Fiscal Affairs of State and Local Governments in Nevada

II. Economic and Institutional Framework

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Price Waterhouse

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PART II - The Background Conditions

Chapters

CHAPTER 1
THE NEVADA ECONOMY

An understanding of long-term economic and demographic trends is essential in evaluating the current Nevada tax system and making informed tax policy decisions for the next two decades. The tax system should be designed to relate to the economy in two respects. First, the overall mix of revenue sources should be made-up of tax bases that logically relate to the state's economic base in order to "capture" the fiscal benefits of economic growth. Second, tax policies should be designed to support the accomplishment of Nevada's economic development objectives.

This chapter begins with an analysis of population trends and migration patterns. Demographic factors are an important influence on long-term projections of public service costs as well as growth in revenue from the current tax structure. The second section examines the structure of the Nevada economy and uses "shift-share" analysis to identify employment trends in Nevada compared with national trends. The third section examines the performance of the state economy during the recent business cycle, beginning with the recession of the early 1980s. The final section considers the fiscal implications of these long-term demographic and economic patterns.

POPULATION

Nevada is a fast growing state. The state's population has more than tripled since 1960 and exceeded 1 million in 1986. By July 1, 1987, the population is estimated to have reached 1,053,230 --a level 31.6 percent higher than at the beginning of the decade. During the first half of the 1980s, Nevada's annual

population growth rate of 4 percent was third highest among the fifty states (behind Alaska and Arizona).

Regional Trends in Nevada

The growth in Nevada's population has not been evenly distributed throughout the state. The population of Clark and Washoe counties, and the remainder of the state is presented in Table 1.1 for selected years. Clark County grew by a brisk annual rate of 8 percent from 1960-70, while Washoe's annual growth was 3.6 percent over this period. During the subsequent decade, Washoe's annual growth of 4.8 percent rivaled Clark County's 5.4 percent annual growth. Nevada's remaining counties experienced moderate growth during the 1960-70 period, but increased to an annual growth rate of 4.4 period for the 1970-80 period.

TABLE 1.1

NEVADA'S POPULATION BY SELECTED REGIONS
(Thousands)

					Average Annual Growth Rates			
	1960	1970	1980	1987	60-70	70-80	80-87	60-87
lark County (Las Vegas)	127	273	463	632	8.0%	5.4%	4.5%	6.1%
ashoe County (Reno)	85	121	194	236	3.6	4.8	2.8	3.9
alance of State Remaining Counties)	74	94	144	185	2.4	4.4	3.6	3.5
Total	285	489	801	1053	5.5%	5.1%	4.0%	5.0%

Note: Detail may not add due to rounding.

ource: Bureau of Business and Economic Research, University of Nevada - Reno.

Since 1980, growth in Clark County has once again outpaced Washoe County and the balance of the state. The annual growth rate for Clark County (Las Vegas area) was 4.5 percent over the 1980-87 period.

Age Distribution of the Population

The age distribution of the population has important implications for long-term expenditure projections. The breakdown of the population by age for Nevada and the U.S. over the 1980 through 1986 period is presented in Table 1.2.

TABLE 1.2

AGE DISTRIBUTIONS FOR NEVADA AND THE UNITED STATES

	Percentages Nevada (U.S.)						
Age	1980	1981	1982	1983	1984	1985	1986
Under 6	8.3 (8.6)	8.8 (8.7)	9.0 (8.9)	9.1 (8.9)	9.2 (9.0)	9.1 (9.0)	9.0 (9.0)
6-19	22.1 (23.4)	21.3 (22.6)	21.0 (21.9)	20.4 (21.4)	19.4 (20.9)	18.9 (20.5)	18.5 (20.3)
20-24	9.6 (9.4)	9.2 (9.4)	8.8 (9.3)	8.6 (9.2)	8.5 (9.0)	8.3 (8.8)	8.2 (8.4)
25-44	31.3 (27.7)	32.3 (28.5)	33.0 (29.1)	33.5 (29.7)	34.1 (30.4)	34.9 (30.9)	35.1 (31.5)
45-64	20.4 (19.6)	19.9 (19.4)	19.6 (19.2)	19.3 (19.1)	19.2 (18.9)	19.0 (18.8)	18.9 (18.7)
65 +	8.3 (11.3)	8.5 (11.4)	8.6 (11.6)	9.1 (11.7)	9.6 (11.8)	9.8 (12.0)	10.3 (12.1)
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: U.S. Bureau of the Census, Current Population Reports.

Generally, the population segments that are growing most rapidly are the young adult range (25-44 years of age) and the elderly (over 65 years of age).

The elderly are a smaller percentage of the total population in Nevada compared with the U.S. However, the proportion of the population who are elderly in Nevada has been increasing rapidly. The proportion of elderly was the fastest growing age category during this period and increased more rapidly in Nevada than in the U.S. Nevada's growing attraction as a location for retired persons is evident and promises to be an important influence on the state's future tax capacity and fiscal needs.

Historically, Nevada has had a relatively high share of young adults and a relatively small proportion of school age as well as elderly residents. The school age population of Nevada has continued to decline both as a share of the Nevada population and relative to the U.S. share. A similar pattern can be observed for the 20-24 age group. However, the percentage of young children (under 6) has been increasing more rapidly in Nevada than in the nation as a whole. This trend is significant because it suggests more rapid growth in school enrollments and costs in the 1990s.

Migration

From 1980 to 1981, 35 thousand more people migrated into Nevada than left the state. Net migration dropped to 24 thousand from 1981 to 1982 and dropped further to 10 thousand from 1982 to 1983. By 1985-86, net migration into the state increased significantly to 18 thousand.[1]

Nevada's net migration appears to be sensitive to economic fluctuations. The sharp reduction from 35 thousand to 10 thousand over the 1981-1983 period coincides with the national recession. After the national economy recovered, migration into Nevada increased substantially but with a lagged response.

Table 1.3 presents data obtained from the U.S. Internal Revenue Service that show gross and net flows into and out of Nevada for U.S. regions and for California. These data are based upon matched tax returns from the Individual Master File for a given year with the preceding year. Although these data include only persons filing tax returns, they track the change in aggregate net flows well.[2]

California, as expected, plays an important role in Nevada's gross and net migration. Approximately, the same number of Nevada residents moved to California each year during the 1980-86 period. The number of Californians, however, attracted to Nevada declined substantially from 1980 to 1983. The result was a dramatic reduction in net migration from California from more than 8,000 per year to only a few hundred during the 1982-83 recession. Thereafter, net migration recovered somewhat, but did not regain pre-1982 levels.

Migration to and from other regions depends in part on economic conditions in those places relative to Nevada. For example, in 1981-82 when high oil prices were contributing to a boom in the Southwest, that region was the only one that attracted net migration out of Nevada. Later, as oil prices fell, migration between Nevada and the Southwest turned to a modest inflow.

Similarly, Nevada has appeared to gain population as a result of declining employment opportunities in the Midwest. During the early 1980s, the largest and steadiest contribution to Nevada's population growth has come, not from the West, but from the Great Lakes region. In 1986, more than 6,800 people moved to Nevada from the states of Wisconsin, Illinois, Indiana, Ohio, and Michigan, while only about half as many moved to these states from Nevada. This pattern has remained consistent throughout this decade.

While the largest numbers of newcomers to Nevada come from California and other Western states, out-migration from Nevada to the Pacific and other Mountain states is also substantial. In

TABLE 1.3

STATE MIGRATION FLOWS FOR NEVADA 1980-86

	CALIF.	OTHER PACIFIC STATES	MOUN-TAIN	WEST NORTH CENTRAL	EAST NORTH CENTRAL	WEST SOUTH CENTRAL	EAST SOUTH CENTRAL	MIDDLE ATLANTIC	NEW ENGLAND	SOUTH ATLANTIC	TOTAL
5-86											
From	20748	5549	13260	4022	6868	4551	1148	4054	1218	4326	65744
To	17697	4400	9705	2091	3274	3470	1222	2151	946	4383	49339
Net	3051	1149	3555	1931	3594	1081	-74	1903	272	-57	16405
4-85											
From	19400	4849	11710	3339	5400	3922	1160	2794	983	4241	57798
To	18201	4182	10143	1763	2738	3480	1109	1986	865	4017	48484
Net	1199	667	1567	1576	2662	442	51	808	118	224	9314
3-84											
From	19861	4846	11340	3077	5338	4107	1101	2997	991	4191	57849
To	18267	4569	9760	1989	2800	3662	1091	2061	830	4013	49042
Net	1594	277	1580	1088	2538	445	10	936	161	178	8807
2-83											
From	18245	4865	10135	2876	5376	3627	1181	3224	1160	4218	54907
To	18016	4470	10321	2153	2747	4215	1085	2338	872	3739	49956
Net	229	395	-186	723	2629	-588	96	886	288	479	4951
1-82											
From	23743	6045	12570	3399	6773	3670	1161	4192	1363	4761	67677
To	18409	4790	11372	2149	2699	4866	1089	2184	1005	3695	52258
Net	5334	1255	1198	1250	4074	-1196	72	2008	358	1066	15419
0-81											
From	26644	5967	13164	3655	6809	4253	1381	4718	1471	4671	72733
To	18162	4676	10411	2100	2602	4117	847	2444	905	3329	49593
Net	8482	1291	2753	1555	4207	136	534	2274	566	1342	23140

rce: Internal Revenue Service "State Migration Data"

1986, more than 39,000 persons moved to Nevada from these states but 32,000 Nevadans moved out to these same states.

Analysis of migration data reveals two important demographic factors that bear upon Nevada's economic growth potential. First, Nevada's labor supply is closely connected to other Western states, as demonstrated by the fact that 62 percent of new Nevada residents are from other Mountain and Pacific states. Second, Nevada's population growth also depends on its ability to attract migrants from the Midwest and East.

During this decade, the proportion of net migration from east of the Rocky Mountains increased from about 46 percent in 1981 to a high of 91 percent in 1983. In 1984 and 1985, 61 and 63 percent, respectively, of Nevada's net migration has come from states east of the Rocky Mountains. By 1986, the proportion fell to 53 percent, although the total net migration from these regions increased by about 2,800.

A close look at population movements by county reveals interesting relationships among the regions of Nevada and California. Table 1.4 presents breakdowns of gross and net migration flows for selected areas of Nevada over the period 1980 to 1985. These data illustrate the diversified nature of migration to and from the Reno area and the dominant connection between Las Vegas and Southern California.

In recent years roughly equal numbers (about 2,000 per year) have moved to the Reno area from each of the three regions: urban Northern California, urban Southern California, and rural Nevada counties. The Reno area receives most of its migration from other Nevada counties and not from Clark county. Only about one-third of the migration to the Reno area from all Nevada counties has come from the Las Vegas area.

The migration data show the strong ties between Las Vegas and Southern California. Approximately 5,000 persons per year have been moving to Clark County from urban Southern California, which exceeds by about 18 percent the number moving in the reverse direction. For Clark County, migration from Southern

TABLE 1.4

COUNTY AND REGIONAL MIGRATIONS FLOWS FOR NEVADA, 1980-85

	1984-85			1983-84			1982-83			1981-82			1980-81		
	#IN	#OUT	NET	#IN	#OUT	NET	#IN	#OUT	NET	#IN	#OUT	NET	#IN	#OUT	NET
ıo Area:															
:thern CA	5321	4496	825	5176	4862	314	4717	5101	-384	6446	5274	1172	7440	5076	236
ıthern CA	2761	2395	366	2471	2417	54	2481	2520	-39	3532	2412	1120	3711	2297	1414
ɔtotals	8082	6891	1191	7647	7279	368	7198	7621	-423	9978	7686	2292	11151	7373	377
; Vegas	1016	1031	-15	1029	979	50	960	999	-39	997	1029	-32	1081	1023	5
ıer Ctys.	2006	1770	236	1909	1962	-53	1686	1807	-121	2041	2378	-337	1768	2394	-626
·. Totals	3022	2801	221	2938	2941	-3	2646	2806	-160	3038	3407	-369	2849	3417	-56
; Vegas Area:															
thern CA	605	859	-254	657	599	58	698	826	-128	444	764	-320	773	761	1
ıthern Ca	6548	5605	943	6034	5275	759	5920	5484	436	6568	5326	1242	7546	5137	2409
ɔtotals	7153	6464	689	6691	5874	817	6618	6310	308	7012	6090	922	8319	5898	2421
ıo Area	1031	1016	15	979	1029	-50	999	960	39	1029	997	32	1023	1081	-5
ıer Ctys.	912	984	-72	825	1030	-205	748	849	-101	534	941	-407	552	1009	-457
·. Totals	1943	2000	-57	1804	2059	-255	1747	1809	-62	1563	1938	-375	1575	2090	-515

rce: Internal Revenue Service "County Flow Data"

The Reno area consists of three counties: Washoe, Douglas, and Carson City. The Las Vegas area is comprised of Clark county. Northern California includes San Francisco, Alameda, Santa Clara, and Sacramento. Southern California is made up of Los Angeles, Orange, San Diego, and Riverside.

California is five times or more the level of migration from either Northern California, the Reno area, or other counties.

Key Demographic Findings

The following points highlight key demographic findings:

- Nevada's rapid population growth has continued into the 1980s. The state's average annual growth rate of 4 percent since 1980 was the third highest among the states and was four times the national average.
- Nevada residents are predominantly urban dwellers. The urban proportion of the state's total population (including Clark, Washoe, Carson City, and Douglas Counties) is 88 percent.
- Nevada's population is highly mobile. In 1986, approximately 7 percent of the population were newcomers since the year before and about 5 percent of the state's residents moved elsewhere.
- The close proximity of large population centers in California contributes significantly to Nevada migration patterns. Approximately one-third of migration to and from Nevada was from California in 1986.
- More than half of the net migration to Nevada has come from regions east of the Rocky Mountains, especially the Midwest. The growth of Nevada population in the future will depend in part upon the state's ability to continue to attract people from these areas.
- The proportion of the population over 65 and under the age of 6 increased more rapidly in Nevada than in the U.S. during the 1980s. These demographic patterns have important implications for long-term expenditure projections.

EMPLOYMENT AND EARNINGS

Structure

The shift of employment to the service sector is a dominant theme of change in the U.S. economy. The Nevada economy has,

however, long been dominated by services. The service sector share of total U.S. employment increased from 17.9 percent in 1969 to 21.8 percent in 1986. The service sector share of Nevada employment was 39.0 percent - more than double the U.S. share in 1969. The service share has continued to grow to 43.5 percent in Nevada in 1986. Tourist-related service industries (hotels and other lodging; and amusement and recreation services) accounted for 27.7 percent of total employment in 1986. Chapter 2 provides detailed estimates of the overall contribution of tourism to the Nevada economy.

The broad measure of the service-producing industries--wholesale and retail trade; services; finance, insurance and real estate; transportation, communications and utilities; and government -- made up 87 percent of total employment in 1986.

The expanded role of services has occurred as the manufacturing employment share has fallen from 23.6 percent in 1969 to 19.3 percent in 1986 at the national level. Nevada's manufacturing share, however, has increased during this period but from a very small base - from 3.6 percent in 1969 to 4.8 percent in 1986.

Employment Growth

The state's rapid population growth is a reflection of the rapid rate of job generation in the Nevada economy. Total employment more than doubled from 1969 to 1986. Nevada's average annual employment growth rate was 7 percent during the 1970s. During the more recent period from 1979 to 1986, Nevada employment increased at an annual rate of 2.9 percent - twice the U.S. rate of 1.5 percent. The rate of growth of the service sector was actually lower in Nevada compared with the U.S. However, other sectors - wholesale trade; transportation, communications and utilities; finance, insurance, and real estate; manufacturing; mining and government - expanded more rapidly in Nevada compared with the nation as a whole. (See Table 1.5).

TABLE 1.5

NEVADA AND UNITED STATES EMPLOYMENT GROWTH BY SECTOR
1969, 1979, AND 1986

	Nevada					United States	
				Average Annual Percentage Change			
Industry	1969	1979	1986	1969-79	1979-86	1969-79	1979-
Agriculture, Forestry, and Fishing	n/a	2,101	3,316	n/a	6.7	n/a	2.6
Mining	4,000	4,653	6,305	1.5	4.4	4.5	-3.0
Construction	11,800	27,668	27,830	8.9	0.1	2.4	0.8
Manufacturing	8,200	19,438	22,254	9.0	2.0	0.4	-1.5
Transportation Communication and Utilities	13,300	21,454	25,237	4.9	2.3	0.3	1.0
Wholesale Trade	6,180	12,672	16,715	7.4	4.0	3.0	1.3
Retail Trade	30,620	64,649	78,009	7.8	2.7	3.4	2.5
Finance, Insurance, & Real Estate	7,500	16,872	22,263	8.4	4.0	3.3	3.4
Services	76,100	156,427	202,588	7.5	3.8	3.5	4.4
Government							
Federal	8,000	9,967	10,874	2.2	1.3	0.6	0.7
State	11,100	13,383	15,438	1.9	2.1	3.0	0.8
Local	24,700	31,311	34,758	2.4	1.5	3.0	0.4
TOTAL EMPLOYMENT	193,500[1]	380,595	465,587	7.0	2.9	2.4	1.

Source: Bureau of Labor Statistics, Employment and Wages Data (202 Series). It is important to note that the 202 Series data relate only to workers covered by unemployment insurance laws and Federal civilians workers covered by Unemployment Compensation for Federal Employees. Thus, some employment, e.g., self-employed individuals, is not included in this analysis.

1 Total is greater than the sum of industries because it includes employment not allocated by industry.

Earnings

Annual earnings per worker in Nevada were 6 percent lower than the U.S. average in 1986. This is largely due to the disproportionate role of the service sector in the Nevada economy. On average, wages in the service sector are 12 percent below the average for all jobs in the U.S. In addition, the annual rate of wage increase in Nevada was below the national average from 1979 to 1986. This pattern of slower wage growth in Nevada applied to all major private sector industry classifications, including services, trade, manufacturing, and construction. (See Table 1.6).

Relative wages reflect the pattern of supply and demand for labor by industrial sector in Nevada. Nevada's average wages in the tourism-related service industries (hotels and other lodging; and amusement and recreation services) were 30 percent above the national average, while average wages in manufacturing were 13 percent below the U.S. norm.

Despite relatively low average wages, Nevada's average per capita income of $14,488 in 1986 ranked 12th among the states and median family income of $28,400 ranked 20th. The main reason for this seeming anomaly is that each Nevada worker supports fewer dependents. In 1986, the average household size was 2.46 compared with 2.66 in the U.S.

Shift-Share Analysis

Shift-share analysis is a valuable technique for understanding how a state's employment growth compares with that of the nation on an industry-by-industry basis. Shift-share breaks employment growth into three components - national growth, industry mix, and local performance - for each industry.

National growth is the employment increase that would have occurred if the rate of growth for each industry was the same as the overall growth rate of the national economy. The total

TABLE 1.6

NEVADA AND UNITED STATES AVERAGE EARNINGS GROWTH BY SECTOR
1979, AND 1986

	Nevada			United Stat
			Average Annual	Percentage Chang
Industry	1979	1986	1979-86	1979-8
Agricultural, Forestry, and Fishing	$10,443	$12,762	2.9	5.1
Mining	17,507	30,863	8.4	6.7
Construction	19,395	24,294	3.3	4.9
Nondurable Manufacturing	13,457	19,955	5.8	6.7
Durable Manufacturing	15,733	23,335	5.8	6.7
Transportation, Communications and Utilities	16,554	23,233	5.0	5.9
Wholesale Trade	15,711	22,884	5.5	6.1
Retail Trade	9,195	12,454	4.4	4.9
Finance, Insurance, and Real Estate	12,798	20,258	6.8	8.8
Services	11,676	17,488	5.9	7.1
Government				
Federal	17,833	25,749	5.4	5.2
State	14,123	21,574	6.2	7.1
Local	13,249	22,419	7.8	7.4
TOTAL AVERAGE EARNINGS	$12,879	$18,739	5.5	6.1

Source: Bureau of Labor Statistics, Employment and Wages Data (202 Series)

number of jobs in each industry in the state is multiplied by the growth rate of total U.S. employment during the period. The "national growth" factor does not take into account variation in growth rates among industries.

Industry mix is the factor which recognizes that different activities can be categorized as high-growth or low-growth industries. If a preponderance of a state's jobs are in high-growth industries, a state may expect to experience additional employment growth beyond the national growth rate.

Local performance is a measure of the performance of each industry in the state relative to its counterpart in the national economy. A positive local performance effect is an indication that employment in a particular industry in the state has exceeded the national rate of growth for that industry. Shift-share is a useful analytical tool; however, it will not explain why local performance is positive or negative. It is a technique for identifying historical patterns as a first step in analyzing industry changes.

Table 1.7 displays the results of a shift-share analysis of the Nevada economy from 1979 to 1986. This period is particularly relevant in two respects. First, it is important to focus on recent years because the rapid development and change occurring in Nevada makes the experience of earlier periods less meaningful for understanding current patterns and future prospects. Second, this period encompasses comparable points in the business cycle -from the peak year prior to the last recession (1979) through a year well into the current recovery and expansion (1986).

Total employment in Nevada increased by 84,992 or 22 percent from 1979 to 1986. This actual job creation of 84,992 was more than twice the expected amount due to national growth (40,377). Industry mix accounted for most of the additional growth. Table 1.7 indicates that 35,829 (80 percent) of the "extra" job growth of 44,615 was due to industry mix. Nevada -- with its very large service sector base -- was ideally positioned to reap the

TABLE 1.7

OVERVIEW OF SHIFT-SHARE ANALYSIS OF THE NEVADA ECONOMY, 1979-86

	Components of Change In Nevada Employment (1000)					
	Total Change	National[a] Growth	Industry[b] Mix	Local[c] Performance	Net[d] Effect	Share Ind 1986
Agriculture, Forestry, and Fishing	1,215	223	192	800	992	57.3
Mining	1,652	494	-1,381	2,539	1,158	171.8
Construction	162	2,935	-1,338	-1,435	-2,773	122.4
Nondurable Manufacturing	2,308	883	-1,448	2,873	1,425	26.1
Durable Manufacturing	508	1,179	-2,563	1,892	-671	23.7
Transportation, Communication, and Utilities	3,783	2,276	-713	2,220	1,507	108.4
Wholesale Trade	4,043	1,344	-98	2,797	2,699	61.2
Retail trade	13,360	6,859	5,456	1,045	6,501	92.0
Finance, Insurance, and Real Estate	5,391	1,790	2,664	937	3,601	76.3
Services	46,161	16,595	38,723	-9,157	29,566	199.6
Government						
Federal	907	1,057	-582	432	-150	74.8
State	2,055	1,420	-672	1,307	635	91.0
Local	3,447	3,322	-2,411	2,536	125	76.8
TOTAL	84,992	40,377	35,829	8,786	44,615	100.0

Source: Bureau of Labor Statistics, Employment and Earnings Data (202 Series)

[a]National Growth - Employment increase that would have occurred in Nevada for a specific sector if the sector had grown at the national rate for all sectors combined.

TABLE 1.7 (Continued)

[b]Industry Mix - The additional gain (loss) in Nevada employment for a specific sector (additional to National Growth) due to the sector growing faster (slower) nationally than the national all-sector rate. A minus sign preceding an entry indicates that sector was a slow-growth sector nationally.

[c]Local Performance - The additional gain (loss) in Nevada employment for a specific sector (additional to National Growth and Industry Mix) as a consequence of the sector growing faster (slower) in Nevada than the same sector nationally. A minus sign preceding an entry indicates that the state's sector grew slower than its national counterpart.

[d]Net Effect - The sum of Industry Mix and Local Performance. Indicates the number of jobs by which a sector exceeded or lagged the national growth standard. A minus sign preceding an entry indicates that sectoral growth was less than the national growth standard.

[e]Share Index - The Share Index is computed by taking the ratio of Nevada employment divided by U.S. employment for a specific industry to total Nevada employment divided by total U.S. employment.

benefits of the service sector expansion, which dominated the recovery beginning in 1983. The industry mix factor for services was 38,723 of which 27,458 was in tourism-related industries (hotels, amusements, and recreation).

The flip side of the industry mix factor is the job loss of 1.9 percent in manufacturing in the U.S. during the period. Because Nevada has a small manufacturing base, the negative industry mix factor of approximately 4,000 is comparatively small.

The local performance factor is positive but small. Local performance was positive in all sectors, except services and construction. The largest positive factors are in manufacturing and wholesale trade. The negative factor in services is comprised of weakness in the tourism complex, which is partly offset by strength in business services, health services, legal services, engineering and architectural services, and social services.

Figure 1.1 categorizes industries at a subsector level as positive or negative in terms of industry mix and local performance. For example, category #1 identifies those industries in which national growth was above-average and Nevada outperformed the U.S.

Category #3 identifies industries in which Nevada firms outperformed their U.S. counterparts but are industries for which national growth rates were below the growth rate of total U.S. employment. These two categories identify industries that, based upon recent performance, are potential contributors to job generation and diversification efforts in Nevada's future.

Analysis of these recent trends in employment by industry sector provides valuable insights about future prospects. However, many external factors that are unpredictable - such as exchange rate relationships, oil prices, and potential new entrants into the gaming industry - will have a significant impact upon the future path and structure of the Nevada economy. The prospects for the tourism/gaming industry are, of course, of

FIGURE 1.1

PERFORMANCE OF SELECTED INDUSTRIES IN NEVADA 1979 TO 1986

#1 + Industry Mix + Local Performance	#2 + Industry Mix - Local Performance

o Retail Trade: Eating and drinking places
o Real Estate
o Business Services
o Health Services
	o Services:
	  o Personal services
	  o Hotels and amusement and recreation

#3 **- Industry Mix** **+ Local Performance**	**#4** **- Industry Mix** **- Local Performance**

o Mining: Gold and Silver Ores
o Manufacturing: Printing and Publishing
  o Rubber and Misc. Plastic Products
  o Machinery, except electrical
  o Electrical and electronic equipment
o Wholesale Trade: Motor vehicles and automotive equipment
  o Machinery, equipment, and supplies
  o Groceries and related products
  o Beer, wine, and distilled beverages
	o Construction
	o Wholesale Trade: Drugs, proprietaries, and sundries

critical importance to the achievement of overall employment growth from the existing Nevada economic base. However, attention should also be directed to understanding the prospects for those sectors that offer potential for economic diversification. The manufacturing, wholesale trade and business services sectors are of importance in this regard. Finally, the mining and agricultural sectors are quite important to certain parts of the state even though they are relatively small contributors to total state employment. Prospects for the Nevada tourist industry are discussed in detail in Chapter 3.

Manufacturing. Manufacturing plays a major role in the economic base of most states but historically has been a relatively small source of employment and income in Nevada. As noted above, the manufacturing share of total Nevada employment was 4.8 percent in 1986 compared to a U.S. manufacturing share of 19.3 percent. Nonetheless, manufacturing employment grew in importance from 1979 to 1986 during a period of erosion of the manufacturing base in the U.S. Based upon the shift-share analysis, the three manufacturing industries with the largest job growth were non-electrical machinery, plastics, and printing and publishing. The growth in non-electrical machinery was concentrated in office and computing equipment. Commercial printing and newspapers were the sources of growth in printing and publishing.

The positive recent experience in manufacturing should not be overstated since growth from a small base translates into a relatively small number of new jobs. The net increase in manufacturing jobs was only 2,816 in Nevada during this period. However, Nevada would have lost nearly 2,000 manufacturing jobs from 1979 to 1986 if the state had followed the national trend.

Wholesale Trade. Nevada has long been interested in expanding the distribution sector of its economy. At present, wholesale trade plays a relatively small role in the Nevada employment base. In 1986, this sector provided 16,715 jobs with the largest concentrations in machinery, equipment and supplies;

groceries; and motor vehicles and automotive equipment. Nonetheless, as with manufacturing, the Nevada wholesale trade sector outperformed the nation. Average annual employment growth in this sector was 4.0 percent for Nevada from 1979 to 1986, compared with a U.S. growth rate of 1.3 percent. Superior performance in the distribution of nondurable goods such as groceries and beverages is to be expected since these industries are closely related to population growth. More importantly, the recent experience with wholesale distribution of durable goods is an indication that these industries offer a modest but significant diversification potential. Nevada's local performance in two areas of wholesale trade of durable goods - machinery and motor vehicles - was positive during the 1979-1986 period. Proximity to major markets in California, the Pacific Northwest, the Southwest, and the Rocky Mountain states, makes Nevada a potential regional center for wholesale trade and distribution businesses.

Business Services. Business and professional services are sometimes overlooked as a source of economic growth because they are not generally part of the export sector of a state economy. However, these services are important to Nevada in two respects. First, some services such as R&D laboratories have a direct export character. Second, Nevada can experience employment benefits if in-state establishments provide services to the Nevada market that might otherwise be supplied by out-of-state firms. During the 1979-1986 period, Nevada performed well in several such service areas, including legal; engineering and architectural; personnel supply and temporary help; R&D laboratories; and computer and data processing services. Similarly, growth in finance, insurance, and real estate outpaced the national rate of growth during this period.

Mining. The Nevada mining industry is of considerable significance in certain parts of the state. On a statewide basis, average mining employment in 1986 was only 6,305 (1.4 percent of total state employment). However, five counties - Eureka, Nye,

Elko, Humboldt, and Lander - accounted for 80 percent of gross yield from mining.

Gold and silver mining is the focal point of activity in mining in Nevada. Employment in the mining industry rises and falls in response to the fluctuation of precious metals prices and to improvements in technology and cost structure. Gold and silver mining employment has risen sharply at an annual rate of 24 percent from 1979 to 1986 and is expected to continue to increase as new mines are brought into operation in the next few years.

Agriculture. Agriculture is a small source of employment in Nevada, accounting for less than 1 percent of total employment. Nonetheless, agriculture is of localized importance in the northern part of the state. Approximately two-thirds of the state's total farm income is derived from livestock, dairy products, and wool. According to the U.S. Department of Agriculture, total gross farm income in Nevada showed no significant increase from 1981 to 1985.

RESPONSE TO BUSINESS CYCLES

Recession

The Nevada economy has generally followed the pattern of the national business cycle in recent years, with somewhat greater volatility. The recession of the early 1980s was traumatic to Nevadans who thought that their economy was "recession proof". From 1981 to 1982, total U.S. employment fell by 1.8 percent while Nevada employment dropped by 2.7 percent. The Nevada unemployment rate of 10.1 percent exceeded the national rate of 9.0 percent in 1982.

Figures 1.2 through 1.6 display U.S. and Nevada employment changes for selected sectors from the 1979 pre-recession year through the 1982 recession to the 1986 recovery year. Construction employment experienced a severe decline of 28 percent

FIGURE 1.2

Total Employment – Nevada & U.S.

Percentage Change From Previous Year

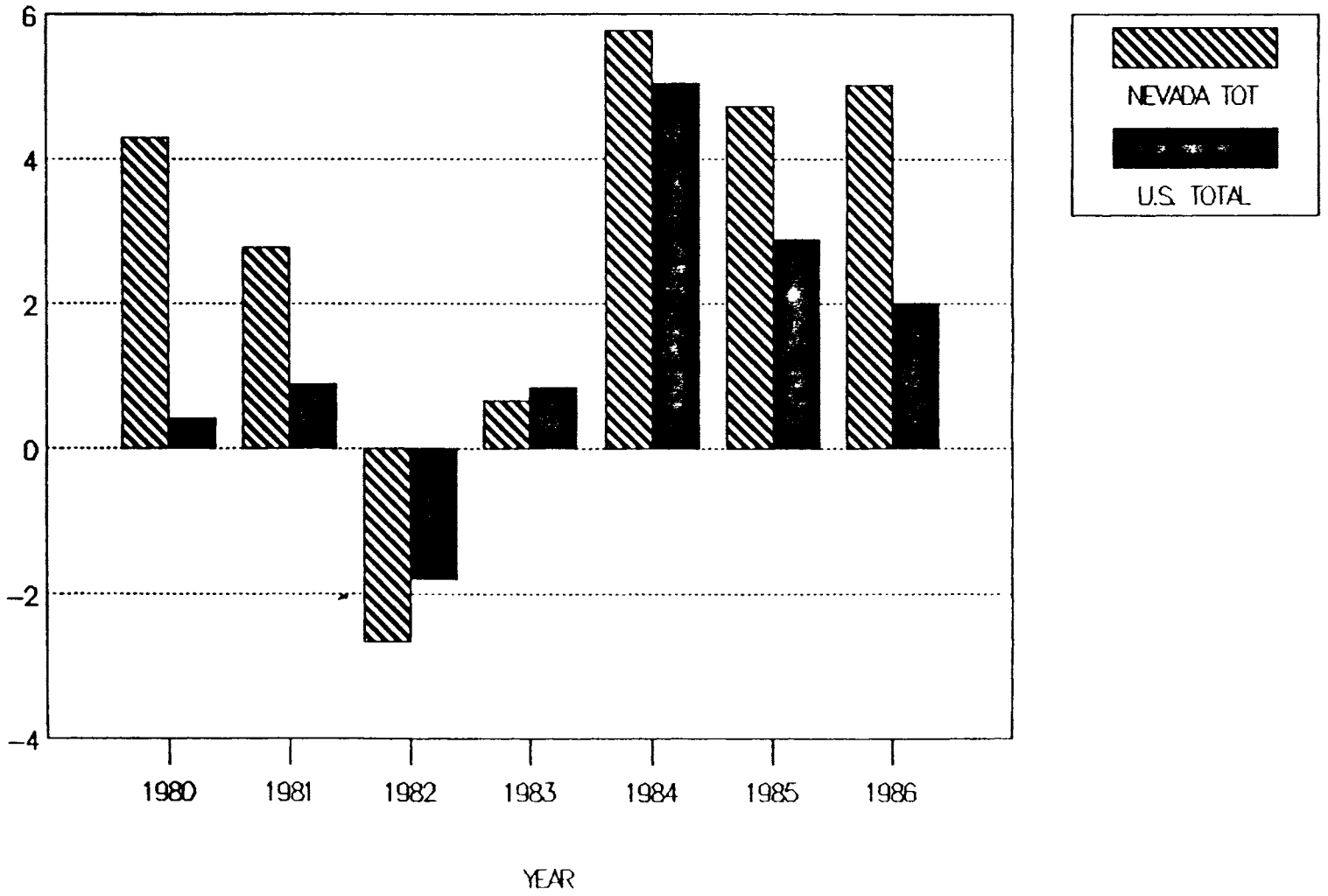
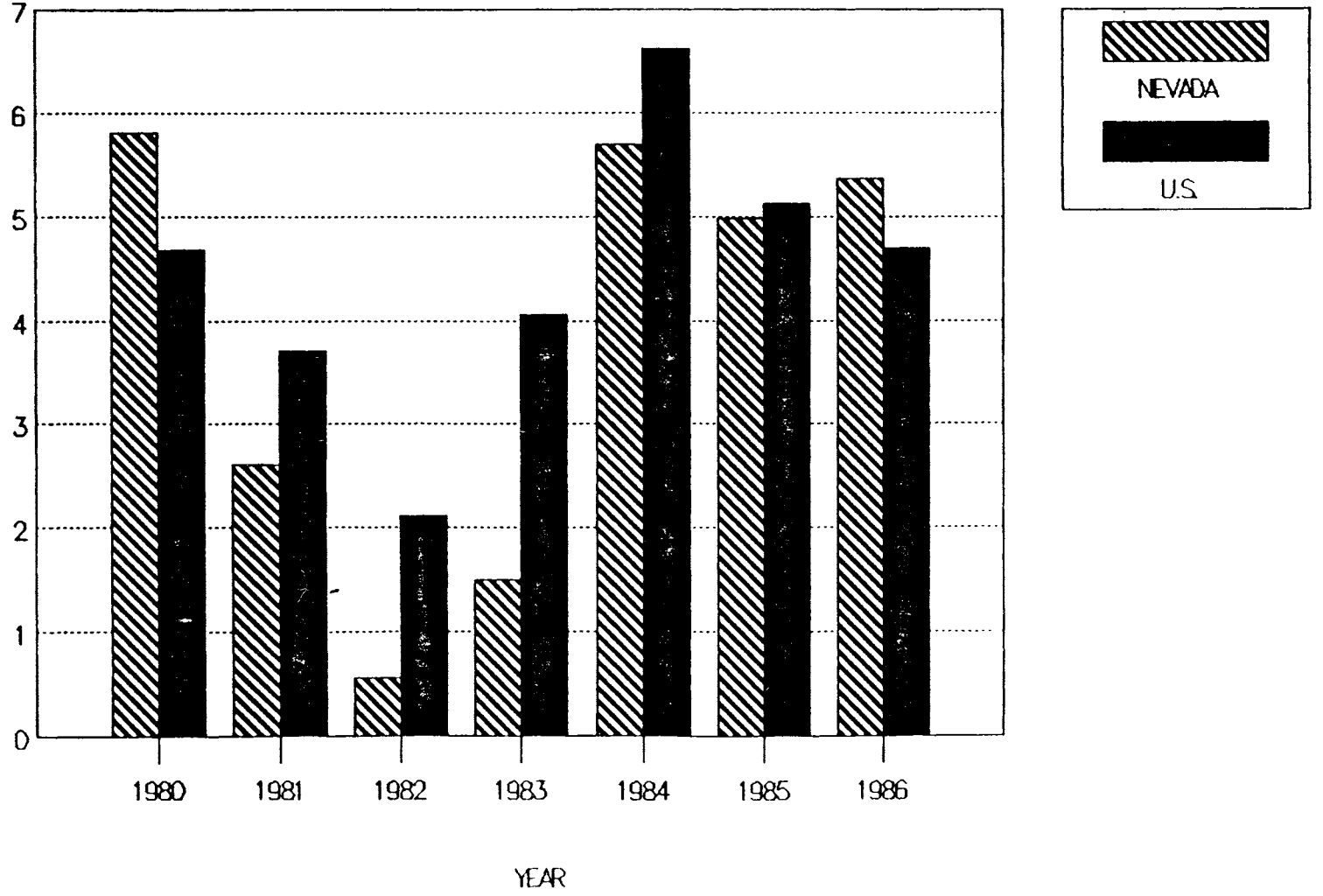


FIGURE 1.3

Services Employment – Nevada & U.S.

