San Diego County Manufacturing Industry Report
"Uncertainty Replaces Optimism"
December 2010
By Michele Nash-Hoff

San Diego's manufacturing industry continues to fare better than rest of state led by the technology industry. The first half of 2010 saw a continued upturn in business with a slump in the summer, and then renewed activity this fall. While some industry sectors are still hoping for a recovery, most saw a steady level of business, and some have been busy.

According to Tatum's November Survey of Business Conditions, "In the past 30 days, overall conditions improved modestly with significant improvement registered in employment and the availability of credit… We conclude that conditions are in fact improving, but there is a generalized anxiety related to overall economic and political uncertainties, both domestic and international." In May, the Tatum Index of Business Conditions reached its highest level at 8.1 since September 2007, just before the Recession began. It dropped sharply to 2.3 by the end of the summer slump, rising back up to 3.1 for October and November. Tatum's Index of Business Conditions had reached an all-time low of 0.4 in November and December 2008. Business conditions, employment, and capital available and pricing were up. Capital expenditure commitments were flat, and order backlogs were slightly down. Tatum regularly surveys nearly 1,000 financial and technology executives nationwide, but only 25 percent are manufacturing executives.

According to the Manufacturing Institute for Supply Management's Report on Business, economic activity in the manufacturing sector expanded in October for the 15th consecutive month. Norbert J. Ore, C.P.M., chair of the Manufacturing Business Survey Committee, said, "The manufacturing sector grew during October, with both new orders and production making significant gains. Since hitting a peak in April, the trend for manufacturing has been toward slower growth. However, this month's report signals a continuation of the recover that began 15 months ago, and its strength raises expectations for growth in the balance of the quarter. Survey respondents note the recovery in autos, computers and exports as key drivers of this growth…" The PMI registered 56.9 percent in October, up from 54.4 in September, but down from a high of 60.4 percent in April. The low during the recession was 32.9 percent in December 2008. A reading of 50 percent indicates that the manufacturing economy is generally expanding and below 50 percent indicates that is generally contracting. In October 14 of the 18 manufacturing industries reported growth in new orders, production, production, employment, and exports. The backlog of orders rose 7.8 percent from September to October (51.1 up to 58.9 percent). On the downside, prices were increasing and the backlog of orders was contracting.

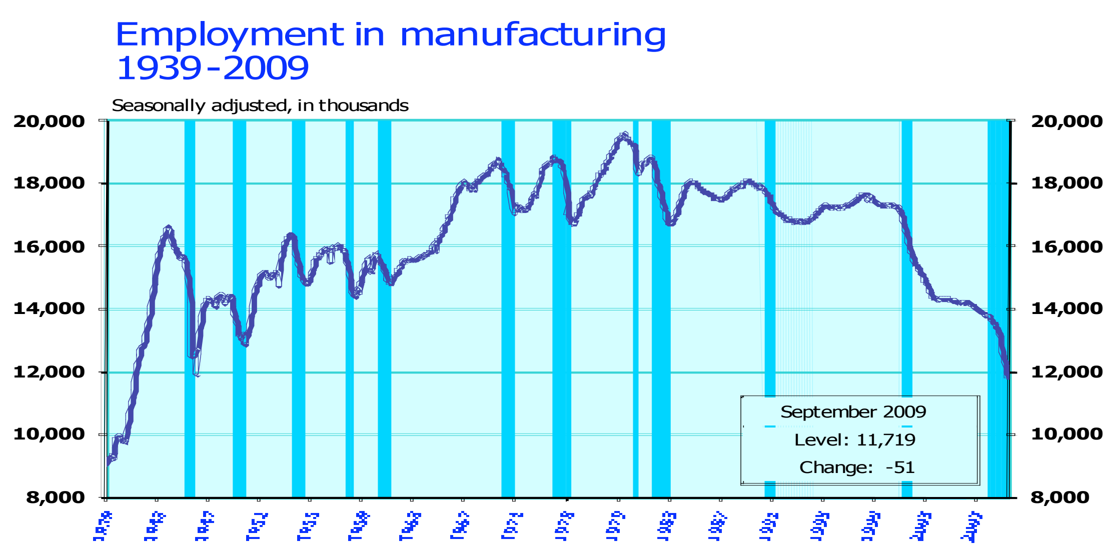
The National Association for Business Economics October survey reported that "the U. S. recovery from the Great Recession continues, with business conditions improving…Industry demand, profits, costs, employment and capital spending strengthened compared to the results in the July 2010 report…While regulatory policy and federal taxes are expected to have a negative impact on respondents' companies performance over the coming year, monetary policy is forecast to have a positive impact." On the upside, "job creation registered its third positive quarterly reading in a row."

