

WILL HISTORY REPEAT ITSELF? NEVADA'S ECONOMY AFTER THE CRASH

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Introduction

Nevada is in the midst of what is, essentially, an existential crisis. Creating a viable economy in a state with few resources has always been a challenge, and the crash of the gaming/construction model will be difficult to recover from. A key issue for Nevada's decision-makers to grapple with is the role of the state's government itself, for many Nevadans misunderstand the role government has played, and must play, in the state's economic development.

But this is not the first time the state is being forced to recreate itself. A brief review of Nevada's economic history shows that more than a century ago Nevada saw the effects of its major industry on the wane, in a state with few other productive resources. At that time, Nevada struggled for decades until it found a viable model in gaming. Now that gaming is in decline, time will tell whether Nevada is able to create a new productive resource, or if it will once again enter a time of decline.

The Rise and Fall, and Rise and Fall, of Nevada's Economy

Nevada was created, both politically and economically, in the backflow from the rush to California. With the discovery of the Comstock silver lode in the late 1850s, its bank-financed expansion in the 1860s, and its connection to the rest of the country with the Central Pacific, Nevada entered its first big boom, and Virginia City came to think of itself one of the richest cities in the world, at least in per-capita terms.

The boom was relatively short-lived. By the late 1870s, silver had been effectively demonetized by the Fourth Coinage Act of 1873, though Nevada's legislators were able to delay the impact on Nevada mining through the demands of the Carson City mint for producing less-than-popular silver dollars. Soon after the completion of the

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Sutro tunnel, the silver mines were exhausted. Though the search for minerals continued elsewhere in the state, Nevada entered a period of long-term decline. By the turn of the century, the State would lose half of its population, as miners left for Bodie, Tombstone, and elsewhere. Thereafter, population in Nevada fluctuated for a couple decades, with only a few new mineral finds in Goldfield, Tonopah, and elsewhere.²

The effort to create a viable economy in the high and dry desert of Nevada did not end with mining.³ The railroad town of Reno became the center of a divorce-driven tourist industry, as Nevada tried to take advantage of the fact that until 1969, other states required lengthy residency periods and were stringent about the grounds for divorce. Ranching and farming provided some economic stability, as a few small communities became dependent on the federally-funded diversion of water once flowing to Pyramid and Walker lakes. Federal construction of the Hawthorne Naval Ammunition Depot in the 1920s helped the state economy, and the small town of Las Vegas became host to the depression-era federal workforce constructing Hoover Dam.

But the legalization of gambling in 1931 provided a means to help fend off the worst effects of the Great Depression,⁴ and Nevada also promoted its lack of taxes to encourage millionaires to relocate. Nevada's effective monopoly over gaming was the primary cause of its postwar growth, though it attracted more than its fair share of unsavory characters. The proximity of Las Vegas to southern California, which grew rapidly in part due to the effects of a great influx of federal defense spending, started the economic shift from north to south. Federally-funded interstate highways brought trucking, warehousing, and tourists to both northern and southern Nevada. After the mid-1980s, once the reputation of Nevada's gambling industry was cleaned up, Nevada became the fastest-growing economy in the country, with the fastest-growing population and a mean per-capita income significantly above the national average.

But Nevada's success created the seeds of its own downfall. Other states and countries learned from it, legislating their own casinos as new sources of tax revenue. In California, new casinos on small Indian reservations intercepted the flow of gaming tourists headed over the mountains, eventually cutting gaming revenues in Reno and Tahoe by two-thirds. Las Vegas was able to keep the tourists coming, at least for a while, by continuously upping the ante, creating new and bigger properties as they destroyed the old ones. Even so, gaming declined from 17% of Gross State Product in the 1980s to 10%

² Nevada History, <http://nevada-history.org/charts.html>.

³ Mack, E.M. (1936), *Nevada: A History of the State from the Earliest Times Through the Civil War* (Glendale, CA: The Arthur H. Clark Company).

⁴ DePolo, R., & M. Pingle (1997), "Nevada Gaming: Revenues and Taxes (1945-95)," *Journal of Gambling Studies* 13(1): 49-67.

in 2007, and then 8% by 2009 during the Great Recession. This created serious revenue problems in a state that depended significantly on gaming and tourism to finance its government.

As gaming slowed, construction took up much of the slack instead of a more general economic diversification. Once again the backflow from California brought a boom to Nevada. The construction of new casinos was augmented by the construction of new homes for the casino and construction workers moving here, and when another housing bubble began in California, Nevada's construction sector became the largest in the nation, as a share of the economy, and twice the national average.

As Figure 1 shows, housing prices in Nevada roughly kept pace with inflation until 2000, several years after prices in California started rising rapidly. Many in California were able to sell their homes and relocate to Nevada, especially once they retired and lower taxes and home prices mattered more than their jobs.