Percentage Change From Previous Year



Manufacturing Employment – Nevada & U.S

Percentage Change From Previous Year

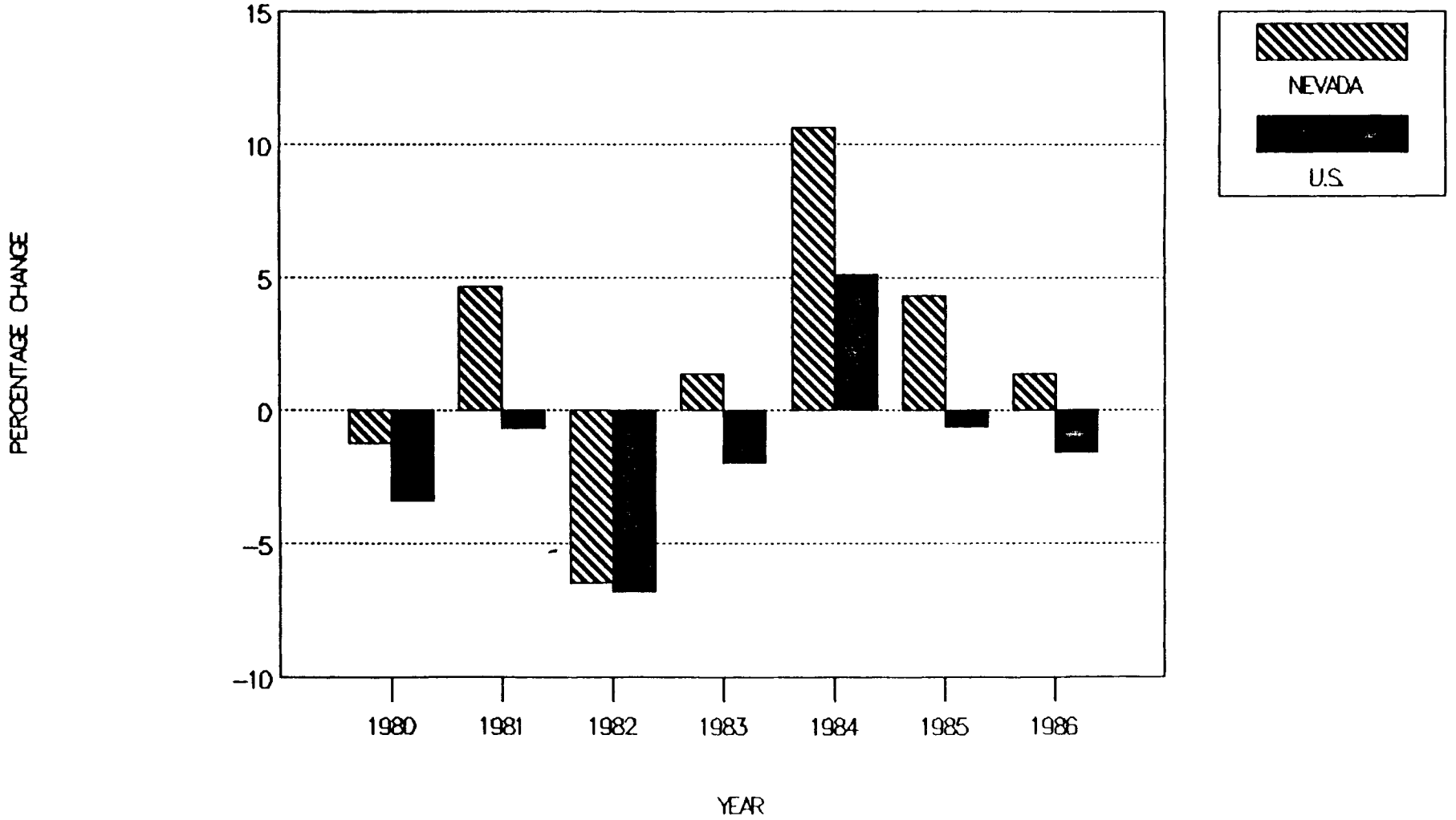


FIGURE I.5

Construction Employment – Nevada & U.S.

Percentage Change From Previous Year

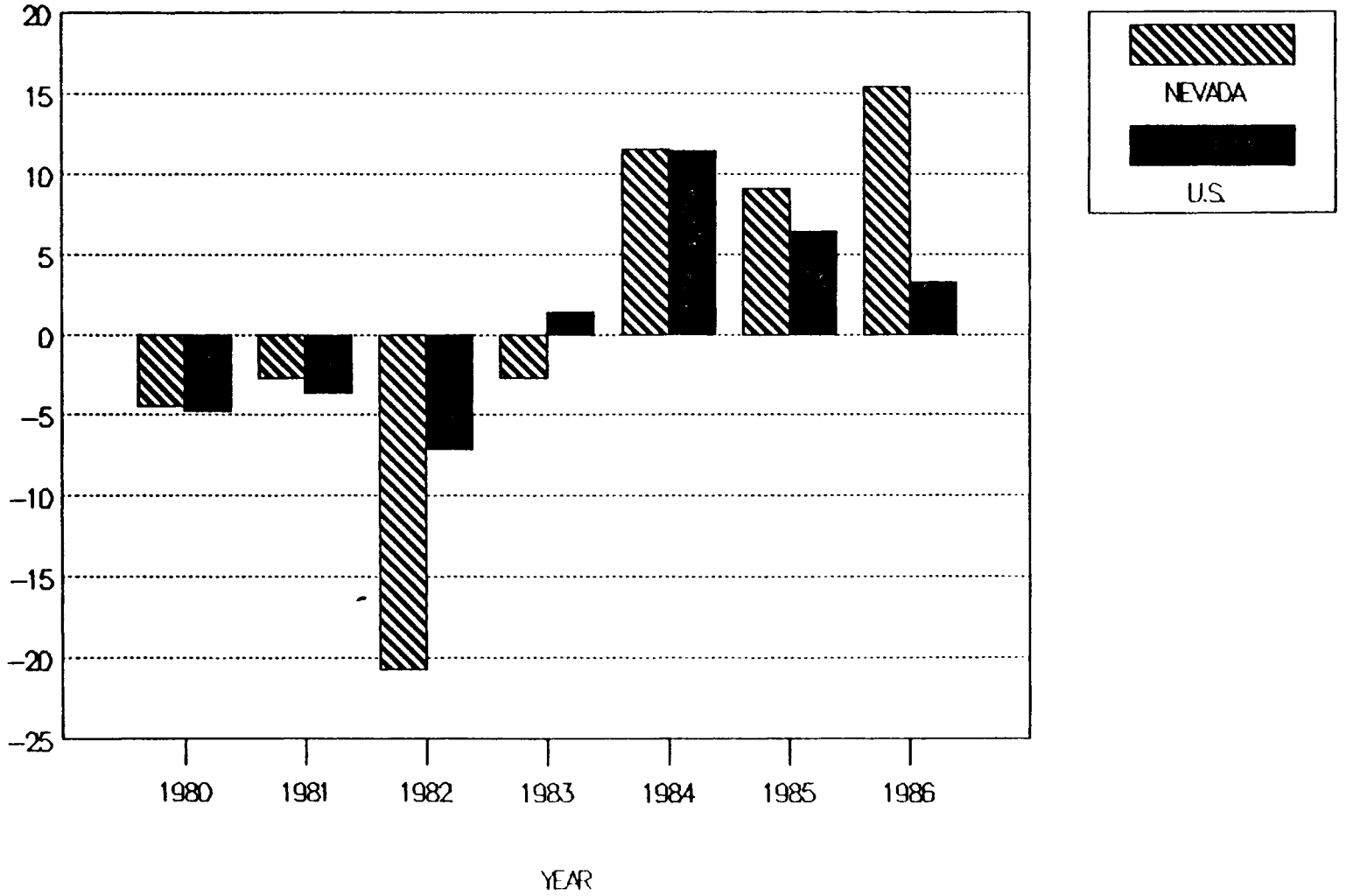
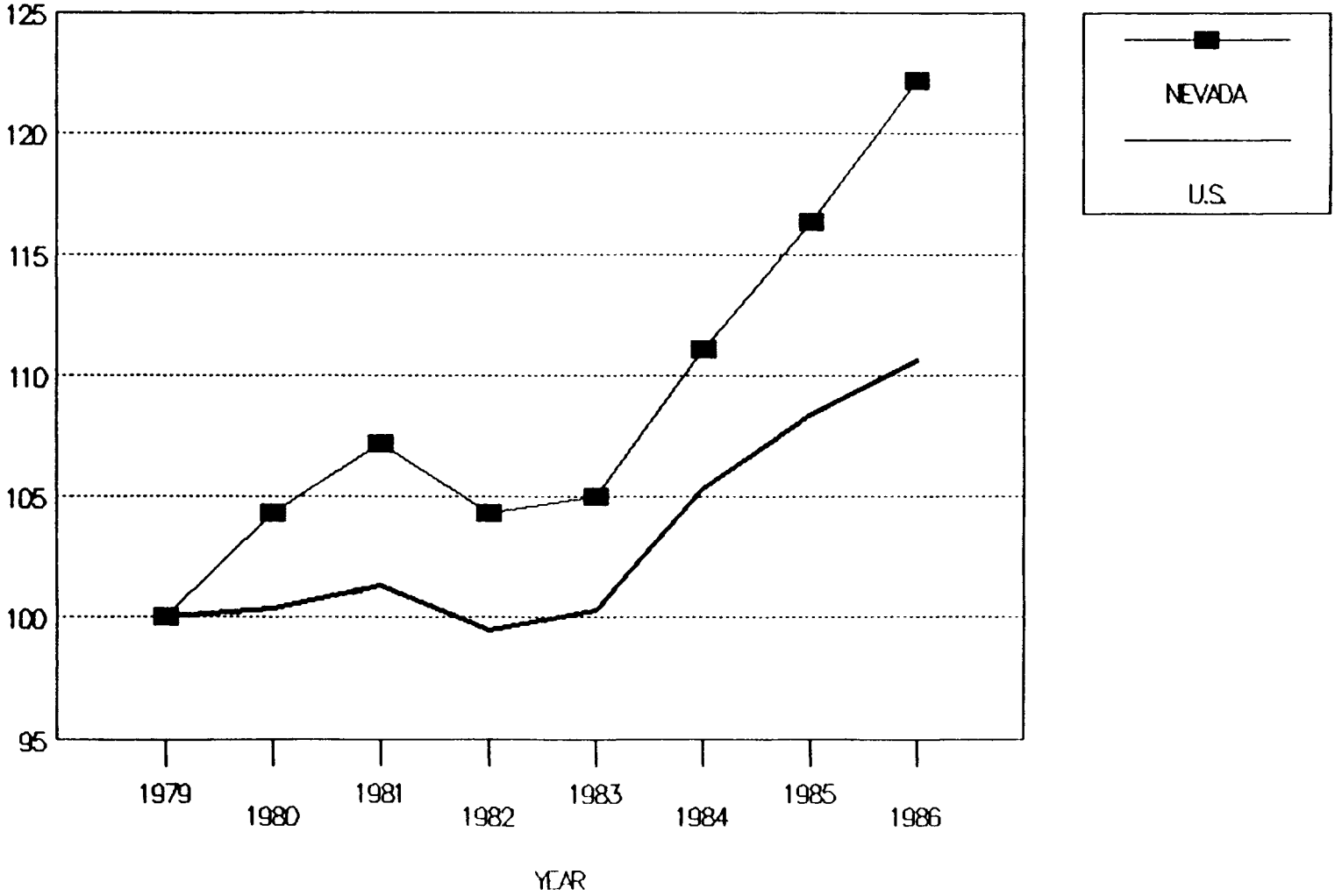


FIGURE 1.6

Total Employment – Nevada & U.S.

Indexed: 1979 = 100



from 1979 to 1982. The corresponding decline in U.S. construction employment was 15 percent. The job loss of 3 percent in manufacturing in the state was milder than the 11 percent decline experienced nationally.

The service sector continued to expand during the recession. Nevada's growth rate, however, was lower than that of the U.S. from 1979 to 1982 (9 percent vs. 11 percent). The slower growth in Nevada service employment during the recession coincided with two factors, which had a negative effect on the Nevada tourism industry. First, Atlantic City emerged as a significant competitor in the casino gaming industry. Second, the oil price shock sharply increased transportation costs.

Recovery

Growth in Nevada employment has outpaced the national growth rate since 1982. Total Nevada employment increased by 17 percent compared with 11 percent for the U.S. from 1982 to 1986. Construction employment rebounded sharply from 1982 through 1986. In recent years, the pace of growth in the service sector has also increased. Total employment increased by 6 percent in 1987 while employment in tourism-related industries grew by 7 percent.

Key Economic Findings

- The service industries, led by tourism and gaming, are a dominant force in Nevada's economy. Service-producing industries accounted for 87 percent of total employment in 1986.

- The Nevada economy is gradually diversifying. Since 1979, Nevada has outperformed the nation in manufacturing, wholesale trade and services other than tourism, such as business services, health services, and engineering and architectural services. However, growth in these industries starts from a small base so that progress toward diversification should not be overstated.

- The Nevada economy is not recession proof. Employment fell more sharply in Nevada than the U.S. during the 1981-82 recession.

- Job creation in Nevada has outpaced the nation during the current recovery and expansion phase of the business cycle.

FISCAL IMPLICATIONS OF ECONOMIC AND DEMOGRAPHIC CHANGE

The economic and demographic changes described in the preceding sections are the driving forces that will influence revenue and expenditure patterns in Nevada over the next twenty years.

Several factors suggest that Nevada's population growth potential remains strong. Over the long term, Nevada has attracted sufficient in-migrants to support high rates of labor force and employment growth. The Nevada unemployment rate, which has hovered close to the U.S. rate, contrasts with the very low unemployment rates in the New England states at present. New England has apparently been confronted by friction in terms of labor mobility. By contrast, net migration flows from regions, such as the Midwest, into Nevada have been a significant source of population and labor force expansion.

Impact of Demographic Changes on Expenditures

Analysis of the changing age distribution of the Nevada population indicates that the proportion of residents over 65 and under six expanded from 1980 to 1986. The increases for both population groups were greater in Nevada than in the nation as a whole. The increase in the under six group portends growth in school enrollments and education expenditures in future years. The increase in the elderly population can be expected to have significant impacts upon medical assistance program costs. Long-term care for the elderly is a major component of the medicaid

program. Medicaid costs per claimant are higher for the elderly than for other categories of beneficiaries.

These demographic factors - overall growth in population and shifts in the age composition of the population - are systematically related to expenditure levels in the analysis contained in Chapter 3 on long-term revenue and expenditure projections.

Linkage of Tax Revenue Sources to the Nevada Economy

The current Nevada tax structure is designed to capture the fiscal benefits of the state's very large tourism and gaming sector. In addition to specific taxes imposed on the gaming industry, a substantial portion of sales tax revenue was collected from tourist expenditures. Based upon the estimates included in Chapter 2 (on the tourism industry), tourists directly contributed nearly 55 percent of all general fund tax revenues in FY 1986.

In a sense, a relatively narrow tax base has been linked over the years to a relatively narrow economic base. Given the healthy condition of the Nevada gaming industry at the present time, there is little reason to expect this critical sector to diminish in importance in Nevada's economic and fiscal structure. Nevertheless, the state has long recognized the importance of diversifying its economic base. As noted earlier, some gradual diversification of the Nevada economy has occurred as growth rates for certain sectors - such as wholesale trade, business services, and health services - have exceeded the rate of growth of total Nevada employment from 1979 to 1986. While the manufacturing employment growth rate was below that of the economy as a whole, the number of manufacturing jobs in Nevada increased at a time when U.S. manufacturing employment declined.

The significance of these positive signs of diversification should not be overstated since sectors such as manufacturing and wholesale trade are small in Nevada. Nonetheless, it is worth exploring the linkage between these potential sources of economic

growth and the state's tax structure. Under the current tax structure, the tax contribution of most industries is indirect since no general business or personal income tax is imposed. The sales and use tax is the primary device for linking industries such as manufacturing, trade, and services (other than gaming) to the state revenue system. In addition to direct business purchases of taxable items, some consumption expenditures of employees are subject to the sales tax. The contribution of non-gaming industries to the financing of public services is thus mainly indirect.

Subsequent chapters provide a detailed analyses of potential revenue sources that are not currently used in Nevada. This chapter concludes with an examination of how major state revenue sources -- either actual or potential -- relate to each of the industries within the state.

Table 1.8 provides indicators that can be combined to evaluate the tax base potential of each industry. The economic characteristics are: (1) share of employment and earnings; (2) employment growth from 1979 to 1986; (3) wage scale index; and (4) share of corporate profits. These variables measure the relative importance of each industry to the current economic base as well as each industry's growth potential based upon recent trends.

The three broad tax bases that are available to the state are personal income, business income, and consumption. Personal income refers to the total income of individuals. Business income refers to taxable profits but may also be expanded to include alternative business tax bases such as value added or capital stock. Consumption refers to personal income net of savings and includes retail and selective sales taxes.

An industry can have a high revenue potential because it has at least moderate growth potential from a large base. Services and retail trade, which include tourism-related industries, fit this category. High-wage industries with growth potential have

TABLE 1.8

ECONOMIC CHARACTERISTICS OF MAJOR INDUSTRIES

	Share of 1986[a] Employment	Share of 1986[a] Earnings	Average Annual Employment Growth 1979-1986	Wage Scale Index[b] 1986	Share of Nevada Corporate Taxable Income[c]
Agriculture	0.7	0.5	6.7	68.1	0.3
Mining	1.4	2.2	4.4	164.7	12.4
Construction	6.0	7.7	0.1	129.6	3.3
Manufacturing	4.8	5.6	2.0	115.9	8.1
Nondurable	2.3	2.4	3.6	106.5	n/a
Durable	2.5	3.2	0.6	124.5	n/a
Transportation, Communications, and Utilities	5.4	6.7	2.3	124.0	13.8
Wholesale Trade	3.6	4.4	4.0	122.1	4.0
Retail Trade	16.7	11.1	2.7	66.5	13.1
Finance, Insurance, and Real Estate	4.8	5.2	4.0	108.1	8.5
Services	43.5	40.6	3.8	93.3	36.5
Government	13.1	16.0	1.6	121.7	0.0
Total	100.0	100.0	2.9	100.0	100.0

Sources:

[a]Represents the percentage of state employment and earnings covered by the Employment a Wages data (202 Series)

[b]Average wage by industry as a percent of average all-industry wage.

[c]Projected share of corporate taxable income apportioned to Nevada for the 1990 tax yea See the appendix in Chapter 18 for a detailed description of the methodology used to estimate apportionable taxable income.

both personal income and consumption revenue growth potential, since personal consumption expenditures are closely related to personal income. Business income revenue potential may result from high profit margins; however, low-margin businesses, which make-up a large volume of total state business activity, may also have a high business tax revenue potential.

Figure 1.7 summarizes the tax revenue potential of each industry. It is a guide for understanding the linkage between the Nevada economy and potential revenue sources. It does not, however, involve a judgment of the appropriateness of using particular revenue sources. Evaluation of tax policy options requires an assessment of overall revenue needs and a careful analysis of the advantages and disadvantages of each revenue source.

FIGURE 1.7

TAX REVENUE POTENTIAL: BY INDUSTRY AND TAX BASE

	Tax Base		
Industry	Personal Income	Business Income/Receipts	Consumption
Agriculture	Low	Low	Low
Mining	Low to Moderate	Moderate to High	Low to Moderate
Construction	Moderate	Low	Moderate
Nondurable Manufacturing	Low to Moderate	Moderate	Low to Moderate
Durable Manufacturing	Moderate	Moderate	Moderate
Transportation, Communications and Public Utilities	Moderate	Moderate to High	Moderate
Wholesale Trade	Moderate	Low	Moderate
Retail Trade	Moderate	Moderate to High	Moderate
Finance & Insurance	Moderate	Moderate	Moderate
Services	High	High	High
Government	Moderate to High	---	Moderate to High

ENDNOTES

1. Migration estimates are from unpublished data from the Department of Commerce, Bureau for the Census. These estimates are consistent with the Current Population Reports, Series P.25 No. 1010.

2. It is important to note that the migration data from the Internal Revenue Service is not a representation of total migration flows, since it excludes persons not filing tax returns. The references to Table 3 and 4 thus understate total migration flows as estimated by the Bureau of Census. The advantage of using the IRS data is that it provides valuable detail on regional flows that is not available from any other source after the 1980 Census.

CHAPTER 2

INTRODUCTION TO THE FISCAL SYSTEM

One might date the beginning of "modern" Nevada with the days when its residents, the Paiutes, Shoshones, and Washos, together agreed that Chief Winnemucca (a Northern Paiute) become a single authority for dealing with the arrival of the first white people to explore the Great Basin. Then came the trailblazers and fur traders, starting a chain of events that would shape the political, economic and cultural character of the State people as they are today.

From almost the beginning of that history--and certainly by the time to Territory (1861) and Statehood (1864)--a good deal of how Nevada's character developed is reflected by its fiscal arrangements. One of the first acts of the Territorial Legislature was to establish a series of toll roads in order to promote the orderly development of the Northern part of the state. Then, came the fights over the Constitutions of 1883 and 1864, which were in large part focused on issues of taxation. Whether to insure the fiscal integrity of the public sector became a hot and bitter issue when the State and Storey county teamed up against the favored tax position of mining in what was to become known as the Bullion Tax Fight, a fight that began when the largest of the mining operations, the Bonanza, unilaterally decided that a state tax on its property tax unconstitutional and thus refused to pay their taxes. The controversy lasted nearly a decade, finally to be resolved by a U.S. Supreme Court ruling that the Bonanza had to pay its taxes.

Throughout the remainder of the 19th century and then up through this year, the tax law would continue to reflect the people's character. From the debate over the proper treatment of mining and the need for a tax equalization law in the 1880s and 1890s to today's concern for a "fair share" of intergovernmental

revenues across and the proper treatment of mining (yes, its much the same issue), Nevadans would continue to in part define themselves by their fiscal arrangements.[1]

All of which is to make a critical point for the purposes of this exercise: the Nevada tax system of the State is much more than a set of technical laws and regulations; Rather, it is an expression of relationships among individuals and between the people and their governments.

That is an important point to remember as this report now begins to delve into those technical and sometimes obtuse fiscal arrangements. This body of analysis is not only about the (very important) topics of the techniques of targeting of state to local aid system or the measuring of a the tax burden. It is at the same time an examination of fundamental economic, political, and social relations.

The Constitution

From the beginning of its territorial days, the Constitution has played an important role in the structuring of Nevada's fiscal arrangements.[2] In addition to general provisions granting the state the power to tax and requiring uniformity of taxation ("a uniform and equal rate") of any one jurisdiction, the Constitution is largely confined to limitations imposed or exemptions permitted.

At present, the Nevada Constitution calls for a tax on the net proceeds of mining, the exemption of household goods from personal property taxation and of food for home consumption from the sales tax, a limitation on the sales tax rate that the state may levy, (2 percent), and a limitation of a state imposed death tax to the extent of a credit allowed by the federal government for federal estate tax purposes. Finally, the Constitution calls for the earmarking of the estate tax to education and of certain (but not all) taxes and license fees on motor vehicles for the construction, maintenance, and repair of highways.

Each of these provisions and their policy impact is discussed as part of the detailed tax-by-tax discussion in the remainder of this report. The most important point to be made in the context of this (or any) fiscal study is the emphatic warning that there is a whole lot danger that writing tax law into a Constitution can lead to unintended consequences

Broad constitutional provisions relating to tax law are a critically important--and necessary--part of the operation of the public's business. But especially with respect to fiscal matters, it is just as critical that Constitutional statements be limited to providing for principles such as a uniformity clause.

Tax policy can be a pretty complex thing. Accordingly and appropriately, then, the people of Nevada have established a process of representative government whereby through a process of research, analysis, and then public deliberations, elected officials design a system that meets the peoples' needs and aspirations in the context of the times in which alternative proposals can be enacted or defeated. Although Constitutions can be amended and thus, "bad" tax law can be removed, amendments entail a process that is --as intended to be--a difficult and slow one. In Nevada, for example, the minimum practical duration is about two and a half years.

Above it was mentioned that tax law can have unintended consequences--an outcome that has clearly appeared to have occurred with respect to the a (1956) Constitutional tax rate limitation on the sales tax. Due to the result of an unforseen (or at least little thought about) element in the Constitutional Amendment process, Nevada has ended up with a cap on the amount of sales tax revenues that may be by the Legislature in an unrestricted manner. One result has been to force to legislature into creating a set of local sales taxes designed to circumvent the cap limitation. While this circumvention has been a success in terms of judicial reviews, it has led to a special set of difficult problems when it comes to the design of an efficiently integrated state and local fiscal

system (See chapters 8--11). Unfortunately, in order to achieve a more efficient set of state--local intergovernmental relations, Nevadans may have to go back to their Constitution and begin to undo in 1990 the historical accident of three decades ago. (See discussion in chapters 8-11).

Take another example--the 1986 limitation of the Nevada estate tax to the amount of a federal estate tax credit. What this provision does, in effect, is to pass on the U.S. Congress the ability to determine the amount of state's estate tax. Given Nevada's proud history of an independent electorate, taking a tax power away from Carson City and giving it to Washington is surely unintentional. Nevertheless, its in the Constitution.

Moreover, what if the Congress decides to change the federal law and, say, in search for new federal revenues decides to change the federal provision for an state tax credit to a deduction? That is, in fact, a proposal that is now receiving some consideration. If this deduction for credit replacement does occur, Nevada will have to take at least 31 months to react to make a required Constitutional change. In the meantime, the likely result is that dollars will simply be shifted out of the Nevada state treasury and into the U.S. Treasury.[3]

The key point to be made here does not, however, pertain to the concern about potential revenues that are lost or gained to the Nevada treasury. Rather, to purpose is simply to illustrate that once an electorate begins to use the Constitution as a repository for tax laws, it begins to lose not only a much needed flexibility in addressing unforseen political and economic problems, but, ironically, may lose the very power over the public finances that they initially intended to accomplish!

As of November 8, 1988 Nevada has again started down the path of putting tax law into its Constitution. With the first approval (of a two general election vote process), Nevadans have overwhelmingly approved an initiatives that would prohibit the Legislature from enacting a state personal income tax. There may

be very good reasons for Nevada sticking to its no-income tax tradition, but--as noted--there are even better ones for keeping that decision in the arena of statutory law and out of the Constitution.

As Nevadans approach the second required vote on this issue in 1989, it would be well for them to pause to consider whether they wish to emulate their California neighbors who have gone so far down the slippery slide of constitutional tax law writing that there is increasingly little room for what will be a much needed long term fiscal flexibility. In the process of wrting this report many Nevadans observed that one of this State's many merits was the ability to take economic advantage of the tax policy errors of their much larger Western neighbor. There is much merit to that argument. And, in order to keep the argument buttressed by substance, Nevadans would be well advised to not follow California down what can become a very severe self-imposed system of fiscal straitjackets.

The Budgets

Budgets are fundamentally political expressions relating to the level and composition of the public sector role in an economy. Within this context, the question then arises as to what is the nature of this expression--that is, what is the Nevada state budget?

The answer is that there are several budgets or funds, the most familiar of which is what might be called the "state's purse" or the General Fund--the depository for non-dedicated operating revenues in the state. In addition to the General Fund there are several other funds set up to account for proceeds of specific revenue sources. In Nevada these include funds for special revenues (such as a fund for the finance of highways--the Highway Fund), debt service, capital projects, internal services, enterprise funds, and trust funds.

TABLE 1
NEVADA STATE GOVERNMENT
GENERAL FUND REVENUES
(In Thousands of Current $s)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Taxes								
Property Tax	$ 191	$ 59	$ 14	$ 58	$ 5,439	$ 2,677	$ 236	$ 100
Sales and Use Tax	122,009	134,002	136,574	130,411	143,770	159,151	171,945	187,162
Gaming Taxes	128,257	137,321	155,883	185,986	179,896	198,086	203,557	212,175
Casino Ent. Tax	19,656	18,865	20,023	17,109	15,035	15,595	16,129	16,693
Slot Tax	NA	NA	NA	NA	5,000	5,000	5,000	5,000
Liquor Taxes	8,787	9,189	9,107	8,908	10,486	10,503	10,686	10,777
Insurance Tax	11,924	13,742	14,870	15,439	30,462	28,420	32,924	38,850
Excise Taxes	75	133	114	79	8,060	16,398	10,323	9,553
Subtotal Taxes	$ 290,899	$313,311	$336,585	$357,991	$398,148	$435,830	$450,799	$ 480,310
(Percentage change)		(+7.7%)	(+7.4%)	(+6.4%)	(+11.2%)	(+9.5%)	(+3.5%)	(+6.5%)
Licenses	$ 5,601	$ 6,234	$ 8,343	$ 7,292	$ 9,307	$ 8,805	$ 8,919	$ 10,264
Fees and Fines	642	798	995	1,014	1,734	2,061	2,052	2,186
Charges for Services	140	224	434	388	349	577	377	488
Interest Earnings	24,194	23,679	19,600	10,808	12,317	17,433	15,535	15,272
Other Revenues	881	2,490	1,510	1,359	3,898	3,879	4,517	5,755
TOTAL REVENUES	$322,357	$346,736	$367,468	$378,853	$425,753	$468,586	$482,199	$514,275
(Percentage change)		(+7.6%)	(+6.0%)	(+3.0%)	(+12.4%)	(+10.0%)	(+2.9%)	(+6.7%)

Source: Nevada State Budget; Planning Information Corporation,"Nevada State Revenues Analysis," May 1988.

TABLE 2
NEVADA STATE GOVERNMENT
GENERAL FUND APPROPRIATIONS
(In Thousands of Current $s)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87\a
Executive	$ 9,858	$ 11,210	$ 13,492	$ 14,037	$ 15,231	$ 16,867	$ 16,021	$ 16,493
Legislative and Judicial	6,205	9,950	8,032	14,558	7,973	18,855	9,001	8,886
Education	193,906	210,942	197,213	236,195	225,430	272,284	269,553	284,521
Human Resources	60,914	84,896	89,011	97,192	92,999	98,718	98,944	102,232
Public Safety	19,508	21,727	27,627	31,785	35,841	42,205	41,639	43,907
Regulatory	9,732	11,350	13,530	13,438	14,045	15,609	15,598	16,204
Conservation & Natural Resources	6,707	7,469	7,550	7,632	6,160	9,836	8,251	9,091
Department of Wildlife	105	222	194	194	56	61	319	105
Agriculture	1,730	1,686	1,812	1,865	1,849	1,896	1,990	2,041
Miscellaneous	46,206	31,013	19,677	25,329	4,913	45,628	12,853	15,423
Capital Improvement		6,292						
TOTAL	$354,871	$396,757	$378,138	$442,226	$404,497	$521,959	$474,169	$498,903
(Percentage change)		(+11.8%)	(-4.7%)	(+16.9%)	(-8.5%)	(+29.0%)	(-9.2%)	(+5.2%)

\a Does not include contingent appropriations for salary increases and prison construction.

Source: State Department of Administration, published in Nevada Bond Offering, April 1987.

TABLE 3
NEVADA STATE GOVERNMENT GENERAL FUND
REVENUES AND EXPENDITURES
(In Thousands of Current $s)

Fiscal Years	Revenues	Expenditures	Net Surplus or Deficit (-)
1980	$ 322,357	$ 354,871	$ -32,514
1981	346,736	369,757	-23,021
1982	367,468	378,138	-10,670
1983	378,853	442,226	-63,373
1984	425,753	404,497	21,256
1985	468,586	521,959	-53,373
1986	482,199	474,169	8,030
1987	514,275	498,903	15,372

Although the Legislature and the Executive retain control overall of these funds, most of the attention is directed toward the General Fund since that is the major area in which elected policy makers have the greatest flexibility and may exercise the greatest discretion is determining public sector priorities. From time to time, however, other funds may demand a close look--a case that as is discussed in Chapter 16 is at this time true of the Highway Fund.

Accordingly, in order to get a full picture of the overall budgetary conditions for the State, two sets of data were collected for this discussion. The first set focuses on only the General Fund, as is reported in Tables 1 through 3. The second set of data reports on Total State revenues and Expenditures, which adds the Special Revenue Funds (there are 63 in all) and the Debt Service Funds to the General Fund numbers (Tables 4-6). The data on the General Fund serves to introduce two important pieces of information: the present mix of Nevada State Revenues and Expenditures and the year-end fiscal condition of the state as measured by the numbers on the net surplus or deficit.

With respect to the mix of taxes the data show that the General Fund is dominated by two sources--the levies on sales and on gaming. Taken together for Fiscal Year 1987 they account for 83 percent of total General Fund taxes and 78 percent of revenues (taxes plus non-tax revenues such as fees and charges). Indeed, this is a two tax dominance that has held throughout the decade (Table 1).

On the expenditure side (Table 2) the largest dollar items go to education and to human resources--i.e., a sum accounting for more than three fourths of the sum of General Fund appropriations.

Of particular interest is the Table 3 data that summarizes the difference between revenues and expenditures since the beginning of the decade. Here the numbers show that Nevada has moved away from a period of successive General Fund deficits in the early part of the decade to one of slight surplus within the

TABLE 4
NEVADA STATE GOVERNMENT
TOTAL REVENUES\a
(In Thousands of Current $s)

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
Sales Taxes	$ 116,459	$ 121,962	$ 134,002	$ 136,574	$130,411	$ 143,770	$ 159,216	$ 171,981	$ 191,310
Gaming Taxes	114,548	127,160	156,186	176,040	203,094	194,914	213,681	219,686	250,565
Other Taxes	72,827	68,917	51,861	73,169	79,537	115,272	129,288	134,008	155,214
Federal	167,924	223,426	230,194	203,558	234,325	228,641	269,459	317,771	292,896
Charges for sales and services	32,884	40,006	35,184	41,603	42,026	36,459	35,826	36,175	35,707
Interest Income	13,336	25,266	26,455	24,478	19,726	21,954	33,608	30,194	32,068
Licenses, fees and permits	36,941	41,573	39,843	56,824	43,712	52,890	54,774	69,728	80,793
Other	15,988	9,662	9,802	13,813	16,409	11,843	11,619	21,123	20,952
TOTAL REVENUES	$570,907	$657,972	$683,527	$726,059	$769,240	$805,743	$907,471	$1,000,666	$1,059,505
(Percentage change)		(+15.3%)	(+3.9%)	(+6.2%)	(+5.9%)	(+4.7%)	(+12.6%)	(+10.3%)	(+5.9%)

\a Includes General, Special Revenue and Debt Service Funds.

Source: State of Nevada Annual Financial Report for the Fiscal Year Ended June 30, 1987.

TABLE 5
NEVADA STATE GOVERNMENT
TOTAL EXPENDITURES\a
(In Thousands of Current $s)

	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87
General Government	$ 46,225	$ 73,051	$ 56,215	$ 50,903	$ 40,108	$ 44,035	$ 55,067	$ 51,816	$ 65,206
Education and support	69,985	155,939	137,221	138,840	158,569	151,637	151,913	222,248	234,644
Health and social service	116,946	138,763	152,867	178,619	180,309	182,778	181,618	210,175	230,856
Law, justice and public safety	24,620	27,376	30,050	38,966	56,045	60,000	83,776	92,896	98,930
Regulation of business	10,717	14,026	16,825	19,503	22,869	25,670	29,658	31,306	34,509
Recreation and resource development	32,767	40,005	40,964	49,577	51,666	52,822	52,916	62,258	58,631
Transportation	118,695	159,010	165,942	145,444	193,085	160,698	173,165	211,035	204,030
Debt service	2,596	2,579	2,290	1,895	18,027	22,672	28,791	29,662	40,591
TOTAL EXPENDITURES	$422,551	$610,749	$602,374	$623,747	$720,678	$700,312	$756,904	$911,396	$967,397
(Percentage change)		(+44.5%)	(-1.4%)	(+3.5%)	(+15.5%)	(-2.8%)	(+8.1%)	(+20.4%)	(+6.1%)

\a Includes General, Special Revenue and Debt Service Funds

Source: State of Nevada Annual Financial Report for Fiscal Year Ended June 30, 1987.

TABLE 6
NEVADA STATE GOVERNMENT
REVENUES AND EXPENDITURES\a
(In Thousands of Current $s)

Fiscal Years	Revenues	Expenditures	Net Surplus or Deficit (-)
1979	$ 570,907	$ 422,551	$ 148,356
1980	657,972	610,749	42,223
1981	683,527	602,374	81,153
1982	726,059	623,747	102,312
1983	769,240	720,678	48,562
1984	805,743	700,312	105,431
1985	907,471	756,904	150,567
1986	1,000,666	911,396	89,270
1987	1,059,505	967,397	92,108

\a Includes General, Special Revenue and Debt Service Funds.

Source: Nevada Statistical Abstract, 1988 Edition, State of Nevada, Office of Community Services

last two years. In 1987, for example, the state showed a surplus of about 3 percent of General Fund revenues--a not bad cushion but one that falls short of the five percent that some analysts argue is needed just in order to provide some fiscal maneuvering room in case there are errors in projected revenue flows and/or unforseen developments beyond the control of the state (e.g, a dip in the state's overall economic activity.[4]

As one can see from the material presented, the General Fund accounts for only about half of the total state revenues--i.e, the sum of receipts when federal aid, special revenue and debt service funds are added into the discussion. Here the overall revenue health of the state is improved from what was seen from only the General Fund operations. In the summary Table 6 the data show that not only has there been a consistent surplus cushion, but that it has been a rather good one. Indeed, in the last two years the net surplus as a percent of total revenues has been nearly 9 percent. Setting aside the question of whether these taxing and spending aggregates are at the right levels (a question that is appropriately not examined in this study of only the tax and revenue side of the Nevada fisc), the data suggest a record of Legislative conservatism that might well be envied by many of the other 49 states.

Just how likely Nevada is to keep continue this record of fiscal conservatism is the topic of the next chapter on fiscal projections. Suffice it to say for now that the State certainly appears to be in no danger of a Legislature that runs amok as long as it is granted the flexibility to manipulate the state's budgets without unexpected problems in the national or state economy.

ENDNOTES

1. A detailed discussion of the tax aspects of the Constitution is produced by Frank S. Daykin in an Appendix to this chapter.

2. A detailed discussion of the tax aspects of the Constitution is produced by Frank S. Daykin in an Appendix to this Chapter.

3. See Chapter 22.

4. Note that the magnitude of the tax revenues (e.g., gaming and sales) differ in Tables 1 and 4. This is due to the treatment of the annual slot tax and the fact that as the state collects some local sales tax revenues it receives a collection fee to cover cost of administration.

APPENDIX

by

Frank W. Daykin[1]

CONSTITUTIONAL LIMITATIONS ON TAXATION IN NEVADA

Discussion appropriately begins with the proposition early and vigorously expressed by the Supreme Court in Gibson v. Mason, 5 Nev. 283 (1869), at page 292, that each state is "clothed with all the sovereign authority reserved by the people from the grant of powers in the Federal Constitution" and that within the state government the legislature's power is "unlimited except by the Federal Constitution, and such restrictions as are expressly placed upon it by the fundamental law of the state" -- which is the state constitution. There is, however, a corollary to this proposition, namely, that a limitation may be imposed either by a prohibition or by an express grant whose enumeration of certain powers excludes others of like kind not mentioned. This latter principle was applied to taxation in State v. Carson City Savings Bank, 17 Nev. 146 (1882), in holding that the enumeration in Section 1 of Article 10 of the Constitution of specific purposes for which property could be exempted property for any other purpose. In Lake v. Lake, 17 Nev. 230 (1882), the court noted that this was the principle applied by the Supreme Court of the United States in Marbury v. Madison, 5 U.S. (1 Cranch) 153 (1803). Therefore, the legislature may impose any tax, in any amount, unless constrained by (1) the United States Constitution as it prohibits burdening interstate commerce more heavily than commerce within the state and requires a rational basis for distinction among taxpayers or (2) an express provision of the Constitution of Nevada which prohibits or enumerates. The remainder of this discussion is confined to limitations imposed by the state constitution.