According to the Manufacturers Alliance/MAPI, the “U. S. economy has begun the process of rebalancing away from excessive reliance on consumer spending and housing activity towards growth spurred by investment and exports.” The report predicts that “inflation-adjusted gross domestic product (GDP) will expand by 2.8% in 2010, decelerate to 2.5% growth in 2011, and increase by 3.2% in 2012…Manufacturing production is expected to show 5.8% growth in 2010, 4% growth in 2011, and 4.9% growth in 2012. Spending on transportation is robust, with 60.3% growth in 2010, and 22.7% predicted in 2011 and 23.1% in 2012.

The October PricewaterhouseCoopers Manufacturing Barometer reported “uncertainty has replaced optimism as the prevailing view of the U. S. economy over the next 12 months.” The majority (52 percent) of industrial products manufacturers are uncertain about the U. S. economy, thirty-five percent are optimistic, and 13 percent are pessimistic. “For the third straight quarter, legislative/regulatory pressures ranked highest among perceived barriers to growth over the next 12 months, rising 14 points to 77 percent…Taxation policies remained a commonly cited barrier at 60 percent.” While 42 percent plan to add employees to their workforce, this is down five points from the second quarter. The number of companies planning major new investments of capital during the next 12 months rose 10 points to 43 percent.

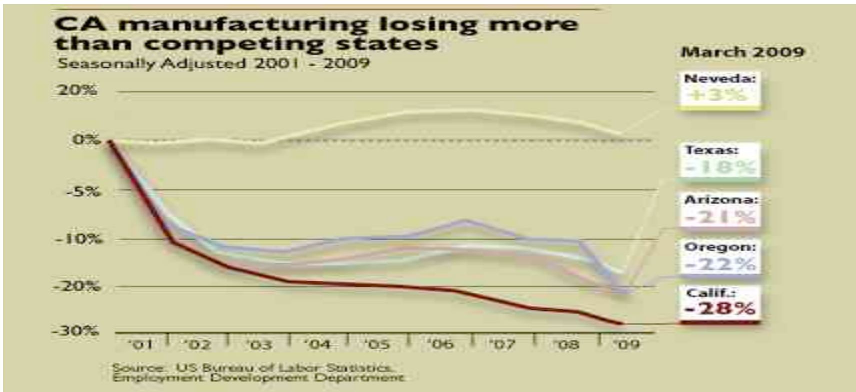
For much of the United States, the recovery is continuing to be “jobless” as the unemployment rate has held steady nationwide at 9.6 percent since the beginning of the year. San Diego’s unemployment rate of 10.2 percent in October is better than California’s unemployment rate of 12.1 percent. Our immediate neighbors of Orange, Riverside, and Imperial counties have rates of 9.1 percent, 14.7 percent, and 29.3 percent respectively, with Imperial County’s rate still being one of the highest in the country.

Even before the recession, many jobs had vanished or were shipped overseas by the manufacturing industry. The September 20, 2010 Issue Brief by the Economic Policy Institute states that we lost 5.5 million manufacturing jobs since 2001 and more than 26,000 manufacturing plants. In 2000, we still had nearly 17 million manufacturing employees nationwide. Now, it’s down to 11.1 million.



Source: Bureau of Labor Statistics, Current Employment Statistics survey, October 2, 2009.
Notes: Shaded areas represent recessions as determined by the National Bureau of Economic Research (NBER). NBER has not yet determined an endpoint for the recession that began in Dec. 2007. Most recent 2 months of data are preliminary.