When the bubble finally burst, Nevada went from the fastest-growing state in the nation to the fastest-declining. As Figure 2 shows, real per-capita personal income declined by 11.9% in Nevada, compared to a 4.2% average decline for the nation as a whole. Homeowners lost half the market value of their homes, and inflation-adjusted housing prices fell to their lowest levels in several decades. Two-thirds of mortgages in Nevada exceeded the home's value, and Nevada had five times the national foreclosure rate. As Figure 3 shows, the loss of casino and construction jobs increased Nevada's unemployment rate to the highest in the country. By 2010, the rate held steady only because Nevada was losing population as fast as it lost jobs.⁵

The Pros and Cons of Government

In an interdependent and technologically-driven economy, with external economies of scale, the unassisted free market offers little hope for Nevada's return to the good old days before the crash. While Nevada in 2008 was very different from Nevada in 1878, nonetheless Nevada remains relatively short of productive resources once the particular advantages of its geographic proximity and its gaming monopoly have ended.

Private investment, like water, tends to flow downhill. Firms tend to put their money where other firms are already investing, productive people prefer to live with other productive people, and firms follow suit to have access to the labor pool, the ready availability of suppliers, and the infrastructure that helps them all become more

⁵ Bureau of Labor Statistics, U.S. Department of Labor, <http://www.bls.gov/lau/>.

productive.⁶ This is, essentially, why many firms in the computer industry are willing to pay higher rents and wages to locate in California's Silicon Valley.

Nevadans, however, have long had a mixed relationship with taxes and government. The first push for statehood in 1863 failed largely due to fears over taxes, but within a year a depression hit Nevada and voters changed their minds.⁷ Once mining collapsed, Nevada's efforts to create a viable economy in the high and dry desert depended largely on federal spending projects and the excessive regulation of the other states.

During the Depression, Nevada's "one sound state" campaign tried to take advantage of the fiscal crisis other states were experiencing. Other states were implementing sales taxes and income taxes to replace their severely declining property taxes, but Nevada tried to rely primarily on the gaming tax, though after the war Nevada found this to be insufficient and implemented a sales tax anyway.⁸ Nonetheless, Nevada continued to rely on its reputation as a no-tax state as a good home for the wealthy, and Nevada attracted many people who preferred it that way.

In theory, the relationship between the size of government and economic growth is a complicated one. Free and private markets are efficient under certain conditions, but those conditions – perfect information, perfect competition, and complete markets in which sellers pay all the production costs and buyers receive all the benefits – are often not met. When they aren't, governments may be able to address some of these market failures. In particular, government can provide or subsidize public goods, which are called that because they are things that benefit society but that can't or won't be adequately provided by the private sector. Police and fire protection, a justice system, national defense, financial regulation, highways, pollution control, sanitation, public health, and education are all good examples of public goods.

The taxes that pay for these public goods can distort incentives, however, because if we raise the cost of doing something, people will do less of it. Of course, there are times we want people to do less of something, which is why so-called "sin" taxes are popular, but in most cases economists think higher tax rates are inefficient. Taxes are less likely to distort incentives when rates are relatively low and collected from a wide range

⁶ The literature on this is large, but for a start consider Fleming, M. (1955), "External Economies and the Doctrine of Balanced Growth," *The Economic Journal*: 65(258): 241-256; and Krugman, P. (1991), "Increasing Returns and Economic Geography," *The Journal of Political Economy* 99(3): 483-499.

⁷ Bartholet, D., "Historical Overview of Nevada's Economy and Fiscal Policy: Statehood to 2010," <http://unrbusinessresearch.org/wp-content/uploads/2009/06/Historical-Overview-of-Nevadas-Economy-and-Fiscal-Policy.pdf>.

⁸ Rocha, G., "Myth 144: One Unsound State," <http://nsla.nevadaculture.org>.

of activities, so that the relative prices of different goods are unaffected. And when taxes cannot be applied equally, taxes will have a higher ratio of revenue to inefficiency when we tax goods where buyers or sellers are not very price-sensitive.

There are also other potential inefficiencies in government intervention that may sometimes lead to making things worse. Governments, like private firms, are made up of human beings, and they share the same pitfalls. Because the state usually produces goods that the private sector does not, and monopolies tend to become inefficient whether they are public or private. All organizations require good management so that the actions of individuals are made consistent with the interests of society. When state agencies lack information or proper incentive, when they lack competition, especially in light of government's potential for coercive power, or when their political leaders make spending decisions based on what is good for their own reelection and fund-raising prospects, then government intervention can make markets even more inefficient.