Although Section 20 of Article 4, Section 2 of Article 8, and Section 24 of Article 17 of the Constitution refer to taxation,

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[1] Attorney-at-Law, Carson City.

none alters the conclusions derived from examination of the principal references, those in Articles 9 and 10. Article 10 is concerned exclusively with taxation, and principally with taxation and ad valorem. The basic rule, as adopted in 1864, was "a uniform and equal rate of assessment and taxation" of all property at "a just valuation" with exemptions for enumerated purposes. As noted above, this precludes the legislature from adding exemptions, and it also precludes reduction of the rate, percentage of assessment, or valuation on account of use. Thus
Subsection 3 had to be added to Section 1 by constitutional amendment to permit reduced taxation of land used for agriculture or left as open space. Exemptions for intangible property, stored property in transit, business inventories, and the conservation of fossil fuels, and a separate rate for motor vehicles, have been similarly added. Uniformity of rate is required only within any one taxing jurisdiction: State ex rel. Williams v. Fogus, 19 Nev. 247 (1885). The combined rate for all jurisdictions as applied to any one property is limited to $5 per $100 of assessed valuation by Section 2 of Article 10, added in 1936. With one exception, the "uniform and equal rate" does not apply to taxes of other kinds, such as occupational licenses -- Ex parte Robinson, 12 Nev. 263 (1877) -- the tax on insurance premiums -- Ex parte Cohn, 13 Nev. 424 (1878) -- or the fees for state and local gaming licenses.

The exception reflects the state's history. As originally adopted in 1864, the content of Article 10 was crucial. The first convention to draft a constitution for the proposed State of Nevada met in 1863. Its article on taxation required the legislature to tax uniformly "all property, both real and personal, including mines and mining property" with the enumerated exemptions for governmental, charitable, educational and religious purposes. This proposed constitution was rejected by the voters of the Territory, and the inclusion of mines for taxation on the same basis as other property has been cited as the controlling reason. (Bushnell, Eleanore, The Nevada Constitution: Origins and Growth, Reno:

University of Nevada Press, Rev. Ed., 1968.) When the second convention met in 1864, it again vigorously debated the taxation of the mines, and substituted "all property, real, personal and possessory, except mines and mining claims, the proceeds alone of which shall be taxed" and continued with the same list of exemptions. Against the "proceeds" a deduction was allowed by the first revenue act, mentioned in the preceding paragraph, for certain expenses of extraction and milling. This interpretation was engrafted into the constitution by an amendment in 1902 which also provided separately for patented mines, so that the exception in the first sentence now reads "except mines and mining claims, when not patented, the proceeds alone of which shall be assessed and taxed, and [patented mines assessed at $500 or more unless at least $100 of work was performed each year] in addition to the tax upon the net proceeds." (Emphasis added.) It was made clear in 1864 that the tax upon mines was not the ordinary tax ad valorem but partook of the nature of both what is now called a severance tax and what was then and is now called a license tax, as shown respectively by the remarks of Mr. Tozer at page 365 and Mr. Banks at page 359 of Marsh's Nevada Constitutional Debates and Proceedings. It is equally evident that a tax upon the net proceeds of any enterprise, at whatever rate, is in modern parlance an income tax. The only relation of the tax upon the net proceeds of mines to the tax ad valorem required and limited by Subsection 1 of Section 1 of Article 10 is that, as required by State v. Eastabrook, 3 Nev. 173 (1867), in any one taxing jurisdiction both must be at the same rate. This link will be removed, and a limit of 5 percent imposed upon the rate, if Senate Joint Resolution No. 22 of the 1987 session is adopted again by the 1989 session and ratified by the people.

The breadth of the word "taxed" in the constitutional phrase "the proceeds alone of which shall be * * * taxed" is shown by the sense in which the word "tax" is used in Article 9. Section 2 of Article 9 required the legislature to "provide by law for an annual

tax sufficient to defray the estimated expenses for each fiscal year" and if the revenue so provided falls short, to levy "a tax sufficient, with other sources of income, to pay the deficiency, as well as the expenses of such ensuing year or two years." Although the word "tax" is singular, the practical construction of it in the state's first revenue act (ch. 85, Stats. 1864-65) was to impose a variety of taxes which included, in addition to the tax on property, an extensive system of occupational licenses and a system of stamp taxes. Similarly in Section 3 of Article 9 each law for contracting ordinary state debt is required to "provide for levying an annual tax sufficient [to pay the interest and amortize the principal within 20 years]." This requirement was construed in State ex rel. State General Obligation Bond Commission v. Koontz, 84 Nev. 130 (1968), to be satisfied by taxes of any kind and not limited to a tax on property. Both of these provisions have stood unchanged since the constitution was adopted in 1864; the later amendments to Sections 2 and 3 pertain to other matters. The distinction between the tax on net proceeds and the tax ad valorem and the similarity of the former to taxes of other kinds, together with the broad use of the word "tax" in Article 9, show that the phrase "the proceeds alone of which shall be taxed" as applied to the mines precludes the imposition of any other tax than one upon the net proceeds at the rate fixed pursuant to Article 10.

Section 5 of Article 9 limits the use of any fees for the licensing and registration of motor vehicles, and any taxes upon fuel for motor vehicles, but not the privilege tax imposed upon motor vehicles ad valorem, to the construction and maintenance of highways. Subsection 7 of Section 1 of Article 10 prohibits an inheritance tax. Section 4, added in 1986, permits an estate tax but limits it to the federal credit available. Section 3, added in 1982 by initiative, exempts household goods and furniture from taxation ad valorem. Section 3[A], proposed by the legislature and added in 1984 in substitution for another initiative which the people had accordingly rejected, exempts food for human consumption

(other than prepared food) from any tax on retail sales.

A constitutional amendment to remove or change any of these limits takes longer than in most other states, but not the 5 years sometimes alleged. If offered by the legislature, the proposal must be approved by two separately elected sessions and ratified by vote of the people. If then submitted to a special election during or soon after the second session to act upon it, such as one held in conjunction with the municipal general elections in May of the odd-numbered year, the proposal can be ratified within 30 months after it is introduced. If offered by initiative petition, the proposal must receive a favorable vote at each of two successive general elections, so that the minimum practical duration is about 31 months.

A fortuitous limitation, not deliberately inserted in the Constitution with respect to taxation, affects the power of the legislature to tax retail sales. Article 19 provides that if a petition is filed to refer a legislative enactment to the people, the enactment is void if disapproved, but if approved cannot thereafter be repealed or amended without a direct vote of the people. In 1955, the legislature enacted the Sales and Use Tax Act, which imposed a tax of 2 percent on retail sales, with enumerated exceptions. A petition was filed to refer it, and it was approved. In consequence, neither the rate nor the exemptions nor any administrative detail of the act could be changed without another vote of the people. In practice, the legislature first proposed each change and the people approved or rejected it. In 1979, the process was made less cumbersome by submitting to the people, along with an exemption of food for human consumption (later inserted in the Constitution as above noted), a repeal of all the administrative provisions, which were reenacted as an ordinary statute contingent for its effect upon approval of the repeal of the referred provisions. The rate and the exemptions remain subject to a vote of the people upon any change.

Various methods have been or could be used to increase the revenue practically available for ordinary needs from the state general fund without changing the limitations discussed. An increase in the local school support tax, which is also imposed upon retail sales but whose rate may be changed without vote of the people -- Matthews v. State ex rel. Nevada Tax Comm'n, 83 Nev. 266 (1967) -- can be used to support the public schools and thus reduce the biennial appropriation from the state general fund to the state distributive school fund. An increase in the city-county relief tax, likewise without vote of the people -- City of Las Vegas v. Mack, 87 Nev. 105 (1971) -- can be used to provide revenue for local governments and permit support for the state general fund from the taxes on cigarettes and alcoholic beverages which are now appropriated for distribution among the local governments. Revenue from the tax ad valorem upon property, which is now left almost entirely to support the public schools and local governments, can be almost tripled and the increase devoted to support of the state general fund by changing the ratio of assessment to taxable value (NRS 361.225) from 35 percent to 100 percent. Subsection 1 of Section 1 of Article 10 requires only that this percentage be uniform. Under the statute in force when Section 2 of Article 10 was adopted to limit the rate to 5 percent, all property was theoretically assessed at its full cash value. In calculating the yield from this (or any lesser) change in the ratio of assessment, it must be noted that the net proceeds of mines, under NRS 362.120 and 362.140, are already in effect assessed at 100 percent, because the assessment at full cash value was not changed when the ratio of 35 percent was established for property.

CHAPTER 3

THE OUTLOOK
(GENERAL FUND PROJECTIONS)

INTRODUCTION AND SUMMARY OF FINDINGS

Revenue adequacy is one of the key criteria for evaluating tax policy alternatives. It is a difficult criterion for tax policy analysts to apply because "adequacy" is a reflection of a judgment of an appropriate level of public expenditures. Ultimately, the public, through the political process, expresses this judgment.

The primary purpose of this chapter is to assess the adequacy of the current general fund revenue structure for financing the current level of public services over the period from the fiscal 1988 base year to fiscal year 2010.

This section of the chapter provides an overview of the methodology of the long-term revenue and expenditure projections, provides cautions regarding interpretation of projections, presents the major findings, and indicates the implications of those findings for Nevada fiscal policy. Baseline general fund revenue and expenditure projections are presented in the second section. The third section compares the baseline projections with three alternative scenarios.

Overview of Methodology

The approach used here is similar to the methodology used by the U.S. Congressional Budget Office in preparing long-term budget projections. The underlying economic projections focus upon long-term trends and do not attempt to predict business cycles. Key economic variables are then systematically related to major revenue sources and expenditure programs.

Long-term projections for Nevada require careful treatment of the unique aspects of the Nevada economy and separate projections for major revenue sources and expenditure programs in the state budget. Earnings in key Nevada industries are linked to national economic variables by a series of econometric equations. Special attention was given to forecasting earnings in tourism-related industries such as hotels and lodging; amusements and recreation; and eating and drinking places. The forecast of earnings was used to estimate Nevada personal income. Finally, an equation relates changes in Nevada's economy to population growth.

In order to project a set of baseline (current law) projections, each major revenue and expenditure category is separately estimated. Sales tax revenues are broken into in-state and out-of-state components. Each of the major gaming taxes - the gaming percentage fee, the annual slot tax, and the casino entertainment tax - are estimated separately.

On the expenditure side, major programs are also projected separately. The effects of the changing composition of Nevada's population are systematically related to each program. In addition, actual price and cost differentials have been taken into account in making projections for each major expenditure program.

For example, elementary and secondary student enrollment projections are derived by using a regression equation that identifies the historical relationship between enrollment and school-age population. Average per-pupil basic support is estimated by using the historical relationship between the increase in school costs and the overall rate of inflation.

These data are then used to estimate the total basic support guarantee. Projections of available local funds are then subtracted from the total basic support guarantee to arrive at the portion of the support guarantee that is the responsibility of state government. State revenue sources earmarked to the

Distributive School Fund are then subtracted to determine the projected general fund appropriation.

Similarly, general fund medicaid expenditures are projected by forecasting the caseloads for the ADC, aged, and all other (primarily disabled) medicaid program categories and by forecasting the average cost per case for each of these programs. The caseloads are projected by using age specific population categories appropriate for each program. The fastest growing caseload is projected to be the program for the aged because the population of those 65 years and over is expected to be one of the fastest increasing segments of the population. The average cost per case is estimated by using a forecast of the health care component of the Consumer Price Index (CPI). From FY 1970 to FY 1987, health care prices increased at an annual rate 1.24 times faster than the overall CPI.

A detailed description of the equations, which make up the projections model, is presented in the Appendix to this chapter.

Interpretation of Long-Term Projections

Long-term projections provide a useful framework for assessing current fiscal policies. However, the difficulties inherent in this analytical exercise are considerable and the following cautions should be noted.

Uncertainty. This analysis is not an effort to predict a single set of economic, revenue, and expenditure figures twenty years into the future. The experience of forecasting the economy and estimating state revenues and expenditures even a year into the future is often a difficult one. The approach used in this analysis is to provide a range of alternative projections, which bracket a budgetary outcome that is judged to be most probable.

Current Services Budget. An important assumption that must be made to prepare long-term expenditure estimates is that the policy environment remains static. In this analysis, no change in spending occurs due to expanded eligibility requirements or

enhanced benefit levels. In addition, no current programs are eliminated and no new programs are started up. The use of a "current services" expenditure approach is not intended as a judgment of the appropriateness of current program expenditure policies. Some Nevada citizens may believe that the current level of expenditures fails to meet public needs; others may feel that government operations are inefficient and current spending levels are excessive. An analysis of public services needs and government efficiency is beyond the scope of this study. Instead, the current services approach provides a "baseline" framework for assessing revenue requirements related to current expenditure policies.

Distinction Between Long-Term and Short-Term Forecast. Long-term projections involve trend relationships between economic, demographic and fiscal variables and do not attempt to forecast short-term, cyclical movements. For example, Nevada sales tax receipts in the eighties have ranged from a decline of 4.6 percent in fiscal year 1983 to an increase of 13 percent in fiscal 1988. The volatility of the sales tax reflects the impact of the national business cycle as well as construction booms relating to tourism and mining. The timing of these short-term fluctuations cannot be predicted over the long-term. The long-term trend analysis instead attempts to capture average growth rates over the extended period. It is especially important to note that the estimates of FY 1989-90 and FY 1990-91 receipts included in this chapter are not short-term revenue projections and are not intended to be used for biennial budgeting purposes. Similarly, expenditure projections for FY 1989-90 and FY 1990-91 do not attempt to account for timing factors that may affect appropriations in the next budget period.

Major Findings

1. In part because of strong revenue growth in FY 1988, the long-term projection begins with the general fund in a

positive position. However, the most probable (baseline) scenario indicates that current services expenditures will exceed current law revenues, beginning in the mid-Nineties.

2. The peak revenue shortfall is projected to be in excess of 6 percent of total general fund revenues.

3. The baseline scenario projects continued healthy growth in the Nevada tourism industry but at a somewhat moderate pace compared to the rapid growth rates experienced during the Seventies.

4. Nevada population and personal income are projected to continue to grow at above-average rates but begin to taper off during the forecast horizon.

5. Growth in elementary and secondary education, prisons, and medical assistance expenditures are major factors leading to the projected budgetary imbalance. Education expenditures reflect projected increases in the school-age population as well as the historical pattern of per-pupil costs outpacing the general rate of inflation. Prison expenditures reflect projected prison population growth that continues to outpace overall population growth. Medical assistance expenditures reflect the increase in the elderly segment of the population and the high costs of providing long-term care.

6. The recession alternative indicates that a budgetary imbalance would be experienced sooner if a recession occurs in the next few years.

7. Under the optimistic scenario, the tourism sector grows at rates consistent with the past four years. Revenues from the current structure are just adequate to meet current service needs

during the mid-Nineties and produce annual surpluses of more than 4 percent of total revenues at the end of the forecast horizon.

8. Under the pessimistic scenario in which another competitor emerges in casino gambling, the budgetary imbalance is nearly 10 percent of total revenues in the worst year.

Policy Implications

1. The most probable general fund forecast indicates a need to either increase taxes to maintain the current level of services or reduce the current services spending level by the mid-Nineties. The magnitude of the required fiscal adjustment is on the order of 5 to 10 percent of total general fund revenues.

2. Although no short-term budgetary projection is presented in this analysis, the potential for a budgetary imbalance under the recession scenario is a strong affirmation of the current fiscal management policy in Nevada of maintaining a sizable budget balance, as a contingency reserve.

3. The need for additional revenue will reflect decisions about the proper level and quality of public services as well as revenue needs to maintain the current level of services. This analysis is only intended to define revenue requirements related to current expenditure policies. Elected officials and Nevada citizens must ultimately decide upon the level and quality of public services that they are willing to pay for.

BASELINE PROJECTION

The baseline projection was generated by starting with a set of national economic assumptions that drive certain key state economic or demographic variables through a series of econometric equations. These key variables were then related to

tax revenues and expenditures through additional equations. These equations provide estimates of the relationships between the state's economic and demographic variables and state tax receipts and expenditures. Figure B-I in the Appendix presents a model schema of the relationships among the various economic and demographic variables.

U.S. Economy

The U.S. economic forecast incorporates the near-term assumptions of the Congressional Budget Office (CBO): real GNP growth of 3.8 percent for 1988 and 2.7 percent for 1989, an increase of 4.1 percent in the Consumer Price Index (CPI) for 1988 and 4.9 percent for 1989, and an unemployment rate of 5.5 percent for both 1988 and 1989.[1]

The long-term assumptions, over the 1988-2010 period, associated with the baseline economic projections include: 1) annual growth in real GNP of 2.7 percent; 2) an annual increase in the CPI of 4.1 percent; 3) a stable national unemployment rate of 5.6 percent; and 4) a constant relationship of out-of-state gaming revenues to Nevada gaming revenues (63 percent).

Nevada Economy

The long-term U.S. economic forecast was used to produce a corresponding Nevada economic scenario using an econometric model of the Nevada economy, outlined in the Appendix. The U.S. forecast drives earnings in several key sectors of the Nevada economy, which in turn determines Nevada personal income. Population growth in Nevada depends upon the growth of the Nevada economy.

Under the baseline economic projection, the long-term path of the Nevada tourism industry is neither boom nor bust. The growth of Nevada tourism, as measured by tourist complex earnings, exceeds the growth rate of U.S. GNP but is below the

rapid rates of the 1970s.[2] Table 3.1 includes historical and forecast values for key economic variables as well as state receipts and expenditures. Table 3.2 indicates historical and forecasted growth rates.

Annual real GNP growth averages 2.7 percent through 2010. For real Nevada personal income, annual growth from 1988 through the 1990s is 4.2 percent and is 3.8 percent thereafter.

Historically, income growth in Nevada has been greater than that experienced at the national level. During the 1970s, the annual growth in real earnings in the tourist complex and real Nevada personal income was more than double the annual growth in real GNP. The growth differential was reduced during the 1980s but still persisted.

Nevada's population is projected to grow rapidly during the forecast period but not as fast as the growth experienced during the 1970s. The annual growth in Nevada's population from 1970 to 1980 was 5.0 percent. During the 1980s, growth slowed to a still brisk annual rate of 4.1 percent. The baseline forecast projects annual population growth of 3.6 percent from 1988 to 2000, with an annual growth rate of 3.2 percent after the year 2000.

Total nonfarm employment is projected to increase consistent with population growth. Total nonfarm employment is projected to reach levels of 859,000 by the year 2000 and 1,265,000 by the year 2010.

Long-Term Revenue Projections

The impact of the baseline forecast on the State's tax revenues was projected for fiscal years 1989 through 2010. Separate forecasts for gaming and sales tax revenues were generated. Gaming revenue was disaggregated into four separate equations. These are the license fee on gross revenues, the annual slot tax, the casino entertainment tax, and other gaming tax revenues. The sales tax was broken down into in-state and out-of-state taxable sales.

TABLE 3.1

BASELINE GENERAL FUND REVENUE AND EXPENDITURE PROJECTION

	1980	1988	2000	2010
Population (thousands)	800.0	1,101.1	1,690.3	2,320.6
Personal income (millions)	$9,249.0	$17,808.1	$47,817.5	$103,903.1
Receipts (millions)				
Sales tax	$ 122.0	$ 216.3	$ 565.9	$ 1,271.9
Gaming tax[1]	147.2	278.4	680.9	1,395.8
Other general fund	53.2	118.8	297.6	610.7
Total general fund	$ 322.4	$ 613.5	$ 1,544.5	$ 3,278.3
Expenditures (millions)				
Elementary and secondary education	$ 124.4	$ 209.6	$ 685.0	$ 1,527.5
Higher education	56.4	113.7	223.2	447.4
Medical assistance	18.6	41.6	143.3	323.5
Prison (operating costs)	14.6	44.2	177.4	364.0
Mental health and retardation	13.2	28.9	72.3	148.4
Other general fund	82.2	125.6	325.9	668.7
Total general fund expenditures	$ 309.4	$ 563.6	$ 1,627.1	$ 3,479.6
General fund revenue- expenditure difference as percent of total receipts	4.0%	8.1%	-5.3%	-6.1%

Source: 1980 and 1988 receipts and expenditures data are from the 1987-89 Executive Budget and Legislative Counsel Bureau staff; Price Waterhouse estimates for 2000 and 2010

[1] As defined here, gaming taxes include the casino entertainment tax as well as specific gaming taxes.

TABLE 3.2

BASELINE PROJECTION: GROWTH RATES FOR KEY VARIABLES
(Average Annual Growth Rates)

	1970-1980	1980-1988	1988-2000	2000-2010
U.S. GNP - nominal	10.4	7.4	6.6	6.6
- real	2.8	2.8	2.7	2.7
U.S. CPI	7.8	4.6	4.2	4.1
Tourist complex earnings - nominal	13.9	7.6	7.8	8.0
- real	5.6	2.9	3.6	3.7
Nevada population	5.0	4.1	3.6	3.2
Nevada personal income - nominal	14.4	8.5	8.6	8.1
- real	6.1	3.7	4.2	3.8
Sales tax receipts - nominal	13.8	7.4	8.3	8.4
- real	5.5	2.1	4.0	4.2
Gaming tax receipts - nominal	14.4	8.3	7.7	7.4
- real	6.1	3.0	3.4	3.2
Total general fund tax receipts - nominal	13.6	8.4	8.0	7.8
- real	5.7	3.0	3.7	3.6
Total general fund expenditures - nominal	14.6	7.8	9.2	7.9
- real	6.6	2.5	4.9	3.6

The baseline gaming tax and sales tax receipts forecasts indicate significant growth. During the Nineties, sales tax receipts are projected to increase annually by 8.3 percent, whereas gaming receipts are estimated to increase by 7.7 percent. From 2000 to 2010, annual growth of 8.4 percent for sales tax receipts and 7.4 percent for gaming tax receipts is projected.

Sales Tax Receipts. The historical and forecasted values and rates of growth for total sales tax receipts can be observed in Tables 3.1 and 3.2. Sales tax receipts grew very rapidly during the Seventies. The early 1980s saw uneven and slow growth in response to both the national recession and increased competition from Atlantic City.

The projected growth rate in sales tax revenue over the long-term falls in between the rapid growth experienced during the 1970s and the relatively slow growth observed from 1980 through 1988. From 1980 to 1988, sales tax receipts increased by an average of 7.4 percent, whereas during the decade of the 1970s the average growth was 13.8 percent. Thus, the long-term forecast of sales tax revenue growth in excess of 8 percent is reasonably strong but less rapid than the experience of the 1970s.

Gaming Tax Receipts. Forecasts for total gaming tax receipts are presented in Tables 3.1 and 3.2. Gaming taxes are forecasted to increase at average annual rates between 7 and 8 percent. During the 1970s, these tax sources exhibited average annual growth at double digit rates, with an overall annual average of about 14 percent. The early 1980s was significantly affected by both the national recession and increased competition from the Atlantic City casinos. Recent growth has been strong, but it has not been as rapid as that experienced during the 1970s.

Total General Fund Tax Receipts. Sales and gaming taxes account for more than 80 percent of general fund receipts in 1988. When all other general fund revenue sources are

considered, total general fund tax receipts are projected to increase at a 7.9 percent average annual rate under the baseline scenario.

Long-Term Expenditure Projections

Long-term expenditures have been projected by analyzing past spending trends, historical cost increases, and projected demographic changes. The purpose of these projections is not to provide a precise estimate of the spending level for any particular year, but rather to provide a projection that is consistent with changes in the Nevada economy and population over the long term.

Current Services Budget. An important assumption that must be made to prepare long-term expenditure estimates is that the policy environment remains static. In this analysis, no change in spending occurs due to expanded eligibility requirements or enhanced benefit levels. In addition, no current programs are eliminated and no new programs are started up. For the analyst to attempt to incorporate budget policy decisions in long-term projections would be highly speculative. Instead, the long-term expenditure projections presented here are based on a "current services" concept. A current services approach assumes that the structure of current services and programs will be maintained into the future.

Some of the underlying assumptions used to implement the current services approach to long-term expenditure projections include:

- No changes in any cost sharing policies between State government and Federal and local governments.
- Expenditures are assumed to be directly responsive to cost increases. Therefore, benefit levels are not reduced due to cost increases.

- Expenditure projections are prepared independently of revenue projections. Therefore, expenditure projections are not influenced by potential budget surpluses or deficits.

- Federal government policy regarding aid to states remains static.

Importance of Demographics. The size and mix of the population is a major factor underlying the demand for state government services. In general, the larger the population, the higher the level of services demanded from government. In addition, the mix of the population has a strong influence on government spending. Children and older people tend to need more government services than other segments of the population. The number of children in the population influences state aid for schools, while the size of the older population influences state expenditures on medical assistance.

The population projection used to generate the expenditure forecast is summarized below:

- Nevada's total population increases from 1,101,200 in 1988 to 2,320,600 in 2010. The average annual growth rate is 3.4 percent.

- The population under 15 years old increases from 222,900 in 1988 to 455,800 in 2010, for an average annual growth rate of 3.3 percent. This group's percentage share of the total population decreases from 20.2 percent in 1988 to 19.6 percent in 2010.

- The population aged 65 and over increases from 116,700 in 1988 to 290,100 in 2010, for an average annual growth rate of 4.2 percent. This group's percentage share of the total population increases from 10.6 percent in 1988 to 12.5 percent in 2010.

- The segment of the population estimated to have the fastest growth is 35 to 54 year-olds. This segment is projected to grow at an average annual rate of 4.4 percent from 1988 to 2010 and its percentage share of the total population increases from 26.4 percent in 1988 to 32.3 percent in 2010.

Baseline population projections by county are provided in the Appendix.

Inflation. Price level changes also have a major impact on expenditures. Both the general rate of inflation and relative costs of providing particular services are important. As noted, health care prices have risen faster than the overall CPI. This factor has been taken into account in projecting medicaid expenditures. Similar adjustments have been made for education costs.

The baseline general fund expenditure forecast was developed by separately analyzing the following major expenditure categories: Distributive School Fund, University of Nevada System, medical assistance, prisons, and mental health. These five programs account for over 75 percent of total general fund expenditures. The method used for estimating expenditures in each of these categories is summarized in the Appendix.

Expenditure Projections. Baseline expenditures are projected to increase at an average annual rate of 9.2 percent from FY 1988 to FY 2000, and 7.9 percent from FY 2000 to FY 2010. This slowing in the nominal growth rate is due primarily to the projected slowdown in the population growth rate. The average growth rate from FY 1988 to FY 2010 is 8.6 in nominal terms and 4 percent adjusted for inflation.

The change in the mix of expenditures for the baseline economic forecast is depicted in Table 3.3. General fund expenditures continue to be driven by education spending through the forecast period. The share of total spending going to education remains fairly constant throughout the forecast, but the mix between K-12 and higher education is expected to change. The Distributive School Fund's share of total expenditures is expected to increase from 37 percent to 42 percent from 1988 to 2000 largely due to an expected increase in the school age population. The share going to higher education is expected to decline from 20 percent to 14 percent from 1990 to 2000 due to projected slow growth in the prime college age population. The

FIGURE 3.3

PROJECTED GENERAL FUND EXPENDITURE MIX: 1988 - 2010
BASELINE SCENARIO
(PERCENT DISTRIBUTION)

GENERAL FUND EXPENDITURE CATEGORY	FY 1988	FY 1995	FY 2000	FY 2005	FY 2010
DISTRIBUTIVE SCHOOL FUND	37.2	40.2	42.1	43.3	43.9
UNIVERSITY OF NEVADA SYSTEM	20.2	15.8	13.7	13.1	12.9
MEDICAID	7.4	8.6	8.8	9.0	9.3
DEPARTMENT OF PRISONS	7.8	9.9	10.9	10.7	10.5
MENTAL HEALTH	5.1	4.6	4.4	4.3	4.3
OTHER PROGRAMS	22.3	20.9	20.0	19.6	19.2
TOTAL GENERAL FUND	100.0	100.0	100.0	100.0	100.0

share of expenditures going to prisons increases fairly steadily from 7.8 percent in 1988 to 10.5 percent in 2010. The medicaid share of total expenditures increases steadily throughout the forecast period from 7.4 percent in 1988 to 9.3 percent in 2010. This increase is attributable to the faster growth expected in the 65-and-over population compared to the total population.

Long-Term Budget Projections

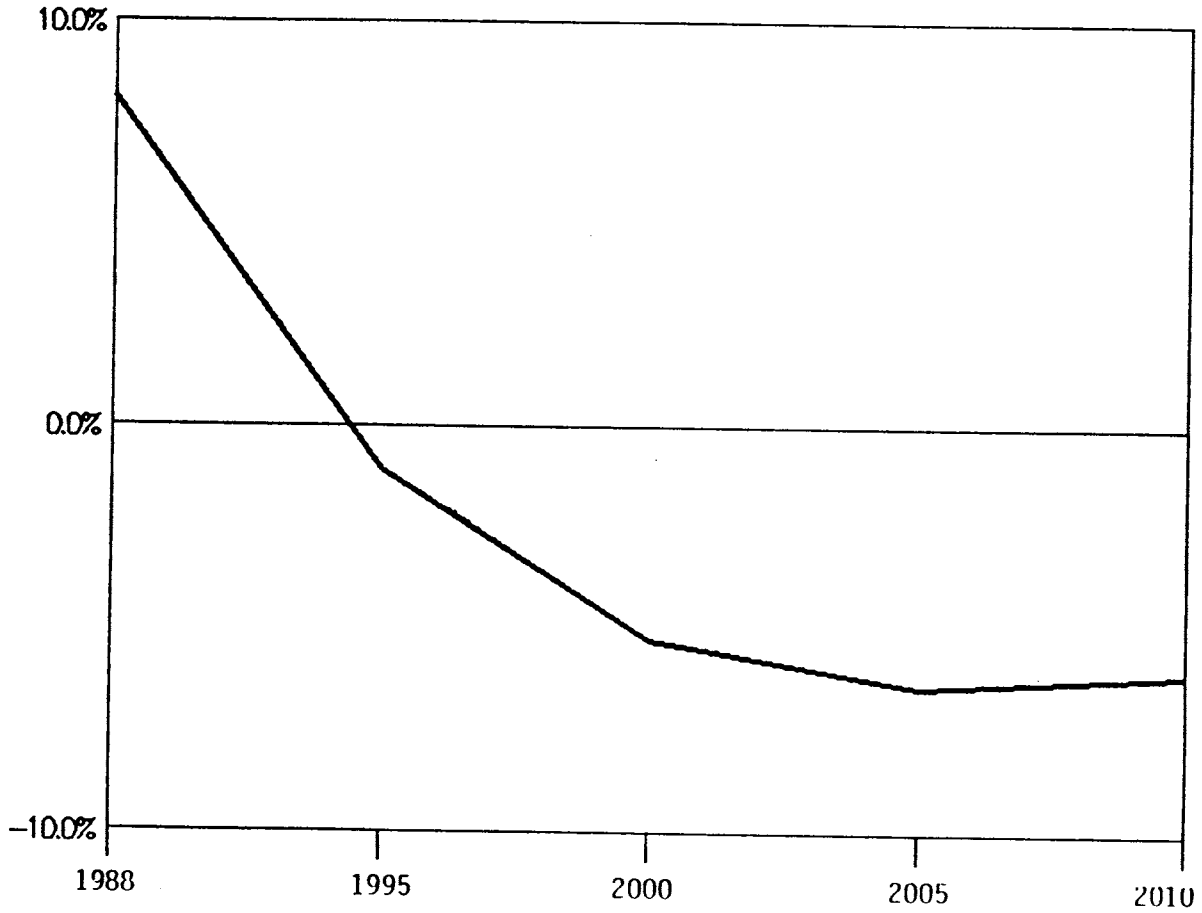
This section combines the long-run projections for revenues and expenditures to present the outlook for the overall budget. The emphasis of this analysis is on the relative levels of annual revenues and expenditures. The balances projected are not carried forward as accumulated deficits or surpluses. In the short-term, imbalances would be addressed by adjusting revenues and/or expenditures. In this long-term analysis, no such adjustments are made. Therefore, the focus of this analysis is on the baseline relationship between annual revenues and expenditures.

In general, current law revenues and expenditures in the baseline projections appear to be balanced for about the next five years after which strains on the budget emerge. However, from 1994 to 2000 expenditures outpace revenues and a reduction in expenditures, an increase in taxes, or some combination of these, would be needed to achieve a balance. By the year 2000, the revenue shortfall is projected at 5.3 percent of total annual revenues. From 2000 to 2010, the growth rate of expenditures continues to exceed the growth rate in revenues and as a result, the negative balance increases to a peak of 6.5 percent of total revenues. Figure 3.1 shows the projected budget balance as a percentage of total revenues over the forecast horizon. It is important to note that the term "balance" as used here refers to the difference between annual revenues and expenditures and is not accumulated surplus.

FIGURE 3.1

PROJECTED BASELINE

GENERAL FUND BUDGET BALANCE



NOTE: As used here, balance refers to the difference between annual revenues and expenditures and is not accumulated surplus.

Table 3.4 in the Appendix provides annual projections for major revenue and expenditure categories under the baseline scenario.

ALTERNATIVE SCENARIOS

For the long-run revenue and expenditure forecasts, the baseline is compared to three different economic scenarios. The first alternative scenario introduces a national recession, which begins in 1989 and continues through 1990. The second alternative considers the effects of increased gaming competition similar to that experienced during the early 1980s. The third scenario assumes more optimistic rates of growth in Nevada tourism consistent with the last four years. The purpose of these simulations is to provide an assessment of the sensitivity of the State's budget to alternative economic conditions.

U.S. Economy

Recession Scenario

The first alternative scenario that is compared with the baseline forecast assumes that a severe recession will occur in 1989 and 1990. This case is a hypothetical example to test the cyclical sensitivity of the budget and is not a forecast that a recession will occur. The decline in real GNP is 1.5 percent for 1989 and .5 percent for 1990. The recovery has above average growth of 6 percent in 1991 and 4 percent in 1992. The national unemployment rate increases to 7 percent in 1989 and 8 percent in 1990 with a decrease to 7 percent in 1991 and 6.5 percent in 1992. This simulation was developed to portray the potential volatility of the Nevada economy and State budget in response to the business cycle.

The recession scenario results in a substantial reduction in real Nevada personal income. The baseline forecast of real

Nevada personal income is for a 4.3 percent average annual increase from 1989 to 1992. The national recession decreases this growth to 1.3 percent in 1989 and 1.2 percent in 1990. During the strong national economic recovery in 1991 and 1992, real Nevada personal income increases by 6.5 percent and 5.5 percent respectively.

By 1993, the impact of the business cycle stabilizes but at some cost to the Nevada economy. Specifically, real Nevada personal income is $6,050 million in 1993 under the recession scenario as compared to the baseline projection of $6,227 or a reduction of $177 million in 1982 dollars.

The recession scenario also has a substantial impact upon Nevada's growth in population. The growth rate in the baseline population forecast is 3.8 percent annually from 1988 to 1993. Under this scenario, population increases at a slow .7 percent pace in 1989 followed by a .6 percent growth rate in 1990. During the strong recovery in 1991 and 1992, Nevada's population increases by 5.8 percent and 4.9 percent respectively.

Competition Scenario

The second scenario considers the impact of increased gaming competition. The ratio of out-of-state gaming revenue to gaming revenue in Nevada was assumed to increase from 63 percent in 1988 to 100 percent in 1989, 135 percent in 1990, and 150 percent in 1991 and thereafter. The baseline ratio is 63 percent for the entire forecast period. This alternative scenario would approximate competition somewhat larger in magnitude than Atlantic City, and could represent opening of casinos, for example, in either Detroit or New Orleans. It is not meant to reflect the opening of casinos in the western part of the country.

The effect upon real Nevada personal income begins in 1989 with a reduction from 4.5 percent in the baseline to 4.1 percent. This is followed by annual growth rates of 3.9 percent and 4.3

percent in 1990 and 1991 compared with baseline growth rates of 4.2 percent and 4.4 percent. The annual growth rates in real personal income after 1991 are virtually the same for this competition scenario as under the baseline forecast.

The initial impact upon the tourist industry in Nevada of increased competition is significant. The growth in real earnings in the tourist complex is reduced in 1989 from 4.5 to 2.5 percent. For 1990, the growth is 2.2 percent from a baseline growth rate of 3.5 percent. By 1991 the growth in real earnings in the tourist complex is 3.0 percent compared to a baseline growth rate of 3.4 percent.

For subsequent years, the impact stabilizes with similar growth rates under both the baseline and increased competition. This is to be expected because the long-term relationship between Nevada and out-of-state gaming revenues is stable under this scenario after the initial impact.

The estimated impact of increased competition upon Nevada's economy is reasonable given the assumptions incorporated in this scenario. The impacts, however, would be much greater if the source of the increased competition came from the opening of casinos in California.

High-Growth Scenario

The economic impact of the high-growth scenario is largely assumed rather than simulated. Specifically, the growth in earnings in the tourist complex was set at 8.6 percent annually after 1989, which approximates the growth experienced over the last several years. This increased the growth rate in Nevada's personal income, in nominal terms, to 8.5 percent over the subsequent twenty-year period.

The impact of the faster economic growth has only a modest impact upon Nevada's population. By 1995, there are 16,000 more people in Nevada under this scenario, whereas by 2010, Nevada's population is 80,000 greater than the baseline projections.

Nevada Tax Revenues

Recession Scenario

The impact upon tax receipts of a national recession that is roughly equal in severity to that experienced during the early 1980s is substantial. The effects are similar in absolute terms for the sales and the gaming taxes. By 1990, sales tax receipts are reduced by $19.3 million, whereas gaming tax receipts experience a reduction of $23.8 million (compared with baseline amounts). By 1993 after the recovery is complete, these reductions are $23.2 and $27.7 million for the sales and gaming taxes, respectively.

Figure 3.2 portrays the impact of the recession and other scenarios upon sales tax receipts. The immediate five-year period is depicted in Figure 3.2 in order to highlight the differences in the alternative scenarios. Growth in sales tax receipts in 1989 is reduced from the baseline growth of 9.3 percent to 6.7 percent. For 1990, sales tax receipts are reduced from a growth rate of 8.9 to 3.2 percent. From 1991 to 1993, the growth under the recession scenario is 9.4 percent, exceeding the baseline growth of 8.1 percent.

Tax receipts from the various gaming taxes are also significantly affected by recession conditions. Figure 3.3 provides the results of the recession simulation for gaming taxes. The gaming percentage fee tax is more sensitive to economic fluctuations than the other major gaming taxes. This is understandable because several of the other taxes, like the slot taxes, rely upon taxes per unit, which should react to slower economic growth with a lag.