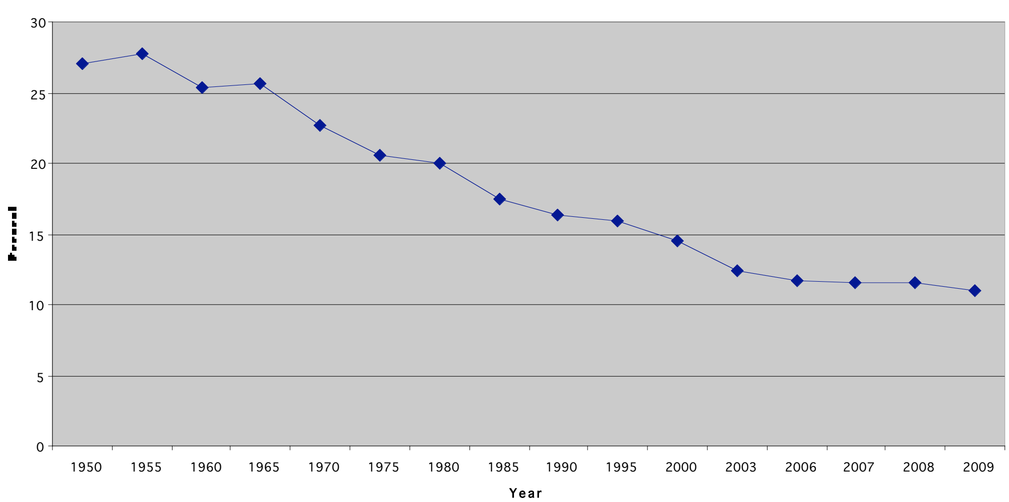
According to the California Employment Development Department labor market information, California lost 641,300 (not seasonally adjusted) between December 2000 when the decline started and December 2009. This was a 28 percent decline in nine years. The good news is that California added 22,200 manufacturing jobs since December 2009.



Some economists and policy makers believe that many jobs lost during this recession may be gone forever and a weak employment market could linger for years. This could add up to a "new normal" of higher joblessness and lower standards of living for many Americans [Mark Zandi](), chief economist and co-founder of Moody's Economy.com, said, "This Great Recession is an inflection point for the economy in many respects. I think the unemployment rate will be permanently higher, or at least higher for the foreseeable future."

Manufacturing jobs are the foundation of the middle class because they pay wages that are double or more than wages for service jobs. The American economy cannot completely recover until such time as jobs are found for the millions of Americans who are out of work. I don't mean service jobs at Wal-Mart of McDonalds. I mean jobs that provide adequate income needs for the middle class – jobs that provide money to pay mortgages, pay for health care, college tuitions, vacations, maybe a new car, and contribute to church and charities. In 1965, manufacturing accounted for about 25% of the U. S. Gross Domestic Product. It dropped to 11.0% by the end of 2009.

Manufacturing Percent of GD



The temporary staffing industry is often a bell weather of a recession or recovery so a sustained increase in staffing employment is a signal a recession is over. When business starts to slow down, contractors are the first to go. When business picks up, companies don't hire employees. They hire contractors because they're not confident that a recovery will last. American Staffing Association provides a weekly report on the number of people employed in temporary and contract work. The baseline value ASA Staffing Index was set at 100 in June 2006, and during the week of Nov. 8-14, 2010 the current index value is 100, which is 18 percent higher than the level reported for the same weekly period in 2009. "Staffing jobs have maintained the strong upward trend that began earlier this year, showing substantial year-to-year employment growth in the third quarter."

The auto and construction industries led the nation out of past recessions. But the carnage among American automakers and the surplus of new and foreclosed homes and empty commercial properties made it unlikely that these two industries would be engines of growth anytime soon. Surprisingly, the auto industry has rebounded this year to a greater degree than expected. The Original Equipment Suppliers Association (OESA) Supplier Barometer Summary for November 2010 reported that the North American industry is running at vehicle production levels of 11.5 to 12 million units, which indicates a need to add back hourly employees. "However, on average, companies are looking for 13 million unit run rates before adding incremental salary staff, 14 million units to expand current stock of plant and equipment and 15 million units before they add back plant square footage." This is good news for the many California manufacturers that are in the chain of parts and assemblies for the automotive industry.

