI.

This measure seeks to fund and support research at no less than one CSU campus on the health and safety risks firefighter personnel face in the WUI and report to the Legislature on the research and activities of the program.

Conferred fire protection related degrees. According to the CSU, several campuses offer four year degrees in some related field to fire protection. The chart below shows the number of graduates from the various fields and campuses since 2013-14:

Degree	Number of Graduates	CSU Campus
Environmental Resources Engineering	232	Humboldt
Environmental Resource Management	576	Bakersfield, Channel Islands, Humboldt, San Francisco, and

		San Luis Obispo
Fire Protection Administration and Technology	60	San Luis Obispo
Natural Resources	114	Humboldt
Rangeland Resource Science	54	Humboldt

To note, a Wildfire Science and the Urban Interface degree was approved in May 2018, at San Marcos; as such, there are no graduates to date.

Committee comments. As presently drafted, the measure calls for the created program to conduct symposiums on wildland and WUI; however, there is no specificity as to what the symposium should accomplish or to whom should participate in the symposium.

The author may wish to work with the CSU in order to bring clarity as to the role and/or purpose of the symposium. Additionally, the author may wish to encourage the CSU to collaborate with the UC Center for Fire Research and Outreach as the CSU plans and executes various symposiums.

Additionally, as presently drafted, the measure calls for the Trustees to submit a report on or by July 1, 2020, and every July 1, thereafter; however, the bill is silent as to how the Trustees will obtain unspecified data metrics for the report. Additionally, it is unclear as to why the report should be submitted to the Legislature in perpetuity.

The author may wish to work with the CSU in order to provide clarity as to the reporting requirements. And the author may wish to put a sunset on the annual report due to the Legislature.

REGISTERED SUPPORT / OPPOSITION:

Support

Cal Fire Local 2881

California Professional Firefighters, State Council of the International Association of Firefighters

Opposition

None on file.

Analysis Prepared by: Jeanice Warden / HIGHER ED. / (916) 319-3960