Poot argued that there are at least seven separate effects of government spending on growth, including the provision of pure and quasi public goods, the comparative inefficiency of government control over resources and production, relative to the private sector it replaces, and the distortionary effect of taxes on resource allocation.⁹ In considering the tradeoffs, Barro argues that the relationship between economic growth and the size of government is shaped like an inverted-U, so that there is potentially an optimal size.¹⁰ Too little government, like too much, leads to slower growth.

There are also short-term effects that have little to do with the incentive problems of taxes or the relative value of public goods for the economy. These effects have to do with the aggregate level of spending in the economy. When the economy is near full employment, the public sector competes with the private sector for resources, and increases in public spending are likely to crowd out the private sector by increasing prices, wages, interest rates, or – for the federal government at least – an increase in the value of the dollar. In a recession, however, high unemployment of labor combined with little investment demand leads to a potential stabilizing role for the state.

In a severe downturn, states would be better off if their governments could cut taxes and increase spending, rather than the opposite. Even the Hoover administration presided over a net increase in government expenditures and a reduction in tax revenues during the Great Depression, but most of this was a natural outcome and not the result of intentional policy. As Gross Domestic Product fell by 43% from 1929 to 1932,

⁹ Poot, J. (2000). A synthesis of empirical research on the impact of government on long-run growth, *Growth and Change* 31(4): 516-546.

¹⁰ Barro, R.J. (1990). Government spending in a simple model of endogenous growth, *Journal of Political Economy* 98(5): S103-125.

government expenditures rose a little overall due to an increase in social benefits to the unemployed, while tax revenues declined as the economy collapsed. As a share of GDP, however, total tax revenues actually rose by a third. The Revenue Act of 1932 reflected President Hoover's primary concern with returning to a balanced budget, and it raised tax rates significantly even as the economy continued to slide.

While the federal government has apparently learned its lesson too well, and often runs deficits even during good times, state governments are usually bound by balanced-budget rules that lead them to become "fifty Herbert Hoovers," in the phrase of Krugman.¹¹ They are prohibited from saving adequately, and find it difficult to borrow. Following booms they have an incentive to spend too much, while in recessions they are forced to cut spending or raise taxes, albeit with a lag. Since state and local governments together purchase more goods than the federal government, and employ far more people, cutbacks by states during a recession can overwhelm the efforts of the federal government to stave off a deeper recession.

Parker examines the relationship between Gross State Product and state and local government production for all fifty states plus the District of Columbia, for all years from 1963 to 2009.¹² After adjusting for inflation, a larger relative size of state and local government is found to have a positive but statistically insignificant correlation with the growth of the overall state economy in the following year. However, changes in state and local government production have a very significant effect on economic growth, depending on how close the economy is to full employment. On average, a dollar cut from state and local spending reduces the total economy by two dollars in the following year, and the deeper the recession, the more significant the effect. However, when the state economy is producing significantly above the average trend, then the net effect goes to zero.

But economic reasons are not the only basis for political decisions about taxes and the role of government. For many people, taxes and spending are normative moral issues. Taxing one person to provide benefits to another raises issues of fairness and justice that are very subjective, and government taxation is by its very nature coercive. Should government provide a social safety net for those who become unemployed, or should they be expected to have saved for this unfortunate event themselves? If the economy as a whole is suffering, shouldn't state and local employees have to share the pain? Should the rich pay a greater share of their income to the state than the poor, instead of the opposite?

¹¹ Krugman, P. (2008), "Fifty Herbert Hoovers," *New York Times*, Dec. 28.

¹² Parker, E. (2011), "Fifty Herbert Hoovers and the Effect of State and Local Government on Gross State Product," <http://www.business.unr.edu/faculty/parker/FiftyHerbertHoovers.pdf>.

Should people who benefit from higher education have to pay for the full cost of that education themselves, instead of having it subsidized by taxpayers?

State and Local Government in Nevada

In deciding what should be done to recover from the crash, Nevadans will debate both the size and growth of their government. By most measures, Nevada has one of the smallest governments in the country. Whether measured by the average tax burden, or the size of the general fund relative to the overall state economy, Nevada's state government is the smallest in the nation even though the general fund includes spending on items that other states assign to local governments.

Budgeted general fund expenditures grew faster than the overall state economy in the decade before the crash. The total budget was a larger share (2.9%) of gross state product in the peak of fiscal 2008, compared to 2000 (2.1%), or even 1994 (2.4%). But as Figure 4 shows, even the 2008 peak was less than the 1979 share (3.3%), and even then our general fund share was still among the smallest in the nation.

But there are many ways to measure government size. Should we include the highway fund, which funds construction largely through a fixed gasoline excise tax, and should we include other funds that come from federal grants and subsidies? Since states are not entirely consistent about the division of budgeted revenues and expenditures with local governments, shouldn't we consider the aggregate? One approach is to consider what government actually produces, what it actually pays to those who work for it, rather than the sum total of its budget.

