

## **Why Are Manufacturing Job Losses So Large?**

Since 2000 California and the nation have experienced large and continuing job losses in the manufacturing sector. These job losses often prompt debates about “where did our manufacturing jobs go”. Are U.S. manufacturing jobs being “lost” to other countries? Are California’s manufacturing jobs being moved to other states? Could different public policies bring more manufacturing jobs and how important and practical is that goal?

The data point to different explanations and policy questions.

### **Manufacturing Job Levels Plunged in 2008**

The nation lost nearly 1.1 million manufacturing jobs in 2008 equal to 7.9% of the nation’s manufacturing jobs in January 2008. California lost 81,000 manufacturing jobs or 5.6% of the state’s January 2008 total.

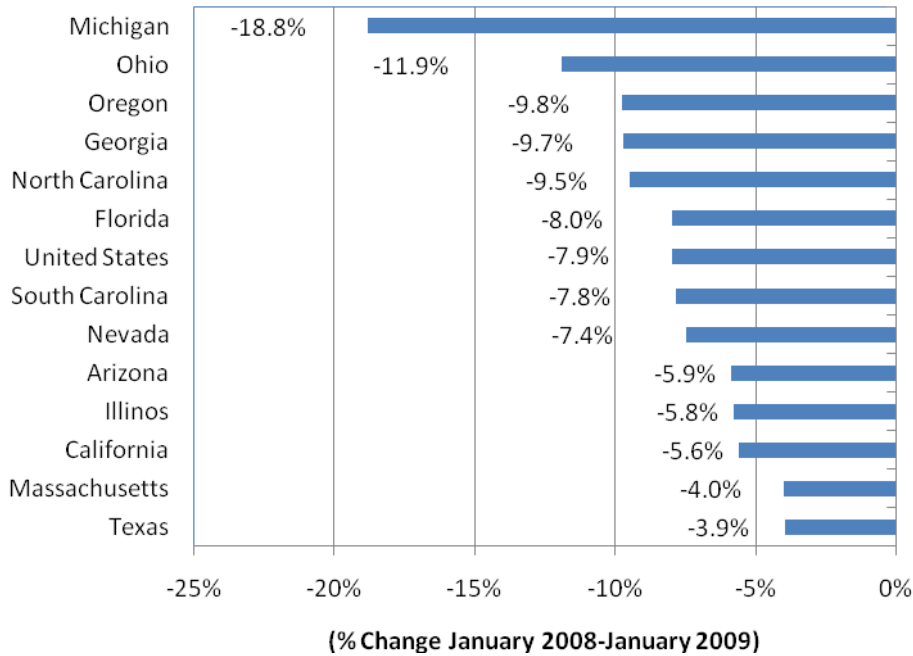
These manufacturing jobs didn’t “go” anywhere! They were the result of substantial declines in manufacturing production as the deepening recession prompted consumers and businesses here and around the world to decrease spending. These jobs were “lost” to layoffs as companies reduced employment levels in the face of rapidly declining demand.

Manufacturing production and job levels plummeted around the world—in China, Japan and South Korea as well as in Germany, France, Spain and other major manufacturing centers.

California’s manufacturing job losses in 2008 were among the smallest for large states across the nation. Michigan and Ohio as expected suffered very large manufacturing job losses of 18.8% and 11.9% respectively. But large manufacturing job losses were experienced in less obvious places including Oregon (-9.8%), Georgia (-9.7%), North Carolina (-9.5%) and Florida (-8.0%).

Massachusetts and Texas posted smaller manufacturing job losses as compared with California in 2008. But all manufacturing centers in the United States faced steep job losses as the recession cut deeply into consumer and business spending on manufactured goods.

