



Investing in Nevada's Future

Unfinished Economic Business

Issue Brief

March 24, 2003

Securing the Future

It is not the strongest of the species that survive, nor the most intelligent, but the ones most responsive to change. – Charles Darwin

NEVADA KIDS COUNT

Nevadans, no different from other Americans, remain cognizant of the impacts of the horrific terrorist attacks of 9/11, impacting the welfare of both the nation and state. Nevada, which has been heavily dependent on travel and tourism and has had one of the strongest state economies in the nation during the 1990s, now faces new challenges.

Tourist-based economies, such as Nevada, incurred severe economic disruptions through 2001 and 2002, though Nevada has done better than some of the other tourist-based economies. Indeed, some indicators have nearly returned to levels prior to 9/11, but the state's primary industry still feels the adverse effects more than a year later.

The plummeting status of the nation's air carriers reveals the depths of the deteriorating status of travel and tourism. Not surprisingly, the tourist-dependent economies have suffered. Nevada, like 45 of the 50 states, faces critical fiscal problems—budget cuts, reductions in its rainy-day fund, and the eroding fiscal structure. Still, even with adjustments to the current environment, it is clear that Nevada could be a future target for terrorism or suffer from attacks elsewhere that influence tourism.

In short, events after September 11th leave no doubt that Nevada's economy is more vulnerable to structural changes than prior to 2001, a situation calling for responsible review and intelligent action that reduces the state's reliance on travel and tourism. In short, diversify the economy's structure so as to reduce risk.

The possibility of severe economic disruptions will not be solved with a return to profitability in travel and tourism, though the state's fiscal health will improve. Moreover, the outlook for increased competition for tourism spending and increased uncertainty from future disruptions reflecting terrorism and political instability throughout the world, does not bode well for addressing the well-being of Nevada's future—we face new conditions calling for new ideas.

Conditions call for carefully developed and reasoned approaches to ensure the economic future. Having inherited a vibrant tourist-based gaming and mining economy from an earlier generation, there is a natural reluctance to addressing changes that might disrupt a winning formula. The outlook, however, is clouded as to whether the current state of affairs is sustainable in its current mode. To be sure, tourism will remain a key contributor to



the state's well-being, but in meeting our shared hope to give the gift of opportunity for future generations, intelligent responses to a changing environment are called for.

Simply stated, how is the state to maintain a vibrant economy, keeping the best of what created the prosperity of the post-WWII period, while responding to changing political and economic realities?

Economic Diversification and Economic Security

Nondiversified economies are vulnerable to sudden and sustained economic downturns. A poignant example is that of Detroit, Michigan. The once thriving economy, based on automobile, truck, and heavy machinery manufacture, was brought to its knees by increased competition from foreign imports and sharp spikes in fuel prices. Detroit and other upper midwest regional economies, which were almost entirely dependent on auto manufacturing, have yet to recover in any substantial way. Once thriving residential districts have become slums and others are entirely abandoned. One after another economic-development programs have failed to help the Detroit economy in any measurable way.