Competition Scenario

The effect of increased competition on tax receipts is also substantial. The effect, is actually greater for sales tax

NEVADA SALES TAX REVENUES UNDER BASELINE AND ALTERNATIVE SCENARIOS

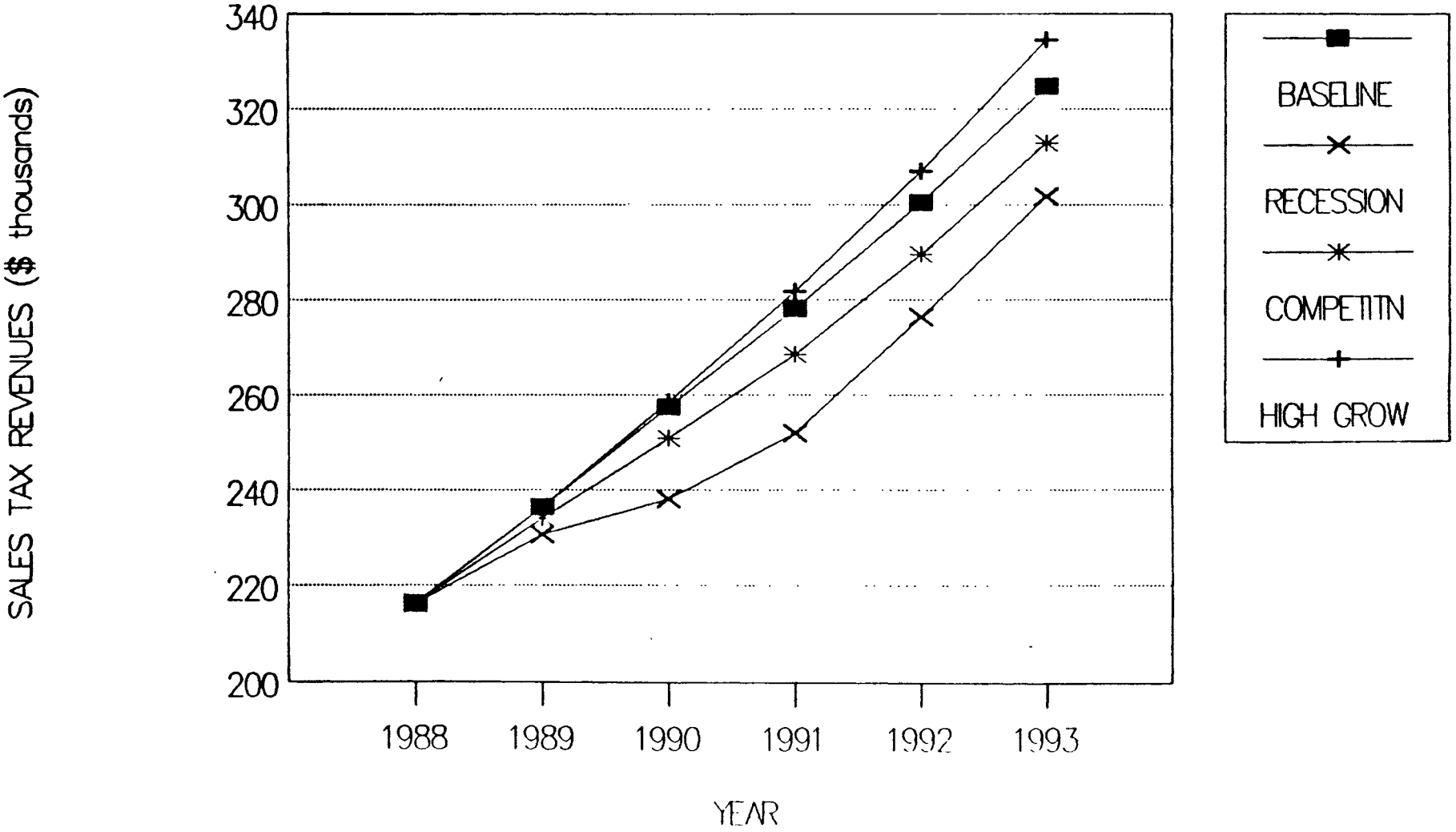
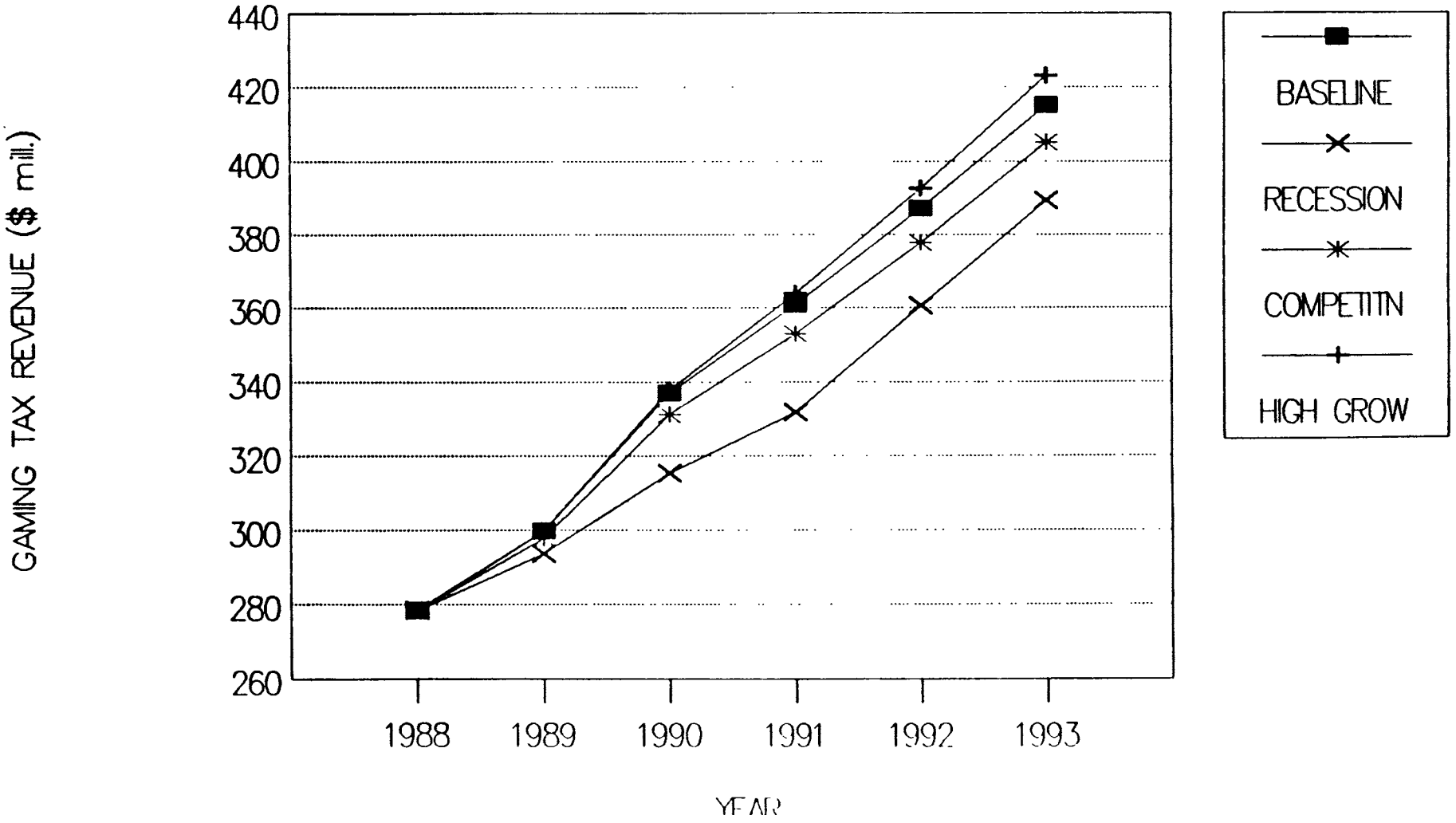


FIGURE 3.3

TOTAL GAMING TAX REVENUE UNDER BASELINE AND ALTERNATIVE SCENARIOS



receipts than for gaming tax revenues. The results, indicate that the percentage gaming fee tax falls off significantly, whereas the other gaming taxes respond more slowly.

The reaction of gaming taxes to increased competition is a significant reduction in growth, followed by a return to baseline growth by 1993. The reduction in tax revenue by 1993 is $10.9 million with about 80 percent of the decline coming from the percentage gaming fee tax.

High Growth Scenario

The effect of the high growth scenario upon tax receipts is significant, particularly for the sales tax. Growth in sales tax receipts increases from an average annual rate for the Nineties of 8.2 percent under the baseline scenario to 9.0 percent. By 1995, this amounts to a difference of $17.5 million out of a baseline amount of $380.1 million. Higher growth in the tourist complex increases the annual growth rate in gaming revenues by about one half of 1 percent to 7.7 percent.

Nevada Expenditures

Recession Scenario

The impact of the recession scenario on expenditures is to increase spending in FY 1989 by 2.2 percent compared to the baseline level. In FY 1990 and FY 1991, a decline in the rate of inflation and the slowdown in the population growth rate slows the rate of growth in expenditures compared to the growth rate in FY 1989. As the economy pulls out of the recession in FY 1992, expenditures grow faster than under the baseline forecast. By FY 1994, the growth in expenditures under the recession scenario resumes a path consistent with the baseline forecast.

Competition Scenario

The increased gaming competition scenario has two distinct and offsetting impacts on the growth of expenditures. First, when increased competition is introduced, spending growth rates for all major expenditure categories, except for the Distributive School Fund, are slightly lower than the baseline. The slowdown in spending growth reflects the lower rate of population growth. However, an offsetting increase occurs. The growth rate in General Fund expenditures going to the Distributive School Fund actually increases because the growth rate of state-collected revenues earmarked to the Distributive School Fund declines. Therefore, in order to provide the funds needed to finance the total basic support level, the General Fund appropriation must increase. As a result of these two factors, the overall expenditure growth rate under the increased gaming competition scenario is not significantly different from the baseline forecast, although the spending mix does change.

High-Growth Scenario

Under the high growth scenario General Fund expenditures increase slightly in 1990 due primarily to the increase in the population growth rate. In subsequent years, the rate of growth in total expenditures is consistent with the baseline forecast. On a program basis, expenditures rise modestly for all major programs except the Distributive School Fund appropriation. This expenditure actually declines slightly from the baseline projection because of increases in the local sales tax and slot tax revenues, which are earmarked to this fund. These tax revenue increases are sufficiently large to lower the amount needed from the General Fund to provide schools with the targeted amount of funds.

Nevada Budget Projections

Figure 3.4 contrasts the impact of the alternative economic scenarios upon the general fund budget balance.

Recession Scenario

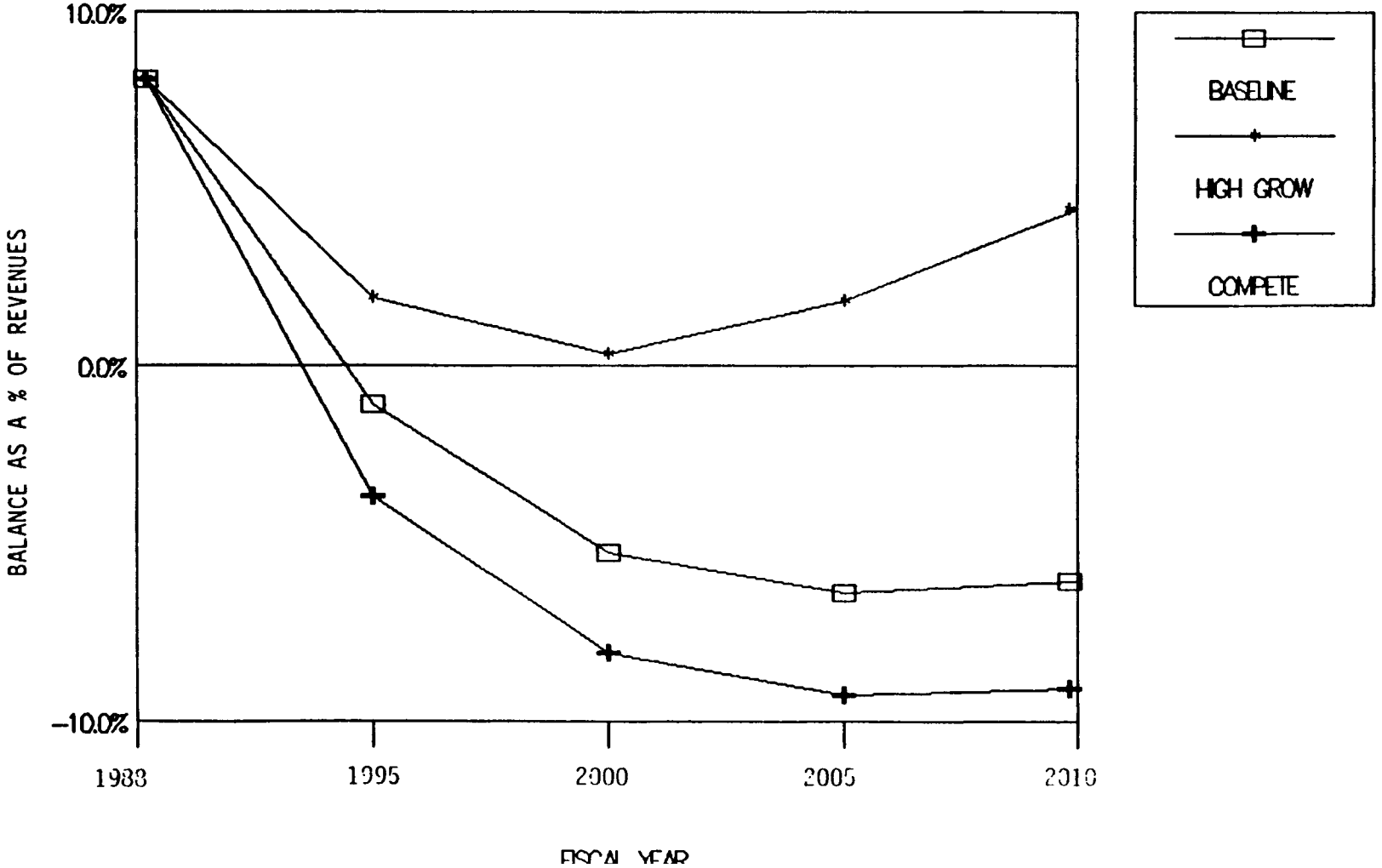
Under the baseline projections, the budget has a positive balance equal to 4.6 percent and 5.3 percent of total revenues in FY 1989 and FY 1990, respectively. However, under the recession scenario the budget situation changes significantly. With the recession occurring in 1989 and 1990, the General Fund's potential positive balances are eliminated and replaced with a zero balance in 1989 and a negative balance of 1.2 in 1990. After the Nevada economy pulls out of the recession in 1991 and 1992, the growth in revenues and expenditures tends to move back towards the long-term trends projected in the baseline forecast.

Increased Gaming Competition Scenario

The major impact of the increased gaming competition scenario is on revenues, particularly gaming related revenues. Total expenditures are not significantly different from the baseline projection. The increased competition causes a one-time structural downward shift in revenue collections, after which revenues grow at approximately the same growth rate as under the baseline forecast. With increased competition beginning in 1989, revenues are lowered by one percent in 1989 and 2 percent in 1990, compared to the baseline projection. In the subsequent years out to 2010, revenues remain below the baseline projection by 2 to 3 percent. This decline in revenues combined with relatively no change in the level of expenditures, puts a strain on the general fund budget by 1991 and 1992, and in subsequent years the negative budget imbalance intensifies compared to the

FIGURE 3.4

PROJECTED BUDGET BALANCE UNDER ALTERNATIVE SCENARIOS



baseline projection. The peak revenue shortfall is equal to 9.3 percent of total revenues under this scenario.

High Growth Scenario

Under the high growth scenario, the more robust economy boosts the growth in revenues while expenditures remain close to their baseline levels. The increase in revenues is sufficiently large to eliminate the negative budget balances projected under the baseline forecast beginning in the mid-1990s. After 1990, the positive ending balance under the high growth scenario gets progressively smaller until 2000 when it nearly drops to a zero balance. The ending balance then begins to increase and reaches 4.4 percent in 2010.

FIGURE 3.5

NEVADA GENERAL FUND REVENUE AND EXPENDITURE BASELINE PROJECTIONS: 1988 - 2010
(millions)

	REVENUE				EXPENDITURES								
FISCAL YEAR	GAMING TAXES	SALES TAX	OTHER REVENUE	TOTAL REVENUE	DISTRIBUTIVE SCHOOL FUND	UNIVERSITY SYSTEM	MEDICAID	PRISONS	MENTAL HEALTH	OTHER	TOTAL EXPENDITURES	GENERAL FUND BALANCE	BALANCE AS % OF REVENUES
1988	$278.4	$216.3	$118.8	$613.5	$209.6	$113.7	$41.6	$44.2	$28.9	$125.6	$563.6	$49.9	8.1
1989	299.7	236.4	129.5	665.6	235.3	121.7	53.3	51.2	31.5	141.8	634.7	30.8	4.6
1990	336.8	257.5	139.6	733.9	262.1	128.5	58.5	58.7	33.9	152.9	694.7	39.2	5.3
1991	361.0	278.0	150.9	789.9	291.6	135.3	64.1	67.7	36.7	165.2	760.6	29.3	3.7
1992	387.0	300.4	163.0	850.4	322.3	143.4	70.3	75.8	39.6	178.5	829.9	20.5	2.4
1993	415.2	324.8	176.0	916.0	355.8	152.0	76.9	85.0	42.8	192.8	905.2	10.8	1.2
1994	445.4	351.3	190.0	986.7	392.2	160.9	84.2	95.2	46.2	208.1	986.8	(0.1)	0.0
1995	477.9	380.1	205.0	1,063.0	431.8	170.3	92.1	106.7	49.8	224.5	1,075.1	(12.1)	-1.1
1996	512.8	411.4	221.1	1,145.3	474.7	180.0	100.7	118.1	53.7	242.1	1,169.4	(24.1)	-2.1
1997	550.4	445.4	238.3	1,234.0	521.2	190.2	110.1	130.9	57.9	260.9	1,271.3	(37.2)	-3.0
1998	590.8	482.3	256.7	1,329.8	571.6	200.8	120.2	144.9	62.4	281.1	1,381.0	(51.3)	-3.9
1999	634.2	522.4	276.5	1,433.1	626.1	211.8	131.3	160.4	67.2	302.7	1,499.4	(66.4)	-4.6
2000	680.9	565.9	297.6	1,544.5	685.0	223.2	143.3	177.4	72.3	325.9	1,627.1	(82.6)	-5.3
2001	731.2	613.2	320.3	1,664.7	748.8	235.0	155.7	190.9	77.8	350.7	1,758.9	(94.2)	-5.7
2002	785.3	664.6	344.5	1,794.4	813.0	252.6	169.1	205.4	83.7	377.3	1,901.1	(106.6)	-5.9
2003	843.5	720.5	370.5	1,934.4	882.0	271.5	183.5	220.8	90.0	405.7	2,053.5	(119.1)	-6.2
2004	906.1	781.1	398.2	2,085.4	956.0	291.7	199.2	237.4	96.8	436.1	2,217.1	(131.7)	-6.3
2005	973.5	846.9	427.9	2,248.3	1,035.5	313.4	216.1	255.1	104.0	468.6	2,392.6	(144.3)	-6.4
2006	1,046.0	918.5	459.7	2,424.2	1,120.7	336.6	234.4	274.0	111.7	503.4	2,580.7	(156.6)	-6.5
2007	1,124.0	996.2	493.7	2,613.9	1,212.0	361.5	254.1	294.3	120.0	540.6	2,782.5	(168.5)	-6.4
2008	1,208.0	1,080.6	530.0	2,818.7	1,309.9	388.2	275.4	315.9	128.8	580.4	2,998.7	(180.0)	-6.4
2009	1,298.5	1,172.4	568.9	3,039.8	1,414.9	416.8	298.5	339.1	138.3	623.0	3,230.6	(190.8)	-6.3
2010	1,395.8	1,271.9	610.7	3,278.3	1,527.5	447.4	323.5	364.0	148.4	668.7	3,479.6	(201.2)	-6.1
AVERAGE GROWTH RATE	7.60%	8.39%	7.73%	7.92%	9.45%	6.43%	9.77%	10.06%	7.73%	7.90%	8.63%		

NOTE: Annual revenue and expenditure projections reflect long-term trends. Revenue and expenditure amounts for FY 1989 and FY 1990 are not short-term forecasts since they do not reflect cyclical factors. They should, therefore not be used for biennial budgeting purposes.

NOTE: As used here, general fund balance refers to the difference between annual revenues and expenditures and does not include accumulated surplus.

APPENDIX A

NEVADA BASELINE POPULATION PROJECTIONS BY COUNTY: 2000 & 2010

COUNTY	2000	2010
CARSON CITY	51,239	61,977
CHURCHILL	20,671	24,793
CLARK	1,071,848	1,522,877
DOUGLAS	45,379	65,034
ELKO	33,368	41,349
ESMERALDA	1,475	1,529
EUREKA	2,425	3,482
HUMBOLDT	15,786	17,159
LANDER	5,481	5,830
LINCOLN	4,322	4,481
LYON	24,779	30,508
MINERAL	4,509	3,933
NYE	28,503	41,243
PERSHING	4,062	4,038
STOREY	2,729	3,443
WASHOE	364,994	480,399
WHITE PINE	8,729	8,523
TOTAL	1,690,300	2,320,600

APPENDIX B

PROJECTIONS METHODOLOGY

The purpose of this appendix is to provide a technical description of the equations and assumptions used in the long-run projections model. The basic structure of the model begins with a set of assumptions about U.S. macroeconomic variables and relates these variables to certain economic and demographic variables for Nevada through a series of econometric equations. These economic and demographic variables are then used to derive forecasts for Nevada's tax revenues and expenditures.

The criteria for the selection of the specification for any given equation were: 1) theoretical considerations and 2) reasonableness of the estimates and forecasts. A number of alternative specifications were attempted for each of the equations in the model. The specifications that were chosen relied upon economic theory as a guide. This was conditioned upon the ability of a theoretically preferred specification to produce accurate estimates and reasonable forecasts.

Earnings Equations

The State economic modelling effort began by constructing equations for earnings in four sectors: the Tourist Complex (Amusement and Recreation, Eating and Drinking Places, Hotels and Lodging); Manufacturing and Wholesale Trade; Federal Government; and Agriculture and Mining. These sectors were regarded as the primary base for the State's economic activity that, combined with aggregate GNP, would explain the growth in personal income.

Econometric analysis revealed that the Agriculture and Mining sector did not help in explaining variations in personal income. Therefore, estimates for these sectors were prepared but not used to forecast personal income.

The equations for earnings were estimated with annual data beginning in 1969. The short sample period limits the econometric procedures that are available and also generally limits the confidence with which inferences can be drawn from the data.

One of the most important variables in this analysis is that of earnings in the Tourist Complex. The best specification for this equation that we found is a logged model with nominal values. The results for this equation are:

$$\begin{aligned} 1.\quad TOUR = {} & 1.2991 + 1.0849\ GNP - .0532\ U.S.\ UNEMP(-1) \\ & \quad (11.4) \qquad (43.0) \qquad\qquad (-2.1) \\ & - .0422\ COMP - .7866\ (CPI\text{-}ENTERTAIN\ /\ CPI\text{-}TOT) \\ & \quad (-6.4) \qquad\qquad\qquad (-6.7) \end{aligned}$$

where the t-values are in parentheses and COMP represents the ratio of gaming revenues in Atlantic City to gaming revenues in Nevada, U.S. UNEMP(-1) represents the lagged U.S. unemployment rate, CPI-ENTERTAIN / CPI-TOT represents the relative price of entertainment services to prices overall. The R-squared for this equation is .9994, with an overall F-statistic of 4,726. The Durbin-Watson statistic is 1.36.

The elasticity with respect to GNP is 1.08, which suggests that earnings in the Tourist Complex are quite responsive to changes in GNP. A -.79 elasticity with regard to the relative price of entertainment services indicates that earnings in this sector are fairly sensitive to relative changes in entertainment prices. The competition variable and lagged U.S. unemployment rate also have a significant effect upon earnings in the Tourist Complex although not to the degree of the income and price variables.

Earnings in the manufacturing and wholesale trade industries are also important in determining Nevada's total personal income. The equation that estimates earnings for these industries is:

$$2.\quad MFGWD = \underset{(-6.0)}{-1.35} + \underset{(8.4)}{.62}\ MFGWD(-1) - \underset{(2.8)}{.29}\ COMP + \underset{(2.3)}{.127}\ D\text{-}78 + \underset{(6.8)}{.007}\ RGNP$$

where MFGWD represents real earnings in Nevada's manufacturing and wholesale trade industries, D-78 represents a dummy variable for 1978, and RGNP is real U.S. GNP. The R-squared for this equation is .99.

Estimates in growth for earnings in the Federal Government sector (civilian and military) were based upon historical trends modified by the BEA OBERS projections. Specifically, the historical growth in real earnings was adjusted downward beginning in 1990 by the same percent that the BEA forecast slower growth.

Personal Income, Population, Employment, and Unemployment

The best equation that was found for Nevada personal income used sectoral earnings plus real GNP. The equation uses actual real values and is:

$$3.\quad PINVD = \underset{(-3.3)}{-1296.2} + \underset{(3.7)}{.3339}\ PINVD(-1) + \underset{(1.4)}{1.3954}\ TOURD + \underset{(.58)}{2.3541}\ MFGWD + \underset{(1.4)}{3.6529}\ FEDGD + \underset{(2.2)}{.5232}\ RGNP$$

where the D following a variable represents deflated values and FEDGD represents earnings in the Federal Government sector. The R-squared for this equation is .998 and the overall F-statistic is 1,050.

The population equation relies upon the relationship between Nevada personal income per capita of a given year with the prior

year. By using the projections for personal income, population forecasts are generated. The population equation is logged and is:

$$4.\quad GPIPNV = \underset{(.46)}{.0039} + \underset{(1.71)}{.32}\ GPIPNV(-1)$$

where GPIPNV represents Nevada personal income per capita. The R-squared for this equation is .14. Population forecasts are obtained by transferring the log of personal income for the present period from the left hand side of the equation to the right hand side and inserting the forecasted values.

The employment equation that was obtained in this analysis (also in logarithms) is:

$$5.\quad EMP = \underset{(1.27)}{1.6251} + \underset{(3.7)}{.521}\ PINV - \underset{(-.2)}{.06}\ POP$$

where EMP and POP represent Nevada's employment and population, respectively. The R-squared for this equation is .99 and the Durbin-Watson statistic is 2.58.

The Nevada unemployment rate equation was designed so that if growth proceeded at the trend rate then unemployment would tend towards the natural rate or about 6.7 percent. This equation is logged and is:

$$6.\quad UNEMPN = \underset{(1.1)}{.82} + \underset{(7.8)}{.87}\ UNEMPN(-1) - \underset{(1.5)}{24.5}\ DGGNP - \underset{(2.2)}{22.20}\ DGPINV$$

where UNEMPN represents Nevada's unemployment rate, DGGNP represents the difference between actual GNP growth and trend GNP growth (2.7% pre-1986 and 2.6% post-1987), and DGPINV represents

personal income growth less the five year moving-average. The R-squared for this equation is .68.

Sales Tax Equations

There are two sales tax equations, which are divided into in-state and out-of-state sales. The in-state sales is by far the larger of the two. The data that were provided were on a fiscal year basis whereas the data associated with the economic model were on calendar year basis.

The first econometric equation explains taxable sales within the State. The best equation that we found is in logarithms and is:

$$\begin{array}{lcccc} 7.\ TSCD & = & .2371 & + & 1.1556\ ATOURD \\ & & (.8) & & (25.2) \\ & - & .1019\ APINVD & - & .0619\ D\text{-}82 \\ & & (-4.0) & & (-2.8) \end{array}$$

where TSCD is real fiscal year in-state taxable sales, and an A preceding the variables represents the arithmetic average of the present and previous calendar year. The variable D-82 is a dummy variable (post-1981) for the exclusion of food from the tax base. The R-squared for this equation is .987 and the overall F-statistic is 358. The Durbin-Watson is 1.58.

It is difficult to directly assess the income elasticity of this equation. The elasticity for the Tourist Complex variable of 1.16 is mitigated by the negative .1 elasticity for personal income. Given that personal income has historically grown somewhat faster than earnings in the Tourist Complex, the income elasticity should be between 1 and 1.1. This is in line with what one might reasonably expect as well as being consistent with the estimated elasticities of other states.

The second sales tax equation explains taxable sales outside the State. This equation is in logarithms and is:

$$8.\quad \underset{}{TSOD} = \underset{}{-2.79} + \underset{(4.1)}{.9\ APINVD} - \underset{(4.4)}{.22\ D\text{-}82} + \underset{(2.4)}{.05\ INTER} \qquad \underset{(1.7)}{}$$

where INTER represents APINVD after 1979 and 0 otherwise. The R-squared for this equation is .85 and the Durbin-Watson is 1.78.

Sales tax revenue is obtained by multiplying the sales tax rate times the sum of in-state and out-of-state taxable sales.

Gaming Percentage Fee Equation

The gaming taxes were broken down into four categories. The largest gaming tax is the gaming percentage fee tax, which accounts for over 75 percent of all gaming taxes. The annual slot tax and the entertainment tax account for 16.6 percent of all gaming taxes. The quarterly fee on games and slot machines were grouped together for estimation purposes. The growth rate for the remaining gaming taxes, which accounted for about 2 percent of gaming revenue, relied upon their historical growth rates in determining their forecast values.

The largest gaming tax was also the most difficult to model. The procedure that was used begins with an equation for the calendar year taxable base for the gaming percentage fee tax. The best equation that was found is in nominal levels and is:

$$9.\quad \underset{}{PFGBC} = \underset{(2.7)}{1421.0} + \underset{(6.0)}{903.7\ TOUR} + \underset{(2.9)}{.2794\ GNP}$$

$$\qquad - \underset{(-2.1)}{433.87\ CPR} - \underset{(-2.9)}{634.64\ TRPR}$$

where PFGBC equals the calendar year taxable base for the gaming percentage fee tax. CPR represents a composite price index,

which is the average of the CPIs for gasoline, air travel, and food and lodging while out of town divided by the overall CPI. TRPR equals one plus the effective calendar year tax rate times one plus the ratio of the CPI for entertainment services to the overall CPI. The R-squared for this equation is .999 and the overall F-statistic is 4,840. The t-values indicate that all the coefficients are statistically significant under 95 percent significance levels. The Durbin-Watson is 2.36.

It appears that income variables figure heavily in the determination of the gaming taxable base. The 1986 point income elasticity for earnings in the Tourist Complex is .7 while for GNP it is .34. The combined elasticity is thus greater than one. The 1986 point elasticity for the variable that represents own-price (TRPR) is -.17 whereas for the composite price index it is -.28. It appears that the gaming percentage fee taxable base is not price sensitive.

There are a series of additional equations that were necessary in order to obtain fiscal year tax revenue from the calendar year taxable base. These equations are not presented but will be discussed. First, the effective calendar year tax rate enters as an independent variable for the calendar year taxable base equation so that this required estimation and forecasts. The independent variable for this equation was the top statutory tax rate. Second, an equation for effective fiscal year tax rate was estimated in a similar fashion. Third, an equation relating the fiscal year taxable base was estimated based upon the two calendar years from which it came. Tax revenue projections for the gaming percentage fee were obtained by applying the resulting forecasted effective fiscal year tax rate times the fiscal year taxable base.

Entertainment Tax Equation

The entertainment tax base equation that was found to perform best included earnings in the Tourist Complex, lagged

U.S. unemployment, and a composite price and tax rate variable. The equation for the calendar-year entertainment tax base is logged and in nominal values. The equation is:

$$\underset{(3.3)}{.9615} + \underset{(11.4)}{.6755\ TOUR} - \underset{(-1.0)}{.1313\ UNEMP(-1)} - \underset{(-5.6)}{5.1966\ APTR} \quad (10.\ ENTXB =)$$

where APTR represents one plus the tax rate time the average of the CPIs for entertainment services and food and lodging while out of town to the overall CPI. The R-squared is .953 and the overall F-statistic is 87.

The income elasticity is less than one (.68) whereas the elasticity for the composite price variable is -5.2. Although the interpretation of these elasticities may not correspond well with what they should ideally represent because they are only proxies, these estimates do indicate a high price and tax rate sensitivity and a relatively low income responsiveness.

The calendar year tax base was converted to a fiscal year tax base by an equation that related the current fiscal year to the two calendar that contribute to it. The tax revenue estimates are obtained by applying the tax rate times the fiscal year tax base.

Annual Slot Tax Equation

The equation for the calendar year annual slot tax base is determined by earnings in the Tourist Complex and a price and tax rate variable. It is in nominal values and logged and is:

$$\underset{(78.9)}{6.4544} + \underset{(51.2)}{.6648\ TOUR} - \underset{(-4.8)}{.1757\ CGATR} \quad (11.\ ASTR =)$$

where CGATR equals one plus the tax rate times the average of the CPIs for air travel and gasoline relative to the overall CPI. The R-squared is .998 and the overall F-statistic is 2,718.

The elasticities for this equation indicate that this tax is moderately income sensitive (.66 elasticity) and price insensitive (-.18 elasticity). Tax revenue is obtained in a fashion comparable to that for the gaming percentage fee and the entertainment taxes.

Other Gaming Taxes

The other gaming taxes are estimated by an equation that has as its independent variables earnings in the Tourist Complex, lagged U.S. unemployment, and a composite price variable. The equation is logged and in nominal values. The equation is:

$$\begin{array}{lcccccc} 12. & OGTX = & .68 & + & .76\ TOUR & + & .17\ UNEMP(-1) \\ & & (.6) & & (12.5) & & (1.3) \end{array} \quad + \underset{(2.3)}{2.2\ AP}$$

where AP equals the ratio of the average of the CPIs for entertainment services food and lodging while out of town to the overall CPI. The R-squared is .97 and the overall F-statistic is 152.

Distributive School Fund

The general Fund appropriation to the Distributive School Fund is projected by first estimating K-12 student enrollment, the basic guaranteed support per pupil, the special education support level and the adult diploma support level, which together determine the total basic support guarantee. Projections of local funds available (1.5-cent local sales tax and 25-cent property tax) are then subtracted from the total basic support guarantee to arrive at the portion of the support guarantee that is the responsibility of state government. State revenue sources

earmarked for the Distributive School Fund are then subtracted from the state responsibility amount to determine the projected General Fund appropriation.

Student Enrollment. Student enrollment projections are derived by using a regression equation that identifies the historical relationship between elementary/secondary enrollment and school-age population. The equation was found to perform best when population is lagged one year and when the equation is in log form. The equation is:

13. K12EN = 1.0415 POP 5-14(-1)
(917.6)

The population of children 5 to 14 years old is used as a proxy for the entire school-age population. The R-squared is .9996. The projection of the 5 to 14 year old population is applied to this equation to generate the enrollment forecast.

Average Basic Support. The average per-pupil basic support is estimated by using the historical relationship between the increase in elementary/secondary school costs and the overall rate of inflation. To accomplish this, the Elementary/Secondary Price Index, developed by the U.S. Department of Education's National Institute of Education, was compared to the Consumer Price Index. From FY 1975 to FY 1986, the average annual percentage change in elementary/secondary school costs increased 1.15 times as fast as the rate of inflation. For the baseline forecast, inflation is projected to increase at an average annual rate of approximately 4.1 percent and the average per-pupil basic support is projected to increase 1.15 times as fast or by 4.7 percent.

Special Education and Adult Education. The projected support levels for special education and the adult diploma program are derived by keeping their respective levels constant on a real per capita basis. The spending levels for FY 1988 are

used as the base year and the projected cost increases are the same used for projecting the average basic support.

University of Nevada System

General Fund expenditures for the University of Nevada System are based on projections of both student enrollment on a full time equivalent (FTE) basis and spending per FTE student. The number of students enrolled at a state university or community college is estimated by using a regression equation that has the college age population as the independent variable. The equation is:

14. HEEN = 3.3303 + 0.0538 POP COL
(3.76) (16.74)

The R-squared is .9460. The projection of the college age population is then applied to this equation to generate the FTE enrollment projection.

The spending per FTE student is projected by keeping the FY 1988 level constant in real dollars. The annual increase in higher education costs is estimated by maintaining the historical relationship between the change in these costs and the overall rate of inflation. From FY 1975 to FY 1988 average teacher salaries at Nevada higher education institutions increased 1.1 times as fast as the rate of inflation. This relationship is held constant throughout the forecast period. Therefore, average higher education spending per student is forecast to increase 4.5 percent per year compared to a 4.1 percent increase in overall inflation under the baseline projection.

Prisons

General Fund expenditures for the Department of Prisons are projected by forecasting the inmate population and the spending

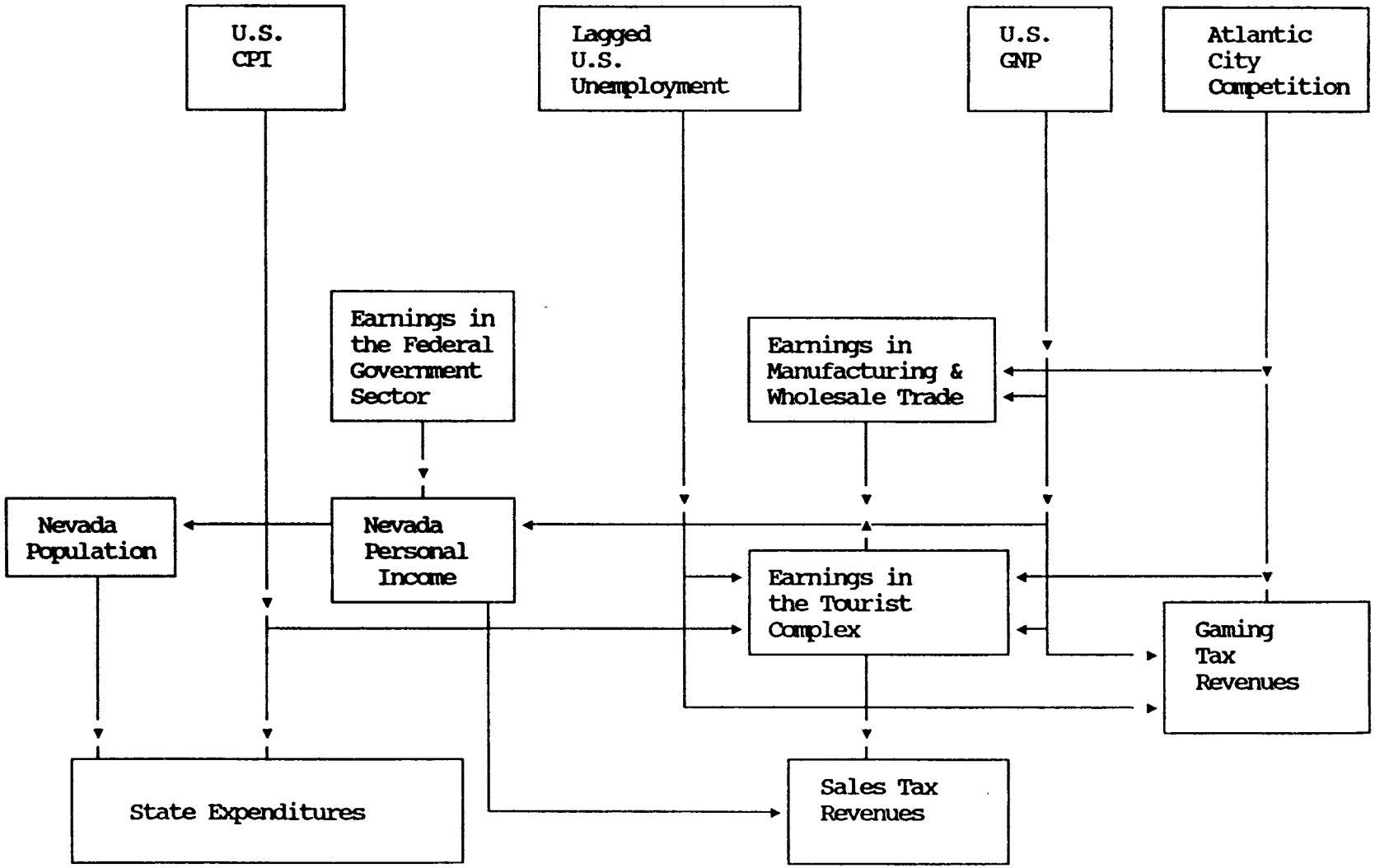
per inmate. Since FY 1980 the incarceration rate per 1,000 people aged 15-54 years old increased from 3.30 to 6.64, an annual increase of 9.1 percent. Projecting the change in the incarceration rate is very difficult because it depends to a large extent on policy decisions. Therefore, the incarceration rate is projected to increase at an annual rate of 7 percent in FY 1989 and then grow at a progressively slower rate until FY 2000. From FY 2000 to FY 2010 the incarceration rate is held constant. The cost per inmate is held constant in real terms by using the inflation forecast.