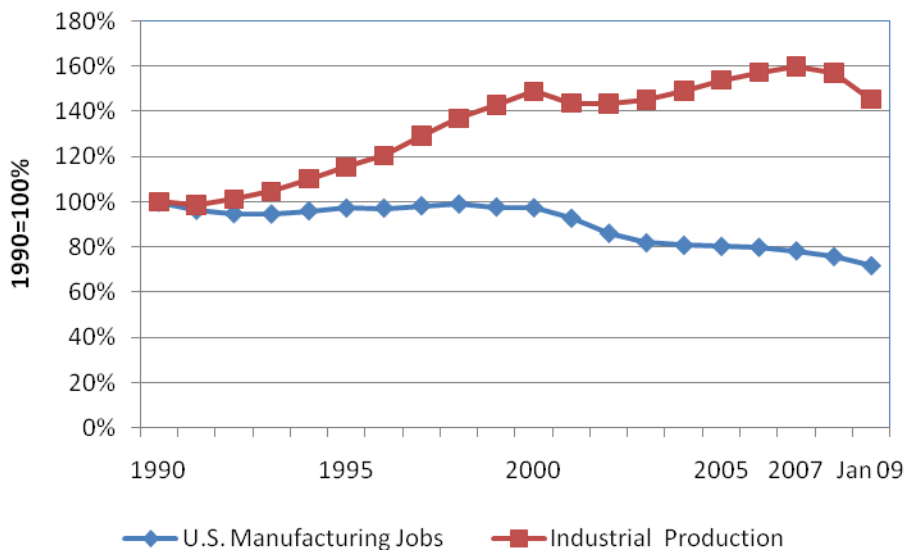
## Manufacturing Jobs



### Long Term Manufacturing Job Losses

U.S. manufacturing output has grown steadily since 1990 despite a substantial decline in the number of manufacturing jobs.

### Production Grows While Jobs Decline

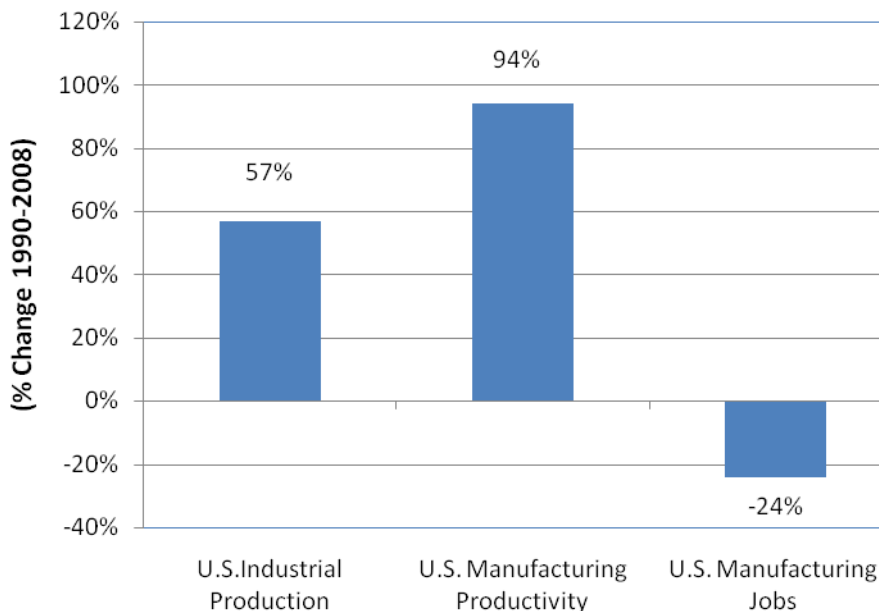


## Productivity growth is the main “culprit” in explaining manufacturing job losses in the nation and California.

We are able to produce more manufacturing goods with fewer workers. Productivity growth has also created declines in the number of manufacturing jobs in most countries around the world.

Between 1990 and 2008 industrial production increased by 57% (2.5% per year) but productivity growth was even higher at 93% (3.8% per year). As a result we needed 24% fewer manufacturing workers.