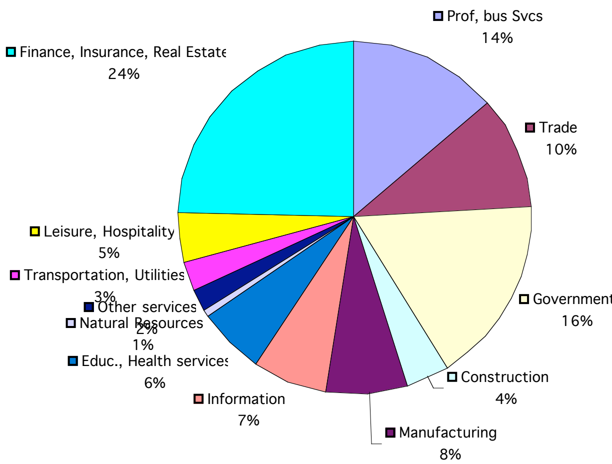
San Diego's Manufacturing Industry Continues Recovery

San Diego's primarily small to medium-sized companies in its manufacturing industry have fared better than other parts of the state and nation during this recession and have shown signs of continued recovery during 2010.

According to the U. S. Department of Commerce's Bureau of Economic Analysis (BEA), the San Diego metropolitan area generated $168.8 billion in Gross Metropolitan Product (GMP) in 2009, down slight from $169.3 billion in 2008. Estimates for 2010 GMP are $174.8. Economic production by the county or metropolitan area of San Diego alone is greater than 25 U. S. states, and if San Diego were a country, it would rank between Chile and Pakistan in the world ranking of GDP. San Diego's economy contracted by an estimated 1.3 percent in 2009, but is estimated to show a 2.8 percent grown by the end of the year. The U. S. economy contracted 2.4 percent in 2009 and was projected to grow 3.0 percent in 2010. However, after increasing 3.7 percent in the first quarter, the second quarter only increased 1.7 percent, and the third quarter only increased 2.5 percent.

The role of government is significantly more prominent in San Diego's economy than other neighboring areas, accounting for 17% of GDP compared to only 8.7% for Los Angeles-Long Beach-Santa Ana's GDP. "It is not too much of a reach to say that but for the grace of Department of Defense spending, San Diego would look a lot more like other economically devastated regions in the southwest, including Phoenix, Las Vegas, and Riverside-San Bernardino." (San Diego Economic Ledger, November 2009 by National University System Institute for Policy Research) No comparable data has been released for 2009.

San Diego 2008 GDP by Industry



San Diego's diverse technology-based manufacturing industry has been the foundation of this recovery, but the two growth sectors of "CleanTech" and the "action and sports" industry are helping to spur the recovery. In 2007 TechAmerica (formerly AeA) added "clean technology" as one of the categories of their High Tech Awards, and CONNECT added "clean technology" as one of their categories for their Most Innovative Product Awards. In 2009, CONNECT added the category of Action and Sports Technology for their Most Innovative Product Awards and kicked off networking groups specializing in Clean Technology and Action and Sports Technologies. This year, TechAmerica added the category of Contract Services.

Of course, not all technology-based companies that received awards form TechAmerica or CONNECT are manufacturers. For example, in 2009, there were 38 companies that were finalists for the TechAmerica (formerly AeA) awards, but only 24 produce a product. This year, there were 39 finalists, but only 25 produce a product.

For purposes of this report, the definition of a manufacturer is a company that makes, creates, or produces a product, whether it is hardware, software, biotechnology, pharmaceutical, foodstuffs, etc. in contrast to a company that provides a service.

According to the non-profit trade organization, CleanTech San Diego, there are an estimated 750 local companies that are working in the clean-tech space. CleanTech San Diego is ranked 7th in the top 10 among the world's clean-tech organizations by the entity that created the ranking, Sustainable World Capital. This industry cluster includes companies working in a range of fields, including water, solar, transportation, and biofuels. Without researching each company, it is impossible to know how many companies actually produce a product in this field vs. provide a service.