All Other General Fund Expenditures

All other general fund expenditures are projected by increasing the FY 1988 level by the increase in population and the increase in inflation.

FIGURE B-I

MODEL SCHEMA



ENDNOTES

1. Congressional Budget Office, The Economic and Budget Outlook: An Update (Washington: Government Printing Office, August, 1988).

2. Tourist complex earnings are defined to include employee payroll earnings in three Standard Industrial Classifications: hotels and lodging; amusements and recreation; and eating and drinking places.

CHAPTER 4

NEVADA'S PLACE AMONG THE STATES: FISCAL COMPARISONS

INTRODUCTION

The use of interstate fiscal comparisons has increased over the past decade in light of the decrease in federal aid to state and local governments and the resulting concern of these governments about the effects of local taxation on economic development.[1] However, the low taxes in a particular state which would seem to attract the location of businesses may actually reflect a low level of government services and thus discourage businesses from locating there. Moreover, differences in tax and spending structures among states will arise for a number of reasons. Since demographic, economic, income and cultural characteristics, which contribute to the formation of residents' preferences, will differ from state to state, it is natural that the flavor of fiscal policies will vary, through attempts by representatives to reflect those preferences in taxation and spending decision. Therefore, the goal in comparing the fiscal make-up of Nevada to that of other states is not to determine whether Nevada's fiscal policies are "good" or "bad" for its economic development or whether its taxes are "too high" or "too low." The goal is simply to see what Nevada does, relative to other states and to the U.S. average. The question is, "How do Nevada's public sector spending and revenue policies compare to those of other states?"

The methodology used in fiscal comparisons involves selecting subsets of states, years and fiscal activities to compare. For each fiscal activity, measurements are made on indicators that are neutral with respect to population and compared across states. For some indicators, data are presented for four separate years in order to illustrate the trend over time. The average measurement for all fifty states is also included for comparison.

INDICATORS

There are various measures used to compare the fiscal activities of Nevada to those of other states. Spending and taxation are measured in per capita terms and as percentages of state personal income. Percentage distributions of total spending and total revenue across expenditure functions and revenue sources are also used. The extent of fiscal centralization is measured by the proportion of combined state and local spending and revenue that is controlled by the state government. The advantages as well as the disadvantages of these measures will be noted when the measures are used in the following sections.

SELECTION OF STATES

Fifteen states were selected on the basis of comparability with Nevada. All contiguous states are included, as well as all states in the western third of the continental United States. These are thought to be subject to roughly the same (national) economic conditions as Nevada, and to be "competitive" with Nevada, in the sense of tax competition, for residents and businesses, among governments. Also included are Hawaii and Florida because, like Nevada, their state economies are greatly influenced by tourism. Most states in the U.S. derive a good deal of their revenues from a tax on income. Since Nevada does not levy an income tax, its revenue-raising strategy will be very different from those states. In order to take this into account, Texas and South Dakota are included, since neither taxes income. Of the states already included and mentioned above, Florida, Washington and Wyoming also do not have income taxes. Finally, Alaska is included primarily because it is able to raise unusually large amounts of revenue from one source, the taxation of oil production and the income of oil companies. Consequently, Alaska tends to rank at or near the top for nearly every revenue and expenditure

category, thus providing an interesting anomaly.

SELECTION OF YEARS

Data are presented for fiscal years 1977, 1982, 1984 and 1986. These four years provide points of reference for both interstate and intertemporal comparisons. The year 1977 marked the end of an expansionary trend in state and local finance that lasted about twenty years, and ended with the "tax revolt" of 1978. The second year, 1982, was characterized by inflation and unemployment, but by 1984, most state and local governments had recovered from the problems of "stagflation." The most recent year for which both state and local data are available is 1986.[2]

FISCAL CATEGORIES

Included in this analysis are combined state and local revenue and spending figures for nine revenue categories and seven expenditure functions. Data for each category are expressed in per capita, constant (1986) dollars and some figures have also been indexed to the U.S. average so that Nevada can be easily compared, not only to the fifteen sample states, but to the United States as a whole.

The revenue categories are:

1) General Revenue: Includes all state and local government revenue except revenue from governmentally-operated utilities, liquor stores and insurance-trusts. All revenue categories listed below and all intergovernmental transfers (even if designated for employee-retirement or local utility purposes) are included in General Revenue.

2) Federal Aid (grants) to State and Local Governments: The sum of federal payments made to Nevada and its local governments.

3) Property Tax Revenue: Taxes conditioned on ownership of property and measured by the value of the property. Includes revenue from general property taxes relating to property as a whole, real and personal, tangible or intangible, whether

taxed at a single rate or at classified rates; and taxes on selected types of property, such as motor vehicles or certain intangibles.

4) Individual Income Tax Revenue: Taxes on individuals measured by net income and taxes distinctly imposed on special types of income (e.g., interest, dividends, income from intangibles, etc.).

5) Corporation Income Tax Revenue: Taxes on net income of corporations and unincorporated businesses (when taxed separately from individual income). Includes distinctively imposed net income taxes on special kinds of corporations (e.g., financial institutions).

6) General Sales Tax Revenue: Includes sales or gross receipts taxes that are applicable with only specified exceptions to all types of goods, all types of goods and services, or all gross income, whether at a single rate or at classified rates.

7) Selective Sales Tax Revenue: This type of revenue makes up most of the "other taxes" category presented in the following tables. Included are selective sales tax revenues derived from alcoholic beverages, amusements, insurance premiums, motor fuels, parimutuels, public utilities, and tobacco products.

8) User Charge Revenue: All "current charges" received from the public for performance of specific services benefiting the person charged and from sales of commodities and services except those by liquor store systems and local utilities. Includes fees, toll charges, tuition and other reimbursements for current services, rents and sales incident to the performance of particular governmental functions and gross income of commercial-type activities (parking lots, school lunch programs, etc.)

9) Miscellaneous General Revenue: Included in this category are interest earnings other than those of insurance trust funds, royalties, special assessments on property benefited by specific public investments, sale of government property, fines and forfeitures, rents and net lottery revenue.

The expenditure categories are:

1) All General Expenditures: Consistent with the general revenue category, General Expenditures include all government spending except expenditures for governmentally-operated utilities, liquor stores and insurance trust funds.

2) Elementary and Secondary Education: Provision or support of schools and other educational facilities and services for kindergarten through 12th grade education. Includes services such as school lunches, pupil transportation, and health and recreation programs.

3) Higher Education: Provision or support of facilities and activities of all educational institutions beyond the high school level. Includes expenditures related to professional and technical schools beyond the high school level.

4) Public Welfare: Includes all support of and assistance to needy persons contingent upon their need. Expenditures under this heading include Cash Assistance Payments directly to needy persons under categorical and other welfare programs; vendor payments made directly to private purveyors for medical care, burials and other services provided under welfare programs; welfare institutions; and intergovernmental or other direct expenditure for welfare purposes. Any services provided directly by the government through its Hospitals and Health agencies are classed under the heading of Health and Hospitals.

5) Health and Hospitals: Includes all health services, public health research, clinics, nursing, immunization, maternal and child health, school health services provided by health agencies, establishment and operation of hospital facilities, provision of hospital care and support of public and private hospitals. Does not include vendor payments for services administered under public welfare programs, which are included in Public Welfare.

6) Highways: Streets, highways and structures necessary for their use, snow and ice removal, toll highway and bridge facilities and ferries. This category includes support of or reimbursement for street and highway activities of local governments, as well as intergovernmental aid to local governments for debt service on local highway debt.

7) Police and Fire: Preservation of law and order, traffic safety, fire fighting organization and auxiliary services, fire inspection and investigation, support of volunteer fire forces and fire prevention activities. This category includes highway police patrols, crime prevention activities, police communications, detention and custody of persons awaiting trial, vehicular inspection, and fire fighting facilities, such as fire hydrants and water, furnished by other agencies of the government.

SOURCE OF DATA

In order to make meaningful fiscal comparisons among Nevada and the comparison states, it is critical to apply consistent definitions and measurements across all states. Accordingly, one must rely on information compiled by the Governments Division of the U.S. Bureau of the Census. These data are gathered with the express intent of eliminating problems of comparing figures across states. Although the Census data have the disadvantage of not being available until twelve to eighteen months after the end of each government's fiscal year, in general, they are highly regarded as accurate and intelligible.

The alternative to Census data--internal state budget and other financial reports--do not provide the basis for useful comparisons across states. This is because in order to meet their own budget needs, different states will often define revenue and expenditures in different ways. For example, expenditures on medical aid to the poor may be included in health spending by some states, but denoted as public welfare by others. The cost of distributing information on AIDS to high school students could be classified as education or as health. The cost of mosquito control programs could be attributed to natural resources, health or even sanitation. There are also discrepancies on the revenue side. For example, Indiana imposes a tax on the gross income of corporations and classifies the receipts as gross income tax revenues. Other states classify such proceeds as gross receipts tax revenue. Still others combine gross receipts revenue with general sales tax revenue by viewing the gross receipts of a business as the amount of goods sold by the business. In Nevada, the "net profits tax" on utilities operates more like a license fee than a net income tax, and thus the Census Bureau includes it in the licenses category.

EXPENDITURE LEVELS AND TRENDS

Governments tax in order to spend. Therefore, a discussion of Nevada's fiscal policies should start with an analysis of expenditures. The measures used in analyzing state and local government expenditures are spending as a percentage of state personal income and per capita spending. These can be looked at for total expenditures and for expenditures on various government functions. Care must be taken though, to correctly evaluate the numbers. Comparisons of expenditure across states implicitly assumes that a given amount of spending in one state is "the same as" the same amount of spending in another state. But this is not actually the case, given differences in the cost and quality of services across states.[3]

Another way to compare fiscal policies is to look at the distribution of expenditures across functions. The unique characteristics of each state imply that preferences for relative and absolute spending on particular items will differ from state to state. Thus, relatively low spending on public welfare might reflect a relatively low proportion of poor and elderly constituents, rather than insensitive policymakers.

Table 1 shows the trend in state and local expenditures as a percentage of personal income for Nevada, the fifteen sample states, and the U.S. on average. For each year, the amount of expenditure in each state is indexed to the U.S. average (which is set equal to 100) for that year in order to make quick comparisons. For example, in 1986 Nevada had an index of 103, indicating that its ratio of expenditure to income was slightly above the national average. The index for neighboring Utah, however, shows its ratio to be 31 percent above the national average. Nevada state and local governments spent about an average percentage of personal income in all of the years 1977, 1982, 1984 and 1986.

TABLE 1

STATE AND LOCAL GENERAL EXPENDITURES AS A PERCENTAGE OF
STATE PERSONAL INCOME, SELECTED YEARS 1977-1986

	FY 1986		FY 1984		FY 1982		FY 1977	
State	% of Income	Index*	% of Income	Index*	% of Income	Index*	% of Income	Index*
U.S. Avg.	18.3%	100	18.5%	100	18.2%	100	20.0%	100
NEVADA	18.9	103	19.7	107	18.5	102	21.0	105
Alaska	53.3	291	53.0	286	61.9	340	33.6	168
Arizona	20.7	113	20.1	109	19.0	104	22.1	111
Calif.	18.3	100	18.4	100	18.9	104	21.7	109
Colorado	17.5	96	17.5	95	17.6	97	21.1	105
Florida	15.9	87	16.0	87	16.1	89	18.3	91
Hawaii	19.7	108	20.4	110	20.9	115	27.7	139
Idaho	17.8	97	18.1	98	17.5	97	21.0	105
Montana	25.2	138	24.1	131	21.1	116	24.4	122
New Mex.	25.2	138	26.0	141	25.3	140	22.3	112
Oregon	21.3	116	22.3	121	21.9	121	23.0	115
S. Dakota	20.2	110	20.4	111	20.1	111	23.3	117
Texas	16.7	91	16.2	88	15.1	83	16.8	84
Utah	23.9	131	23.2	126	21.3	117	23.4	117
Washing.	18.7	102	18.9	102	18.2	100	20.5	103
Wyoming	33.7	184	32.6	176	28.3	156	25.0	125

* U.S. Average = 100.

Source: U.S. Bureau of the Census, Government Finances in A1977, 1982, 1984, 1986U, U.S. Government Printing Office, Washington, D.C., A1978, 1983, 1985, 1987U

TABLE 2

PER CAPITA SPENDING AND PERCENTAGE DISTRIBUTION AMONG
EXPENDITURE FUNCTIONS, SELECTED STATES, 1986

State	Primary & Secondary Education*	Higher Education*	Direct Public Welfare*	Health and Hospitals*	Highways*	Police and Fire*	Other*	Total Per Capita	Index**
U.S. Avg.	$602 (23.9%)	$235 (9.3%)	$318 (12.6%)	$222 (8.8%)	$205 (8.1%)	$134 (5.3%)	$ 800 (31.8%)	$2,516	100
NEVADA	550 (20.6)	198 (7.4)	155 (5.8)	184 (6.9)	289 (10.8)	211 (7.9)	1,079 (40.5)	2,666	106
Alaska	1,660 (17.6)	523 (5.5)	515 (5.4)	267 (2.8)	906 (9.6)	303 (3.2)	5,278 (55.8)	9,452	376
Arizona	634 (24.9)	323 (12.7)	183 (7.2)	124 (4.9)	275 (10.8)	156 (6.1)	847 (33.3)	2,542	101
Calif.	587 (20.4)	288 (10.0)	440 (15.3)	251 (8.7)	127 (4.4)	187 (6.5)	992 (34.5)	2,872	114
Colorado	667 (26.0)	264 (10.3)	250 (9.7)	202 (7.9)	246 (9.6)	145 (5.6)	794 (30.9)	2,568	102
Florida	524 (24.7)	133 (6.3)	157 (7.4)	229 (10.8)	163 (7.7)	153 (7.2)	764 (36.0)	2,123	84
Hawaii	441 (16.3)	304 (11.3)	270 (10.0)	185 (6.8)	139 (5.1)	137 (5.1)	1,226 (45.4)	2,702	107
Idaho	482 (24.4)	246 (12.4)	155 (7.8)	184 (9.3)	255 (12.9)	94 (4.7)	563 (28.4)	1,979	79
Montana	764 (27.4)	214 (7.7)	255 (9.2)	145 (5.2)	416 (14.9)	91 (3.3)	900 (32.3)	2,785	111
New Mex.	673 (25.0)	366 (13.6)	197 (7.3)	205 (7.6)	290 (10.8)	121 (4.5)	844 (31.3)	2,696	107
Oregon	669 (25.0)	290 (10.8)	214 (8.0)	155 (5.8)	204 (7.6)	150 (5.6)	991 (37.1)	2,673	106
S. Dakota	569 (25.2)	193 (8.6)	210 (9.3)	121 (5.4)	372 (16.5)	78 (3.5)	711 (31.5)	2,254	90
Texas	650 (29.5)	260 (11.8)	141 (6.4)	190 (8.6)	230 (10.4)	110 (5.0)	623 (28.3)	2,204	88
Utah	659 (26.6)	353 (14.2)	214 (8.6)	174 (7.0)	249 (10.0)	110 (4.4)	723 (29.1)	2,482	99
Washing.	612 (23.8)	291 (11.3)	283 (11.0)	193 (7.5)	217 (8.4)	132 (5.1)	841 (32.7)	2,569	102
Wyoming	1,207 (27.0)	430 (9.6)	204 (4.6)	464 (10.4)	702 (15.7)	162 (3.6)	1,304 (29.2)	4,473	178

* Dollar figures are per capita amounts. Figures in parentheses provide percentage distributions of total spending.
** U.S. Average = 100.

Source: U.S. Bureau of the Census, Governmental Finances in 1986, U.S. Government Printing Office, Washington, D.C., 1987.

Table 2 shows total spending per capita for Nevada and the comparison states in 1986. Nevada's overall level of per capita spending ($2,666) was six percent above the U.S. average in 1986. Among the sample states, Nevada ranked near the median on this measure in 1986.

State and Local Spending Combined: Table 2 also gives the per capita amounts and percentage breakdown, in 1986, of spending on various functions. For all fifty states, the largest single expense is for elementary and secondary education, which took an average of 23.9 percent of total expenditures. Nevada allocated a lower than average proportion (20.6 percent in 1986) of spending to education. Only three of the sample states--California, Alaska and Hawaii--allocated a lower proportion of spending to primary and secondary education in 1986.

Nevada allocated 7.4 percent of its expenditures to higher education, as compared to the state average of 9.3 percent. Among the sample states, Nevada ranked third lowest in proportion of spending for higher education.

Public welfare is a relatively unimportant budget item in Nevada, with only 5.8 percent of total expenditures being funnelled to it in 1986. On average, public welfare spending accounted for 12.6 percent of state expenditures in that year. Except for two sample states, Alaska and Wyoming, which spent lower proportions of their respective totals on this category than did Nevada, no other state in the U.S. allocated a smaller proportion of spending to public welfare.

Nevada again falls below average in the proportion of spending allocated to health and hospitals. This category accounted for 6.9 percent of Nevada's spending and 8.8 percent on average for all states in 1986.

Nevada spends relatively more than the average state on highways and police and fire protection. It also spends an above-average proportion on "all other" items, which include intergovernmental transfers, activities such as parks and

recreation, and the salaries and benefits of government employees.

The trend, over the years 1977-1986, of spending on selected functions is illustrated in Table 3. Throughout this period, although Nevada residents had above average personal income and Nevada governments spent more per capita than the average, a lower proportion of its total expenditures were for public welfare and education and a higher proportion for highways than was the case for the average state.

State and Local Spending Compared: Tables 4 and 5 break total spending up into state and local government components and show how each of these entities allocates expenditures among categories. For the average state government, spending on aid to local governments, public welfare and higher education make up a large part of total expenditures. Localities, on average, focus a greater portion of spending on elementary and secondary schools.

Of its total expenditures in 1986, the state government of Nevada allocated a slightly higher than average proportion (38.2 percent vs. 34.5 percent on average for all states) to local aid, average proportions to both higher education (12.4 percent) and police and fire (0.8 percent), below average proportions to public welfare (8 percent in Nevada; 14.9 percent for the U.S.) and health and hospitals (3.6 percent in Nevada vs. 6.8 percent on average) and above average proportions to highways (13.3 vs. average of 8 percent) and "all other" items (23.7 percent vs. 22.2 percent for the U.S.).

Proportions of total local Nevada government expenditures allocated in 1986 were well below the U.S. average for elementary and secondary education (32.8 percent in Nevada; 39.6 percent for the U.S.) and public welfare (1.4 percent vs. average of 5.1 percent), slightly below average to health and hospitals (7.5 percent vs. 7.7 percent) and highways (4.6 percent in Nevada; 5.3 percent for the U.S.) and above average to both police and fire (11.8 percent vs. 8 percent) and "all other" items (41.9 percent in Nevada vs. 32.1 percent on average). "All other" local

TABLE 3

TRENDS IN PERSONAL INCOME, PER CAPITA SPENDING AND SPENDING ON SELECTED FUNCTIONS, SELECTED STATES 1977-1986 (Constant 1986 Dollars)

	U.S.	Nevada	Arizona	New Mex.	Utah	Calif.	Colorado
1977							
Per Capita Personal Income ($)	$11,448	$12,485	$10,375	$9,453	$9,375	$12,717	$11,491
Per Capita Total Spending ($)	2,293	2,628	2,296	2,110	2,190	2,766	2,420
% on Public Welfare	13.1	6.5	4.4	7.8	7.9	17.9	9.2
% on Lower Education	26.1	22.9	29.9	30.6	30.7	24.3	29.3
% on Highways	8.4	11.7	9.9	10.8	10.2	4.6	9.5
1982							
Per Capita Personal Income ($)	11,779	12,656	10,684	9,396	9,195	13,223	12,297
Per Capita Total Spending ($)	2,139	2,344	2,027	2,381	1,955	2,496	2,161
% on Public Welfare	13.3	6.5	4.7	7.6	8.0	18.7	9.8
% on Lower Education	24.2	21.6	25.4	27.5	29.5	21.0	27.5
% on Highways	7.9	9.6	8.8	12.4	9.1	4.3	8.9
1986							
Per Capita Personal Income ($)	13,732	14,081	12,293	10,702	10,366	15,699	14,649
Per Capita Total Spending ($)	2,516	2,666	2,542	2,696	2,482	2,872	2,568
% on Public Welfare	12.3	5.7	7.2	7.3	8.6	13.5	9.7
% on Lower Education	23.9	20.6	24.9	25.0	26.5	20.4	26.0
% on Highways	8.1	10.9	10.8	10.7	10.0	4.4	9.6

Source: U.S. Bureau of the Census, Governmental Finances in A1977, 1982, 1986U, U.S. Government Printing Office, Washington, D.C., A1978, 1983, 1987U.

TABLE 4

PERCENTAGE DISTRIBUTION OF STATE GOVERNMENT (ONLY) GENERAL EXPENDITURE, SELECTED STATES, 1986

State	Total (millions dollars)	To Local	Higher Education	Public Welfare	Health & Hospitals	Highways	Police & Fire	All Other
U.S.	376,519.3	34.5%	12.7%	14.9%	6.8%	8.0%	0.9%	22.2%
NEVADA	1,538.8	38.2	12.4	8.0	3.6	13.3	0.8	23.7
Alaska	3,888.5	22.2	7.2	6.7	2.1	9.3	0.8	51.7
Arizona	4,688.3	40.8	17.6	10.2	3.7	10.0	1.5	16.2
Calif.	50,791.2	46.3	11.2	9.9	4.0	3.1	1.0	24.6
Colorado	4,375.6	33.3	18.9	11.1	7.9	9.6	0.9	18.2
Florida	12,967.4	40.1	7.7	13.0	7.7	9.0	1.2	21.4
Hawaii	2,241.3	1.2	14.4	12.4	8.5	4.2	0.1	59.3
Idaho	1,322.9	30.2	16.9	10.9	4.8	13.1	1.0	23.1
Montana	1,396.3	22.8	11.9	13.4	5.5	18.3	0.9	27.1
New Mex.	3,098.4	36.1	17.5	9.1	7.7	10.2	0.9	18.5
Oregon	4,232.7	26.1	13.4	13.1	5.8	8.0	1.2	32.4
S. Dakota	1,029.2	18.9	13.3	13.2	6.5	16.5	1.0	30.6
Texas	18,918.1	32.5	18.5	11.9	7.5	13.3	0.7	15.6
Utah	2,793.2	28.0	21.0	12.6	7.9	10.5	0.9	19.1
Washing.	8,100.5	36.9	16.0	15.2	5.7	6.8	0.7	18.6
Wyoming	1,475.9	40.0	9.0	6.9	5.3	18.7	0.9	19.2

Source: U.S. Bureau of the Census, Governmental Finances in 1986, U.S. Government Printing Office, Washington, D.C., 1987.

TABLE 5

PERCENTAGE DISTRIBUTION OF LOCAL GOVERNMENT (ONLY) GENERAL EXPENDITURE, SELECTED STATES, 1986

State	Total (millions dollars)	Primary & Second. Education	Higher Education	Public Welfare	Health & Hospitals	Highways	Police & Fire	All Other
U.S.	363,921.4	39.6%	2.4%	5.1%	7.7%	5.3%	8.0%	32.1%
NEVADA	1,616.3	32.8	0.0	1.4	7.5	4.6	11.8	41.9
Alaska	2,015.6	36.4	0.0	0.8	3.0	6.1	6.5	47.2
Arizona	5,751.0	36.6	4.3	2.2	4.1	7.7	7.8	37.3
Calif.	50,536.3	31.1	4.2	10.7	9.4	3.7	9.0	31.9
Colorado	5,476.3	39.8	0.6	6.0	5.8	7.0	7.9	32.9
Florida	17,037.8	35.9	3.2	0.9	9.9	4.3	9.6	36.2
Hawaii	654.6	0.0	0.0	0.7	0.9	8.1	22.0	68.3
Idaho	1,064.0	45.5	2.2	1.1	11.3	7.8	7.7	24.6
Montana	1,214.1	51.5	0.7	1.7	3.4	7.0	5.2	30.6
New Mex.	2,018.9	48.2	0.0	0.5	3.1	5.6	7.6	35.1
Oregon	4,094.5	44.1	5.3	0.5	4.2	5.2	8.7	32.1
S. Dakota	764.7	52.7	0.0	1.6	2.5	12.3	5.9	25.1
Texas	23,998.2	44.7	3.4	0.4	7.4	5.5	7.1	31.5
Utah	2,128.7	51.5	0.0	0.2	3.3	5.7	7.5	31.8
Washing.	6,455.7	42.3	0.0	0.1	6.2	6.5	8.2	36.6
Wyoming	1,383.3	44.2	6.1	0.1	11.3	5.7	5.0	27.5

Source: U.S. Bureau of the Census, Governmental Finances in 1986, U.S. Government Printing Office, Washington, D.C., 1987.

expenditures include salaries and benefits of local government employees, parks and recreation, intergovernmental transfers and miscellaneous expenditure.

REVENUE LEVELS AND TRENDS

To get a feel for the tax policies of Nevada relative to other states, there are several types of measures one can use. Tax burdens, or the average amount of taxes paid by individual residents, are conventionally measured by two methods--per capita tax collections and tax revenues expressed as a percentage of personal income.

Both of these measures are averages and so they fail to reveal the distribution of tax burdens among residents. In practice, some taxpayers will pay much more than the average and others will pay much less. Another point to keep in mind is that taxes imposed by a state government will sometimes be paid by non-residents, such as visitors, tourists and consumers of taxed goods imported from the state. Even the federal government indirectly pays some of Nevada's taxes (the property tax and business taxes) as a result to the ability of taxpayers to itemize state taxes paid as a deduction in computing their federal (corporate and individual) income tax returns. Such "exported taxes" are not distinguished in the data and will bias the estimates of tax burdens upward, sometimes absurdly so.[4] For example, the ratio of Alaska's tax revenue to personal income was 111.8 in 1982, implying that Alaskans paid taxes in excess of their total income in that year! Upon scrutiny, however, it is realized that the source of this statistic is low state population combined with high revenues from taxes on oil, which are imbedded in the final price of oil and largely exported to consumers throughout the world. So, a look behind the numbers can aid in an understanding of them, and help prevent erroneous conclusions.

TABLE 6

PER CAPITA STATE AND LOCAL COMBINED GENERAL REVENUE,
SELECTED FISCAL YEARS 1977-1986, CONSTANT (1986) DOLLARS

	FY 1986		FY 1984		FY 1982		FY 1977	
State	Per Capita	Index*	Per Capita	Index*	Per Capita	Index*	Per Capita	Index*
U.S. Avg.	$2,661	100	$2,426	100	$2,234	100	$2,385	100
NEVADA	2,727	102	2,498	103	2,355	105	2,662	112
Alaska	12,466	469	12,660	522	16,130	722	6,751	283
Arizona	2,496	94	2,211	91	1,958	88	2,307	97
Calif.	2,974	112	2,682	111	2,529	113	3,002	126
Colorado	2,683	101	2,472	102	2,265	101	2,515	105
Florida	2,204	83	1,951	80	1,759	79	1,945	82
Hawaii	2,881	108	2,671	110	2,650	119	3,181	133
Idaho	1,983	75	1,867	77	1,760	79	2,070	87
Montana	2,789	105	2,741	113	2,501	112	2,557	107
New Mex.	2,999	113	3,218	133	2,800	125	2,364	99
Oregon	2,739	103	2,607	107	2,462	110	2,677	112
S. Dakota	2,330	88	2,341	96	2,073	93	2,144	90
Texas	2,290	86	2,042	84	1,924	86	1,939	81
Utah	2,578	97	2,360	97	2,168	97	2,166	91
Washing.	2,686	101	2,500	103	2,289	102	2,596	109
Wyoming	5,396	203	5,219	215	4,834	216	3,398	142

* U.S. Average = 100.

Source: U.S. Bureau of the Census, Governmental Finances in A1977, 1982, 1984, 1986U, U.S. Government Printing Office, Washington, D.C., A1978, 1983, 1985, 1987U.

Table 6 shows the trend over the years 1977-1986 in per capita tax burdens in Nevada and the other states. The amounts of revenue are indexed to the U.S. average for each year. Per capita taxes in Nevada have tended toward the average, being 12 percent above average in 1977, but only two percent above average in 1986.

The trends in revenues as a percentage of state personal income are shown in Table 7. These have also been indexed to the U.S. average for each year. The State of Nevada has collected about an average percentage of personal income in all of the sample years.

Per capita revenues from various taxes in 1986 and the percentage of revenues raised from each source are shown in Table 8. Looking first at the absolute amounts raised by source, it is noteworthy that Nevada raises much more from sales and "other" taxes than does the average state. First of all, the "other taxes" category is predominantly made up of selective sales taxes which, for Nevada, include gambling and casino entertainment taxes, as well as excise taxes on liquor, cigarettes and motor fuel. So part of the reason for the high ratios of revenue per capita in these categories is Nevada's tourist industry. Second, the high sales tax revenue may also be from tax burdens that are largely exported through a thriving tourist industry, rather than from a "too high" tax level.

Only three sample states collect more than Nevada does, per capita, from either general sales or "other" taxes. Two of these, Washington and Wyoming, like Nevada, do not levy an income tax and must therefore collect more revenue from other sources. Texas uses the property tax to partially offset the income tax revenue foregone.

RELATIVE RELIANCE ON REVENUE SOURCES

State and Local Revenues Combined: Looking at the distribution of total revenues among sources in Table 8 is another

TABLE 7

STATE AND LOCAL COMBINED GENERAL REVENUE AS A PERCENTAGE OF
STATE PERSONAL INCOME, SELECTED YEARS 1977-1986

	FY 1986		FY 1984		FY 1982		FY 1977	
State	As % of Income	Index*	As % of Income	Index*	As % of Income	Index*	As % of Income	Index*
U.S. Avg.	19.4%	100	19.9%	100	19.0%	100	20.8%	100
NEVADA	19.4	100	19.4	98	18.6	98	21.3	103
Alaska	70.3	363	72.8	366	111.8	589	38.2	184
Arizona	20.3	105	20.3	102	18.3	97	22.2	107
Calif.	18.9	98	19.5	98	19.1	101	23.6	114
Colorado	18.3	95	18.6	94	18.4	97	21.9	105
Florida	16.5	85	16.4	83	15.7	83	17.9	86
Hawaii	21.0	108	21.2	107	21.5	113	25.4	122
Idaho	17.8	92	18.7	94	17.7	93	20.9	101
Montana	25.2	130	26.3	133	23.8	125	25.1	121
New Mex.	28.0	145	32.2	162	29.8	157	25.0	120
Oregon	21.8	112	23.1	116	21.8	115	24.1	116
S. Dakota	20.9	108	22.7	114	20.9	110	23.3	112
Texas	17.3	89	16.8	85	16.4	87	17.8	86
Utah	24.9	128	25.4	128	23.6	124	23.1	111
Washing.	19.6	101	19.7	99	18.1	96	21.4	103
Wyoming	40.6	210	41.2	208	37.8	199	29.4	142

* U.S. Average = 100.

Source: U.S. Bureau of the Census, Governmental Finances in A1977, 1982, 1984, 1986U, U.S. Government Printing Office, Washington, D.C., A1978, 1983, 1985, 1987U.

way to compare tax profiles or mixes among the states. This analysis can help to correctly evaluate the tax burden measures used above, since some taxes are more easily exported than others. A state that relies heavily on the sales tax for revenue is likely collecting more of that revenue from non-residents than a state in which residential property tax revenues are a large percentage of total revenue.

Table 8 indicates the degree of reliance on particular revenue sources for each sample state and for all fifty states combined. The most important sources of revenue for Nevada are the general sales tax (20 percent of total revenue) and collections from "all other taxes" (24.7 percent). No other state in the U.S. collects a greater percentage of its revenue from this "other taxes" category. Another thing to note about the revenue distributions is that Nevada (as well as Texas, Wyoming and Washington) levies no income tax on either individuals or corporations. Three other sample states--South Dakota, Florida and Alaska--collect a corporation income tax, but no individual income tax. On average, the 50 states and Washington DC derive 11.6 percent of their revenues from the individual income tax and 3.1 percent from the corporate income tax. Of all the sample states, only California (at 4.8 percent) relies on the corporate tax for more than 2.7 percent of its revenue.

Nevada obtains approximately 16.2 percent of its general revenue from the federal government, and so is less reliant on this source of revenue than the average state, which receives 17.6 percent of its revenue in the form of federal aid. Of the fifteen sample states, only Florida, Arizona, Texas, Colorado and Alaska are less reliant on the U.S. Congress for general revenue.[5]

Property taxes also rank relatively low as a source of revenue for Nevada, since only 12.5 percent of its collections are derived from this source, as compared to an average of 17.4 percent for all states. Among the sample states, only New Mexico, Hawaii and Alaska utilize the property tax less than does Nevada.

TABLE 8

PER CAPITA STATE AND LOCAL COMBINED REVENUES AND PERCENTAGE DISTRIBUTION AMONG REVENUE SOURCES, 1986

State	Fed. Aid*	Property Tax*	General Sales Tax*	Indiv. Income Tax*	Corp. Income Tax*	Other Taxes**	User Fees*	Misc. General Revenue*	Per Capita Total	Index***
U.S. Avg.	$469 (17.6)	$463 (17.4)	$376 (14.1)	$309 (11.6)	$83 (3.1)	$316 (11.9)	$334 (12.6)	$311 (11.7)	2,661	100
NEVADA	441 (16.2)	340 (12.5)	545 (20.0)	0 (0.0)	0 (0.0)	674 (24.7)	424 (15.5)	303 (11.1)	2,727	102
Alaska	899 (7.2)	1,084 (8.7)	103 (0.8)	1 (0.0)	333 (2.7)	2,967 (23.8)	766 (6.1)	6,313 (50.6)	12,466	469
Arizona	311 (12.5)	422 (16.9)	527 (21.1)	212 (8.5)	51 (2.0)	265 (10.6)	279 (11.2)	429 (17.2)	2,496	94
Calif.	520 (17.5)	451 (15.2)	483 (16.2)	421 (14.2)	142 (4.8)	230 (7.7)	392 (13.2)	335 (11.3)	2,974	112
Colorado	430 (16.0)	521 (19.4)	428 (16.0)	293 (10.9)	36 (1.3)	208 (7.8)	393 (14.6)	374 (13.9)	2,683	101
Florida	298 (13.5)	411 (18.6)	435 (19.7)	0 (0.0)	42 (1.9)	386 (17.5)	354 (16.1)	278 (12.6)	2,204	83
Hawaii	501 (17.4)	314 (10.9)	703 (24.4)	440 (15.3)	41 (1.4)	288 (10.0)	347 (12.0)	247 (8.6)	2,881	108
Idaho	447 (22.5)	299 (15.1)	250 (12.6)	255 (12.9)	43 (2.2)	206 (10.4)	301 (15.2)	182 (9.2)	1,983	75
Montana	669 (24.0)	650 (23.3)	0 (0.0)	210 (7.5)	72 (2.6)	443 (15.9)	263 (9.4)	482 (17.3)	2,789	105
New Mex.	522 (17.4)	143 (4.8)	502 (16.7)	69 (2.3)	49 (1.6)	479 (16.0)	308 (10.3)	927 (30.9)	2,999	113
Oregon	528 (19.3)	651 (23.8)	0 (0.0)	442 (16.1)	60 (2.2)	284 (10.4)	361 (13.2)	413 (15.1)	2,739	103
S. Dakota	579 (24.8)	477 (20.5)	351 (15.1)	0 (0.0)	33 (1.4)	281 (12.1)	269 (11.5)	340 (14.6)	2,330	88
Texas	330 (14.4)	517 (22.6)	323 (14.1)	0 (0.0)	0 (0.0)	452 (19.7)	307 (13.4)	361 (15.8)	2,290	86
Utah	556 (21.6)	366 (14.2)	408 (15.8)	271 (10.5)	40 (1.6)	207 (8.0)	324 (12.6)	406 (15.7)	2,578	97
Washing.	459 (17.1)	442 (16.4)	783 (29.2)	0 (0.0)	0 (0.0)	364 (13.6)	375 (14.0)	263 (9.8)	2,686	101
Wyoming	968 (17.9)	1,173 (21.7)	444 (8.2)	0 (0.0)	0 (0.0)	1,011 (18.7)	532 (9.9)	1,268 (23.5)	5,396	203

* Dollar figures are per capita amounts. Figures in parentheses provide percentage distributions of total revenues.
** Includes selective sales tax revenue.
*** U.S. Average = 100.

Source: U.S. Bureau of the Census, Governmental Finances in 1986, U.S. Government Printing Office, Washington, D.C., 1987.

The percentage of revenue from a sales tax is 14.1 percent on average, but Nevada depends on this source much more heavily. Sales tax revenues make up 20 percent of Nevada's total revenue, ranking it fourth among the sample states and fifth in the nation in degree of reliance on this revenue source.

Nevada raises approximately 15.5 percent of its revenue from user charges and fees. Among the sample states, only Florida obtains a higher percentage (16.1 percent) from user charges. Nationwide, 12.6 percent of all state-local general revenue is derived from these collections.

Miscellaneous general revenue includes receipts from fines, forfeitures, net lottery proceeds, interest earnings, mineral royalties and other such items. Nationally, 11.7 percent of state-local revenue is derived from this sort of general revenue. Nevada is about on par, with 11.1 percent of its revenue collected from this category of receipts.

