



Munroe: State face skills gap crisis for job creation

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"All work is learning"

-- Peter Drucker

California's competitive future is at risk if we do not begin to address the skills-gap problem. The state not only faces a skills gap for jobs requiring science, technology, engineering and mathematics (STEM) graduates, the state is also experiencing a shortage of middle-skill jobs. These jobs require more than a high-school education, but not necessarily a four-year college degree.

Examples include firefighters, carpenters, electricians, plumbers, dental hygienists, medical lab technicians, machinists, computer support specialists, heating and AC installers, aircraft mechanics, and legal secretaries. These are well paying jobs.

According to a recently released report by America's Edge (a business led nonprofit national organization), even during the recent recession, with 2 million unemployed workers, only 38 percent of California workers had the training to fill the vacant middle-skill jobs. You can find the full report at www.americasedge.org.

This is a matter of concern. Nearly half of the state's jobs are in the middle-skill tier. What is particularly worrisome is that as the economy continues to recover with rising demand for mid-skill workers each year, where will the workers come from? Certainly not from California as too few qualified workers are available to fill these jobs.

The problem of midlevel skills gap and STEM skills gap exacerbates the challenge for the state's economic health as both categories of

jobs are growing much faster than other jobs. Only a few years ago (2005) the state ranked 14th in the nation in the number of bachelor's degree awarded annually. By 2010 the ranking had slipped down dramatically to 45th in the nation. That translates into a 40 percent drop in STEM related bachelor's degree recipients in California. By 2025 the state is expected to have a workforce gap of 1 million college graduates.

The serious challenge in the state's education system arises from the fact that more than 300,000 secondary school students either drop out or graduate without meeting the entrance requirements of the California State University system.

Here is another sobering statistic -- in the class of 2007, only a third of the high school graduates had the eligibility for the CSU system based on courses, test scores, and grades.

The present state of education in California is unacceptable if we are serious about meeting the challenge of global competition and sustain our economic vitality. I agree with the proposal made by America's Edge to meet this challenge--we have to enhance and expand our Linked Learning programs in the state.

Linked Learning is an education approach that integrates sound academics with career oriented technical education and work-based learning experiences. LL programs are supported by industry and community partners and educational institutions for a three- to four-year period. LL students in high schools can opt for fields such as health, biomedicine, engineering, media, and the industrial arts and

prepare for careers via a full range of options that include community colleges, colleges, and apprenticeships. Work-based learning includes mentorship, job shadowing, and internships with regional employers.

Currently the state maintains nearly 500 California Partnership Academies -- a popular version of the Linked Learning approach. These academies have been in existence for more than two decades and are one of the most well developed models of Linked Learning. A March 2007 collaborative study led by ConnectEd concluded that students in CPAs are more likely to pass the state high school exit exam as sophomores, and more likely to graduate from high school.

An example of extraordinary success comes from San Diego's Kearny High's Digital Media and Design School, the first school in California to achieve Linked Learning certification. The DMD graduated 99 percent of its 2009 class and 95 percent went on to postsecondary education.

The school has increased its Academic Performance Index by 167 points since 2005. It also received national recognition in 2010 by becoming a Blue Ribbon School. The high school also has a Construction Tech Academy, and a Science Connections and Technology Academy.

Linked Learning is an excellent vehicle for narrowing the skills gap in California. This asset has been underutilized. This education approach deserves greater community and business support.

My next column will be on innovative Linked Learning programs in the Bay Area.