Figure 5 shows BEA data for Nevada's state and local government production, as a share of Gross State Product, compared to the mean for other states, the minimum state share, and the maximum state share.¹³ The mean is weighted by size, so as not to weigh Wyoming the same as California. This weighted average is closer to the minimum than to the maximum, because bigger states tend to have smaller shares on average.

How does Nevada compare? First, while this measure of government size has not shown much directional trend on average, Nevada has trended downwards, relative to other states. Nevada's ratio ranked 31st out of 50 states for the first decade of the sample, but 46th out of 50 over the last ten years in spite of its smaller population and larger geographic size. In spite of concerns from some corners about unsustainable government spending, Nevada had a lower average share from 2003-2008 than it did from 1963-1972, even though there was a significant devolution of responsibility from the federal government to the states in the 1970s and 1980s.

¹³ Bureau of Economic Analysis, U.S. Department of Commerce, <http://www.bea.gov/regional/index.htm#gsp>.

An even better measure, however, is to consider the total number of government workers. According to the Census Bureau,¹⁴ Nevada has the lowest number of state and local employees in the nation, as a share of population. Yet in per-capita terms, state and local expenditures were only average, not the lowest in the nation. The only way to explain this inconsistency is that Nevada spent more on its average worker.

The *Statistical Abstract* reports that the average wage for Nevada's state employees was about 7% higher than the national average in 2008, while city and county employees earned 20% more. However, Nevada's cost of living was about 10% higher than the national average, at least before the crash. These figures are further muddled by the fact that private sector workers have seen their benefits decline over time, by the fact that public employees tend to be much better educated than the workforce as a whole, and by what appears to be a much narrower wage gap between blue-collar and white-collar workers in the public sector, in that lower-paid workers earn more in the public sector while higher-paid workers earn less.

Averages disguise significant variation. State corrections officers made about 30% more in Nevada than they would have elsewhere, while local firefighters, especially in Las Vegas, made pretty high incomes compared to firefighters elsewhere. Salaries for K-12 teachers, however, were close to the national average. And before the crash, college professors were paid about the same average salary they would have earned at other similar universities in other states.

Similarly, aggregates also disguise variation. While the overall state budget may have grown faster than the economy in the decade before the crash, some parts grew faster than others. In the General Fund, the largest two components were K-12, which grew from 35% of 2000-01 budget to 40% of the 2010-11 budget, and human services, which grew from 25% to 31%. The remainder of the budget, including public safety, higher education, and everything else, fell from 40% of the budget to 29%.

Higher Education in Nevada

In the effort to create resources that attract or create businesses, and promote economic development, access to a good system of higher education is considered key. As a share of national income, higher education spending in the United States tripled between 1960 and 2005, rising to 2.9% of our total national income. Higher educational enrollments rose almost as fast. The number of degrees conferred grew almost four-fold, relative to population, and the share of graduate degrees doubled. This accumulation of

¹⁴ Census Bureau, U.S. Department of Commerce, *Statistical Abstract of the United States*, <http://www.census.gov/compendia/statab/>.

human capital is one of the reasons our national economy has done so well over the long run.

Most states have a large number of private universities, which on average pay their faculty roughly 20% more than public ones and spend significantly more per student. Even so, most other states make a significant investment in their public universities.

With two public universities and no comparable private ones, Nevada still has the smallest higher educational system in the nation. Nevada ranked 49th in the country in the number of public higher education employees per person in 1999, with four employees per thousand people, ahead of only Massachusetts, which has a substantial number of large private universities. This was a third fewer employees per capita than the national average, and the gap between Nevada and the rest of the country has only widened over the last two decades.

For most of its first century, in fact, Nevada's system of higher education consisted of only one institution, which was originally located in Elko as the State University of Nevada before relocating to Reno. After the Second World War, as the state's population grew rapidly, new institutions were created. The University of Nevada, Las Vegas, began as an extension effort of the Reno campus in the 1950s. It became independent as Nevada Southern University in 1965, and in 1968 the Board of Regents granted it equal status with the University of Nevada, Reno. The Desert Research Institute was created in 1959 to focus on specific areas of grant-funded research, becoming independent from the University of Nevada in 1969. Community colleges were created around this same time, beginning in 1967 with Nevada Community College in Elko, later Great Basin College. The Nevada System of Higher Education (NSHE) now consists of eight different institutions of higher education.

Under this system, Nevada has the lowest proportion of college students in the nation, and with an open admissions policy and a significant number of part-time working students, graduation rates were relatively low. While this proportion is affected by the small size of the higher education system in Nevada, it is also affected by the numbers of high school graduates ready for college. Graduation rates in public K-12 were among the lowest in the nation, and K-12 had 25% fewer employees than the national average, relative to population. But there was also a demand side to the problem, since before the crash many young people without a degree could earn above-average wages working in casinos or construction, at least for a while. Many of those who did choose to get a college degree went out of state.

