

Education in the Recession

California faces major workforce-related challenges in the near future, and Sonoma County employers are already being affected by these developments. Local Human Resource Directors are currently reporting shortages of qualified applicants—especially those holding Bachelor's and associate's degrees, as well as a variety of occupation specific, technical certificates.

Sonoma County Human Resources Directors Survey, 2008
Sonoma County Economic Development Board

Since its founding, Santa Rosa Junior College has been an integral component in the North Bay economy--training workers, educating individuals of all ages, and partnering with local government and industry to sustain and to improve the region. The employers and the citizens of Sonoma County depend upon Santa Rosa Junior College for timely, current, and effective training, to maintain business productivity, to facilitate further college study, and to open doors to rewarding careers.

The changing global economy, evolving regional demographics, and the fluctuating market value of education provide guides for the college as it attempts to remain responsive to community and student needs.

Economy

At the dawn of the 21st Century, the local economy faces many challenges:

- demographic shifts that include a rising population of Latinos and retirees;
- resource constraints, including pressure on water supplies, energy, and land;
- an increasingly global economy that forces our companies and their employees to be more innovative, more productive, and more flexible in meeting competitive challenges.

In California since 2000, new jobs have continued to be created, but the positions are not always particularly desirable. For instance, fifty-eight percent of new jobs created in California between 2003 and 2005 paid below the average wage.

In Sonoma County during the same period, the ten occupations that recorded the greatest drop in employment paid an average wage of \$51,400 per year. The ten occupations that had the greatest increase in employment paid an average wage of \$28,750 per year.

Often, the issue for the unemployed or the underemployed is not lack of jobs but lack of the proper training. A recent piece in the San Francisco Chronicle focused on rising unemployment and its impact on job-seekers:

The nation's unemployment rate rocketed to a five-year high of 6.1 percent in August. Persistent weakness in the housing, finance, construction, and manufacturing sectors lurks behind the dismal numbers.

But the labor market is a complex web of opportunity and frustration, experts say, and the big picture can blind us to the details. And the details are where the jobs are hiding....It's a fact that U.S. employers have cut more than 600,000 jobs so far this year, but that's out of a total civilian workforce of 154.9 million.

Those looking for new careers should consider fields that aren't so vulnerable to cyclical contractions and can't be easily out-sourced, such as health care, education, transportation, energy production and research.

In the private sector, many big corporations are shrinking. "The job growth is in the small companies...But these jobs are under the radar, they hire by word of mouth or referrals, and the jobs aren't advertised."

For every big company that's downsizing, you have a generic company that's opening a new line and creating production, quality control, operator jobs and the white-collar support that goes with it.

San Francisco Chronicle, September 14, 2008

At the turn of the 21st century, California suffered a recession. Growth eventually returned to the state, yet over the last year, a series of national and international shocks have pummeled the California economy; many economists believe the entire United States now faces a recession.

The California Economic Strategy Panel tracked changes in California's Private Sector Employment since 2001 (Compare the state's performance, April 2007 – April 2008, with the Bay Area in the right column):

California Statewide	2001 – 2006	2006 - 2007	Apr 2007 – Apr 2008	Bay Area- Apr 2007 – Apr. 2008
Total Nonfarm	4.3%	1.75	0.3%	0.8%
Natural Resources & Mining	1.3%	-1.1%	2.0%	8.7%
Construction	21.9%	-4.1%	-9.1%	-3.1%
Manufacturing	-15.3%	-2.2%	-1.3%	0.8%
Trade, Transportation, & Utilities	7.6%	1.9%	0.2%	0.2%
Information	-6.9%	0.5%	0.1%	1.2%
Financial Activities	14.3%	-2.9%	-3.8%	-3.6%
Professional & Business Services	6.0%	1.9%	1.6%	1.9%
Educational & Health Services	12.5%	5.6%	3.4%	1.8%
Leisure & Hospitality	12.3%	2.5%	1.3%	1.2%
Other Services	-22.9%	15.9%	1.8%	2.2%
Government	4.2%	2.0%	1.9%	2.2%

Examination of the above data reveals some of the pitfalls of attempting to predict areas of job growth at the local level. For example, over the past years, representatives of the construction trades in Sonoma County have repeatedly said that they cannot find sufficient trained workers to match the need in the industry. As a consequence, in 2007, the college began to create curriculum centered on basic construction skills. By the time the curriculum was approved and resources prepared, the mortgage crisis had effectively stopped construction expansion.