The same could be said for the more than 600 companies that comprise the newly categorized industry cluster of action sports. The industry cluster includes everything from surf and skateboard apparel and products to sports teams and companies that cater to professional and amateur athletes. In 2009, CONNECT launched the Sports & Entertainment Innovators, now headed by former NBA star Bill Walton. Walton is leading local efforts to strengthen and accelerate the growth of San Diego's startup and growth-stage companies through the entrepreneur educational programs, business mentoring, and access to capital for which CONNECT is famous. Climate and access to the ocean and the mountains gives San Diego a competitive edge, along with the Olympic Training Center in South County. With about 25,000 to 30,000 employees in the industry nationwide and revenue in the billions, this is good news for San Diego.

The marine technology industry is thriving in San Diego. SeaBotix, Inc. takes advantage of its home field advantage to land valuable defense contracts. In the November 8, 2010 San Diego Business Journal, Sean Newsome, global sales manager for SeaBotix Inc., said, "They can come to our backdoor for service. Their cost of doing business is lower because they don't have to travel to see us." SeaBotix ranked 372 on Deloitte's 2010 Technology Fast 500 list with growth of 232 percent from 2005-2009. Marine technologies are best made near the water where developers can test products, and San Diego's location on the West Coast is often called the gateway to the Pacific Rim. Some of the other successful maritime companies in San Diego are SonTek/YSI, BMT Scientific Marine, and SIDUS Solutions.

San Diego's off road vehicle industry continues to see a modest upturn in orders starting in the third quarter of 2009 despite the continuing crisis in the mortgage industry. Some companies had been down by as much as 50- 70 percent in 2008 and early 2009, and a few didn't survive. As first mentioned in my report of November 2007, the reasons behind this slow down are complicated. Inquiries revealed that a majority of people who purchase off road vehicles (dune buggies, quad wheelers, and dirt bikes) work in the building industry or related industries. With the housing market in a big slump, fewer homes, condos, and apartments have been built so people working in this industry were having trouble keeping their own homes and the vehicles they had already purchased, much less buy a new vehicle.

Outsourcing Offshore Expands

According to Plunkett Research, Ltd., "outsourcing will be an approximately $525 billion global industry in 2010," in three areas: "1) logistics, sourcing and distribution services; 2) information technology services, including the creation of software and the management of computer centers; and 3) business process outsourcing (BPO) areas such as call centers, financial transaction processing and human resources management. As of mid2010, outsourcing of BPO, IT and other services was bouncing back from the global recession." A significant share is contract manufacturing of consumer electronics, laptop computers, cell phone, iPOD and iPads. The consumer electronics industry is intensely competitive because of changing demand and fluctuating supply costs. As a result, companies are under constant pressure to focus on cost efficiency and drive products and services innovation. The likelihood of consumer electronics manufacturing returning onshore to the U. S. is slim.

Outsourcing offshore has become less advantageous because wages and operating costs of have been rising rapidly in China and India. During 2010, Chinese companies in many cities were facing worker shortages, while strikes and worker unrest were forcing some of the largest employers to boost wages by 24% to 80% in some cases.

However, many times the products manufactured offshore for corporations headquartered in the U.S., Canada, Japan, and other developed nations are often intended for sale in offshore markets. For example, Kraft Foods has manufacturing plants within China where it makes processed food products that have been adapted to suit the needs of Chinese consumers.

China and India are graduating high numbers of skilled technicians, engineers, and scientists from their universities, enabling these nations to attract engineering and R&D contracts in a wide variety of fields, including pharmaceutical R&D. A report published by Business Insights, "Key Trends in Offshoring Pharmaceutical R&D," evaluates offshore R&D strategies that can reduce development times and improve productivity, with analysis of a variety of strategic partnerships, academic collaborations, and outsourcing opportunities. The key findings are:

- Companies that have allocated over 60% of their R&D expenditure offshore have displayed greater shareholder return, operating margins, market capital growth and return on assets.