With Gov. Guinn's Millennium Scholarship, a growing economy, and legislative support, an effort was made to turn this around. NSHE's operating budget increased by 8.5% per year from FY1999 to FY2009, growing almost a full percentage point faster than our overall economy. By 2008, NSHE employment grew to 4.1 per thousand

persons, still in 49th place nationwide. The total NSHE operating budget rose to a peak of 0.65% of GSP, still one of the lowest shares in the country.

Figure 6 shows the increase in the total operating budget at the University of Nevada, Reno, adjusting for price inflation and the number of FTE (full-time equivalent) students. This graph shows the operating budget along with the general fund contribution for the main campus, as well as for the other budget categories under university responsibility, the largest portion of which is the budget for the School of Medicine. The actual budget cuts under Governor Gibbons brought university funding nominally back to its FY2007 level, but actually back to FY1995 levels in real spending per student, even though faculty salaries nationwide grew significantly faster than overall inflation. Therefore, in real terms, additional cuts to the State budget would in fact reduce the operating budget to levels not seen in several decades.

Conclusion

Now that the state has lost its gambling monopoly and the California-driven housing bubble has burst, Nevada must find a way to begin the accumulation of productive resources if it is to return to growth. Free markets can do many things, but relying on the magic of the free market alone will not bring Nevada back to a path of economic growth. Low taxes notwithstanding, in a state with few resources, in the high and dry desert of the Great Basin, productive investments and productive people are likely to flow out of the state, not in.

But the budget crisis that the crash created is leading Nevada to do the wrong thing. In an economy in which productive people are the primary resource, Nevada is on the verge of significant cuts to education that could lead to a brain drain and an economic downward spiral. The proposed cuts to higher education are only likely to worsen the crisis, leading to a decline in the attractiveness of an in-state college education for Nevadans, and pushing firms out instead of pulling them in. If we don't rethink our approach, Nevada's economic path of the future may be uncomfortably similar to the last time its main industry withered, with a decade or more of depopulation ahead.

