



NEWSLETTER



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Special points of interest:

- 60% of the jobs 10 years from now haven't been invented yet (Frey, 2013)
- Some students are now allowed to apply for federal grants and loans to help pay for certain coding schools (NBC, 2016)
- Half of the high-paying jobs in America now require coding skill (Hill, 2016)

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STEM - THE WORKFORCE CONNECTIONS LOCAL PLAN



A recent report from the National Science Board (NSB-2015-10) argues that due to increasingly technical and automated job market demands, the need for Science, Technology, Engineering and Math (STEM) skills have permeated all corners of the nation's economy. Thus, the significance of STEM knowledge and skills on national economic competitiveness is critical to the development of the Southern Nevada Workforce Development Area (SNWDA) future workforce (U.S. News & World Report, 2015).

All key industry sectors in the New Nevada economy require workers with strong STEM based skills. These skills are necessary for the types of jobs in the New Nevada economy. Most employers want workers who are able to reason and solve problems using some math, science or technology knowledge. Key STEM skills include:

- Analytical skills to research a topic, develop a project plan and timeline, and draw conclusions from research results

- Science skills to break down a complex scientific system into smaller parts, recognize cause and effect relationships and defend opinions using facts
- Math skills for calculations and measurements
- Attention to detail to follow a standard blueprint, record data accurately, or write instructions
- Technical skills to troubleshoot the source of a problem, repair a machine or debug an operating system, and computer capabilities to stay current on appropriate software and equipment

Workers in STEM fields also use "soft" skills as much as they do math and science. These "soft" STEM skills include:

- Communication and cooperation skills to listen to customer needs and interact productively with project partners
- Creative abilities to solve problems and develop new ideas
- Leadership skills to lead

- Organization skills to keep track of a great amount of and different sources of information

To support the New Nevada's key industry sectors, STEM activities already play a strong role in the service delivery design in the SNWDA. It starts with broad participant access to exposure activities to STEM skill-sets needed for occupations across Nevada's key industry sectors. It continues with STEM focus during the career coaching stages, STEM focused trainings on the Eligible Training Provider List (ETPL) and strong engagement with employers in STEM related industries.

Universal access to STEM based programs will anchor participant exposure to skill-sets, industry-recognized certificates, licenses and certifications for occupations across Nevada's key industry sectors.