On the other hand, the aging population will be with us for some time, and, as the data demonstrates, even in slow times, we have seen job growth in the health professions.

Job growth in California reflects the dynamic nature of the economy and the challenges associated with predictions:

- 2001 – 2006, job growth in California ranged from 9.5% to -.06%
- 2006 – 2007, job growth in California ranged from 4.8% to 0.3%
- April 2007 – April 2008 – job growth in California ranged from 1.4% to -.06%
- In 2007/08 – job growth in the Bay Area ranged from 8.7% to -3.6%
- The greater volatility in the Bay Area reflects the dynamic nature of its economy and the constantly changing opportunities open to people who can adapt to new conditions

Early in 2008, the Sonoma County Economic Development Board convened an Innovation Council, a group of the region's business and community leaders, to assess the county's position and to offer ideas for sustaining the region. Recently, the Innovation Council produced its first study, an analysis by Moody's Economy.com of the Sonoma County economy.

In its report, Moody's preliminarily identified nine clusters of Sonoma County industries "that have characteristics of a high concentration, rapid growth, or both. As such, they provide a foundation for the economy's future and a way to provide focus for policy initiatives:"

1. Agriculture, Food and Wine
2. Technology-Producing Industries
3. Tourism
4. Construction and Green Services
5. Creative Professional Services
6. Health and Wellness
7. Wealth Management
8. Retail Trade
9. Wholesale Trade

While noting the difficulty of forecasting, Moody's Economy.com anticipates that,

"...long-term growth in Sonoma County, as measured by employment, will occur fastest in the Creative Professional Services cluster. Health and Wellness, Tourism, and Wealth Management also will grow faster than average over the next ten years. Other industries that have provided so much support for the economy in past years, such as Agriculture, Food and Wine, as well as Tech-Producing Industries, will grow more through productivity gains and expansion into new and niche markets. Thus, their contribution to job growth may be small, yet they will still be critical industries that generate income and wealth and also support other clusters in the economy. By the end of the forecast horizon, the Construction and Green, Health & Wellness, Retail, and Tourism Industries will be roughly the same size, employing between 22,000 and 24,000 workers each. The Wholesale, Tech-Producing, and Wealth Management industries will remain small but will all see employment growth throughout the ten-year forecast horizon."

Demographics

Moody's Economy.com also made several points about Sonoma County demographics:

- Population and labor force trends are changing rapidly
- Experienced workers will be leaving the labor force in large numbers
- Population growth has ended: The population of Sonoma County has fallen in each year since 2002

- As net domestic migration has turned negative, the population and labor force have been supported in recent years by international immigration
- In 2006, Latino population was 22% of Sonoma County's total population
- In 2016, Latino population will be 40% of county population
- In the coming years, the labor force will be younger and less experienced

Moody's notes that two factors—labor force participation rate and educational attainment—ultimately determine an economy's long-run growth potential. Additionally, Moody's highlights, "...the need to address continuing issues of education and training at all age levels and across all population groups in the county. It becomes increasingly important as job creation is projected to be concentrated among high-skill industries."

Their view is echoed in the Los Angeles Times (April 21, 2008).

"With baby boomers preparing to retire as the best educated and most skilled workforce in U.S. history, a growing chorus of demographers and labor experts is raising concerns that workers in California and the nation lack the critical skills needed to replace them.

In particular, experts say, the immigrant workers needed to fill many of the boomer jobs lack the English-language skills and basic educational levels to do so. Many immigrants are ill-equipped to fill California's fastest-growing positions, including computer software engineers, registered nurses, and customer service representatives.... Nearly one-third of all Americans – 76 million people – were born between 1946 and 1964. Boomer retirements are projected to open up nearly 1 million jobs in Los Angeles County and 3 million in California in the next decade."

The Value of Education

Findings in a recent survey by the Sonoma County Economic Development Board pinpoint challenges faced by regional employers:

- The most sought-after employee skills were "problem solving/critical thinking," "soft-skills (e.g. communication, work habits, etc.)", and "teamwork." Employers found many entry-level employees lacking these skills
- Thirty-three percent of respondents expected to have increased need for employees holding an associate's degree or technical certificate over the next five years. Respondents also indicated that their greatest need was for employees holding Bachelor's or associate's degrees

Preparing students for college, getting them into college, and helping them to succeed in college have been challenges for American education for many years: For every ten high school freshmen, three drop out of high school, four enter college, and two graduate from college.

