California Colleges Not Producing Enough STEM & Health Degrees For Workforce

Thousands of Jobs in Science, Tech and Health fields Go Unfilled

New Study By Campaign for College Opportunity Calls for “Sy(STEM)ic” Response to Crisis

Los Angeles (June 14, 2016) – The Campaign for College Opportunity today released a new report that found California’s public colleges and universities are not producing enough graduates in the science, technology, engineering, math (STEM) and health fields to meet workforce demands.

The report -- “Needed: Sy(STEM)ic Response, How California’s Public Colleges and Universities are Key to Strengthening the Science, Technology, Engineering and Math (STEM) and Health Workforce” -- found that while California has more entry-level STEM jobs, and a steadily growing health workforce, it ranks near the bottom of states in graduating STEM and health majors from its colleges and universities to fill those jobs.

As the highly educated Baby Boom generation ages and leaves the workforce, the state is under tremendous pressure to replace them on the job and to keep up with industry demands for educated workers.

Some of the reports key findings include:

- California is ranked toward the bottom of the country for bachelor’s degree completion in health (48th), engineering (37th), and computer science (38th).
- California ranks near the bottom of the country in associate degree production in health (49th), computer science (47th) and engineering (49th).
- Among the ten states with the largest Latino populations, California ranks at or near the bottom for bachelor’s degree completion for health (9th), computer science (10th) and engineering (10th).
- Despite being twice the size of the University of California system, the California State University system produces an almost equal number of bachelor’s degrees in engineering and computer science.
- Only 33 percent of California State University (CSU) students who start in a STEM major graduate with a STEM degree within six years.
- The low number of bachelor’s degree nursing programs in the public university system hinders the state’s ability to meet workforce demands.
- Only five percent of all Associate Degrees for Transfer awarded by the California Community Colleges in 2013-14 were in STEM majors.

The trend has serious implications not just for the workforce, but for all Californians who depend on these industries and particularly health professionals every day.
“The mismatch between the growing availability of jobs and the educated workers to fill those jobs in the STEM and health professions is symptomatic of a larger problem in California,” said Michele Siqueiros, president of the Campaign for College Opportunity. “Our public higher education system is not set up to produce the college educated workers our 21st-century economy demands. With the right leadership we can rethink the design of our public colleges and universities to more closely align with workforce needs and close racial gaps so we can all reap the benefits of a more highly educated citizenry.”

The study cited several causes of California’s poor performance in producing STEM and health graduates, including insufficient state funding and limited STEM and health program offerings in the state’s public colleges and universities. Also cited was the design of California’s public higher education system that sends too few high school graduates directly to four-year universities, broken and limited STEM/health transfer pathways between community colleges and the state’s public universities, and low rates of degree completion at the CSU and community colleges.

Troubling racial disparities in access to and success in STEM and health education programs are making the crisis more acute. One in two youth in California is Latino, yet California ranks last in bachelor’s degree completion for Latinos in engineering and computer science among the ten states with the largest Latino populations and is next to last in bachelor’s degree completion for health. Without a laser focus on growing STEM and health degrees among the state’s diverse population, the report states it will be nearly impossible for the state to meet workforce demands.

“California needs a bold new vision for public higher education to support the future success of our economy,” said Robert Lapsley, President, California Business Roundtable. “We urgently need an action plan that supports those industries driving California’s economic growth.”

The study included several recommendations that can be enacted to help produce more STEM and health graduates:

- **Create a statewide plan for higher education.** California needs a vision for higher education that sets tangible goals for access and success in the state’s colleges, including targets for STEM and health graduates.
- **Increase enrollment capacity.** Students are more likely to graduate with a bachelor’s degree if they enroll directly into a four-year college or university, rather than community colleges as a first step.
- **Invest in public higher education.** Funding for California’s colleges and universities has not returned to 2007-08 levels. The state will not meet its workforce demands unless it fully funds public higher education.
- **Prioritize the development of pathways for community college students** in STEM and health majors to transfer to the CSU and UC systems.
- **Improve college readiness.** Addressing high school math preparation and college math readiness is essential if California is to meet our STEM and health workforce demands.
- **Close equity gaps.** California must improve outreach to Black and Latino students and set goals for closing gaps between racial groups in enrollment and completion within STEM and health majors.

“California must take the steps necessary to ensure that our public colleges and universities meet the demands of the workforce and California students who are pursuing careers in the critical STEM and health fields,” said Siqueiros. “The solutions are within our reach, but it will take the concerted efforts of industry, policymakers and educators to open more opportunities for students and help keep them on a path to graduation and a job.”

To access the complete ““**Needed: Sy(STEM)ic Response, How California’s Public Colleges and Universities are Key to Strengthening the Science, Technology, Engineering and Math (STEM) and Health Workforce,”** visit [http://bit.ly/CaSTEM](http://bit.ly/CaSTEM)
About Campaign for College Opportunity:
The Campaign for College Opportunity is a California non-profit research and advocacy organization focused on a single mission: to ensure all Californians have an equal opportunity to attend and succeed in college in order to build a vibrant workforce, economy and democracy. For more information, visit www.CollegeCampaign.org / Facebook.com/CollegeCampaign or follow @CollegeOpp.

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