Figure 1: Housing Price Indices for Nevada, California, and the United States

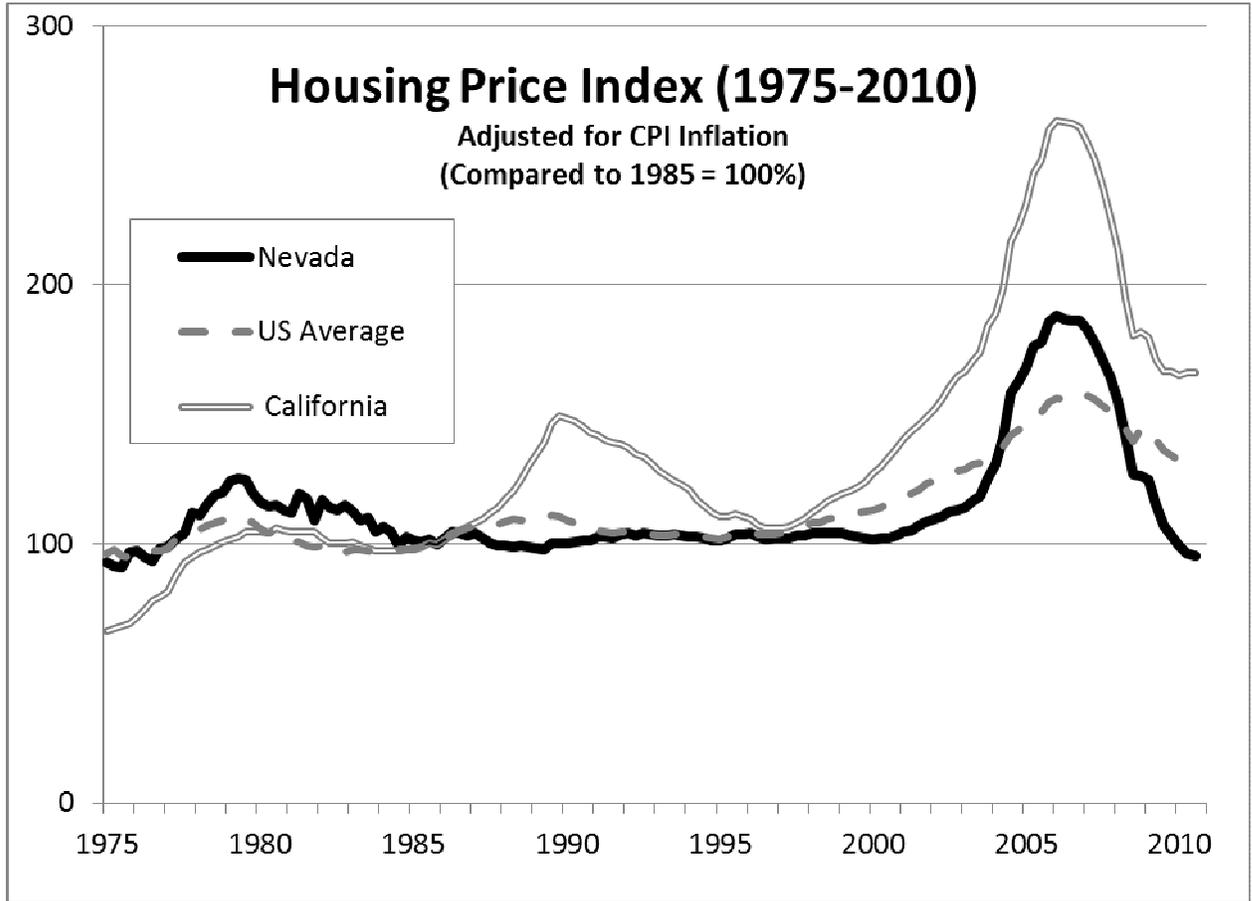


Figure 2: Real Per-Capita Personal Income in Nevada and the United States