State and Local Revenues Compared: The degree to which combined state and local taxing is done at the state vs. local level is another comparison measure. State governments tend to rely more heavily on income and sales taxes; local governments rely more on property taxes. Tables 9 and 10 show the distribution of revenue among sources for the State of Nevada and for local governments in Nevada. These tables do not show the percentage of total state and local revenue raised by the state government, so they are not used to measure centralization. Rather, they are used only to see that, while total state revenue is often almost equal to total local revenue, the instruments used by the two types of governments are quite different.

Since no Nevada government levies a personal or corporate income tax, proportions of Nevada governments' revenues coming from other categories tend to be at or above average. The state government, in 1986, derived above average fractions of total revenue from property taxes (2.1 percent in Nevada vs. 1.1 percent for the U.S.), general sales taxes (32.2 percent vs. 19 percent)

TABLE 9

PERCENTAGE DISTRIBUTION OF STATE GOVERNMENT (ONLY)
GENERAL REVENUE, BY SOURCE, FY 1986

State	Exhibit: Millions of STATE General Revenue ($)	Federal Aid	Property Taxes	General Sales Tax	Indiv. Income Tax	Corp. Income Tax	Other Taxes	User Charges	Misc. General Revenue
U.S.	$393,475.5	23.6%	1.1%	19.0%	17.1%	4.7%	16.0%	7.6%	10.9%
NEVADA	1,613.7	21.4	2.1	32.2	0.0	0.0	30.7	4.9	8.7
Alaska	5,443.7	7.6	2.1	0.0	0.0	3.3	28.7	2.6	55.7
Arizona	4,604.9	15.9	2.5	31.7	15.2	3.7	16.3	7.1	7.6
Calif.	50,233.6	24.1	3.1	20.7	22.6	7.6	7.4	6.4	8.1
Colorado	4,549.6	25.8	0.2	16.2	21.0	2.6	11.6	12.6	10.1
Florida	13,319.5	19.6	1.6	37.7	0.0	3.7	25.5	5.2	6.7
Hawaii	2,429.8	17.1	0.0	30.7	19.3	1.8	9.6	12.7	8.8
Idaho	1,354.0	28.5	0.0	18.5	18.9	3.2	14.4	6.8	9.7
Montana	1,387.8	32.8	3.2	0.0	12.4	4.2	24.6	6.4	16.3
New Mex.	3,379.5	17.8	0.1	18.5	3.0	2.1	19.5	7.6	31.4
Oregon	4,178.9	25.4	0.0	0.0	28.6	3.9	13.8	9.9	18.5
S. Dakota	1,037.6	33.1	0.0	19.2	0.0	2.3	17.5	11.2	16.8
Texas	19,904.4	22.8	0.0	21.7	0.0	0.0	34.1	7.8	13.5
Utah	2,726.8	29.7	0.0	20.5	16.6	2.4	10.6	12.0	8.3
Washing.	8,012.6	20.3	10.2	38.9	0.0	0.0	16.0	6.8	7.8
Wyoming	1,731.7	25.4	6.1	10.6	0.0	0.0	29.2	2.9	25.7

Source: U.S. Bureau of the Census, Governmental Finances in 1986, U.S. Government Printing Office, Washington, D.C., 1987.

TABLE 10

PERCENTAGE DISTRIBUTION OF LOCAL GOVERNMENT (ONLY)
GENERAL REVENUE, BY SOURCE, FY 1986

State	Exhibit: Millions of LOCAL General Revenue $	Federal Aid	State Aid	Property Taxes	General Sales Tax	Indiv. Income Tax	Corp. Income Tax	Other Taxes	User Charges	Misc. General Revenue
U.S.	$380,662.6	5.4%	33.3%	28.2%	4.2%	1.8%	0.4%	3.5%	13.2%	10.0%
NEVADA	1,643.4	4.8	37.9	17.9	0.3	0.0	0.0	9.4	20.0	9.7
Alaska	2,065.4	3.2	41.0	22.5	2.7	0.0	0.0	1.0	12.8	16.8
Arizona	5,741.8	5.2	34.7	22.4	5.1	0.0	0.0	2.2	10.4	20.0
Colorado	5,697.9	4.1	25.7	29.7	11.6	0.0	0.0	2.7	12.5	13.7
Calif.	54,414.0	3.6	44.3	19.5	4.8	0.0	0.0	4.5	13.6	9.7
Florida	17,735.7	4.9	29.5	25.9	0.3	0.0	0.0	6.3	19.4	13.8
Hawaii	681.2	17.1	7.1	49.0	0.0	0.0	0.0	10.5	8.9	7.4
Idaho	1,064.1	5.9	38.6	28.2	0.0	0.0	0.0	1.1	19.6	6.5
Montana	1,194.1	7.7	23.8	40.8	0.0	0.0	0.0	1.8	10.6	15.2
New Mex.	2,137.1	8.0	49.2	9.8	5.5	0.0	0.0	2.3	9.4	16.0
Oregon	4,253.0	8.5	23.7	41.3	0.0	0.0	0.0	4.4	13.2	8.9
S. Dakota	793.2	8.4	22.0	42.6	6.3	0.0	0.0	2.1	9.3	9.2
Texas	24,650.7	3.9	25.7	35.0	4.3	0.0	0.0	3.0	14.5	13.6
Utah	2,353.5	4.9	32.4	25.9	5.1	0.0	0.0	2.3	9.1	20.2
Washing.	6,821.0	6.2	39.6	16.9	5.6	0.0	0.0	5.0	16.5	10.2
Wyoming	1,476.0	3.4	31.5	33.1	2.8	0.0	0.0	0.5	14.9	13.8

Source: U.S. Bureau of the Census, Governmental Finances in 1986,
U.S. Government Printing Office, Washington, D.C., 1987.

and "other taxes" (30.7 percent vs. 16 percent on average). Eight sample states rely on property taxes for 0.2 percent or less of revenue; six of these derive no revenue from property taxes. Eight sample states derive greater than average proportions of revenue from a general sales tax; of these, Washington and Florida rank above Nevada in degree of reliance on the general sales tax. Only Texas, among the sample states, collected a greater proportion of revenues from "other taxes" than did Nevada.

The proportion collected from miscellaneous sources was 8.7 percent in Nevada, comparable to the average of 10.9 percent. The proportion from user charges was 4.9 percent in Nevada, below the average of 7.6 percent and below the proportions collected by 13 of the 15 sample states.

In contrast, local Nevada governments collected 20 percent of their total revenues from user charges in 1986, well above the average of 13.2 percent for all U.S. local governments. Local governments in Nevada derived a higher proportion of general revenue from user fees than did local governments in any sample state, although Florida and Idaho were close behind at 19.4 percent and 19.6 percent respectively.

State aid and "other taxes" made up greater than average percentages of the total, at 37.9 and 9.4 percent, respectively. The average proportion of revenues derived by U.S. local governments from state aid was 33.3 percent in 1986. Among sample states, the local governments in Alaska, California, Idaho, New Mexico and Washington depend on state aid relatively more than do Nevadan local governments. In percent of revenue derived from "other taxes," local governments in Nevada ranked second only to local governments in Hawaii, which perhaps reflects tourist taxes included in this category.

Nevada local governments derived 17.9 percent of revenues from property taxes, below the average for the U.S. of 28.2 percent. Nevadan local governments ranked third from the bottom among sample states in the degree of reliance on property taxes for general

revenue.

Although the 0.3 percent of revenues derived from a general sales tax by local Nevadan governments is well below the U.S. average of 4.2 percent, much of the state aid in Nevada is actually derived from general sales taxes which are imposed by the state.

The percentages of local government revenues derived from individual or corporate income taxes are zero for all sample states, although the national average is 1.8 percent and 0.4 percent, respectively.

THE REPRESENTATIVE TAX SYSTEM

One of the most revealing ways of analyzing a state's taxation activities, relative to the average, is to use the Representative Tax System (RTS). Developed by the U.S. Advisory Commission on Intergovernmental Relations (ACIR), RTS analysis attempts to measure the ability of a state and its local governments to raise revenue vis-a-vis all other states and the extent to which each state actually exploits this ability. Traditionally, the ability of a state to raise revenue was measured by per capita income, but the shortcomings of this measure as an indicator of tax capacity lead to the development of the RTS for this purpose. Per capita income gives limited (and/or distorted) indication of the capacity of a state to raise revenue from taxes on corporate income, sales or property, the tax bases for which are all taken into account by the RTS.

The RTS is comprised of two components: tax capacity and tax effort. The tax capacity measure was developed to answer the question, "If all states (and their local governments) applied uniform tax rates to a uniform set of tax bases, how much revenue would be raised in each state?" The measure reflects the tax base information on 26 of the most commonly used state and local taxes. The capacity for each state is then determined by multiplying each of these 26 tax bases by the respective U.S. average effective

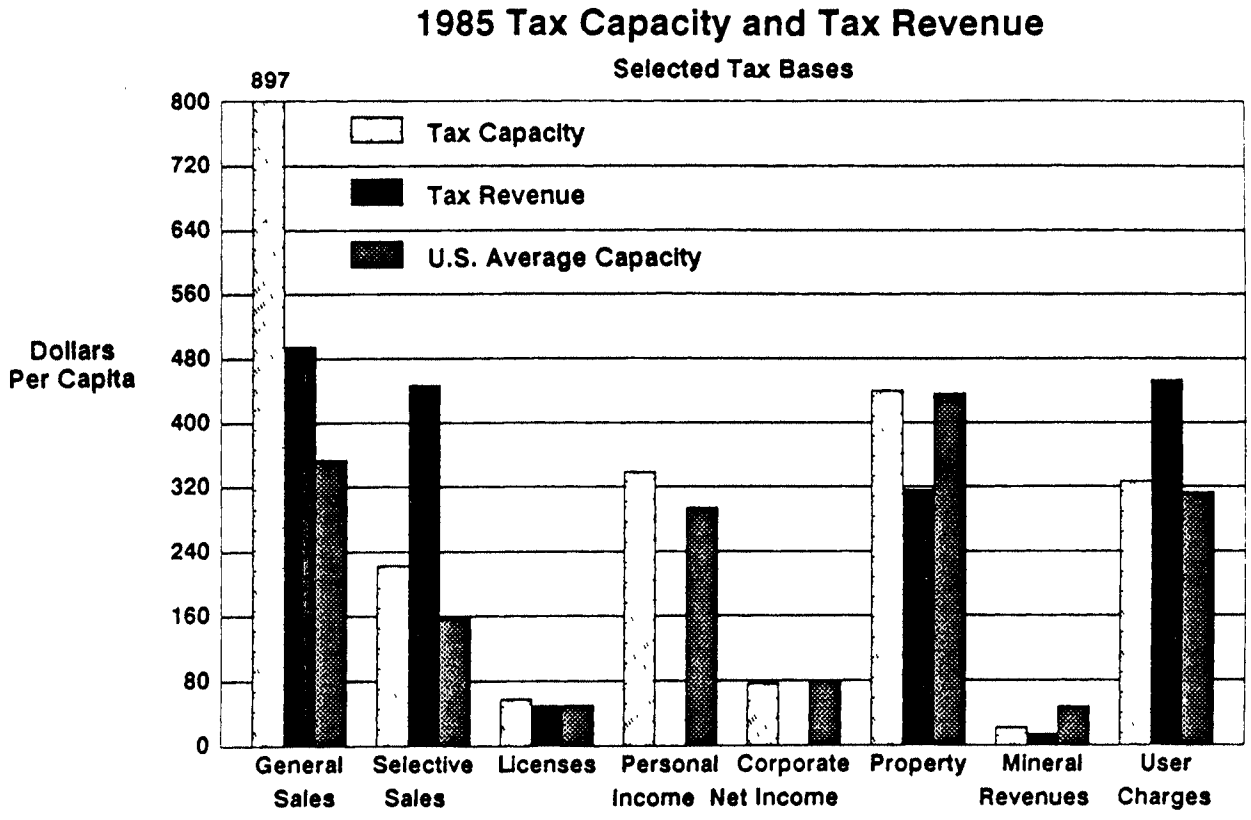
state-local tax rate. It is important to note that the tax base information is not necessarily the tax base actually utilized in each state--in fact, tax base information is included in the capacity calculation for states that do not even levy a particular tax. For example, the tax base for the personal income tax is included in Nevada's tax capacity figure even though Nevada does not levy an individual income tax. All tax capacity figures are then divided by the state population and indexed to the U.S. average so that the tax capacity of each state can be compared directly to those of other states.

As an example, general sales is one of the 26 tax bases used in estimating the overall tax capacity of each state. To calculate the ability of each state to raise revenue from the general sales tax, one must determine the volume of taxable retail sales--on a comparable basis--for each state. Next, the tax capacity of each state for general sales is determined by multiplying the U.S. average general sales tax rate by the general sales tax base in each state.[6] The resulting figures are then divided by state population.

Tax capacity's companion measure--tax effort--was developed to answer the question, "How does each state's actual tax collections stack up to its tax capacity?" Tax effort is calculated by dividing total tax collections for each of the 26 tax bases by the respective tax capacity figures. From the example above, if a state's general sales tax capacity were equal to the U.S. average capacity, then its capacity index for general sales would be 100. However, if that same state actually collected twice the amount of its capacity, it would have an effort index of 200. One could assert that the state was exploiting its general sales tax base twice as much as the average state.[7]

Figure 1 shows Nevada's capacity and actual revenue in 1985 relative to the U.S. average for the largest tax bases. In Figure 2, the trend in Nevada's overall tax capacity and tax effort indices from 1975 to 1985 is graphed.

FIGURE 1

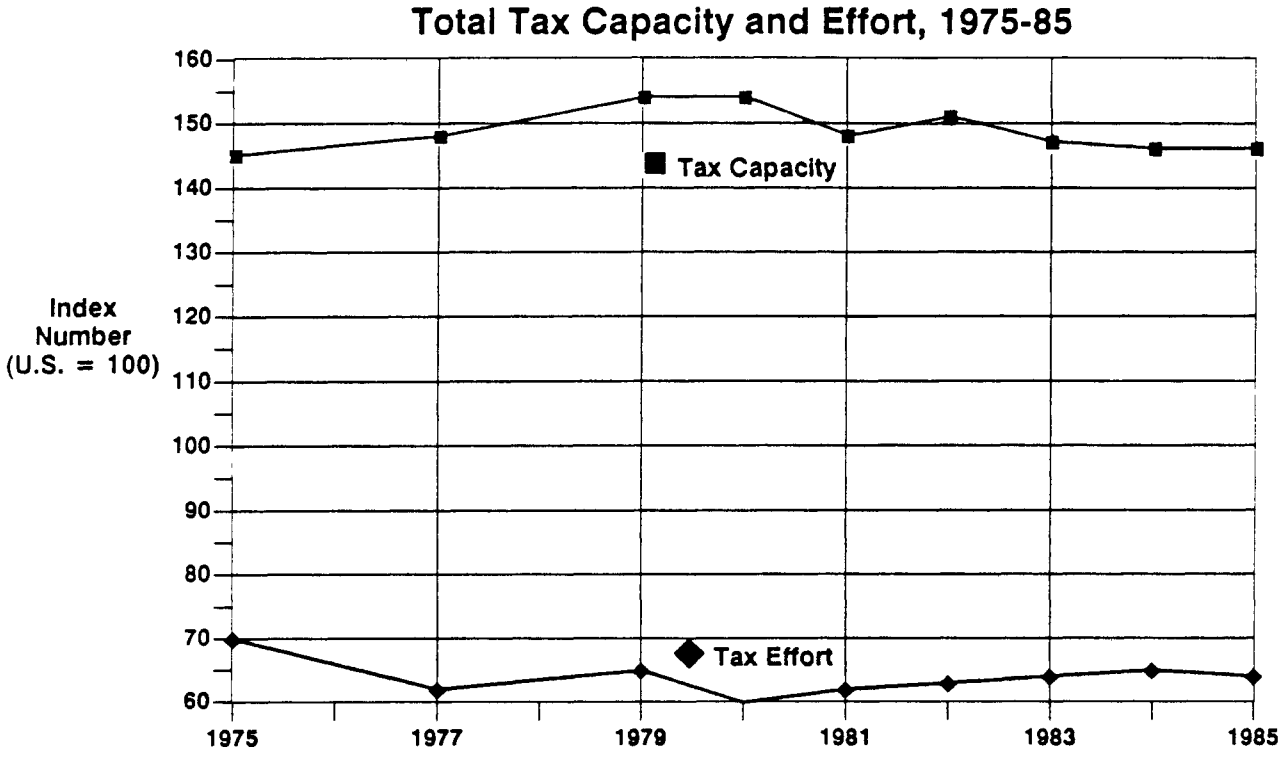


Source: U.S. Advisory Commission On Intergovernmental Relations

FIGURE 2

Nevada

1985 RTS Tax Capacity = 146 **1985 RTS Tax Effort = 64**



Source: U.S. Advisory Commission On Intergovernmental Relations

Rather than present tax capacity and tax effort indices for each of the 26 different tax bases, the trends in overall tax capacity and effort for Nevada and the sample states are presented in Tables 11 and 12.

Overall Tax Capacity: If a state were to apply the average U.S. tax rate for each tax base to all of the 26 tax bases, the amount of per capita revenue it would raise is its overall tax capacity. Table 11 lists the overall tax capacities, indexed to the U.S. average, for Nevada and the 15 sample states, for 1977, 1982, 1984 and 1986 (the latest year available). Since 1977, Nevada has a tax capacity index of 146-151. This means that if Nevada were to tax at U.S. average levels for every tax base, it would raise approximately 50 percent more revenue, per capita, than the average state. Of the sample states (and all states in the nation), only Wyoming and Alaska had higher overall capacities in 1986, with indexes of 154 and 174, respectively.

In 1986, the tax capacity indices for the sample states range from a low of 75 in Idaho (which is one of the six lowest tax capacity states in the nation) to a high of 174 in Alaska. With the exception of these two states and Wyoming, all of the sample states have capacity indices in the range of 79-118.

Overall Tax Effort: Actual tax collections, divided by overall tax capacity, is overall tax effort. Table 12 presents the tax effort indices (indexed to the U.S. average) for Nevada and the sample states for four years. Nevada has the lowest tax effort index of all the sample states, and, except for New Hampshire, is the lowest tax effort state in the nation. Its tax effort index of 66 in 1986 means that Nevada exploits its tax base 34 percent less than the average state, or that it raises 34 percent less revenue than it could if the state and local governments there taxed at national average rates.

Only six of the sample states--Montana, Utah, Wyoming, Hawaii, Washington and Alaska--had greater than average tax efforts in 1986. The range of indices for the sample states was 78 (for

TABLE 11

REPRESENTATIVE TAX SYSTEM TAX CAPACITY
INDICES FOR 1986 AND SELECTED PRIOR YEARS

State	1986	1984	1982	1977	1967
U.S. Average	100	100	100	100	100
NEVADA	146	146	151	148	171
Alaska	174	250	313	158	99
Arizona	98	99	96	89	95
California	118	119	116	114	124
Colorado	117	121	121	107	104
Florida	103	105	104	101	104
Hawaii	116	118	117	107	99
Idaho	75	78	86	88	91
Montana	88	95	110	103	105
New Mexico	90	103	115	98	94
Oregon	94	94	99	104	106
S. Dakota	79	83	87	91	91
Texas	102	117	130	112	98
Utah	79	81	86	88	87
Washington	100	99	102	100	112
Wyoming	154	181	201	154	141

Exhibit: Nevada Rank Among 50 States in 1986 is 3.

Source: U.S. Advisory Commission on Intergovernmental Relations (ACIR), Measuring State Fiscal Capacity: 1987 Edition, M-156, December 1987.
1986 figures from 1988 Edition, forthcoming.

TABLE 12

REPRESENTATIVE TAX SYSTEM TAX EFFORT INDICES
FOR 1986 AND SELECTED PRIOR YEARS

State	1986	1984	1982	1977	1967
U.S Average	100	100	100	100	100
NEVADA	66	65	63	62	71
Alaska	170	141	180	130	104
Arizona	100	95	92	110	109
California	95	93	99	117	108
Colorado	83	82	81	95	106
Florida	78	74	72	73	84
Hawaii	102	99	105	115	135
Idaho	92	91	85	89	105
Montana	103	101	97	94	93
New Mexico	90	85	82	77	92
Oregon	97	103	95	92	101
S. Dakota	94	87	91	87	107
Texas	80	69	66	68	75
Utah	109	106	97	91	111
Washington	101	103	93	94	106
Wyoming	114	105	105	82	79

Exhibit: Nevada Rank Among 50 States in 1986 is 49.

Source: U.S. Advisory Commission on Intergovernmental Relations (ACIR), Measuring State Fiscal Capacity: 1987 Edition, M-156, December 1987.
1986 figures from 1988 Edition, forthcoming.

Florida) to 170 (for Alaska). Despite Alaska's high tax capacity, it managed to utilize that capacity 70 percent more than if it had taxed at national average rates.

FISCAL CENTRALIZATION IN NEVADA

Based on the taxation and spending levels of state governments, relative to local governments, there has been a nationwide trend toward greater fiscal centralization in the past twenty years, as shown in Tables 13 and 14. Centralization is indicated by the degree to which the state government, relative to local governments, has control over the fiscal policies of the state.

Tables 13 and 14 show the increasing share that state governments have, on average, of the state-local totals of both revenues and spending. The difference between a state's share of revenue and its share of expenditure will be, for the most part, due to intergovernmental transfers from the state to localities. Therefore, a large state share of revenue does not imply a large state share of spending. On the other hand, since localities do not transfer revenues to states, except for administrative costs, a small state revenue share will generally imply a small state expenditure share.

The centralization of spending that has occurred in most states, in many instances, has resulted from state governments taking a much more active role in education finance. It also stems from attempts, on the part of many states, to even out the inequalities in the differing abilities of local governments within a state to raise revenue--for education purposes as well as for local governments generally. By raising revenue at the state level and then allocating it to local governments, a more uniform provision of local governmental services can be supported. This will, of course, involve some redistribution of income among localities.

TABLE 13

A MEASURE OF CENTRALIZATION:
STATE GOVERNMENT PERCENTAGE OF STATE AND
LOCAL COMBINED TAX REVENUE, SELECTED YEARS

State	1986	1984	1975	1967
U.S. Average	61	62	57	52
NEVADA	70	70	59	52
Alaska	78	84	68	69
Arizona	65	66	64	57
California	66	67	52	44
Colorado	48	50	54	49
Florida	61	62	64	53
Hawaii	79	78	78	73
Idaho	71	72	69	63
Montana	55	56	51	44
New Mexico	80	81	83	75
Oregon	50	52	55	51
S. Dakota	50	52	46	43
Texas	52	55	58	54
Utah	64	64	65	60
Washington	74	74	65	71
Wyoming	60	63	59	48

Source: U.S. Advisory Commission on Intergovernmental Relations (ACIR), Significant Features of Fiscal Federalism 1988 Edition, M-155, Washington, D.C., December 1987.

TABLE 14

A MEASURE OF CENTRALIZATION:
STATE PERCENTAGE OF STATE AND LOCAL COMBINED GENERAL EXPENDITURE FROM OWN REVENUE SOURCES, SELECTED YEARS

State	1986	1984	1975	1966
U.S. Average	57	56	55	48
NEVADA	55	50	48	42
Alaska	76	83	77	65
Arizona	52	55	62	52
California	62	61	49	45
Colorado	46	52	51	46
Florida	48	45	54	46
Hawaii	78	81	79	70
Idaho	60	64	60	54
Montana	54	53	49	46
New Mexico	77	75	73	70
Oregon	54	53	50	49
S. Dakota	57	58	52	45
Texas	46	47	50	45
Utah	61	60	64	60
Washington	67	63	58	57
Wyoming	58	55	46	54

Source: U.S. Advisory Commission on Intergovernmental Relations (ACIR), Significant Features of Fiscal Federalism 1988 Edition, M-155, Washington, D.C., December 1987.

Changes in tax structure also help to explain this trend toward fiscal centralization. Unlike the property tax, income and sales taxes are more easily administered at the state level. Furthermore, uniform state-level income and sales taxes do not distort shopping, work-site or residential location decisions within an individual state. Calls among citizens for property tax relief have resulted, in numerous instances, in the shift from locally-based property taxes to state income or sales taxes, with the often unintended result of greater fiscal centralization.[8]

One should note that the measures of fiscal centralization in Tables 13 and 14 do not capture all of the important factors in the centralization of power in state governments. The measures do not reflect the effects of certain centralizing policy instruments (such as state mandates, earmarking of local aid monies, and regulations) or decentralizing ones (home rule, local taxing authority, state general revenue sharing). However, the measures do give an indication of the centralization of state power that has occurred over the years.

STATE SHARES OF REVENUE

The average share of state and local combined revenue raised by state governments in 1967 was 52 percent and increased to 61 percent by 1986. The state government of Nevada had a share of revenues of 52 percent in 1967, which was on par with the U.S., and it followed the centralization trend, but with much more vigor than the average state. By 1986, Nevada state raised 70 percent of total state and local revenues. (See Table 13.) Much of the shift was due to the reduction of property taxes in 1981, which are largely a local revenue source, and an increase in the sales tax to replace the lost revenues.[9] Local governments in Nevada received 37.9 percent (in 1986) of their revenues through aid from the state (see Table 10), which is largely derived from state-administered sales taxes.

Of the fifteen sample states, only three--Texas, Colorado and Oregon--did not follow the centralization trend. Although each of these did become temporarily more centralized at some point during the twenty-year period, they all had slightly lower state revenue shares in 1986 than in 1967. The magnitude of the increase in this centralization measure for Nevada, over these years was matched only by California, whose state revenue share went from 44 percent in 1967 to 66 percent in 1986. Washington, Alaska, New Mexico, Idaho and Hawaii were always much more centralized than the average state and have remained so over the years.

STATE SHARES OF EXPENDITURES

In 1966, 48 percent of all state and local combined spending was attributable to state governments and, therefore, local governments accounted for 52 percent of all spending. By 1986, these figures had been reversed,with state government spending rising to 57 percent and local government accounting for only 43 percent of the total. Nevada followed the national trend, with state government spending jumping from 42 percent of total state-local expenditures to 55 percent. Among the fifteen sample states, state spending as a percentage of the total, in 1986, ranged from 46 percent in both Texas and Colorado to 78 percent in Hawaii. In five of the states -- Arizona, Utah, Colorado, Florida and Texas -- spending has not become more centralized, as the state percentages of state-local spending are at about the same levels in 1986 as in 1966. These figures are summarized in Table 14.

It should be noted that the figures in Table 14 count all revenues transferred from state governments to local governments as state government expenditures. This point is of particular importance to Nevada, since the county general sales tax is counted as a state revenue by the Census Bureau because this local tax is mandated by the state government. Thus, the transfer of these revenues from the state to localities is "state spending." Only

TABLE 15

STATE PERCENTAGES OF STATE AND LOCAL COMBINED GENERAL EXPENDITURE, FROM OWN REVENUE SOURCES, TOTAL AND FOR SELECTED FUNCTIONS, FY 1986

State	Total General Expend.	Public Welfare	Highways	Health & Hospitals	Elementary and Secondary Education
U.S. Avg.	57	83	63	52	53
NEVADA	55	69	62	29	37
Alaska	76	91	87	73	82
Arizona	52	61	76	41	71
Calif.	62	91	52	49	75
Colorado	46	84	52	52	41
Florida	48	87	65	34	48
Hawaii	78	97	51	97	100
Idaho	60	66	77	24	68
Montana	54	62	69	65	55
New Mex.	77	90	68	76	87
Oregon	54	85	82	72	30
S. Dakota	57	73	48	68	44
Texas	46	89	55	42	49
Utah	61	100	59	82	59
Washing.	67	100	54	45	80
Wyoming	58	96	76	25	39

Source: U.S. Advisory Commission on Intergovernmental Relations (ACIR), Significant Features of Fiscal Federalism 1988 Edition, M-155, Washington, D.C., December 1987.

the optional county sales tax is counted as local government revenue. If the state-mandated county sales tax collections were classified by the Census Bureau as local government revenue, Nevada's centralization figure for expenditures would indicate that Nevada is one of the most fiscally decentralized states in the nation.

The relative responsibilities of state versus local governments for spending in particular areas helps to illuminate the overall centralization picture. For a look at the breakdown between state and local shares of spending on particular items, see Table 15. In Nevada, expenditures for public welfare and highways are predominantly make by the state, while local governments have more responsibility for spending on health, hospitals and education. Local governments in Nevada have a greater share (63 percent in 1986) of total expenditures on primary and secondary education than any of the sample states, except for Oregon, whose localities pay 70 percent of this expense. Idaho and Wyoming are the only states in the sample with larger local shares of expenditure on health and hospitals than Nevada.

CONCLUDING COMMENTS

One of the most notable things about Nevada, relative to other states, is its rankings on the Representative Tax System capacity and effort measures. In 1985, Nevada was the third highest tax capacity and the lowest tax effort state in the nation. This means that if Nevada were to apply the U.S. average tax rates to its overall tax base, it could raise much more revenue, per capita, than it is raising now. The low tax effort for Nevada is largely due to the fact that it levies no income taxes, and thus does not exploit that tax base at all. The sample states that do not collect personal income taxes (South Dakota, Florida, Texas, Wyoming and Washington) also tend to have low tax effort measures, except for Wyoming which still manages to exploit its overall tax

base eight percent more than the average state.

Another reason for low tax effort in Nevada is that it has very high tax capacity, partially due to its tourist and mining industries. There may be room for Nevada to increase revenues derived from those industries. However, the conclusion drawn from the RTS analysis implies only that Nevada could increase its per capita revenues without being out of line with the national average, given its high capacity in terms of tax bases.

One other notable conclusion from these fiscal comparisons is that the degree of centralization, in terms of raising revenue, in Nevada has gone from being about average to being well above average. Second only to California, among the sample states, Nevada has been the leader in increasing the state governments's share of total revenues. However, as noted above, by looking only at the revenue measures one might be mislead to conclude that this centralization results in a high degree of state fiscal control. In fact, if the BCCRT and SCCRT (state-imposed county sales taxes) were counted as local government revenue, Nevada would rank very low on a scale of centralization. The revenues from the BCCRT and SCCRT are returned in the form of local aid to counties for spending.

Nevada's centralization of spending was about average in 1986. The state accounts for a larger percentage of total spending in 1986 than it did in 1966, but much of the increase may be due to more local aid spending. Thirty-eight percent of state expenditure in Nevada is for local aid (see Table 4). If localities are ultimately able to control spending of these local aid monies, then spending in Nevada is less centralized than it would appear to be in Table 14. However, to the extent that the revenues are earmarked at the state level, requiring localities to spend local aid money on specified functions, spending is more centralized. (See Chapter 3.)

As for Nevada's tax collections and expenditures in particular categories, relative to the fifteen sample states and the U.S.

average, several summary statements can be made. For both total revenues and total expenditures, Nevada ranks close to the median among the sample states and very near the U.S. average in terms of dollar amounts per capita. Looking at the components in 1986 of total revenue, Nevada derives relatively less revenue from property taxes and relatively more revenue from user charges and all sales taxes than both the median (expenditure) sample state and the U.S. average state. Of course, it also ranks low on a national scale of income tax revenues. Expenditures in 1986 in Nevada are lower than both the U.S. averages and the amounts spent by the median sample states for each of public welfare, health and hospitals and all levels of education. Nevada spends a greater than average amount for highways, but ranks near the median among sample states. Spending for police and fire in Nevada is more than 50 percent above the U.S. average, outweighed by only one sample state, Alaska.

Endnotes

1. Jack Rayburn, "A Critical Analysis of Interstate Tax Comparisons," Minnesota Tax Revenue and Policy Review, August 1988.

2. The Governments Division of the U.S. Census Bureau does not expect the 1987 data to be available until the fall of 1988.

3. Op cit.

4. For most states, the degree of tax exporting (the extent to which tax collections are not paid by the state's residents) is at least partially offset by the extent to which a state's residents pay taxes imposed by other states, when they visit or consume imported taxed goods. If one is interested in total tax burdens on individuals, without regard to which state is collecting taxes from them, the amounts of tax exporting and importing are sometimes assumed to exactly offset each other. On the other hand, when analyzing the tax burden imposed on individuals by the state in which they live, importation of taxes is not relevant and cannot be assumed to offset exported taxes. In such cases, explicit adjustment must be made for the amount of collections that are paid by nonresidents.

5. It must be remembered that these are percentage figures, not absolute dollar amounts. Federal aid to Alaska makes up only 7.2 percent of total revenues, making it the state that is least reliant on the federal government, but in 1986, federal aid per capita to Alaska was $899, the highest among the 50 states.

6. The nationwide average effective general sales tax rate is determined by dividing total general sales tax collections in the U.S. by the total volume of taxable retail sales in the U.S.

7. For further information on tax capacity and tax effort, see ACIR, Measuring State Fiscal Capacity, 1987 Edition, M-156, Washington DC, December 1987.

8. California is a prime example of this point.

9. For further discussion of the tax shift and subsequent centralization of revenue raising in Nevada, see Chapter --.

CHAPTER 5

EARMARKING TAX REVENUES

INTRODUCTION

Earmarking is the practice of reserving revenues from certain sources for particular expenditures. This is in contrast to the practice of combining all revenues in a general fund and allocating them to expenditure functions through a budgeting process. There are two elements inherent in the definition of earmarked revenues. First, the earmarking is done by the level of government that imposes the tax. So, state revenues can be earmarked for local aid, even if the local government subsequently apportions the funds as it sees fit. This is distinct from the situation in which a unit of government (e.g., a state) acts as a collection agency for another level of government, which has levied a tax at its option. For example, the Nevada Basic City- County Relief Tax (BCCRT) is a state-imposed tax earmarked for local aid, but the Optional County Gasoline Taxes, although collected by the state, are controlled by the county governments, which, in turn, earmark the revenues for highways and road activities. The BCCRT is, then, a state earmarked tax. The Optional County Gasoline Tax is locally earmarked.

Second, earmarked revenues are dedicated to specific purposes. Although the revenues may initially be placed in the General Fund, if they are credited to an account to be used only for a particular purpose, then they are considered to be earmarked. This is the case of the tax on slot games, all the proceeds from which go education.

At the state level, revenues can be earmarked in the constitution or by statute. Constitutional earmarking is a significant constraint on policy-makers in that the dedication of funds cannot easily be suspended, either temporarily or permanently. In contrast, funds that are earmarked by statute can be unearmarked (or re-earmarked) through the normal legislative process. That is, direct voter approval is not required. In

Nevada, only one revenue fund is established by the state constitution. Article IX, Section 5 states that all revenues from vehicle licensing and registration fees and motor vehicle fuel taxes are reserved for expenditure on highways.

Data recently published compiled by the National Conference of State Legislatures (NCSL) indicates that Nevada is one of the most earmarked states in the nation. According to the NCSL Nevada ranks number five among the 50 states, earmarking 52 percent of its total state tax revenues--nearly two and a half times the earmarking rate for the average state (21 percent).[1] The reason for this unusually high earmarking rank is due to the fact that nearly two-thirds of the 5.75 percent retail sales tax is earmarked for counties, cities, or local school districts. In fact, if Nevada were to follow the practice of many states and treat the general sales tax as a wholly general fund levy, its ratio of earmarked--to-total revenues would be about average (23 percent).

This unusually heavy use of earmarking raises three key policy questions: What is the rationale for the earmarking of tax revenues? What is the relationship between that rationale and the criteria for the design of a high quality state and local tax system that were presented in Chapter 1? And, do the historical reasons that explain the heavy use of earmarking make fiscal sense when judged not only against those criteria, but also within the context of Nevada's fiscal needs in the economy of the 1990s?

These questions are addressed by first providing a review of earmarking practices both in the nation and for Nevada, and then evaluating Nevada's policies within the context of the rationale for an creating earmarked funding. This later discussion includes a section of pro and con argumentation.

EXTENT OF PRACTICE

The Nation and The States

Earmarking, in one form or other, is used at all levels of government--federal, state and local. At the Federal level, about 28 percent of all federal spending is accounted by the use of various trust funds, the best known of which are social security, medicare, the hazardous substance superfund, and the major highway and airport funds. These funds are financed through variety of means ranging from a payroll tax to numerous earmarked excise taxes.[2]

The fifty states are also active players in the earmarking arena although there has been a rather dramatic decline the proportion of earmarked revenues in the post WWII years. As Table 1 shows the proportion of tax revenues earmarked by the states has fallen from quite high levels in the 1950s and 1960s, to about one-fifth by the mid-1980s. Exceptions to the trend of less earmarking appear for New Jersey, which significantly increased its ratio when it earmarked its newly enacted income tax for education and general property tax relief (1976), and for Alabama, Montana and Wyoming, which have each dedicated about the same proportion of revenues over the 30-year span. The other notable exception is Nevada, whose use of earmarking declined after 1954 but rose again to previous levels after 1979.

Since the Table 1 data ends in 1984, the numbers appear to be a bit old. Accordingly, one cannot be sure whether 1984 represents just another point on a downward but leveling trend line, or a year than may have just preceded a turning point in which earmarking has become relative more prevalent.

Unfortunately, the Table 1 is the best we have at present for the purposes of making some state-by-state comparisons. The reason for this stems from the fact that the data comes from a one time state-by-state survey provided by the NCSL, and involves solving

some complex problems of defining terms that make it possible to make common denominator state comparisons. Take, for example, the problem--which may seem simple at first glance--of defining what ones means by a "tax." The NCSL survey approach was to ask the states to conform to U.S. Census definitions--a practice that is often different from that a specific state may adopt in its own accounts. Thus, for example, revenues from user fees (other than those from motor vehicle registrations and licensing) and social insurance payroll taxes are not included in the statistics. Proceeds from state lotteries, which are usually earmarked, are also not included in this table. In short, the degree of earmarking of all revenues is understated by the proceeds from lotteries and user charges when these are earmarked.[3] Furthermore, revenues dedicated to local governments are included as earmarked state revenues even if the localities are ultimately able to spend the money as they wish.

What can be done, however, is to replicate the 1986 data for Nevada by applying the NCSL--Census modifications to more recent Nevada State Data. By doing this, one can get an earmarking to total revenue ratio that is comparable to the 1984 data. As a result of these adjustments, the numbers show that the earmarking ratio has increased only slightly over the past two years--to about 55 percent--due to relative increases in licenses and in highway related taxes. Given the fact of this modest increase and the short time period between data points (1984-86), one can be rather confident that the data shown in Table 1 from the NCSL survey still gives a reliable picture of Nevada's relative standing among the states.