Source: Workforce Connection's Four-Year Local Plan

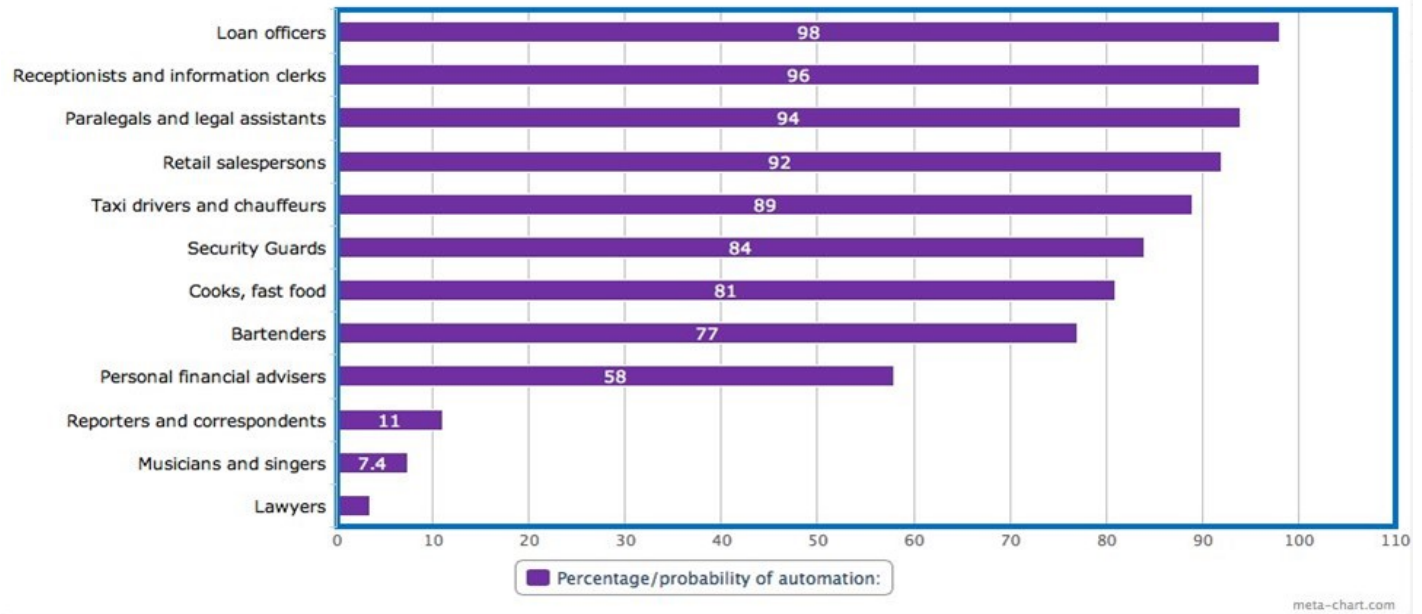
FUTURE PURSUITS—TOMORROW'S CAREERS ARE BEING SHAPED TODAY

Dr. Thomas Frey, a futurist head at DaVinci Institute in Colorado, expresses by the year 2030, more than two billion jobs around the world are expected to disappear. According to Frey, employers are seeking skill sets very different than the current skill sets utilized in today's workforce.

Social media and app development has changed the way information is accessed by individuals and thus, created an influx in the workforce. New opportunities are surfacing around a shared economy creating new business models around 3-D printing and drones thus, creating a wide open untapped industry. The skills set demand will increase and focus around the ability to be creative, possess interpersonal skills and fine motor control. Additionally, intellectual curiosity will be a skill set people will need to have. Frey mentions that learning agility is also important because things are going to change at a rapid pace. IT's not going to be what you know, but what you can learn in the future and how you can adapt your skill sets to add value to your position, your department and your company. *Source: Future Pursuits by Ted Kritsonis and Edward McGowan.*

The 12 jobs most at risk of being replaced by robots

Oxford University data via Bloomberg News



Half of the high-paying jobs in America now require coding skills by Catey Hill, 2016

If terms like SQL, Python and JavaScript aren't on your radar, employers may not be interested in hiring you.

Roughly half of the jobs in the top income quartile — defined as those paying \$57,000 or more per year — are in occupations that commonly require applicants to have at least some computer coding knowledge or skill, according to an analysis of 26 million U.S. online job postings released this month by job market analytics firm Burning Glass and Oracle Academy, the philanthropic arm of Oracle focused on computer science education, in Redwood City, Calif. In simple terms, coders write the instructions that tell computers what to do; in-demand programming languages include SQL, Java, JavaScript, C# and Python. Source: *Marketwatch.com*

CODING BOOTCAMPS REPLACE COLLEGE FOR SOFTWARE ENGINEERS

Software engineers typically have a degree in computer science, information systems or information technology. A typical student spends four to six years in college to obtain a Bachelor's and moreover, a Master's degree. Many times graduates find it difficult to get their foot in the door of a reputable IT or software company due to lack of job experience. With a little hard work, a person can become a software engineer through a nontraditional pathway.

In San Francisco, students attend boot camps designed to provide in-depth instruction in programming and coding, software development and web applications. Students attend boot camps to learn about the latest developments in IT, and leave with the certifications necessary to be employable at some of the largest reputable companies such as Amazon, Google, and Facebook. Additionally, boot camps can quickly adjust their curriculum to meet the demand and need of the market.

Students spend approximately 12 to 16 hours during 12-week sessions listening to lectures, coding and collaborating in teams that simulate ones in tech firms. Students also receive empathy training, which instructors say is a vital part of the program because the soft skills help them work well with others, which is important in the workplace.

Hack Reactor is one example of the many boot camps that exist across the nation and currently has four locations in the United States. Hack Reactor programs have a 98 percent job placement rate and students may expect to have an average starting salary of \$104,000 a year.

Boot camps tuition is nearly \$20,000, about one-tenth of the cost of attending an elite college. To help with the cost for a solid education, the federal government allows some federal grants and loans to assist in paying for certain boot camps.

All sources and articles are available upon request