- The U. S. currently attracts 53% of total industry R&D spent, however, it is forecast that 20% of this expenditure will migrate to Asia Pacific.

These findings will have a significant impact on San Diego's biotech industry, adversely affecting companies that rely on R&D contracts for their primary revenue and benefiting companies that outsource R&D offshore.

Harder to Compete for California Companies

California's manufacturers find it harder to compete because the business environment grows increasingly unfriendly. In 2005, California dropped to 50th in ranking in the Small Business Survival Index by the Small Business & Entrepreneurship Council (SBE Council), and its rank did not change in the 2006 and 2007 reports. California rose to 49th in the 2008 survival index by switching places with New Jersey and remained at this rank for 2009 even though four categories improved by one or two points. Since New Jersey just elected a Republican governor and Republican-controlled legislature that have vowed to improve the state's business climate, California may return to the bottom rank by the report for 2011. This low overall ranking was based on California's anti-business environment in the following areas:

- Highest state gas tax ($ .474)
- 2nd highest personal income tax rate (10.55)
- 2nd highest capital gains tax (10.55)
- 6th highest cost of worker's compensation premiums
- 9th highest electric utility costs
- 6th highest Workers' Compensation rates
- 9th highest corporate capital gains tax rates
- 10th highest corporate income tax rates

A high personal income tax rate raises the cost of working, saving, investing, and risk taking. Personal income tax rates influence business because more than 90 percent of businesses file taxes ad individuals (e.g. sole proprietorship, partnerships, and S-Corps) and therefore pay personal income taxes rather than corporate income taxes. Small business owners typically report their profits on their individual income tax returns, so the individual income tax is effectively the small business tax.

Tax rates affect entrepreneurial activity – raise the costs of entrepreneurship and you'll get less of it; reduce the costs of entrepreneurship, and you get more. Taxes also affect migration. In a June 3, 2003 report, "Taxation and Migration," written by Richard Vedder, Distinguished Professor of Economics at Ohio University, noted that from 1990 to 1999, low tax states gained 2.05 million people in terms of net domestic migration, while high tax states lost 890,000…From 2000 to 2002, low tax states gained 729,000, and high tax states lost 371,000 in net domestic migration. No wonder California is losing businesses and companies to the neighboring states of Arizona and Nevada. Arizona's personal income tax rate of 4.54 percent is less than half of California's 10.55 percent, and their corporate tax rate is 6.96 percent compared to California's 8.84 percent. Nevada has neither personal or corporate income taxes nor any personal or corporate capital gains taxes. Oregon isn't a favored re-location area for California businesses because its top margin of personal income tax and capital gains tax rates is 11 percent. The corporate income tax rate and capital gains tax is slightly lower than California's at 7.9 percent. Texas is another state that has successfully wooed California companies because there are no personal or corporate income taxes or any personal or corporate capital gains taxes.

High tax rates discourage entrepreneurs from investing in new capital equipment and hiring employees becomes les attractive as a higher percentage of any additional income that a new employee might generate for the business is taxes and diverted to the government.

"Job Killer" Bills

Since taking office in late 2003, Governor Schwarzenegger vetoed 10 out of 10 of the California Chamber's identified "job killer" bills in 2004, seven of eight in 2005, and nine of the eleven in 2006. In 2007, the California Chamber of Commerce reported that Governor Schwarzenegger vetoed all twelve "job killer" bills sent to his desk for action by the legislature. In 2008, the Chamber reported that the Governor vetoed nine of the ten "job killer" bills. Of the ten "job killer" bills passed by the legislature in 2009, the Governor vetoed nine.

Despite California's government being near bankruptcy, the legislature introduced a plethora of new "job killer" bills again in 2010. Fortunately, many of them failed to get out of committee, were amended to remove the egregious clauses, or failed passage in the Assembly or Senate. The California Chamber reported that Governor Schwarzenegger vetoed all ten of "job killer" that passed the legislature. Many of these bills that were vetoed or didn't get out of committee will be reintroduced next year, and unfortunately, we have no confidence that Governor-elect Jerry Brown will veto any of the "job killer" bills next fall. The complete list can be viewed at California Chamber website www.calchamber.org.