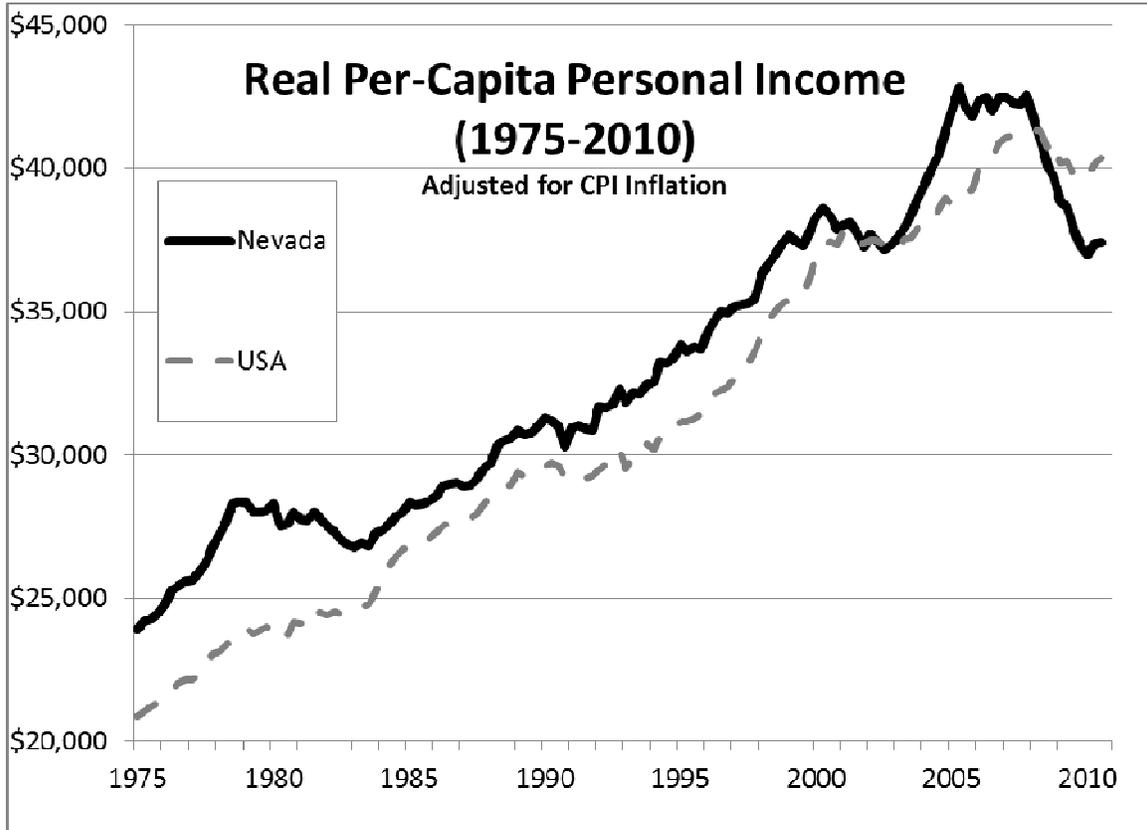


Figure 3: Unemployment in Nevada and the United States

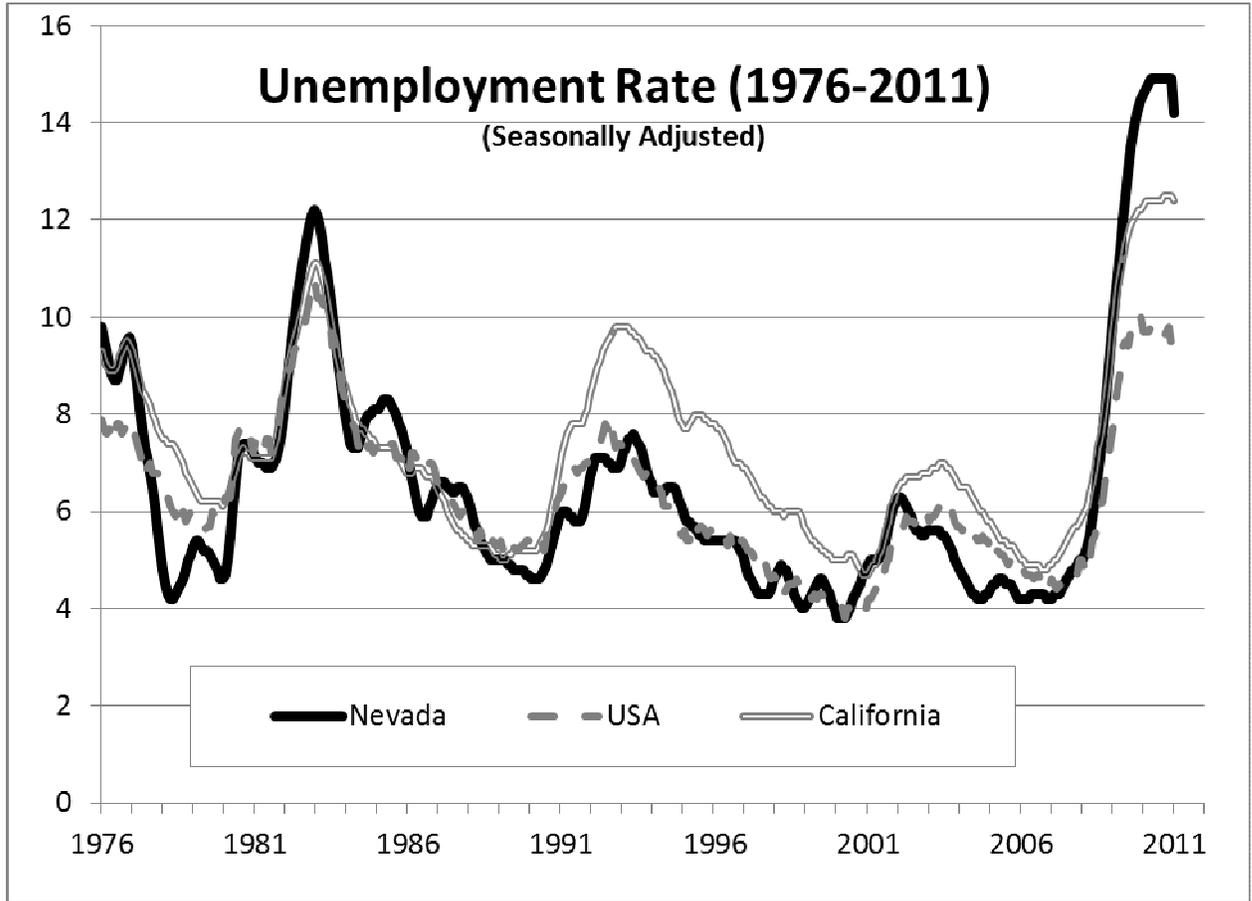


Figure 4: Nevada's General Fund as a Share of Gross State Product

