Occasional Papers

The Wellsprings of California's Economic Growth: Myths and Realities

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California is currently in the midst of one of the greatest economic recoveries in history. While this fact is not in dispute, many experts remind us that—even though we are currently flying high—what goes up must come down. Much of the conjecture about the possible effects of future downturns in the business cycle is based on some common assumptions about what has driven California's growth in the past. On closer examination, a number of these assumptions turn out to be misleading—or simply incorrect.

I want to talk today about a few of those myths, or misunderstandings, concerning California's economic growth and contrast them with the realities of the state's remarkable and unique development.

First, let's review some of the statistics on California's recession and recovery. There is no doubt that the early 1990s brought the deepest and longest recession in California's postwar history. A total of 500,000 jobs were lost between 1990 and 1993. Three hundred thousand of those jobs were in the manufacturing sector alone. While these are large numbers, they actually represent just 4 percent of the total employment base of the state's economy in 1990—12.5 million jobs.

The recovery was long in coming. We had a recession in the early 1970s and another in the 1980s, but each lasted only two years. The 1990s recession ran a full five years. However, when the recovery came, it came on strong. By 1996, we were seeing 2 to 3 percent annual increases in total employment, even though we still had a net loss of 200,000 jobs in the manufacturing sector. By the end of 1997, we had added one million new jobs beyond our last economic peak, which occurred in 1990.

How is it possible that with such a prolonged recession California has come on so strong? Let's take a look at this blend of overall success with a downturn in the manufacturing sector in light of several common assumptions about the California economy, and then consider some alternative interpretations.

Myth #1: The decline of the large aerospace firms at the end of the Cold War in 1989 will be a permanent disaster for California and will result in a fundamental restructuring of the economy.

This myth is misleading for two reasons. First, California has historically been a state of small manufacturing firms. From the 19th century to this day, California's manufacturing firms have, on average, been anywhere from 25 to 50 percent smaller than the national average. In effect, California's strength has been tied to the adaptability and flexibility of entrepreneurs responding to a very different market in California than in the rest of the nation.

In the 1940s, Carey McWilliams, the noted writer and observer of California, coined the phrase "the edge of novelty." Whether in truck design, home design, sportswear, golf clubs, or agriculture, "Californians have become so used to the idea of experimentation—they have had to experiment so often—that they are psychologically prepared to try anything" (Carey McWilliams, *California: The Great Exception*). All of this innovative spirit, this willingness to respond to the very special environment of California, has meant that small, local firms have thrived, and they often seem to have a strategic advantage over larger firms serving a national or international market.

The second reason why the decline in the large aerospace firms did not spell disaster for the California economy is that California has never been as heavily dependent on manufacturing as the rest of the nation. At its peak in the 1950s, manufacturing employment represented, at most, 25 percent of the total employment in the state. During those years, states such as Ohio, Illinois, and Michigan were employing 50 percent or more of their workers in the manufacturing sector. Although California is following the general national trend in manufacturing as a percent of total employment, our decline to the middle to low teens is a much shallower decline than that witnessed by the industrial states of the East and Midwest and by the nation as a whole. In effect, California developed a huge economy through the World War II and Cold War years while maintaining a fairly modest level of manufacturing employment. We were used to growing on the basis of sectors other than manufacturing. (It is worth noting that California's service sector grew steadily throughout the recession of the early 1990s.)

To quote McWilliams again: "It is ... important to note that the wartime expansion of industry on the West Coast merely accelerated a long-term trend; war or no war, the expansion would have occurred but, as a result of war, the process was greatly foreshortened." That sentence was written in the 1940s, but it applies equally to California's economy throughout the Cold War that began in the 1950s and continued for decades.

Myth #2. California's economic expansion after the recession has been driven largely by exports to the Pacific Rim and beyond.

No one can question the importance of the growth of California's export sectors. From agriculture to technology, California has a strong and growing role in providing goods and services to the Pacific Rim. What is little understood is how large its own domestic market is and how important migration and immigration have been over the decades to the expansion of the state's economy.

The 1980s saw the largest expansion of a population for one state in the history of the nation. Even by California standards it was astounding. Wave after wave of migrants has poured into California since the gold rush, but nothing matched the huge inflows of the 1980s. California grew by 6 million people in one decade! Of

those 6 million, half were immigrants or migrants from other states. We jumped from 26 million to 32 million people in just 10 years. Early estimates are that this growth has continued into the 1990s, although perhaps at a somewhat reduced rate because of the recession.

What is important to note about this continuing boom is that it has generated a sizable expansion in local demand for goods and services. Every new resident is a potential new customer for all of the firms and shops in the state. In effect, California is its own huge market, and the pressure to supply that market was a major kick-start that added one million new jobs to the economy between 1996 and 1998.

In the early 1990s, a full 75 percent of the goods and services sold by California went either to California or to other national markets. Only 25 percent were exported abroad. So the importance of domestic demand should not be understated when considering the phenomenal growth of the California economy.

Myth #3. California's public spending and governance systems are unfriendly to new firms and corporate expansion, forcing many plants and new business into other states.

Researchers have consistently found it difficult to link state tax policy and industrial growth. Nevertheless, it is worth noting that California's fiscal retrenchment, which began with the passage of Proposition 13 in 1978, has had a notable effect on the revenues collected over the past 20 years. In 1975, California, Connecticut, Massachusetts, New Jersey, and New York all had comparable state and local tax collections per capita. New York was slightly higher. Today, California has the lowest per capita tax collection of all of these states, with New York being \$1,200 per capita higher and the others in the range of \$500 to \$600 higher. In effect, California's reputation as a fiscally conservative state, with the voters playing a strong role in reinforcing that conservatism, may well have had a positive effect on its economic growth.