### Productivity Grows Faster Than Output So Jobs Decline

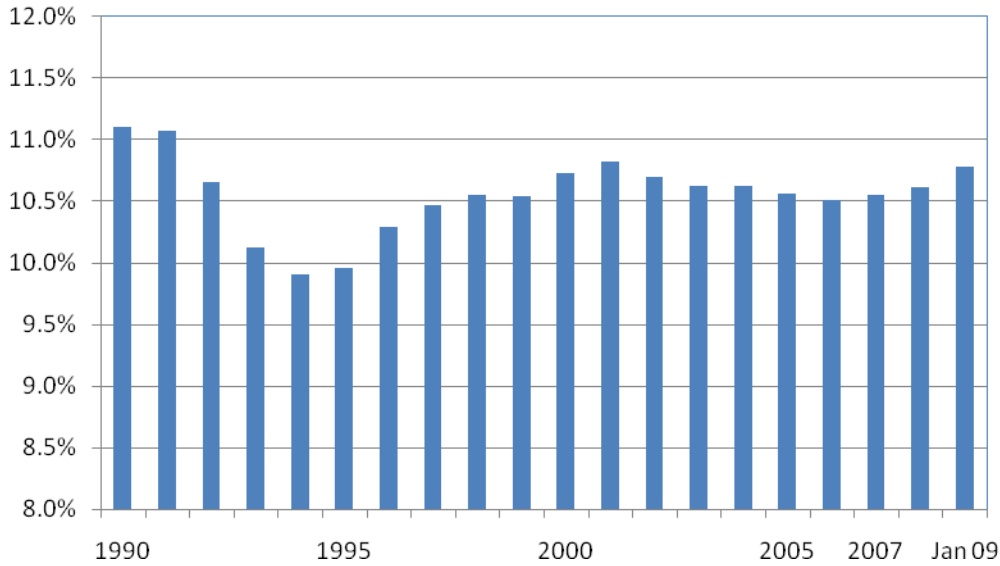


### How Did California Fare?

California’s share of U.S. manufacturing jobs ranged between 9.9% and 11.1% from 1990 to 2009. California’s high share of 11.1% came in 1990 before the large aerospace job decline in the early 1990s. The low share came in 1994 at the bottom of the state’s long recession.

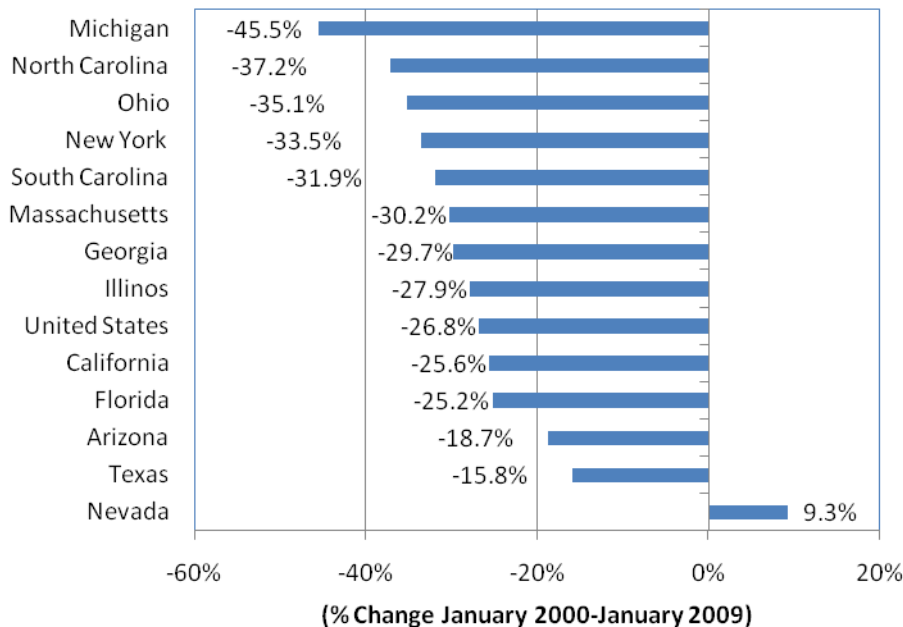
California’s share of national manufacturing jobs rebounded to 10.8% in 2001 after several years of strong economic performance in California in the late 1990s. California had 10.8% of U.S. manufacturing jobs in January 2009 as well.

## California Share of U.S. Manufacturing Jobs



Between January 2000 and 2009 manufacturing jobs declined by 4.6 million (26.8%) in the nation and 471,000 (25.6%) in California— similar percentage losses. Some states in the South and Southwest including Florida, Arizona and Texas had smaller manufacturing job losses while Nevada added 3,900 jobs during these nine years. However, most large states fared worse than California.

## Manufacturing Jobs



Michigan, North Carolina, Ohio, New York, South Carolina and Massachusetts all lost more than 30% of their manufacturing job base during this nine year period.

The previous two graphs tell the same story. California has maintained relatively the same share of U.S. manufacturing jobs since 1990 despite the aerospace decline and the dot.com bust. Moreover, the 471,000 manufacturing job losses in California since January 2000, for the most part, didn't "go" anywhere. They didn't go to Michigan, which lost 410,000 manufacturing jobs or to North Carolina (-184,000) or even to Texas (-169,000) or Nevada (+3,900 jobs).