Job Creator Bills

Twelve bills either died or failed passage in a State Senate or Assembly committee, but Governor Schwarzenegger signed the following four that were passed.

AB 1846 (M. Perez; D-Coachella) Expedited Environmental Review — Streamlines the CEQA approval process for certain projects by allowing industries subject to compliance with greenhouse gas regulations under AB 32 to go through an expedited environmental review through a focused environmental impact report.

AB 2098 (Miller; R-Corona) Increases Construction Jobs — Authorizes Riverside County Transportation Commission to use design-build to construct a portion of State Highway 91, thus putting more jobs on the ground more quickly.

SB 1192 (Oropeza; D-Long Beach) Increases Construction Jobs — Creates construction jobs building travel infrastructure and creates a better travel environment for state business and tourism.

SBX8 34 (Padilla; D-Pacoima) Supports Construction of Vital Projects — Ensures the expedited permitting of environmentally sound solar thermal projects, enabling them to qualify for grants under the American Recovery and Reinvestment Act of 2009 (ARRA).

Tax Reform

In December 2008, Governor Schwarzenegger appointed a 14-member bi-partisan Commission on the 21st Century Economy to make recommendations on ways to update and improve California's out-dated revenue system and make it more reflective of our state's economy.

After ten public hearings held through the state, hundreds of hours of expert and public testimony, and rigorous analysis and debate by the members of the Commission, the final report was released on September 29, 2009. The report contains recommendations that would dramatically overhaul the state's tax structure. The expansive recommendations include a significant reduction in personal income tax rates for all income groups, elimination of the state sales tax, changes to taxes on commerce, and a strengthened rainy day fund.

- Section One's recommendations are of a statutory nature, which means they may be made effective upon passage by a majority of the State Legislature and signature by the Governor.
- Reduce Personal Income Tax for every taxpayer and reduce the number of tax brackets from six to two. The new tax rate would be 2.75% for taxable income up to $56,000 for joint filers ($28,000 for single) and 6.5% for taxable income above that amount.
- Eliminate the corporation tax and minimum tax, which is currently at 8.85%, and eliminate the $800 minimum franchise tax.
- Eliminate the current state 5% state sales tax, with the exception of the sales on gas and diesel fuels, which would continue to be dedicated to transportation. Elimination of the sales tax would phase in over five years.
- Establish a new business net receipts tax (BNRT) not to exceed 4 %, applied to the net receipts of businesses. Small businesses with less than $500,000 in gross annual receipts would be exempt from this tax. This tax would have a much broader base than the sales tax since it would apply not only to goods but also to services and to sales into the state from businesses located outside the state and, unlike the sales tax, be deductible against federal taxes.

Section Two would require a change in the State Constitution on a state ballot initiative in order to be effective.

- Strengthen the state's Rainy Day Reserve Fund by increasing the target for the reserve from 5% of revenues to 12.5% and restricting the government's ability to use reserve assets so that the reserve is available to help fund services during recessionary periods.

The full report may be viewed at the following website: http://www.cotce.ca.gov./

None of these recommendations were enacted into law during the 2010 legislative year, and there was no initiative to strengthen the state's Rainy Day Reserve Fund on the June or November election ballots.

The California Chamber of Commerce released the "CalChamber Economic Recovery and Job Creation Action Plan" to make the state more competitive for job creation, new business formation, and new capital investment. Their five pillars of economic recovery are:

1. Reduce the regulatory and litigation costs of hiring new employees and keeping them on the job, and provide more flexibility in the law for both employers and workers.
2. Ensure certainty and stability of private investments in plants, equipment and technology, including a fair and predictable tax structure.
3. Invest in public works that provide the backbone for economic growth
4. Provide a world-class education to prepare high school students for work or college, and support public colleges and universities in their student preparation and technology innovation missions.
5. Ensure transparency and accountability at all levels of government, and fostering private enterprise and markets.

Specific details of each of these "pillars" may be viewed at www.calchamber.org.