I don't want to overstate this point, but it is well worth noting that Californians set a trend in fiscal retrenchment that is being followed by voters throughout the country. We have had twenty years of voter initiatives that have limited the taxing and spending powers of state and local government, and the trend is intensifying—not weakening.

As of 1996, when California had returned to its previous peak in employment levels, those other four states were still in their recessions. Each was still suffering from employment levels that ranged from 1 to 5 percent below their pre-recession peaks. As long as our recession was, others suffered even more. Perhaps it was because of their aggressive collection of state and local revenues.

Myth #4. The federal government has been largely responsible for California's economic growth and leadership in education and high-tech industries.

There has been a substantial flow of federal dollars into California for at least 50 years. This fact is uncontestable. However, there is a very strong case to be made that the "cultural" environment in California was so appealing that federal dollars were attracted to California, rather than federal dollars actually driving its economy. The cultural environment includes the climate, and California's climate attracted three pioneering scientists over a 60-year period that helped develop its first-class scientific community—the Lick Observatory was built in 1888; the telescope on Mt. Wilson, behind Cal Tech, was built in 1917; and the Palomar Observatory was built with a grant from the Rockefeller Foundation in 1948. Individuals with vision and without direct support from the federal government launched each of these investments. For example, Mt. Wilson was built by private investment initially, much of it collected from wealthy people who lived below Mt. Wilson in the community of Pasadena. Each of these observatories contributed to the building of first-class educational institutions at Stanford and Cal-Tech.

AnnaLee Saxenian has documented yet another cultural factor in her book, Regional Advantage: Culture and Competition in Silicon Valley and Route 128. She documents the expansion of Silicon Valley, compares it to Highway 128 around Boston, and concludes that it is California's informal, networking employment culture that gave Silicon Valley that special edge that pushed it so far beyond its East Coast rival. In a sense, we have a controlled trial, and the California culture was just right for the flexible, adaptive, and creative environment that is essential to industry as the information revolution unfolds. This is the very innovative capability that McWilliams noted as defining California as early as the late 19th century.

From the late 19th century to this day, California has been one of the leading states in the nation in terms of patents recorded at the U.S. patent office. Even during the period of 1900 to 1940, patents per capita outstripped the rate for the rest of the United States. And that rate difference has continued through the rest of the century.

Again, I will quote McWilliams: "The cultural factors underlying California's industrial expansion are constants. They will be as influential twenty years from today as they have been in the past."

Myth #5. California's higher education system is and will continue to be the primary provider of high-skilled labor in the state well into the next century.

The excellence of California's higher education system is unchallenged, and rightly so. What is not well understood today is just what role our education system is playing in building the California economy. Certainly our colleges and universities are preparing a large volume of students for the work force. There are

roughly 2 million students in the higher education system in California, depending on how one counts part-time students. About 250,000 of these students are on the University of California campuses; just under one million are on the California State University campuses; and the remainder—well over one million—are attending one of the many community colleges.

However, even with this substantial student body, it is not possible for the system to supply the numbers of individuals that are needed to propel this economy forward. PPIC is now doing research into the question of the match between skills training in California—educating students—and the actual demands of employers throughout the state.

What we do know is that:

- Twenty percent or more of the population in 34 of the state's 58 counties were born in another state:
- For half of these counties—and the biggest counties at that—anywhere from 15 to 20 percent of the population comes from New York (mostly the city).
- In Santa Clara County—home of Silicon Valley—20 percent of the population are foreign-born and another 25 percent are from another state.

So we are an open economy and not only for trade: The people we employ come from some of the highest income states in the United States. New York has replaced the Midwest as the dominant sending state to our largest counties.

From AnnaLee Saxenian's work on Silicon Valley for PPIC, we also know that:

- Individuals from Taiwan and the sub-continent of India own 24 percent of the high-technology firms in Silicon Valley.
- These firms account for 17 percent of total sales and 14 percent of the high-tech workers in the region. We don't know where they were trained, but we do know that they have solid financial and personal contacts to their sending countries.

Not only is California depending on sources of labor other than its own system of higher education, but we should also expect that the tension between immigrant labor in these high-skill technical jobs and the loss of employment for older natives may well become a major national issue of some contention. Small firms cannot pay the cost of training for existing employees, and product cycles are so short that human capital is rapidly depleted without the chance for on-the-job renewal. The conflicts are already being felt in the nation's capitol, with the ongoing debate about increasing the number of H1-B visas.

I will end this revisionist argument with a story that best summarizes the special nature of the California economy, culture, and creativity. Two men, William Hewlett and David Packard, started a firm in a garage in Palo Alto in 1939. Hewlett had invented an audio oscillator in graduate school and was inclined to leave for an engineering job at General Electric in Connecticut. The dean of the engineering school at Stanford, Fred Terman, convinced the two that they should start their own firm and "make a run for it" on their own. They did, and the rest is history. What makes the story especially relevant is that their first client was in Southern California. That client was Walt Disney, and he needed the oscillator for the movie "Fantasia." Where else in the world, besides California, would there have been a local market for such a product?

Thank you for your time and interest.

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