Local Governments

Local governments, broadly defined to include special districts along with general purpose jurisdictions such as cities and counties, also are active with earmarking. In fact, local units were

Table 1.
Proportion of Tax Revenues Earmarked by State, Fiscal Years 1954, 1963, 1979, and 1984

State	1954	1963	1979	1984
New England				
Connecticut	26%	23%	0%	1%
Maine	46	39	19	20
Massachusetts	56	54	41	40
New Hampshire	53	54	31	24
Rhode Island	6	4	0	1
Vermont	42	39	23	23
Mid-Atlantic				
Delaware	0	3	0	5
Maryland	47	40	34	24
New Jersey	7	2	25	39
New York	13	10	0	6
Pennsylvania	41	63	15	15
Great Lakes				
Illinois	39	43	14	18
Indiana	49	39	43	33
Michigan	67	57	38	39
Ohio	48	48	21	18
Wisconsin	63	61	N/A	12
Plains				
Iowa	51	44	19	13
Kansas	77	66	29	25
Minnesota	73	74	12	13
Missouri	57	40	20	29
Nebraska	55	53	41	29
North Dakota	73	43	29	21
South Dakota	59	54	33	32
Southeast				
Alabama	89	87	88	89
Arkansas	41	36	21	18
Florida	40	39	28	28
Georgia	29	22	11	9
Kentucky	46	29	N/A	16
Louisiana	85	87	5	4
Mississippi	40	37	N/A	30
North Carolina	38	30	20	8
South Carolina	69	62	56	55
Tennessee	72	77	60	26
Virginia	39	32	27	24
West Virginia	57	39	21	21
Southwest				
Arizona	47	51	31	29
New Mexico	80	31	36	44
Oklahoma	62	59	N/A	43
Texas	81	66	54	20
Rocky Mountain				
Colorado	75	51	17	25
Idaho	51	44	38	32
Montana	61	53	55	60
Utah	74	62	52	48
Wyoming	61	64	54	69
Far West				
Alaska	N/A	6	1	2
California	42	28	12	13
Hawaii	N/A	7	5	5
Nevada	55	35	34	52
Oregon	47	36	23	19
Washington	35	30	29	26
Average	**51**	**41**	**23**	**21**

Note: N/A—Not available.

Source: 1954 and 1963, Tax Foundation, *Earmarked State Taxes;* 1979, Montana, Office of the Legislative Fiscal Analyst, memo (March 19, 1980); 1984, NCSL survey conducted in 1985 and 1986.

the first to use earmarking in the form of special assessments for property improvements.[4] Today, special districts, such as park, library, fire prevention and sanitary districts, are noted for their heavy reliance on "current charges" (or user fees), relative to taxes. This growth has been particularly rapid during the "fee fever" period from the mid 1970s through the mid-1980s when localities turned to earmarking as a way to circumvent voter restrictions imposed through local expenditure and property tax limitations. Between 1976 and 1986 local government user charges grew in current dollars from $34.0 billion to $72.6 billion. As a result user charges as a percent of local taxes increased from 45.5 percent to 64.2 percent. The most recent data for Nevada indicates that local governments tend to be a bit more user fee oriented than the average. For 1985-86 Clark and Washoe combine to show a charges to taxes ratio of 72.1 percent.[5]

IN NEVADA

Earmarking by the State. Nevada state tax revenues are divided into two basic categories: General and Special Fund revenues. General revenues such as those from the broad based sales and the more narrow selective sales taxes are placed in the State General Fund. Portions of these revenues are, however, then earmarked, primarily for local aid. The Nevada State government also has 63 Special Revenue Funds, most of which are financed by various taxes and/or charges and fees. All of these revenues are earmarked for expenditures on specified functions. For example, an Apiary Inspection Fund receives revenues from a tax on bee hives. The money in the fund is used for expenses related to bee hive inspection and disease control.

TABLE 2
NEVADA'S EARMARKED REVENUES--STATE

GENERAL TAXES

Type of Tax	Tax Rate and Base	Total FY '86 Collections	Amounts Earmarked	Distribution
		(Thousands of $s)		
Local School Support Tax	1.5% on retail sales	$129,402.7	$ 599.9	State General Fund (0.5%);
			9,422.6	Distributive School Fund;
			119,380.2\b	Local School Districts
Basic City-County Relief Tax	0.5% on retail sales	$ 43,156.7	$ 200.1	State General Fund (0.5%);
			42,956.6\a	Counties[1]
Supplemental City-County Relief Tax	1.75% on retail sales	$150,662.2	$ 698.4	State General Fund (0.5%);
			135,969.4\b	Counties, Cities, Towns and Special Districts[2]
		($13,994.4 undistributed)		
Vehicle Priviledge	4% of value	$ 35,714.5	$ 1,875.6	State General Fund;
			33,838.8\c	County General Funds and School Districts
Alcoholic Beverages	varies	$ 13,259.1	$ 1,996.0	Counties and Cities[3];
			599.1\a	Alcohol and Drug Prog.
Annual Slot Tax	$250/ mach./ year	$ 26,795.2	$ 5,000.0	Universities;
			4,975.0	Higher Educ. Capital Construct.
			16,820.2\b	Distributive School Fund
Cigarette Tax	$.15/ pack[4]	$ 19,493.8	$ 6,429.1	State Gen Fund;
			12,581.8\a	Counties and Cities[5]
Property Tax	.02% assessed value	$ 2,757.2	$ 2,757.2\b	Consolidated Bond Redemption

Table 2. (Continued)

Estate Tax	Picks up federal tax credit	$ 5.5\e (1988)	$ 5.5	Common Schools and university states

SPECIAL REVENUE FUNDS[6]

Collections from:	State Highway Fund\d (in thousands of dollars)	All Other Funds\d
Federal Aid	$ 133,749.9	$ 31,531.9
Taxes	57,024.6	12,278.5
Licenses, fees, permits	40,145.1	12,531.8
Sales and charges	3,389.8	24,548.7
Interest	2,370.0	12,110.1
Other	1,279.4	1,973.2
Total Revenue	$ 237,958.8	$ 94,974.2

Source materials:

\a State of Nevada, Department of Taxation Annual Report, Fiscal 1985-86.

\b 1987 Nevada Legislature Revenue Reference Manual, Assembly Committee on Taxation, Fiscal Analysis Division.

\c Nevada Department of Transportation, Cost Allocation Study, 1986.

\d State of Nevada, Comprehensive Annual Financial Report, FY1986.

\e Conversation with Perry Commeaux, Director, Nevada Department of Taxation, October 27, 1988. The estate tax was enacted by the legislature, March 13, 1987.

1. The BCCRT revenues are returned to the county of origin as follows: 100% to county if it has no cities; pro-rated to city and county by population if it has one city; pro-raated to cities only, by population, if it has more than one city.

2. The SCCRT revenues are distributed by use of a formula. In 1987, the distribution was 57% to counties, 21% to cities and 22% to others. See Chapter -- for details.

3.The revenues from the tax on liquor are distributed on the basis of population ratios of cities and counties, in the same manner as the BCCRT revenues are. About 15 percent of total collections from the tax on alcohol are earmarked for local aid and about 4.5 percent fund the alcohol and drug abuse program.

4.Increased to $.20/pack in 1987, with $.10/pack going to the State.

5.Cigarette tax revenues distributed to cities and counties on the basis of population ratios in the same way as the BCCRT revenues are.

6.There are 63 Special Revenue Funds in Nevada, including the State Highway Fund.

The major categories of earmarking of state revenues in Nevada are presented in Table 2.

The largest special revenue fund is the State Highway Fund, which includes federal payments (e.g., interstate highway construction aid) and Nevada levied motor vehicle fuel taxes and registration and license fees. The Constitution of the State of Nevada specifies that all revenues from fees and taxes on gasoline and motor vehicle use will be used for the construction, maintenance and repair of highways. This does not apply to "the proceeds of any tax imposed upon motor vehicles by the legislature in lieu of an ad valorem property tax,"[6] so the Motor Vehicle Privilege Tax (4 percent of assessed value) is not earmarked for the State Highway Fund. Although revenues from this tax are initially placed in that fund, they are subsequently remitted (less administrative costs of collection) to counties, where a portion (about 36% in 1986)[7] is dedicated to local schools. The remainder goes into county General Funds. The state also collects a 10 cent per gallon motor vehicle fuel tax for state highways and a 3 cent per gallon fuel tax for county roads.

The State's share of the 2 percent Sales and Use Tax is not earmarked for a specific fund, but the Local School Support Tax (1 1/2 percent), which is added onto and collected with the sales tax, is dedicated to School Districts.Out-of-state collections go to the State Distributive School Fund.

The Basic and Supplemental City-County Relief Taxes (BCCRT and SCCRT), also collected with the sales tax, are dedicated to cities and counties. The BCCRT of .5% is returned to the county of origin and distributed to county and city governments by the following rules: a) 100 percent to the county if there are no cities; b) Prorated to city and county, on basis of population, if there is one city; c) Prorated to cities only, on basis of population, if there are two or more. The SCCRT of 1.75 percent (less .5% to the state) is distributed to counties, cities, towns and special districts by means of a formula. A further and more

detailed discussion of the distribution formula used for the SCCRT can be found in below in Chapter 9.

The first $5 million in revenues from the Annual Slot Tax are placed in the State General Fund, but are then earmarked for expenditure on University operations. Of the remaining revenues, 20 percent goes to the Special Capital Construction Fund for Higher Education and 80 percent is placed in the Distributive School Fund.

The revenue from the state property tax of .047 percent is used only for the retirement of bonds issued by the state government.

Taxes on alcoholic beverages that contain more than 22 percent alcohol include a 15 cent collection that is earmarked for the Alcohol and Drug Abuse account of the State General Fund. An additional fifty cent tax on this product is returned to the county of origin and distributed to the county and cities by the same method used for the BCCRT revenues.

The state tax on cigarettes is twenty cents per 20 cigarettes, ten cents of which is dedicated to counties and cities after administrative costs are credited to the state. These administrative costs are determined by legislative appropriation. The distribution of the balance is determined by the method used for the BCCRT revenues.

Finally, there is the death tax, which in Nevada is limited to the "pick up" amount from the Federal state estate tax credit. (see chapter 22). In Fiscal 1988 the pick up generated $5.5 million, the entire amount earmarked for by the Constitution only for the purpose of the support of common schools and the state university for their support and maintenance.

Earmarking by Localities: Local government taxing units in Nevada include counties, cities, towns, school districts and special districts. There are seventeen counties, each with its own independent school district. Seventeen cities and 44 towns are dispersed among the counties. There are 128 special districts that receive revenue by taxing property and 17 that are special non-ad

valorem districts. Of these 17, thirteen exist by assessments of special levies, such as a room tax, and include County Fair and Recreation Boards and City Convention Authorities. The other four non-ad valorem districts are inactive.[8]

The taxes that are earmarked by Nevada local governments are summarized in Table 3 and discussed below.

Local authority to impose taxes and raise revenue is limited and, therefore, so is the dollar magnitude of earmarking. Revenues that are earmarked are usually done so because of state requirements. Local power to raise tax revenues is, for the most part, limited to increasing local property taxes. Optional levies of ad valorem taxes by local governments must be tied to specific uses, such as capital improvements, fire protection or indigent care. All local tax units can impose ad valorem taxes earmarked for debt financing.

Counties in Nevada are required to collect a property tax of .75 percent of assessed value to support School Districts. Voter approval can add another .25 percent ad valorem tax earmarked for the Capital Projects Fund to finance school construction.

Three counties (Storey, Nye and Washoe) have elected to impose an optional county sales tax, called the Mass Transit, Roads and Tourism tax, of .25 percent on all taxable sales and items of use in the county. The revenue from this tax must be used for public mass transportation and road construction, or for the promotion of tourism.

According to data on local finances in Nevada provided by the Legislative Council Bureau, in 1986, Nevada counties, in the aggregate, earmarked 3.8 percent of their total tax revenues for specific purposes (this data excludes the user charges reported above)[9] for specific purposes. The range was from 1.2 percent in Storey County to 19 percent in White Pine County. Over the last ten years, the share of revenues earmarked by counties declined from 4.1 percent to 2.7 percent between 1977 and 1981, and then increased after 1981.

TABLE 3. NEVADA'S EARMARKED TAXES--LOCAL

Type of Tax	Tax Rate and Base	Total FY '86 Collections (in thousands $)	Amounts Earmarked (in thousands $)	Distribution
Mass Transit, Roads and Tourism (optional)	.25% on retail sales	$ 5,365.0	$ 50.5 5,314.5	State Gen. Fund; Mass Transit, Roads or Tourism (County of origin)
Optional County Gas Tax (#1)	$.01-.04/gal.	$ 18,323.5	$18,323.5	Regional Highway and Street Construct.
Optional County Gas Tax (#2)	$.01/gal.	$ 2,626.5 (Clark County only)	$ 2,626.5	Road Maintenance
Property Taxes on Assessed Value:				
Required:	.75%			School Districts
Optional:	.0375%			Indigent Care
	.04%			County Fair
	1%			Fire Protection
	.25-.3%			Roads
	??			Agriculture
	.25%			Capital Projects
Utility Profits Tax	2% of net profit	$ 3,115		School Districts

Source: State of Nevada, Department of Taxation Annual Report, 1985-1986.

In 1986, cities in Nevada earmarked 2.0 percent of their total tax revenues for specific purposes. The range was from 0.3 percent in Caliente to 3.5 percent in Reno. The share of revenues earmarked by cities has remained fairly constant, between 1.1 and 2.0 percent, over the last ten years.

FRAMEWORK FOR EVALUATION

The rationale for earmarking is found within the theory of the "benefits received" principle of public finance. According to this theory, the goals of both economic efficiency and fiscal equity are satisfied when each taxpayer contributes to the cost of a public service an amount equal to what she or he receives in terms of the benefits of that service. Thus, the benefit criterion addresses not only tax policy, but the simultaneously determination of tax and expenditures.

Understanding this tax--expenditure feature is critical to making an evaluation of the Nevada (or any other state's) policy relating to the earmarking of tax revenues since it provides the key decision rule for making the choice between the rigidities of earmarking and the flexibility of general fund finance.

When the benefits test is fully met, then the goals of efficiency and horizontal equity are also satisfied. Economic efficiency is promoted since the added costs of the particular (earmarked) activity are paid for by the user. Moreover, by relating the costs to the user of the product in this manner, direct users of the service signal their demand for the product thereby helping solve the problem of whether to expand the capacity of the service production overtime. The equity goal is met since those who receive the benefits of the services are the same people who pay for those services.

The benefits principle is generally satisfied in private market transactions. Indeed, it is when the quid-pro-quo of the payment--expenditure relationship is well defined and can be individually

priced that the case for any public provision of the service tends to collapse.

Once one turns to the public sector, however, application of the theoretically sound benefits principle runs up against some difficult practical problems. Specifically, the principle is difficult to apply to the bulk of public services comprised of

- o pure public goods where persons cannot be excluded from the benefits of a service. (e.g., public health programs, national defense);
- o programs that exhibit economic "spillovers"--a circumstance where the benefits (or costs) of a public activity accrue not only to the direct user but also other individuals who are not direct parties to the service provision (e.g., the general social gains of public education and public safety); and,
- o programs specifically designed to redistribute income (e.g., welfare assistance, low income housing).

That these practical obstacles exist for the application of the benefits principle to the public sector does not rule out the use of tax earmarking; but it does force the case for earmarking to be made on the basis that a logical as well as strong correlation can be drawn between the act of paying a tax and the delivery of the services.

In sum, its clear that in reality the rationale for earmarking of public revenues is both rigorous and complex. Accordingly, it is appropriate to take a closer look at marking by briefly examining the pros and cons that are commonly introduced into the political debate.

Pro and Con Argumentation for Earmarking

The three strongest arguments for earmarking follow:

- o Linking Program Costs To the Benefits

As discussed above, to the extent that it is possible to identify a clear relationship between the activity being provided

and the payment being made, there is a great deal of merit to tax earmarking. And, there are several circumstances in which that can be made and is implemented in the state of Nevada.

The most straightforward examples are listed in the State Comptroller's Annual Financial Report, which presents data on 63 State Special Revenue Funds that are largely financed by a combination of earmarked taxes and other revenues (e.g., fees and charges).[10] The overwhelming majority of these meet any reasonable application of the benefits test. For example, a special gross receipts tax on utilities is used to defray most of the costs related to the Public Service Commission's regulatory activities.

Another example that most analysts agree meets the benefits test is the earmarking of the tax proceeds from the sale of motor fuels for highway and road maintenance and the support of other transportation activities(e.g., boating facilities). The tax payment--direct user test is certainly not a perfect one since the population as a whole gains indirectly from roadway maintenance in the form of reduced distribution costs for all sorts of commodities as well as from other indirect benefits (e.g., the California tourist that drives over the Kingsbury Grade for a meal in historic Genoa).

In contrast, the practice of earmarking of general revenues--the Local School Tax, SCCRT, and BCCRT being the prime examples--fails to meet any reasonable application of the criterion of linking costs to benefits.

o Inducing the Public To Support New Or Increased Taxes

In an era of constitutional limitations on government spending for general purpose activities, the frustrations with periodic budget deficits, and a growing distrust among some voters of government in general, one way that some lawmakers and lobbyists have of increasing the government's revenue intake is to package a new or increased revenue source with the earmarking promise that the funds will be used for some particularly meritorious purpose. To the extent that this results in a linking of the service with

beneficiary charges, this is, as already noted, not only good politics, but also good fiscal practice. But when the tax cost--expenditure benefit cannot be demonstrated, then little other justification can be cited than that of fiscal expediency. The most recent illustration of this circumstance in Nevada is the (Constitutionally mandated) earmarking of the Estate Tax for the education.[11] There is simply no logical tax with expenditure linkage here.

The best example of fiscal expediency is, again, the allocation of nearly two-thirds of the total general sales tax proceeds to counties, cities, and school districts. Again, there is no fiscal logic at work here.

o Assuring A Minimum Level of Spending On a Particular Service.

An argument closely related to the preceding one is that earmarking is required to assure a minimum level of service. In order for this justification to meet the test of logic, one would have to argue that but for earmarking the support for the service would, for all practical purposes, be eliminated. This minimum service view may be behind the motives of many persons who, in the absence of an alternative, feel they must sell an additional tax such as the slot levy for the support of the maintenance of the buildings associated with post secondary education.

The key criticisms of earmarking are as follows:

o Hampering Effective Budget Control

The first argument against the practice of earmarking is that it interferes with the ability of elected officials to shift budget priorities in the face of changing conditions and public preferences. In cases where a clear quid-pro-quo relationship cannot be shown between tax payments and benefits, earmarking of funds will hamper the ability of officials to efficiently allocate funds to expenditure functions.

Consider an earmarking example that at first glance seems to

make sense--the use of the tax on alcoholic beverages for support of alcohol drug and rehabilitation programs. Yes, drinking alcoholic beverages is associated with alcoholism and its related spinoffs such as liver cirrhosis. But its also associated with a myriad of other problems. For example, for every four drinking drivers who kill themselves on the highways, approximately three innocent victims also die.[12] What's more important in terms of effectiveness in reducing the social costs from highway killing--serving the alcoholic through rehabilitation or programs to help counsel those who were close to the innocent victims? The answer is, we really do not (may not) know which expenditure is the more effective. Why, then, tie up general revenues for a rehabilitation program when there may be other even more pressing needs for limited tax funds? Maybe, in fact, there is a third or fourth, etc., social need that is far more urgent than anything that has to do with drinking? Legislators are elected to make those often difficult choices among competing uses of public monies. Earmarking only makes the process more difficult.

- o Reducing political Responsibility for the Periodic Review of the Use of Public Funds

Governmental activities that receive earmarked funds tend to be left out of the systematic review given to other types of expenditures--a review that sound budget policy requires. When a program is supported by unrelated earmarked taxes or is thought to need periodic re-evaluation, then earmarking will be detrimental in that expenditures on the program will not be guided by the preferences of either taxpayers or policy-makers. Overtime, spending priorities are bound to change and earmarking will hamper the ability to accommodate such changes.

- o Making Finances Fungible

The most important criticism of the earmarking of general fund revenues is also one that should give even the most ardent proponents of the practice concern: earmarking is a kind of "shell

game" whereby once the practice becomes part of the law, policymakers may feel that they are largely (or, perhaps, totally) absolved from any responsibility to appropriate additional general revenues to support of the program. To put it in somewhat more elegant terms, finances are "fungible" or interchangeable. This situation is most likely to occur if spending on the designated program is more than the amount of revenues earmarked. Indeed, there is even some recent empirical work that has been done on school financing in Illinois that concludes that earmarking of lottery revenues for school purposes has resulted in a diversion of at least an equal amount of substitute revenues that would otherwise have gone to the support of education.[13]

Finally, it should be noted, that this diversion of funds might result even from what may seem like a minor change to an earmarking statute such as redefining the purpose to which funds are dedicated can be changed. For example, including highway patrol expenses in the category of "highways" could thwart attempts to increase expenditure on highway construction through earmarking.

CONCLUDING COMMENT

For most states, the relative importance of earmarking has declined over the past 30 years as other (non-earmarked) revnues have grown at a faster rate. In veiw of the fact that the representative government alternative (as flawed as it may be) to the earmarking of general tax proceeds provides a much more flexible tool for efficient and fair budget outcomes, that trend is a positive one. As the state's population and economy change overtime, it is inevitable that the state's budget priorities will also change. This is particularly true for Nevada, which is one of the fastest growing states in the nation.

Given the rationale for earmarking and the substance of arguments both pro and con for the practice, there may at times be sound reasons for Nevadans to continue to earmark revenues such as

those associated with most of the State's special revenue funds (the highway and regulated utilities taxes being the best examples). Indeed, there is merit in having state and local officials look for other examples for such a direct cost--benefit links as a way to expand certain public activities. Clark County, for example, may wish to vigorously explore the full range of developer fees and charges utilized in some fast growing communities in Florida, California, Colorado and Virginia.

However, the same cannot be said with respect to the Nevada's earmarking of its general revenue funds derived from the "pick up" estate tax, the annual slot taxes, its selected excise levies, and, especially, the general sales tax.

With respect to the unearmarking of the Local School Support Tax, the SCCRT, and the BCCRT there are at least two options. The first, which is clearly going to be politically difficult, is to change the Constitution in a manner that eliminates the rate cap on state general fund use of the sales tax. There is much merit to the argument that the present 2 percent cap was a result of historical accident, and its time the result is undone. This state has too many challenges ahead of it to continue to so constrain its budget flexibility.

The second option is statutory--repeal the local school tax, the SCCRT, and the BCCRT--and let the local governments make their own decisions with respect to how they pay for schools and general purpose government support.

ENDNOTES

1.Steve Gold, Brenda Erickson and Michelle Kissell, Earmarking States Taxes (Denver: National Conference of State Legislatures, May 1987), 87 pages.

2. Laurence J. Haas, Paying As You Go, National Journal, October 1988, p. 2645.

3. Nevada's reliance on user fee revenue will be discussed in the chapter, Fiscal Comparisons. User fees are payments by firms or consumers to a government or other public works provider for services. The revenues from these fees are often earmarked for provision of the respective services.d For a description of the pros and cons of this practice, see Fragile Foundations: A Report on America's Public works, National Council on Public works Improvement, Final Report to the President and congress, Washington, D.C., February 1988, pp. 61-64. Copies of these reports may be obtained through the U.S. Advisory Commission on Intergovernmental Relations, Washington, D.C.

4. Tax Foundation, Inc., "Earmarked State Taxes," New York, N.Y., 1965.

5. U.S. Bureau of the Census, Government Finances: Local Government Finances in Selected Metropolitan Areas and Large Counties, 1975-76 (6776, No.6) and Local Government Finances In Major County Areas, 1985-866 (67-86-6), Washington, D.C.

6. Constitution of the State of Nevada, Article IX, Section 5.

7. Nevada Department of Transportation, Cost Allocation Study, Carson City, Nevada, 1986.

8. Nevada Department of Taxation, 1987-88 Ad Valorem Tax Rates for Nevada Local governments, page 40.

9. Total revenues for these purposes was defined as total revenues from all sources minus revenue from opening balances minus revenues from bond proceeds. In essence, this is total current revenues for operating purposes.

10. State of Nevada, Office of the State Controller, Comprehensive Annual Financial Report, Fiscal Year ended June 30, 1986, Carson City, April 23, 1987.

11. Constitution of the State of Nevada, Article X, Sec. 4.

12. Conversation with Charles E. Phelps, Professor of Political Science and Director of the Policy Analyses Program, University of Rochester, November 19, 1987.

13. Mary Borg and Paul Mason, "The Budgetary Incidence of a Lottery to Support Education," National Tax Journal, March 1988, pp. 75-85. Also see the discussion by Gold, Erickson and Kissell, Earmarking, Cases, especially p. 25-29.

CHAPTER 6

THE TOURIST INDUSTRY

INTRODUCTION

Nevada's economy is less diversified compared to the other 49 states in the U.S. While mining, warehousing, and the federal government are important primary industries, tourism is the prime mover in the Nevada economy. Nevada's per capita tourism revenues is by far the highest in the U.S. while total revenues from tourism rank in the top 10 among the 50 states. The state hosts well over 25 million U.S. and foreign visitors a year. In 1986 visitors to Nevada spent nearly $8 billion dollars in a state where the total income (i.e. the gross state product) was less than $20 billion.

The state boasts of having numerous visitor attractions both man-made and natural--mining towns, Indian reservations, Hoover Dam, Lake Mead, frontier life, outdoor recreation, internationally famous skiing, the largest alpine lake in North America, the newest National Park, and the "loneliest road in America". However, the unique feature of Nevada's tourist industry is its dominance by casino gambling and its related activities.

In 1931 Nevada became the only state in the U.S. to legalize casino gambling within the entire state. However, casino gambling, or gaming, did not become a major visitor attraction in Nevada until after WWII. In the post-WWII period, the industry grew relatively rapidly in response to booming population and incomes in California and in the other western states, combined with increased social acceptance of gambling. The state's casino industry enjoyed a monopoly position until New Jersey became the second state to legalize casino gambling in Atlantic City beginning in 1978. One recent report concluded that "at least 80% of Nevada's tourism is directly attributable to the attractions and support of legalized gambling."[1]

The purpose of this chapter is to asses the economic

contribution of tourism to Nevada's economy. The chapter begins with a brief review of the historical performance of Nevada's tourist industry since 1970 and then proceeds to measure the quantitative impacts of tourist spending on Nevada's business gross sales, jobs, earnings and state tax revenues for 1986.

NEVADA'S VISITOR INDUSTRY, A BRIEF REVIEW

The major obstacle to the analysis of Nevada tourism is the lack of comprehensive state-wide data on the level of tourism activity. The primary sources of data on visitor volumes and spending are those supplied by the local convention and tourist authorities for their own destinations. Except for Las Vegas, Reno-Sparks, and very recently Lake Tahoe, there are no historical data series on either visitor counts or aggregate expenditures for the other areas.

There are two state-wide historical data series on Nevada tourism although neither is comprehensive. One is the annual estimates of U.S. travel expenditures in the 50 states published by the U.S. Travel Data Center (USTDC), a private non-profit travel research organization affiliated with the Travel Industry Association of America. The other consists of data on Nevada taxable gaming revenues published by the Nevada State Gaming Control Board.

U.S. TRAVEL EXPENDITURES IN NEVADA

Each year, the U.S. Travel Data Center publishes estimates of the annual U.S. travel expenditures in the 50 states.[2] These estimates are now available from 1974. The USTDC uses national survey data on travel activity levels combined with the estimated average costs of each unit of travel activity to produce total dollar amounts of spending on a number of different categories of travel-related goods and services by state. The spending estimates

include all travel expenditures on overnight trips away from home an day trips to places 100 miles or more away from home. Day trips of less than 100 miles from home are excluded. Expenditures by foreign visitors are also excluded, but a separate tabulation for 1983 found that foreign visitors accounted for only 5% of total visitor spending in Nevada.[3]

Figure 1 displays the estimates of U.S. visitor expenditures in Nevada both in current and in real (inflation-adjusted 1967) dollars for the period 1974 to 1986. During this period, U.S. visitor expenditures in Nevada grew at a compound rate of 12.3% per year in current dollars, and 5.0% per year in constant dollars.[4] It is apparent that growth dipped during the 1981-1982 national economic recession, but has since resumed its upward trend. However, when these expenditures are divided by the number of Nevada residents (see Figure 2), real travel expenditures per Nevada resident have declined since 1979. Similarly, U.S. travel expenditures as a percentage of total personal income in Nevada has declined since 1978 (see Figure 3).

STATE GAMING REVENUES

Figure 4 illustrates the growth of state gaming revenues in Nevada in current and constant dollars since 1970. The interruption in the upward march of real gaming revenues is apparent between 1980 and 1982, again attributable to the national recessions in 1980 and in 1981-82. Overall, between 1970 and 1986, taxable gaming revenues grew at an annual compound rate of 11.8% in current dollars, and 4.5% in constant dollars. For the shorter period between 1974 and 1986, gaming revenues in current dollars grew at an annual compound rate of 10.5%, and 3.3% in constant dollars. Thus gaming revenues grew at a slower pace after 1976 than before 1978 while total U.S. visitor spending in Nevada grew faster than gaming revenues. Figure 5 shows that real state gaming revenues per Nevada resident reached a peak in 1978 and has since

declined. As with U.S. visitor expenditures in Nevada, gaming revenues as a percentage of total state personal income also reached a peak in 1976 and has declined (Figure 6).

It is quite clear from the analysis here that population and personal income in Nevada have grown faster than tourist spending and tourist gaming expenditures since the late 1970's. One way to interpret this is that tourism has become somewhat less important to Nevada's economy.

COUNTY LEVEL TOURISM

The gaming-dominated tourist industry in Nevada is geographically concentrated in three counties. Clark County is by far the largest since it has both Las Vegas -- "the entertainment capital of the world" -- and Laughlin, the fastest growing gaming destination in Nevada. In 1986, Las Vegas hosted 15.2 million visitors while Laughlin hosted another 1.5 million visitors. Clark County accounted for 68.2% of the state's nearly $3.5 billion in gaming revenues. Washoe County (Reno-Sparks) is a distant second with approximately 6.8 million visitors in 1986, and contributed 18.8% of state gaming revenues. Douglas County (Lake Tahoe) hosted about 1.9 million visitors in 1986 and contributed about 8% of state gaming revenues. There are no data on visitor volumes for the remaining counties, but together they accounted for only 4.4% of gaming revenues in 1986. Since the late 1970's only Clark County and the "rest-of-the-state" have enjoyed significant real growth. Concerns over environmental degradation especially in Lake Tahoe and water shortage in Reno have stirred local resident opposition toward more tourism growth in both counties.

COMPETITION

ATLANTIC CITY

Although the first casino opened in Atlantic City in May, 1978, Atlantic City did not pose a significant threat to the Nevada gaming industry until at least 1980 when gaming revenues in Atlantic City climbed to about 30% of revenues in Nevada (see Table 1).

The competitive pressure appears to have stabilized as the growth in gaming revenues in Atlantic City has slowed considerably since 1984. One recent study suggests that the Atlantic City casino industry's market share "seems to have reached saturation" unless it can extend its geographic market beyond the current 150 to 300 mile radius.[5]

If Atlantic City gained at the expense of the Nevada visitor industry, then its impact should have been greatest on the volume of eastern visitors to Nevada between 1980 and 1984. The only data that would permit a test of this theory are the data on Las Vegas visitors. Table 2 displays the volume of Las Vegas visitors by region of origin between 1975 and 1987:

Table 2 shows that visitors from the east declined in volume between 1980 and 1982; but so did total visitor arrivals in Las Vegas. The overall decline is at least partially attributable to the national economic recessions of the early 1980's. However, despite economic recovery after 1982, the visitor volume from the east continued to decline through 1984. By contrast, visitor volumes in the mid-west and the south appeared to have held up reasonably well after 1982, while the number of western visitors increased significantly. The evidence seems to indicate that the legalization of casino gambling in Atlantic City has had a measurable negative impact on the Las Vegas visitor industry. Indeed, if the number of eastern visitors to Las Vegas in 1986 were the same as in 1979, the total number of visitors in Las Vegas would have been 5.2% higher.

TABLE 1

Year	Atlantic City Gaming Revenues (in million $)	% Increase From Previous Year	As % of Nevada Gaming Revenues
1978	$ 129	--	7%
1979	339	163%	16
1980	667	97	31
1981	1,114	71	43
1982	1,498	34	57
1983	1,765	18	62
1984	1,937	10	63
1985	2,088	8	63
1986	2,193	5	63

Source: Atlantic City gaming revenues obtained from Price Waterhouse.

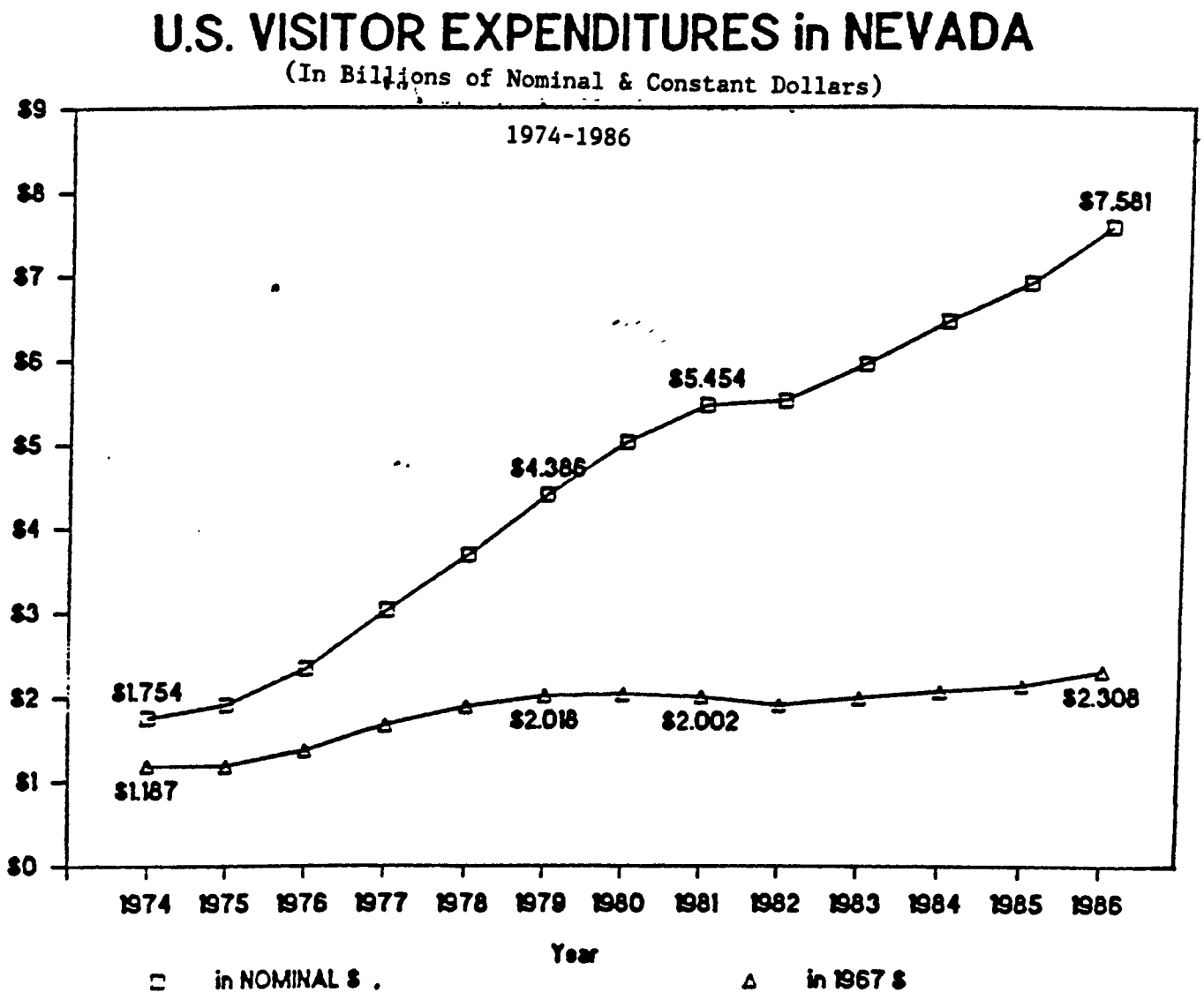
TABLE 2

Las Vegas Visitors By Region: 1975-1987
('000s)

Year	East	Mid-West	South	West	Foreign	Total
1975	1,007	1,647	1,007	5,033	458	9,152
1976	1,172	1,856	1,075	5,080	586	9,769
1977						10,137
1978	1,565	2,459	1,118	5,142	894	11,178
1979	1,404	2,690	1,404	5,497	702	11,697
1980	1,075	2,030	1,194	6,807	836	11,942
1981						11,821
1982	1,047	1,861	1,512	6,631	582	11,633
1983	998	1,976	1,358	7,532	494	12,348
1984	771	2,312	1,413	7,834	514	12,844
1985	852	2,271	1,561	8,943	568	14,195
1986	608	1,672	1,520	10,789	608	15,197
1987	811	2,919	2,108	9,730	649	16,217

Source: Las Vegas Convention and Visitors Authority, 1980 Summary and 1986 Summary; also Las Vegas Visitor Profile Study, 1875-1987. The visitor counts were calculated by multiplying the total number of visitors by the % shares for each region obtained from the visitor profile studies. For 1975-80 the percentages were for calendar years; from 1982-87, the percentages were fiscal years. For the years 1982-87 the fiscal year % were multiplied by the calendar year visitor volumes. The conclusions would not have been changed had the calendar year volumes been adjusted to fiscal year volumes.

FIGURE 1

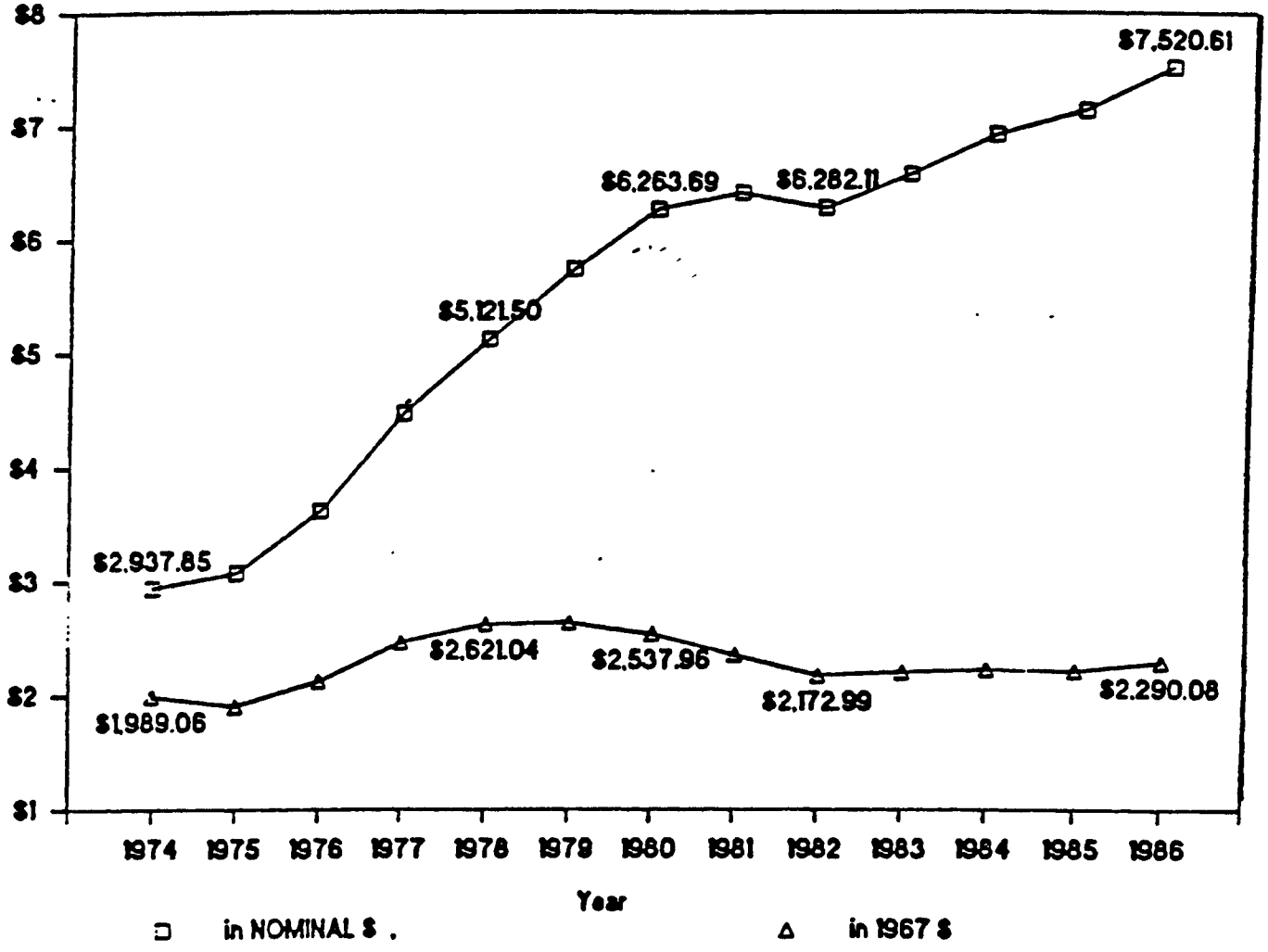


Source: U.S. Travel Data Center, Washington, D.C.