The 2007 SRJC Fact Book notes, "The number of high school seniors in Sonoma County is projected to decrease slowly through 2016, from a high of 5,968 in 2009. Sonoma County's Latino 12th grade population is projected to increase markedly from 25% to 41% between 2008 and 2018, while the proportion of white students is projected to decrease to 47% of the county total."

Unfortunately, many of the Latino youth do not have the skills to succeed in school. Thus, the county, and indeed the nation, will have to rely upon replacements for highly educated Boomers who do not have the skills needed to succeed in today's workplace.

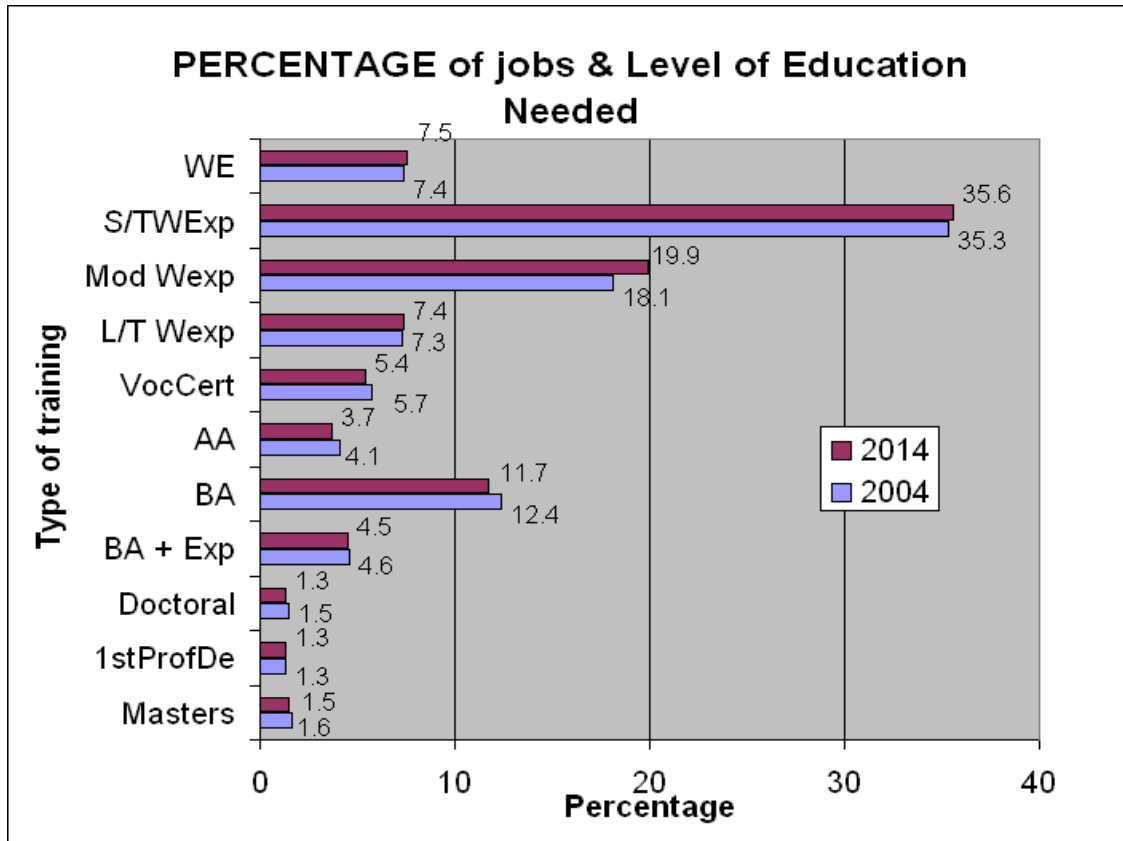
Paradoxically, many people do not need to spend years at college attempting to earn a Bachelor's degree. In the United States, 34% of adult workers have a Bachelor's degree or higher. According to the New York Times (March 26, 2006), "More than 45% of the nation's workers, whatever their skills, earned less than \$13.25 per hour in 2004, or \$27,000 per year for full-time... Surely, lack of skill and education does not hold down the wages of nearly half the workforce. Something quite different seems to be true: the oversupply of skilled workers is driving people into jobs beneath their skills and driving down the pay of jobs equal to their skills."