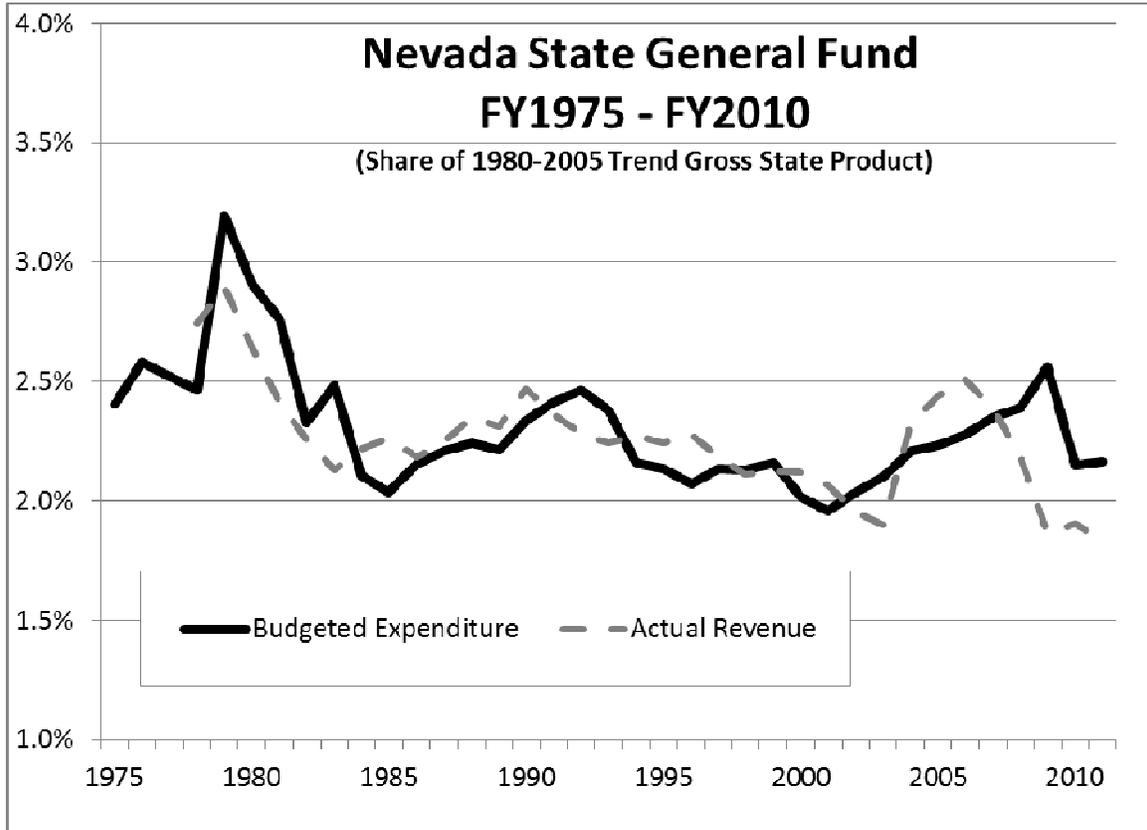


Figure 5: State and Local Government Production as a Share of Gross State Product

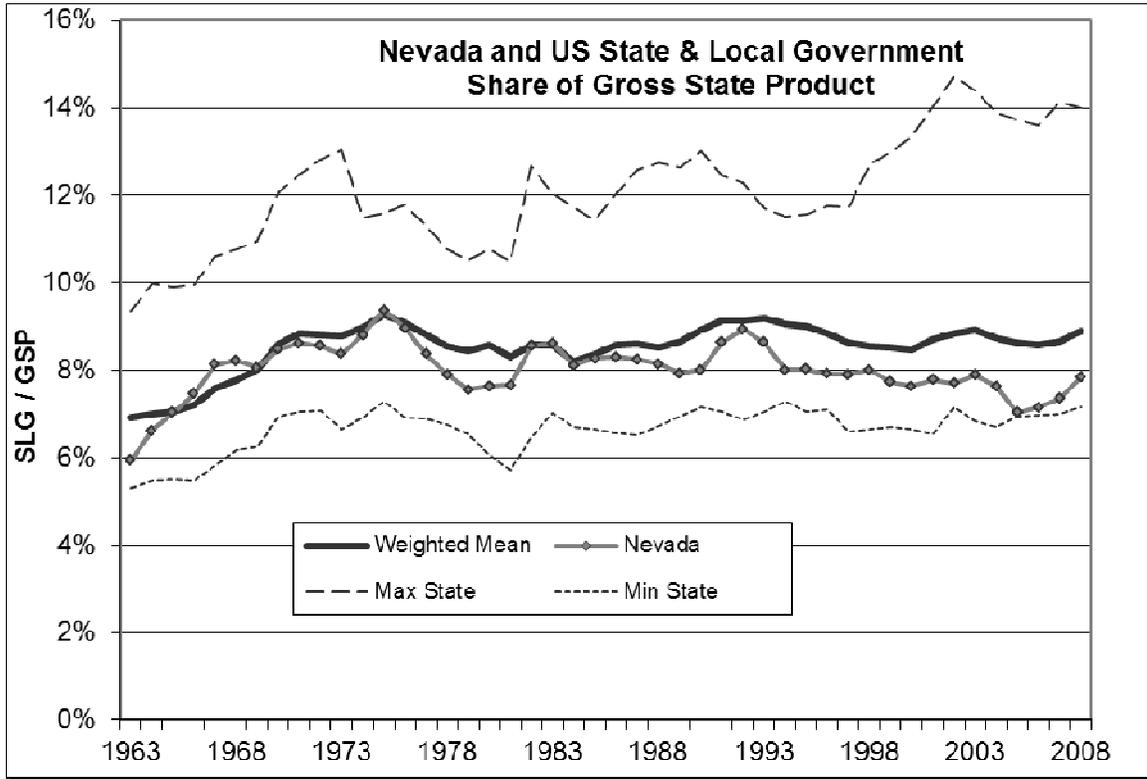


Figure 6: UNR's Real Operating Budget Per Student