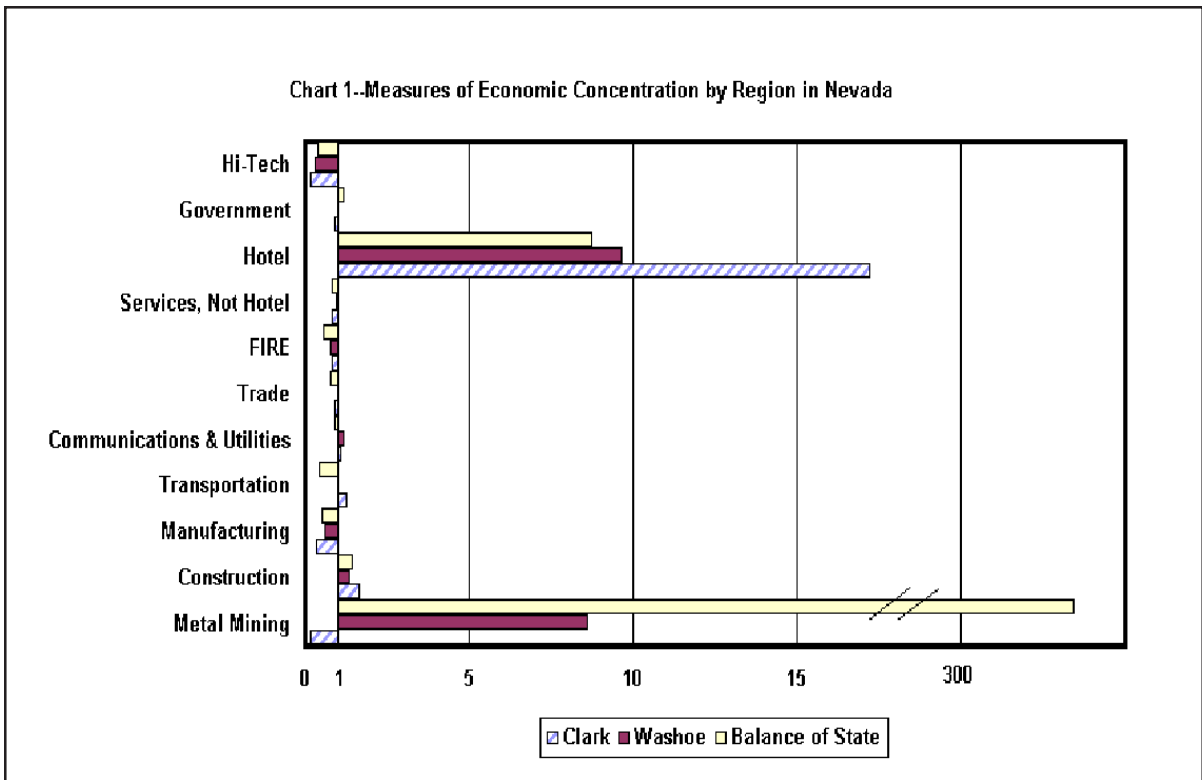
Las Vegas is a city with international name recognition for travel and tourism similar to Detroit in earlier times as the center of the auto industry. At least one-quarter of local employment arises directly from hotel and casinos. In addition, another quarter of the jobs are tightly linked to that the gaming sector in industries such as restaurants, transportation, and other amusements. In short, Southern Nevada is also a one-industry economy.

Chart 1 shows location quotients (LQ) for Nevada, Clark County (Las Vegas), Washoe County (Reno), and the balance of the state for selected industries. Location quotients enable one to measure the degree of concentration of industries within an economy. A value of 1 means that, for the

industry in question, the region has the same proportion of employees in that industry as the national average. Generally speaking, the need for diversification arises when an economy has a few sectors with large LQ values. Diversified economies tend to have LQ values near 1 for most business sectors.

The hotel industry, with LQ coefficients of 17.21, 9.66, and 8.76 for Clark, Washoe, and balance of state, respectively, show that the state's employment in this economic sector is more than eight times the employment ratio for the nation. Mining in rural Nevada is even a greater part of the economy, comprising more than 330 times the national average. With a LQ of 0.17, .30, and .38, high-tech employment in Clark, Washoe, and balance of state respectively, fall far below the national average. Clearly, Nevada's economy is dominated by a few industries, such as hotel and gaming and mining. High-tech employment, a source of much of the nation's economic strength during the past decades, falls well behind in Nevada.

The concentration of employment in Nevada into a few closely linked industries makes our economy vulnerable for several reasons. First, having all the eggs in the tourism/gaming and mining basket leaves us vulnerable to any downturn in the those industries relative to other states and regions. In particular, war and/or terrorist attacks disrupt tourist economies more than diversified economies. If people perceive traveling as dangerous, they may delay or cancel vacation plans. In recent decades Nevada has shown economic weakness during times of international conflict. When war began in the Persian Gulf in January 1991, Nevada gaming revenue fell by over 2.5 percent. The attack on September 11, 2001, had even graver consequences for tourism- and gaming-revenue growth. Nevada gaming revenue fell by 3 – 8 percent in the four months following the attack. And, although the economy is now mostly restored to its preattack activity levels, economic growth is largely stalled. For example, average monthly hotel occupancy rates, often



in excess of 95 percent, are hovering below 90 percent. Gaming-revenue growth has stagnated.

The highly concentrated Nevada economy makes us fiscally vulnerable as well. To date, gaming revenue and sales tax, both heavily dependent on tourism, are the pillars of the state's revenues. Declines in tourism, whether due to increased competition from Native American casinos or international and domestic conflict, can have deleterious effects on state tax collections, often with little warning. Presently Nevada, like 45 other states, is suffering a round of budget deficits. A taskforce recently completed an examination of the state's fiscal environment and made recommendations. The Nevada Legislature will again face the issue of generating revenues to meet the state's priorities by implementing a tax system that is fair but sufficient to run the necessary state program.