With the nation losing 4.6 million manufacturing jobs and manufacturing job losses across the world, the strong role of productivity growth and slower growth in demand becomes clear in explaining manufacturing job trends.

This does not mean that discussion of the policies to make California competitive is unimportant. But it does mean that the slow movement of manufacturing activities to lower cost places around the world is a worldwide trend and that the occasional story of a company leaving California to move elsewhere does not show up in the overall manufacturing job trends.

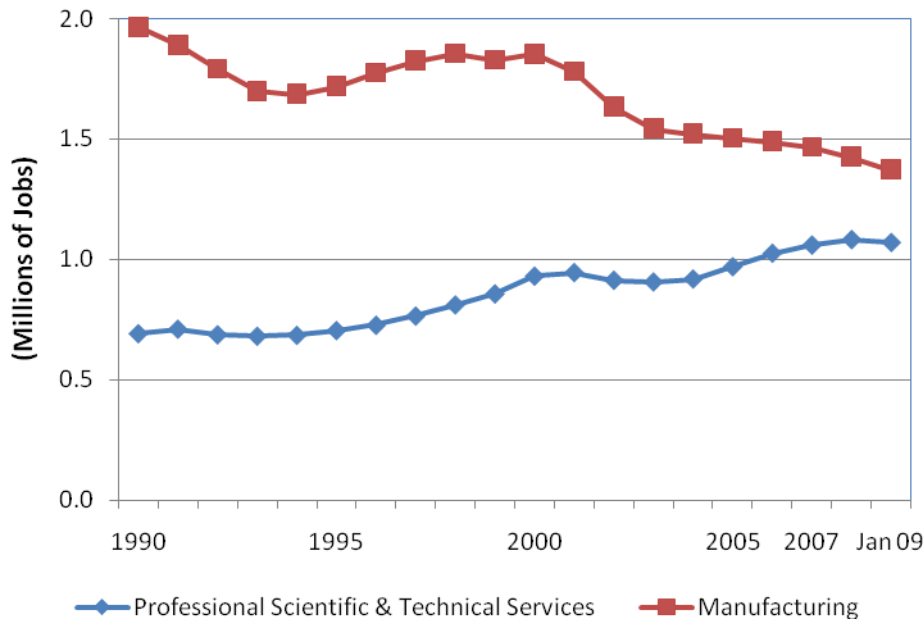
These findings complement the extensive research undertaken by the Public Policy Institute of California (<http://www.ppic.org/main/publication.asp?i=710>) on the subject of business relocation decisions in California. One of their main conclusions is "The authors find that the small number of California jobs moving to other states due to business relocation is relatively inconsequential—about 11,000 jobs per year out of more than 18 million (.06 percent). Business births, deaths, contractions, and expansions have a much greater effect on employment".

## **California's High Wage Job Growth Future**

Professional, scientific and technical services will soon replace manufacturing as the largest component of California's economic base. These sectors include architectural and engineering services, computer services, R&D and scientific services and management consulting services as well as legal and accounting services. The average wage for professional, scientific and technical services was \$82,000 in California in 2008 compared to \$64,000 for manufacturing and the \$49,000 statewide average for all wage and salary jobs.

The number of professional, scientific and technical services jobs has grown since 1990 while the number of manufacturing jobs has fallen sharply.

## Major High Wage Sectors in California's Economic Base



And these trends are expected to continue. All national forecasts reviewed by CCSCE expect continued job losses in manufacturing while CCSCE projects those professional, scientific and technical services jobs will outnumber manufacturing jobs in California within the next five to seven years.

### Why is there So Much Focus on Manufacturing?

That is a really good question. It may be a matter of history as for many decades manufacturing jobs were a large and stable source of high wage jobs, particularly for people without a college education. But the number of manufacturing jobs will decline in California, in the nation and around the world. There may be new opportunities in technology where we maintain a high share of activity but overall levels of manufacturing jobs will continue to decline.

California, however, has a strong position in the fast-growing high wage segments of professional, scientific and technical services where nearly 3 million new jobs will be created in the U.S. by 2020.

This suggests that California public policy will be better focused on understanding how to make the state attractive for these entrepreneurs, workers and their families. This is particularly true to the extent to which the public policies to compete for professional, scientific and technical services jobs and other growth sectors such as foreign trade, entertainment and tourism are different than competing for the dwindling pool of manufacturing jobs.