The New York Times observation in 2006 is reinforced by a 2008 article from The Carnegie Foundation for the Advancement of Teaching. In the January/February 2008 edition of the online journal "Change," Paul Barton synthesized studies focused on the need for a college education. In his article, "How Many College Graduates Does the U.S. Labor Force Really Need?" he noted:

- The quantity of jobs requiring a college education is small relative to the total number of jobs
- 70% of the jobs classification with the largest projected growth (not the fastest projected growth) do not require college
- While jobs requiring advanced education might be expanding rapidly, they still accounted for too small a share of the workforce to affect the average level of education needed for all jobs
- When professional jobs and long-tenure, high paying jobs are included as a percentage of all jobs in some future period, the high-paying jobs requiring advanced education are overstated as a proportion of the total employment opportunities actually available
- Only about 3 in 10 jobs require a postsecondary certification of some sort
- Fewer young college graduates have been able to obtain college labor market jobs, and their real wages and annual earnings have declined accordingly due to rising mal-employment (underemployment). These young college graduates take jobs that displace their peers with lower levels of schooling

In his article, Barton charted U.S. jobs by the type of training required and calculated the percentage of those jobs relative to the entire labor market for 2004 and 2014. His chart is on the following page; please use the legend below for definition of abbreviations:

Chart abbreviation	Meaning
WE	Work experience – Essentially on-the-job training; no formal training
S/TWExp	Short-term work experience or on-the-job training
Mod Wexp	Medium-term work experience or on-the-job training
L/T Wexp	Long-term work experience or on-the-job training
VocCert	Vocational certificate
AA	AA or AS degree
BA	BA or BS degree
BA + Exp	Bachelor's degree plus experience
Doctoral	Doctoral degree
1 st ProfDe	Professional degree, e.g. law, dentistry
Masters	Masters degree



According to the Sonoma County Economic Development Board's Human Resource Survey 2008, "Many 4-year degree-holders are returning to community college for career training":

- Transfers from community college to 4-year universities: 48,629
- Holders of 4-year degrees back in community college: 143,012

The 2007 Santa Rosa Junior College Fact Book reported students' stated educational goals for Fall 2006, at the end of the semester:

Personal Interest	8,887	26%
Transfer	8,726	25.5%
AA GE, AA Voc, Career Exploration, New Job Skills, Update Job Skills, Vocational Certification	9,692	28.3%
Undecided	3,940	11.5%
Basic Skills, GED	2,966	8.6%
Total	34,211	

Enrollments reflect these numbers. Many individuals at the college are taking courses that are related to neither transfer nor work:

According to the 2007 SRJC Fact Book, slightly over two-fifths of SRJC students are 18 – 25 during Fall and Spring semesters, while over one-fifth are 51 or older. During the same year (2006 – 2007) the college awarded the following numbers of degrees, certificates, and General Education Degrees:

Transfers	1,113 (estimated)
Associate of Arts or Science, certificates, and other credit awards	3,960
GEDs	314

People attending SRJC face a job market that has been altered by the world economy: The composition of the workforce is very different than in the previous century:

1960	Percent of workforce	2000	Percent of workforce
Skilled	20%	Skilled	65%
Unskilled	60%	Unskilled	15%
Professional	20%	Professional	20%

Many experts believe America's competitive education problem is in the middle of the labor market, where we are not training sufficient workers. We train too many people with Bachelor's Degrees and insufficient numbers with up to two years of college or a skills certificate:

Labor Supply		Labor Demand
29%	BA or above	20%
29%	Up to 2 years of Postsecondary education	44%
41%	High school or less	36%

As previously indicated, many job opportunities in today's economy either do not require a Bachelor's degree or offer good incomes to those with the skills the market seeks, regardless of degree.

California's Need for Skilled Workers		
Occupation	Average 2007 Salary	Additional workers needed over the next 6 years
Sheet Metal Workers	\$45,000	9,000
Machinists	\$38,000	11,100
Electrical & Electronic Engineering Technicians	\$53,000	10,100
Medical & Clinical Laboratory Technicians	\$66,000	5,600
Civil Engineers	\$74,000	12,600
Construction Managers	\$83,000	12,100

Sonoma County Economic Development Board
Sonoma County Human Resources Directors Survey, 2008

Individuals with the proper skills and the ability to apply those skills over a variety of industries and businesses will succeed in the workplace of the 21st Century.