Some have claimed that we are too dependent on the gaming industry for revenues and should, therefore, broaden the tax base. If, however, the state was able to diversify the economy so that gaming is a smaller proportion of gross state product than

today, the state would have more latitude for taxing other industries. To be sure, the ability to diversify the tax base means changing state tax laws. However, with a change in tax laws, a diversified economy could mean more diversified, and less variable, tax-revenue collections.

Diversification efforts need to be carefully targeted to encourage the development of not only new nongaming employment, but also jobs that have wages in excess of the current state average wage. When successful, this type of economic diversification helps raise the state average wage. Further, higher-income households tend to build government coffers. Their spending generates sales tax and rising housing values related to rising income mean a boost to property taxes as well. At the same time, higher-income households are less likely to use public services such as public schools and social programs. Thus, higher-income households act to raise tax revenues.

In summary, economic diversification can have rewards in terms of accelerated economic growth, higher average wages, and increased fiscal stability. Similarly, economic concentration can leave regional

economies open to economic and fiscal difficulties.

The Impact of Technology on Economic Growth

High-tech development has the reputation of providing high-paying jobs to local communities. Past research makes clear that investment in hi-tech and expansion of high-tech industries boost economic performance and wages. One study found that 65 percent of the growth differential between U.S. metropolitan areas can be explained by growth in high-tech industry. That is to say, metropolitan areas that are doing well, above the U.S. average, have well-performing high-tech centers. Therefore, economic diversification through attracting high-tech can support the ever-so-desirable property of robust economic growth.

High-tech employment also has multiplier effects on local economies, sometimes in excess of that of other industries. New high-tech firms have a direct effect on the community by increasing the gross regional product. Indirect effects, arising from stimulus to non high-tech industries also occur. In Nevada, non high-tech industries, such as the banking, transportation, communication, finance, and real-estate industries stand to gain considerable new business if economic expansion through diversification occurs. Many high-tech firms, such as software developers, have larger multiplier effects than average because their inputs are typically purchased locally. Indirect effects can be large, offering a multiplier of 2 – 3 times the initial growth in gross regional product.

Induced effects, arising from increased consumption spending may be substantial when the jobs created, like high-tech jobs, offer salaries in excess of the average regional pay. Highly skilled workers demand high wages and a good benefit package. This means that demand for medical, dental, and other personal services is high. High wages mean relatively high consumption of retail

and durable goods, so that retail stores, automobile dealers, and others also enjoy the benefits of induced consumption demand from economic development.

Through the indirect and induced multiplier effects, high-tech economic development can boost economic growth well beyond the initial direct effect of the new firm. So, economic performance is enhanced and the tax base is expanded. To the extent that high-tech development acts to diversify an economy, it may also help to provide economic robustness. Although international conflict damages the tourism industry, it can accelerate information and defense spending. Metros with a balance of tourism and high-tech industries may stand to lose on the former during times of conflict, but have the negative effects largely offset by expansion of the latter. Thus, diversification of this sort can offer needed economic robustness.

Creating New High-Tech Employment

Of course, the idea that growing the number of well-paid jobs in a community has fiscal and social benefits is not new. The question is: How does one diversify so as to create new high-paying jobs? Research studies, most notable a recent study by the Milken Institute in California, shed light on the forces that attract high-paid, high-tech jobs to a state. They provide stages for high-tech development and grade factors that influence high-tech development at each stage. Their report underscores the importance of state and local government, public policy, and the interaction between the public and private sector in helping to create and sustain high-tech development.

Nevada, with a low proportion of high-tech jobs relative to neighboring California, can be classed in the “inception” phase of economic development. See Table 1. Thus the important factors, those given an importance index of 3 (three stars) for Nevada to focus on are as follows:

Table 1. High-Tech Development Factors			
	<u>Inception</u>	<u>Growth</u>	<u>Fortification</u>
Public Policy			
Tax Incentives	***	*	
Public Investment	*	**	
Commercialization of Ideas	*	**	**
Comparative Location Benchmarking			
Cost Factors	***		
Research Institutions	***	***	***
Skilled or Educated Labor Force	**	***	***
Transportation Center	*		
Proximity to Supplies and Markets	**	*	*
Social Infrastructure Developments			
Attending Changing Needs		**	***
Re-education and Training Facilities		***	*
Establishing Trade Groups & Affiliations		***	***
Housing, Zoning, & Quality of Life	**	**	***

*** Critical
 ** Very Important
 * Important

from Milken Institute: America's High-Tech Economy: Growth, Development, and Risks for Metropolitan Areas

❖ **Tax Incentives.** A supportive local government has often contributed substantially to high-tech development. In Boise, Idaho, relatively low wages and taxes helped local firms to successfully specialize in semiconductors and related products.