For several years, I have been writing about my own recommendations for what needed to be done to improve California's business climate. Here are my top four recommendations:

- Lower taxes - reduce the corporate and personal income tax rates by about two to four percent, to be competitive with other states. On average, we're about two to four percent higher than other states.
- Restore the capital equipment investment tax credit - the legislature repealed the capital equipment investment tax credit in 2003, which penalizes companies investing in the future.
- Reform workers' compensation to address the issues of fraudulent claims and frivolous lawsuits and reduce workman's compensation rates. Even after the reforms in 2004, California still has the 8th highest rate nationwide.
- Eliminate burdensome regulations on small businesses

Now is not the time to raise taxes or fees. This is not the time to implement regulations that kill jobs. We need to make some drastic changes in California's business climate so that we can maintain as much as possible of our manufacturing base in California.

San Diego has always been a "start-up business" area where companies grew to a certain size and were acquired by mostly out-of-the area companies. The new owners usually kept the division or subsidiary in San Diego because they were afraid of losing key people if they moved have taken a look at their bottom line for their San Diego-based acquisition and decided they couldn't afford to stay in California.

This line of thinking changed as the costs of doing business in California escalated over the past several years and the overall business climate became more unfavorable. San Diego companies have been moved to such former business unfriendly states as Ohio, Minnesota, Maryland, and New York.

The initial list of 40 companies that had gone out of business or moved out of California that accompanied my first report of March 2003 more than doubled to 85 by the end of 2003. The mass exodus of companies moving out of San Diego County slowed down after the Schwarzenegger reforms in early 2004. Even so, another 65 companies either went out of business or moved out of state since 2004 for a total of about 160 companies no longer in business or located in San Diego County. Based on employment data for companies listed in the 2000 Technology Directory for San Diego County and estimating 20 employees for companies not listed in the directory, the current list of companies represents a loss of nearly 8,000 jobs.

The federal Small Business Administration economic data indicates that each manufacturing job creates three to four other jobs while service jobs only create one to two other jobs. Therefore, the loss of over 600,000 manufacturing jobs in California may have caused 1.8 to 2.4 million other jobs to vanish. Nationwide, a staggering 5.5 million manufacturing jobs have disappeared since the year 2000. In 2006, the U. S. Department of Labor predicted that another 1.5 million manufacturing jobs would be lost between 2006 and 2016. Because of the recession, we have already lost over two million manufacturing jobs since 2006. If this trend is not reversed, it is only a matter of time before California's economy and America's economy becomes primarily a service and retail one. It will difficult, if not impossible, for the United States to remain the world's super power if this trend becomes a reality. It will take the cooperative effort of government, industry and individuals to restore California and our country to the "land of opportunity" they once were.

Background: As background for how this series of reports came to pass, ElectroFab Sales is a manufacturers' sales representative agency for "job shop" companies that perform custom fabrication services. Our primary market is OEM's (Original Equipment Manufacturers) in San Diego County that utilize sub-contract manufacturing services.

We began losing customers and prospective customers in early 2001 because of the adverse business climate in Caifornia and the effects of the recession. We started keeping a record of the companies that moved out of state or had gone out of business since January 2001. This list evolved into an analytical report that I have been e publishing periodically since then in an effort to make key policy makers aware of the seriousness of the situation. This16th report provides an update on the state of various San Diego industry sectors, along with a focus on the effects of outsourcing offshore and California's competitiveness in the challenging global economy.

About the Author: Michele Nash-Hoff is President of ElectroFab Sales, an independent manufacturer's representative agency, which she founded in 1985. She is past president of the San Diego Electronics Network, the San Diego Chapter of the Electronics Representative Association, and The High Technology Foundation, as well as several other community and non-profit organizations. She has a B.A. from San Diego State University and later earned a certificate in Total Quality Management. Prior reports are accessible at Michele's website of www.electrofab.com. Michele is also the author of the newly published book, *"Can American Manufacturing be Saved? Why we should and how we can."* You may read/download the free chapter, "Why should we save American manufacturing?" and /or order her book at: http://www.savingusmanufacturing.com