❖ **Cost Factors.** Land, labor, capital, and transportation costs are critical to all firms. Nevada land and labor costs are low relative to California and other high-tech-based economies. This gives us an advantage when trying to attract firms from high-cost areas.

❖ **Research Institutions.** Well-funded research institutions have been pivotal in attracting and creating high-tech firms in the best known high-tech centers. Research institutions, typically associated with universities, provide a skilled labor pool, a bank of high-tech knowledge, and a source of new innovative ideas. Often, firms are created as direct spinoffs from university research. The Milken study states that, “In a dynamic high-tech economy, skilled labor and quality education are the key to success.”

Of course, other factors are important in encouraging high-tech start-up and relocation of existing firms. These include:

❖ **Public Investment and the Commercialization of Ideas.** The availability of venture capital is particularly important in the risky and competitive high-tech sector. Equally important is the ability to take unusual and innovative concepts and goods to market.

❖ **Transportation Centers.** Quality airports and local transportation, including investment in local transportation infrastructure can be important in attracting high-tech firms and their workers.

❖ **Skilled and Educated Labor Force.** A local pool of skilled labor keeps hiring costs down and supports retention rates for firms.

❖ **Proximity to Markets.** Minimal distance from firms’ markets, together with the availability of reliable transportation for their goods, acts to keep costs in check.

❖ **Housing, Zoning, and Quality of Life.** Educated workers are attracted to

areas with urban and environmental amenities. Low housing costs, closely linked to neighborhood amenities, can attract economic development when the required amenities exist.

Universities and Hi-Tech Development

It is striking how many of these forces are directly or indirectly tied to universities and university research centers. By their very nature, universities are a breeding ground for innovative ideas. The interaction of researchers, educators, and students provides the perfect mix for developing new products and ideas. Universities are also the primary force behind a skilled and educated work force. Note, however, that for students to acquire high-tech labor skills and researchers to undertake groundbreaking research, modern facilities capable of competing with those at the best universities in the country must be in place.

Universities are also important for the quality of life in a community. They offer facilities for the public enjoyment of music and the arts. They provide an educational resource through community education and outreach programs that make communities without these resources less attractive. Finally, educated individuals are likely to value and invest in their local community, a critical component for growing a community with a high quality of life.

In summary, past research shows that with proper educational and research facilities, universities can be a driving force behind economic diversification, high-tech development, and wealth generation within a state. Research institutions enhance hi-tech research capability in the private and public sector through their development of intellectual resources. They also provide a repository of talent and knowledge key to economic development. Finally, many high-wage, high-tech companies are direct offshoots of local university research.

The Next Step

After decades of economic growth and prosperity, the Nevada economy has come to a crossroads. Mounting state-budget deficits underscore the frailty of a fiscal system overly dependent on a single industry. Attacks to the U.S. and a possible impending war have also revealed the vulnerabilities of a tourism-based economy. Knowing this, we can hardly ignore the early signs of economic trouble. Our thinking must change or we can fall prey to the economic winds that have wreaked havoc in less prescient metropolitan areas.

Of course, economic development and diversification will not happen overnight. Policymakers need to be future-thinking and doggedly persistent in pursuing diversification. Strategies need to enjoy public support to be successful. The task is not for the faint-hearted.

The next step in high-tech development is to create new facilities and shore up existing institutions that support and attract high-tech industry. This means:

- ❖ Investing in Transportation Infrastructure
- ❖ Investing in Research Institutions
- ❖ Supporting Educational Institutions From Pre-school to Graduate Education and
- ❖ Designing Fair and Effective Tax Incentives for Start-Ups and Relocating Firms.

If the path to diversification is diligently pursued, Nevada can expect to reap the benefits of a stronger and more resilient economy. However, if the early warnings of possible trouble are ignored, our miracle in the desert may go the way of the Rust Belt.

Mary Riddel, PhD, Associate Director
R. Keith Schwer, PhD, Director

Center for Business & Economic Research
University of Nevada, Las Vegas