FIGURE 2

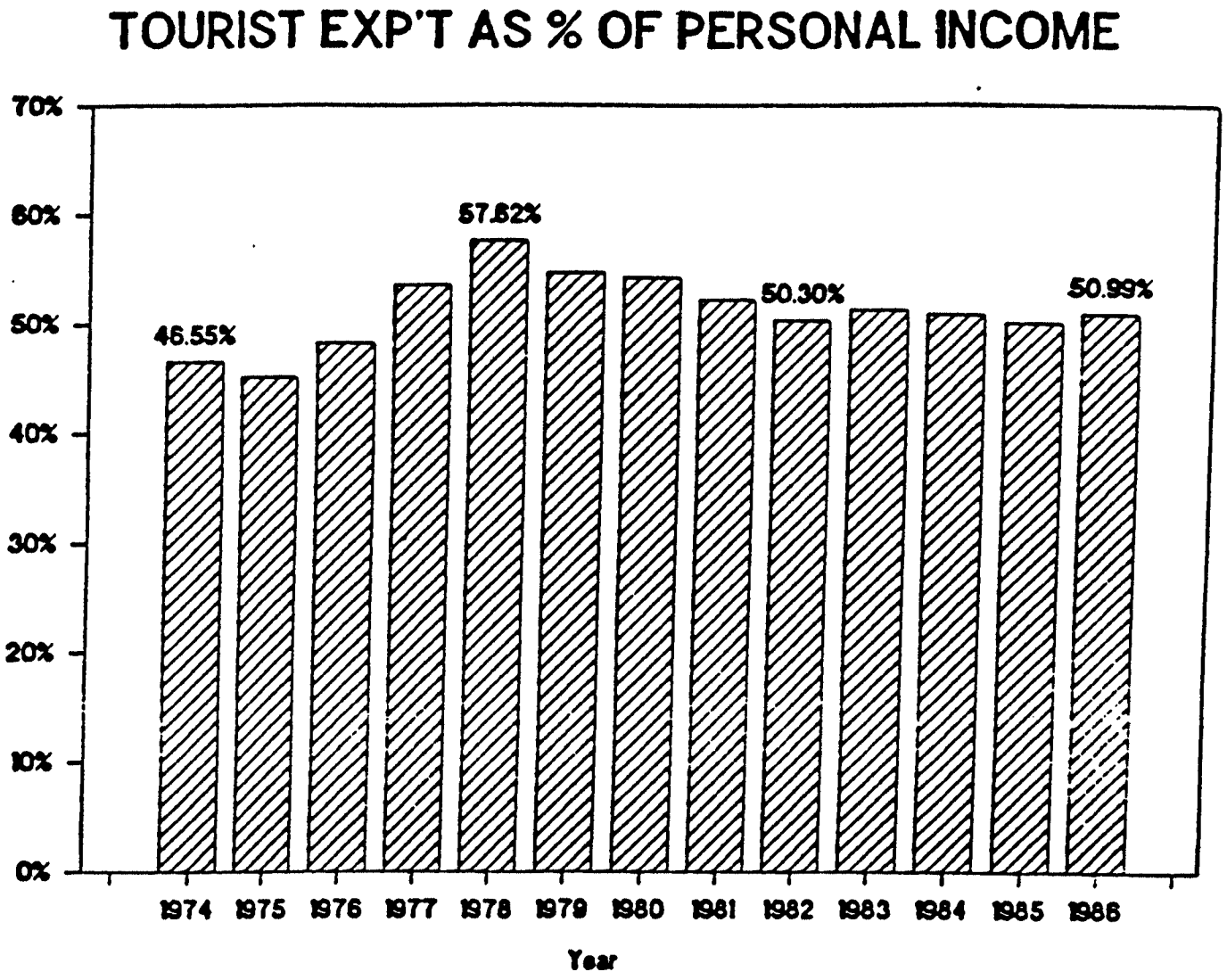
U.S. VISITOR EXPENDITURES PER RESIDENT

Nominal & Constant Dollars, 1974-1986



Source: U.S. Travel Data Center, Washington, D.C.

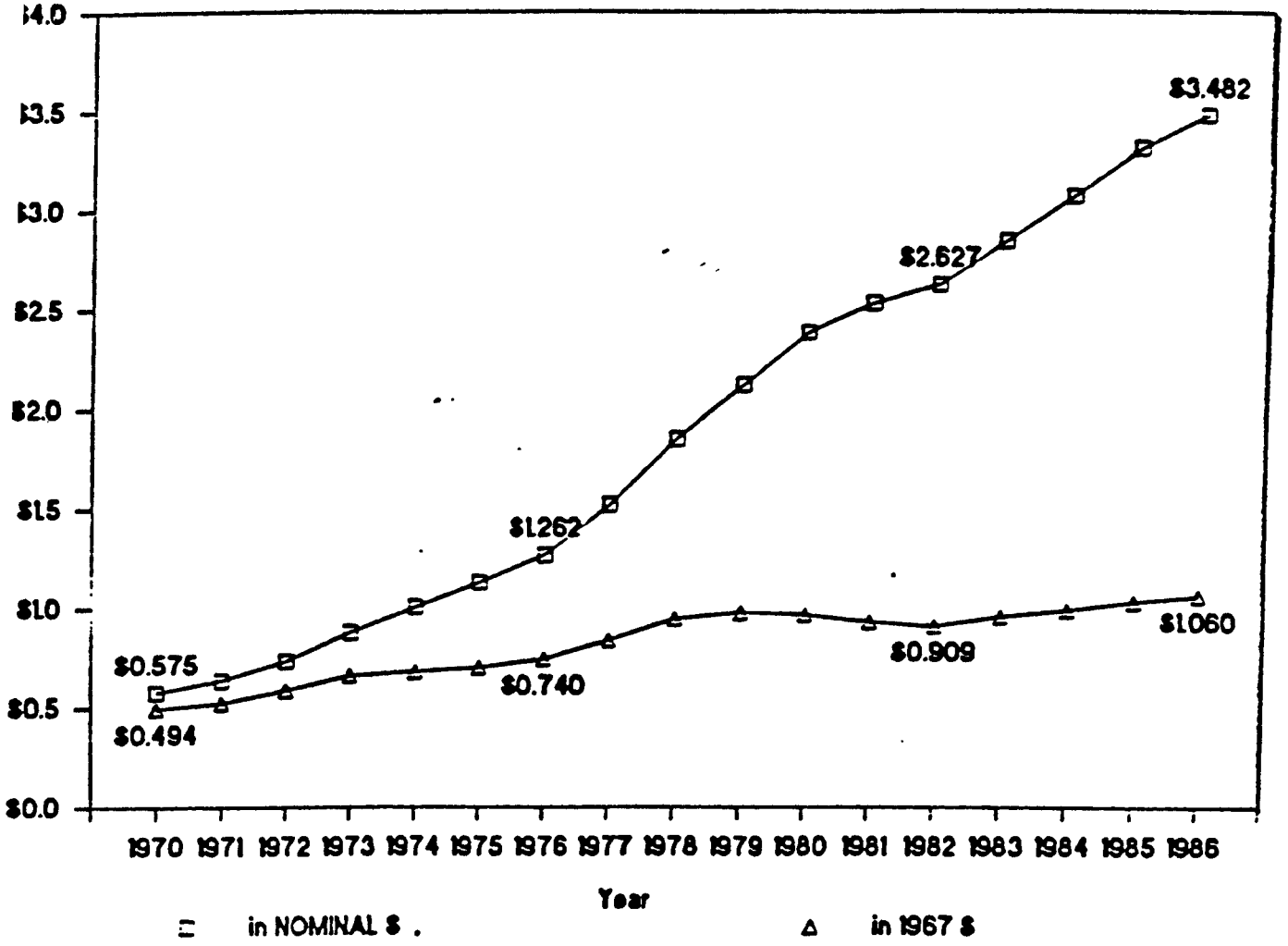
FIGURE 3



Source: U.S. Travel Data Center

FIGURE 4

STATE GAMING REVENUES



Source: U.S. Travel Center

FIGURE 5

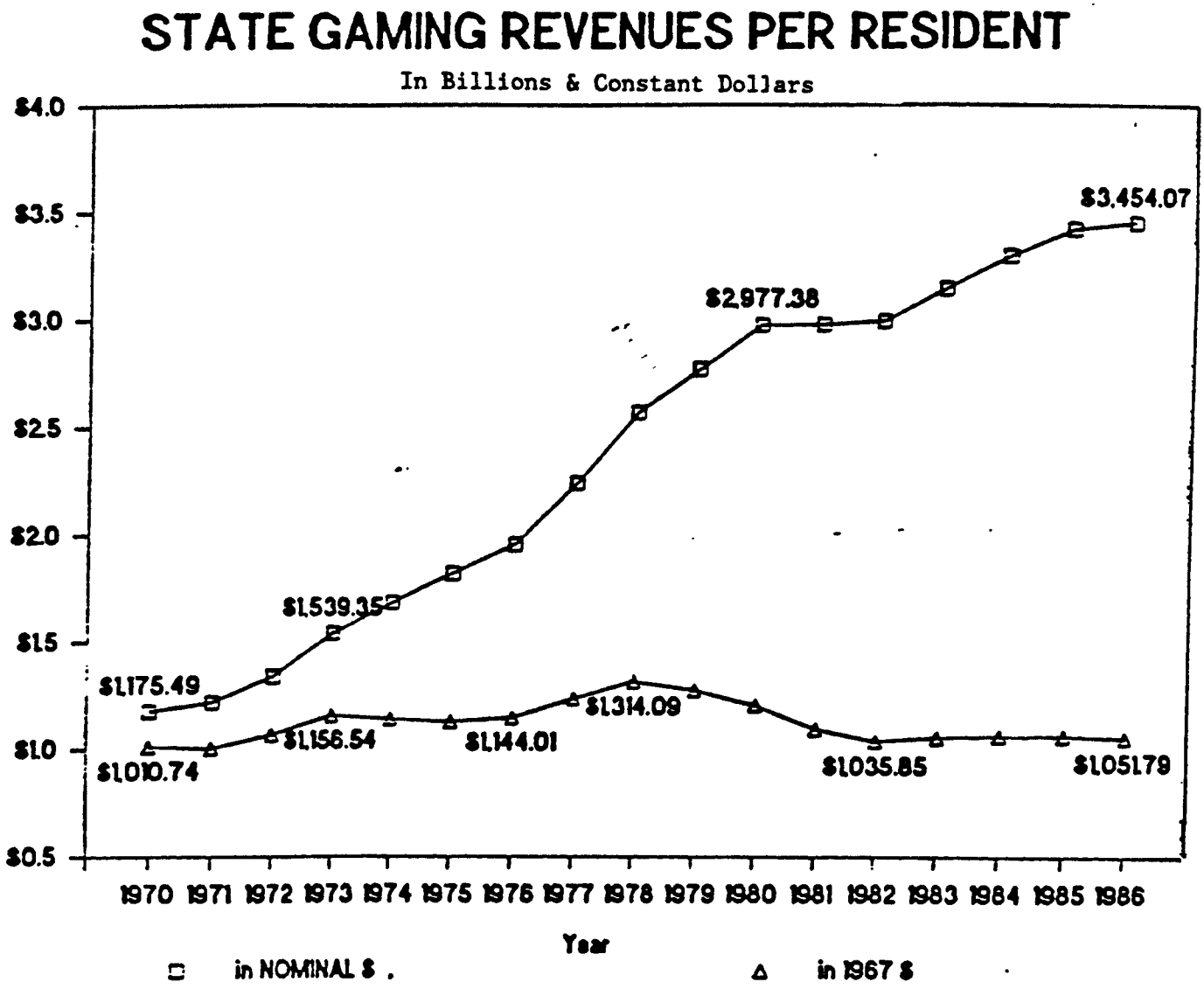
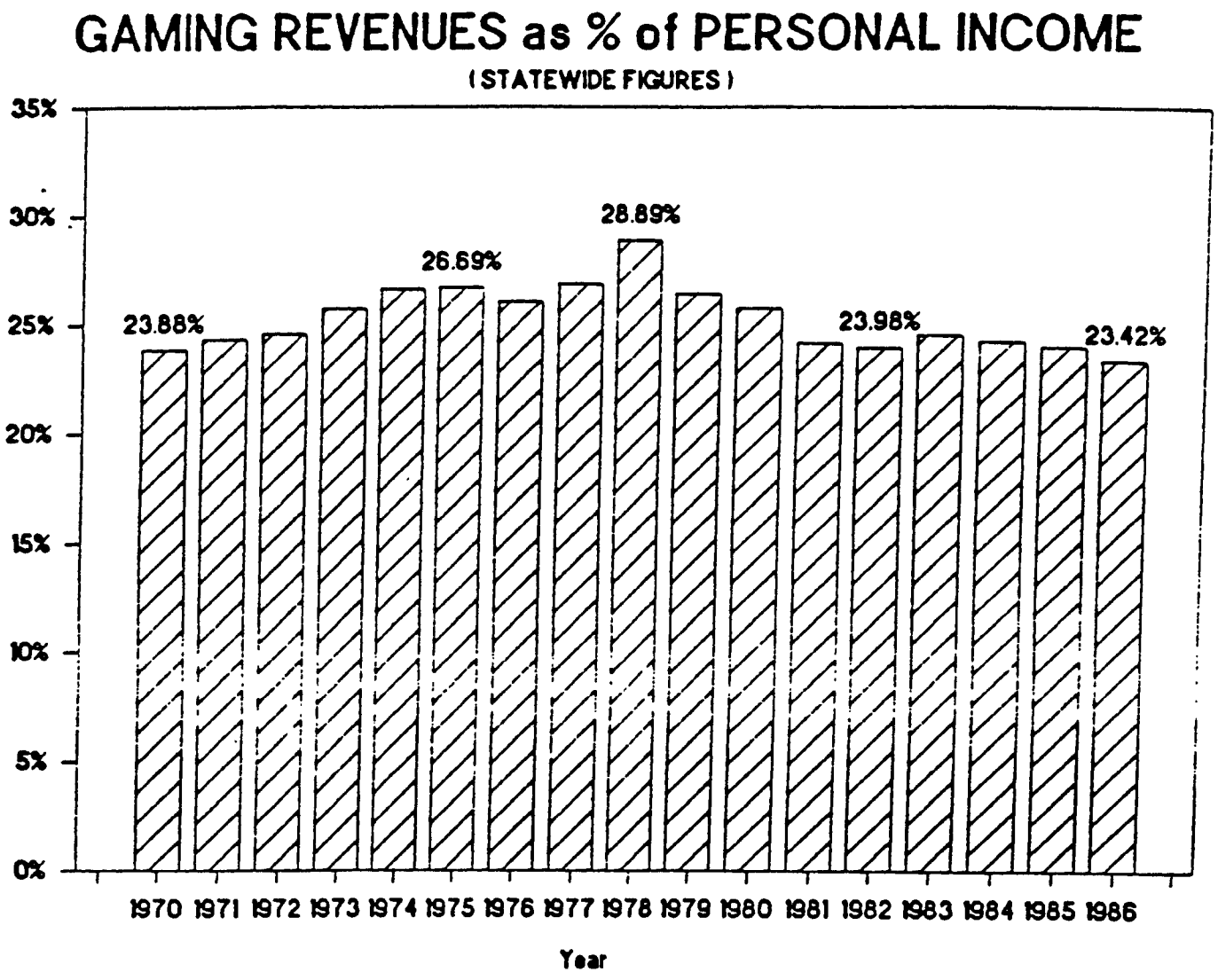

STATE GAMING REVENUES PER RESIDENT
In Billions & Constant Dollars
$4.0
$3.5
$3.0
$2.5
$2.0
$1.5
$1.0
$0.5
$3,454.07
$2,977.38
$1,539.35
$1,175.49
$1,314.09
$1,156.54
$1,144.01
$1,035.85
$1,051.79
$1,010.74
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986
Year
in NOMINAL $.
in 1967 $

FIGURE 6


GAMING REVENUES as % of PERSONAL INCOME
(STATEWIDE FIGURES)
35%
30%
25%
20%
15%
10%
5%
0%
23.88%
26.69%
28.89%
23.98%
23.42%
1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 1980 1981 1982 1983 1984 1985 1986
Year

Without comparable data for the rest of the state, it is difficult to determine the extent of Atlantic City's impact on the entire state. Even if its impacts were confined to the Las Vegas market, the loss of visitors in Las Vegas would have represented 3% of less of the entire visitor industry in Nevada in 1986.

THE CALIFORNIA LOTTERY

The California state lottery, which began operations in October 1985, generated sales in excess of $1.5 billion during its first eight months of operations. Since a large proportion of Nevada's gaming revenues comes from residents of the state of California, the probable effects of the California lottery on the long term growth of Nevada's gaming and tourism industry is a legitimate concern.

Shortly after the introduction of the lottery in California, Eadington tried to estimate the probable impact of the California lottery on Nevada gaming revenues. In order to isolate the effect of the California lottery he compared average growth rates in slot machine and table games revenues during the 15 months prior to the introduction of the California lottery with average growth rates nine months after it began for each of four resort areas--Downtown Las Vegas, Las Vegas Strip, Reno/Sparks, and South Lake Tahoe. Since slot machine gambling is a closer substitute for lottery gambling than table games, if the California lottery had a significant impact on the Nevada gaming industry, one should observe a larger relative decrease in slot machine revenues than in table game revenues. Eadington found that "even though slot revenue growth rates decline for all four regions after the lottery was introduced, the early evidence is inconclusive."[6] In the case of table games, revenues actually declined. However, he suggested that one possible explanation is the long term decline in the popularity of table games relative to slot games so that profit-maximizing casino operators have reallocated floor space from table

to slot games. The sharp decline in table game revenues, therefore, is at least partially explained as a decrease in supply rather than a decrease in demand due to competition from the California lottery.

An alternative method to identify the effect of the California lottery is to examine the number of visitors to Nevada from California and the other western states. If the California lottery had a significant effect, one should observe a decline either in the growth rate or the volume of visitors from California but no visible change in the pattern of visitor arrivals from other western states. Again using the Las Vegas data (see Table 3), the increase in the number of visitors between 1985 and 1986 was 20.5% from California and 20.6% from the other western states. The evidence does not support the view that the lottery had a significant impact on Nevada tourism. Between 1986 and 1987, there was a decrease in the number of visitors from both sources. The concurrent decline suggests a common cause for the decrease, but the number of California visitors decreased by 12% while the number of other western visitors decreased by only 4%. The difference could have been due to the lottery. It is obvious that this approach also cannot provide a definitive answer on the probable effect of the California lottery.

Since efforts to verify the impact of the California lottery on Nevada tourism and gaming revenues using econometric techniques also produced inconclusive results, the overall conclusion must be that the lottery's effects are not large enough to be detected with precision at this time.

IMPACT OF ECONOMIC FLUCTUATIONS

Until recently, it was widely believed that Nevada's visitor industry was recession proof. This belief proved to be wrong during the recessions of the early 1980's. How responsive is demand for Nevada travel to fluctuations in the U.S. economy?[7]

TABLE 3

Western Region Visitors to Las Vegas, 1980-1987

	Number of visitors from:	
Year	California	Other
1980	4,424,511	2,382,429
1982	4,244,832	2,386,548
1983	5,121,950	2,410,330
1984	5,248,934	2,585,296
1985	6,179,567	2,772,283
1986	7,444,520	3,344,640
1987	6,518,832	3,210,768

Source: Table 2 and also Las Vegas Visitor Profile Study, 1980-87.

In order to address this question, an economic model was designed to measure the various relationships between U.S. visitor spending and state gaming revenues and changes in the level of national economic activity (GNP) and the cost of travel. . national product and the real cost of travel. The results indicate that, in the short-run, demand for Nevada vacations is income elastic but price inelastic. In other words, demand is highly sensitive to fluctuations in the national economy, but not very sensitive to changes in the cost of travel. In technical jargon, the price elasticity of demand was close to zero but the income elasticity of demand was approximately two when related to real U.S. visitor expenditures around 1.75 with respect to inflation-adjusted state revenues. These results mean that when the U.S. economy expands by 1%, tourist expenditures in Nevada grow by approximately 2% and state gaming revenues grow by 1.75%.

They suggest that prospects for the continued growth of the Nevada tourist industry in the next few years are excellent as long as the national economy continues to expand (in real terms) at a steady pace of, say, 2.5% to 3.0% per year. Within this modest range of economic growth, Nevada can look forward to <u>real</u> growth in visitor spending and gaming revenues of between 4.0 to 6.0% per year. In <u>nominal</u> terms, the growth rates could range between 8.0% 11.0% per year.

THE ECONOMIC CONTRIBUTION OF TOURISM IN NEVADA

This section is devoted to the measurement of the total impact of tourist spending on Nevada business gross receipts, jobs, and earnings for calendar year 1986 by applying a regional input-output model of the Nevada economy to U.S. Travel Data Center estimates of visitor spending in Nevada. The impact of tourist spending on state tax revenues for fiscal year (FY) 1986 is also estimated.

U.S. TRAVEL DATA CENTER STUDIES

Each year the USTDC publishes estimates of the economic impact of U.S. resident travel on all 50 state economies using its Travel Economic Impact Model.[8] The purpose of he model is to generate individual state estimates of employment, payroll, and tax revenues generated by travel away from home in the U.S. Table 4 displays USTDC estimates of the impact of U.S. travel on Nevada's economy between 1981 and 1986. However, the USTDC impact estimates include direct effects only, and do not include the multiplier (or, trickle-down) effects of tourist spending in Nevada. Another source of underestimation is the exclusion of the economic contributions of foreign visitor expenditures on the state economy.

REGIONAL ANALYSIS

It is possible to describe more fully the contribution of tourist spending to gross business receipts, employment and earnings in Nevada by using an input-output model of the Nevada economy developed recently by the U.S. Department of Commerce, Bureau of Economic Analysis (BEA). The model, which is a mathematical technique that describes interrelationship among sectors of the economy, adapts the national input-output table to derive input-output tables for individual states or counties. From these regional tables, BEA has generated total output, employment and earnings multipliers by industry for all 50 states and has published them in a Handbook (1986). The multipliers are intended to show the total economic impact of initial changes in a state's economic activity. This permits one to estimate the impacts of projects and program expenditures by industry on business output (i.e. gross receipts or sales), earnings (the sum of wages and salaries, proprietors' income, and other labor income, less employer contribution to private pension and welfare funds), and employment (i.e. full-time equivalent jobs.[9]

TABLE 4

USTDC Estimates of Impacts of U.S. Tourist Spending in Nevada

Year	Payroll (million $)	Employment*	Taxes (millions $) Federal	State	Local
1981	$1,454.0	123,050	$342	$182	$121
1982	1,525.3	121,600	335	191	23
1983	1,682.4	129,300	360	151	124
1984	1,685.6	134,800	399	274	132
1985	1,806.5	141,600	413	371	112
1986	2,020.2	151,311	NA	418	125

* full and part-time

Source: U.S. Travel Data Center, Impact of Travel on State Economies, 1981-1985 issues; also The Economic Impact of U.S. Visitors on Washoe County, Nevada, 1986.

TOURIST SPENDING IN NEVADA, 1986

In 1986, U.S. visitors spent $7.581 billion in Nevada.[10] Unfortunately, there is no expenditure estimate available for foreign visitors. In 1983, foreign visitors spend $309.9 million in Nevada, or about 5% of U.S. visitor expenditures. The U.S. Travel and Tourism Administration estimated that in 1983, 996 thousand foreign visitors visited Nevada compared to 1.07 million in 1986, a gain of some 7.4%. By contrast, real spending by U.S. visitors in Nevada increased by 15.9% between 1983 and 1986. This suggests that foreign visitors increased at a slower pace than U.S. visitors. Since the share of foreign visitor spending is small relative to U.S. visitor expenditures, it was assumed that expenditures by foreign visitors were estimated to have spent $7.976 billion in Nevada in 1986. These expenditures were distributed as follows:

Transportation	$1,299 million
Lodging & Entertainment (Gaming=$2,936)	5,024
Food & Drink	1,329
Retail Purchases	324
TOTAL	$7,976 million

Table 5 presents the relevant total output, earnings and employment multipliers which, when multiplied by the corresponding tourist expenditures, produce estimates of the total sales, earnings and employment generated by the $7,976 billion spent by visitors in Nevada in 1986. The employment multipliers indicate the number of full-time equivalent jobs
produced by $1 million change in spending.

Calculations show that for 1986 tourist expenditures generated $13.3 billion in output (business gross sales), $4.5 billion in earnings and 263,574 in full-time equivalent employment. Thus, each dollar spent by a tourist in Nevada generated $1.67 of total

business receipts. In addition, tourism-generated earnings represented approximately 45% of all net earnings in Nevada.

TABLE 5
Output, Earnings and Employment Multipliers for Nevada: 1986

Category	Multipliers Output	Earnings	Employment
Transportation	1.6446	.6526	29.0
Lodging & Entertain	1.7006	.5540	31.1
Food & Drink	1.5714	.4697	42.1
Real Purchases	1.6869	.6830	42.3

Source: The Urban Institute.

It is more difficult to estimate the relative contribution of tourism to total employment in Nevada. In 1986, total employment (full and part-time) was 465,867.[11] This was converted to full-time equivalent employment by multiplying 465,867 by .8834--the ratio of full-time equivalent employment to total employment in state and local governments in Nevada[12]--to obtain 411,547. This ratio is the only data available on the relationship between full-time equivalent employment and total employment in Nevada. One might suspect that in the other sectors of the economy--particularly tourism--the ratio might be lower. However, a survey of hotel employment for another major tourist economy (Hawaii) during a tough period (November) found that full-time equivalent employment was 82.5% of total (full and part-time) employment[13] so that .8834 may not be too high for total employment in Nevada. Hence, the 263,574 full-time equivalent jobs generated by tourist

expenditures in 1986 represented 64% of all full-time equivalent employment in Nevada. It should come as no surprise that the share of earnings attributable to tourism is less than its share of employment, since the visitor industry is a low wage industry compared to other industries in the state.[14]

TOURIST EXPENDITURES AND STATE GENERAL FUND TAX REVENUES

What is the impact of tourism spending on General Fund tax revenues? The FY 1986 General Fund tax revenues ($449.9 million) are much smaller than total state revenues. The difference is allocated either to special state funds (e.g. State Highway Fund) or distributed to the county and local governments in Nevada. There is also levied a state-mandated hotel room tax assessed at 1% of gross receipts from which 3/8 percent goes to the Commission on Tourism to promote Nevada tourism and the remaining 5/8 percent goes to the counties. In FY 1986, the Commission on Tourism received $2.831 million so that revenues from the 1% state-mandated room tax were $7,549 million.[15]

TOURIST SPENDING AND SALES TAX REVENUES

The combined sales tax in Nevada is a percentage tax on the gross receipts from retail sales of tangible personal property (i.e. goods and not services) with special exemption on sales of food for home consumption, prescription drugs/prosthetic devices, motor fuel, and a few other items. It consists of 5 separate taxes: state sales and use tax (2%), basic city-county relief tax (.5%), supplemental city-county relief tax (1.75%), local school support tax (1.5%), and the optional county tax (.25%).

In FY 1981, the State Legislature passed a 1.75% special state mandated county-imposed sales tax--the Supplemental City/County Relief Tax (SCCRT)--to partially replace local property taxes. The theory behind this "tax shift" was that sales taxes were largely

paid by tourists, while property taxes were largely paid by Nevada residents. However, there was no empirical evidence to show that the state's combined sales tax is largely exported. Table 7 indicates that in FY 1986 state taxable sales totalled $8.6 billion; but with the exception of sales by eating and drinking places, general merchandise, and specialty stores where significant shares of the sales might have been to tourists, most of the sales appear to have been made to resident rather than to tourists. To design the appropriate tax system, it is important to determine what proportion of the sales tax is directly paid by residents versus tourists.

In calendar year 1986, tourists were estimated to have spent nearly $8 billion in Nevada of which $3 billion were allocated to gambling. When the calendar year spending estimate is adjusted to a fiscal year basis, total visitor spending in Nevada for FY 1986 was a little over $7.6 billion. Since gambling and lodging revenues are not subject to sales taxation, and assuming that all transportation expenditures were also untaxed, then only $2.4 billion of the total visitor expenditures were subject to the state's combined sales tax. This represented about 49% of visitor non-gaming expenditures but only 28% of total taxable sales in the state. Thus, for FY 1986, tourist spending directly generated $48,088 million in sales taxes to General Fund tax revenues.

TOTAL SPENDING AND GENERAL FUND GAMING TAXES

The U.S. Travel Data Center estimated that U.S. tourists spent $2.791 billion on gambling in Nevada in calendar year 1986, representing about 80% of total taxable gaming revenues in Nevada. Adding foreign tourists would raise the percentage to nearly 85%. Discussions with various individuals in the Nevada visitor industry indicate that perhaps 10-20% of total gaming revenues were derived from local residents, although the percentage may vary from county to county. It is therefore assumed here that tourists contribute

85% of total state gaming revenues. For FY 1986, Nevada's tourists contributed $189.011 million in gaming taxes to the General Fund.

OTHER GENERAL FUND TAXES

Among the remaining taxes, liquor, cigarettes, and other tobacco excises taxes are clearly affected by tourist expenditures. However, the three taxes netted only $18.303 million to the General Fund in FY 1986, comprising only 4% of General Fund tax revenues. We apportioned the amount attributable to tourists on a per capita per day basis using the ratio of tourists to residents, each adjusted for the number of days of stay in Nevada. In 1986, there were 109,407,000 visitor days compared to 198,560,000 adult resident days in Nevada.[16]
Therefore, tourists accounted for 36% of total adult person days in Nevada. The amount of liquor, cigarette, and other tobacco taxes attributable to tourists was $6.589 million in FY 1986.[17]

To complete the analysis, it was assumed that 90% of all jet fuel taxes were attributable to tourists. In 1986, 1.592 million passengers arrived at the Reno airport of which 85% were visitors.[18] For Las Vegas, the ratio was reported to be 100%.[19] Total tourist contribution to jet fuel tax revenues was calculated to be $1.588 million for FY 1986.

DIRECT CONTRIBUTION TO GENERAL FUND TAX REVENUES

The total (direct) contribution of tourist spending on FY 1986 General Fund tax revenues was:

Sales Tax	$ 48.088 million
Gaming Tax	189.011
Excise Tax	6.589
Jet Fuel Tax	1.588
Total	$ 245.276 million

Thus, tourists directly contributed 54.5% of all General Fund tax

revenues in FY 1986.

DIRECT CONTRIBUTION TO TOTAL STATE TAX REVENUES

Using the methods developed above, the direct contribution of tourist spending to total state tax revenues in FY 1986 was:

Sales Tax	$ 139.715 million
Gaming Tax	207.537
Excise Tax	11.800
Fuel Tax[20]	37.613
Hotel Room Tax	7.549
Total	$ 404.214 million

The $404.214 million represented 43.9% of total state tax revenues in FY 1986.

TOURIST SPENDING AND INDIRECT TAXES

In addition to direct taxes, tourist expenditures generate additional income among the local residents; and when the local residents spend some of the new income which they have received, more tax dollars are generated. In other words, tourist expenditures generate indirect taxes by generating additional local resident expenditures. This section is devoted to the estimation of indirect taxes generated by tourist expenditures in Nevada for FY 1986.[21]

The revenue elasticity with respect to the state's personal income measures the responsiveness of a particular tax when the state's personal income rises or falls. If the revenue elasticity of a particular tax is greater than 1, this means that a 1% rise in the state's personal income is associated with more than a 1% rise in tax revenues. That tax is said to be highly responsive to income (economic) growth.

The revenue elasticities for six of the Nevada state taxes--the sales tax, the gaming tax, the insurance tax, the liquor tax, the cigarette tax, and the gasoline taxes are as follows:[22]

Sales Tax Revenues	.625
Gaming Revenues	.836
Insurance Tax Revenues	1.230
Liquor Tax Revenues	.081
Cigarette Tax Revenues	.154
Gasoline Tax Revenues	.025

Among the six taxes, only the insurance tax is highly responsive to income growth while the elasticity estimate for the gasoline tax is almost zero.

The indirect tax revenues generated by tourist spending for FY 1986 are estimated as follows:

	General Fund	Total State
Sales Tax	$26.875 million	$ 79.638 million
Gaming Tax	9.900	10.859
Insurance & Property Tax	15.425	15.425
Excise Tax	.461	.967
Motor Fuel Tax	0.000	.590
Total	$52.661 million	$107.479 million

When both direct and indirect taxes are combined, tourist spending generated $297.937 million or 66.2% of total General Fund tax revenues in FY 1986, and $511.693 million or 55.6% in total state tax revenues.

APPENDIX A

ACCURACY TEST

This appendix examines (1) the accuracy of the earnings and employment effects estimated by the RIMS II total multipliers for Nevada, and (2) the accuracy of the U.S. Travel Data Center travel expenditure data.

PRECISION OF THE EARNINGS AND EMPLOYMENT ESTIMATES

How good are the total earnings and employment estimates derived from a state input-output model that was adapted from a national input-output table? One way to test the precision of the estimates is to apply the economic base multipliers for Nevada employment (2.03) and payroll (2.05) estimated by the UN-Reno, Bureau of Business and Economic Research[23] to the USTDC estimates of U.S. travel generated direct employment and payroll in Nevada. The results for calendar year 1986 are as follows:

	Earnings/Payroll	FTE Employment
Economic Base Multiplier	$ 4.162 billion	271,346
RIMS II (See Endnote 9)	4.254	250.518

The USTDC employment estimate was adjusted to full-time equivalent employment by multiplying the gross employment figure by a factor of .8834. To make the two sets of estimates comparable, we removed the impact of foreign visitors from the RIMS II estimates.

The employment estimates using RIMS ii are smaller than those generated by the economic base multipliers. Also, the USTDC Travel Economic Impact Model produces estimates of payrolls which are less than earnings. It appears, therefore, that RIMS II produces smaller estimates of tourism generated employment and earnings impacts than the economic base multipliers. Nonetheless, the two sets of estimates are reasonably close.

ACCURACY OF USTDC EXPENDITURE DATA

Another potential source of error is the USTDC travel expenditure data itself. Is it possible that USTDC estimates of tourist expenditures in Nevada are too low? Using USTDC data, we estimated that foreign and U.S. tourists spent about $8 billion in Nevada (including gaming revenues) during calendar year 1986. By contrast, the Las Vegas Convention and Visitors Authority (LVCVA) reported that tourists and conventioneers spent $7.5 billion in Las Vegas during 1986[24], including approximately $2 billion in gaming revenues. The figure does not include any estimates of visitor expenditures in Reno, Laughlin, South Lake Tahoe and the rest of the state. It appears that the USTDC expenditure estimate for tourist spending in Nevada might be grossly understated.

To verify the precision of the USTDC travel expenditure data, we constructed an independent state-wide estimate of total visitor expenditures in Nevada (below). Our estimate is crude but serves as a useful bench-mark.

Our estimate of calendar year 1986 non-gaming tourist expenditures in Las Vegas is as follows:

15,200,000 visitors
minus 1% for residents of Nevada
= 15,048,000 non-resident visitors
multiplied by $63 per person spending per day
= $948,024,000
multiplied by 3.9 days
= $3,697,294,000

The $63 per person per day expenditure was for FY 1986, therefore a better estimate would be the average of the FY 1986 and 1987 estimates.[25] However, due to an apparent error in the FY 1987 Visitor Profile Study, it was not possible to determine the correct per person expenditure estimate for FY 1987. Conceivably the 1987 estimate could have been lower than 1986.

Using the same method, our calculation for visitor non-gaming expenditures in the Reno area for calender year 1986 is $850 million.[26]

The Lake Tahoe Visitors Authority estimated that in 1986 visitor non-gaming expenditures in the South Lake Tahoe area was $408 million for both California and Nevada. Lacking a better method of partition, we divided the $408 million evenly between Nevada and California.[27]

It remains to estimate visitor non-gaming expenditures in Laughlin and the rest of the state. The procedure adopted was to take the ratio of non-gaming to gaming revenues for Reno (1.46) and apply it to non-resident generated gaming revenues in Laughlin and the balance of the state.

To derive an independent estimate of local resident gaming expenditures/revenues, we applied the per capita gaming revenues in the 12 counties other than Clark, Douglas, Elko, Carson City and Washoe to the total Nevada population. In those 12 counties, it is assumed that tourists were unlikely to have made significant contributions to gaming revenues. Data supplied by the Commission on Tourism indicate that between FY 1984 and FY 1987, hotel room tax revenues from those 12 counties comprised only 2% of all hotel room tax receipts. For calendar years 1980-85 our estimates indicate that residents accounted for 11.3% of total gaming revenues in 1980; 12.0% in 1981; 11.3% in 1982; 11.4% in 1983; 11.7% in 1984 and 11.3% in 1985. The average for the 6 years was 11.5%. Clearly some of the gaming revenues in those 12 counties were attributable to tourists so that these percentages might be high estimates of residents' share of gaming revenues in Nevada. On the other hand, residents in those 12 counties may drive to Las Vegas or Reno to gamble. Moreover, residents in Clark, Douglas, Elko, Carson City and Washoe Counties have higher average incomes and have access to a greater variety of gambling opportunities, and hence may spend more money on gambling per capita.

Adding the non-gaming and gaming revenues from all areas produces an estimate of total visitor expenditures in 1986 of:

Non-Gaming Expenditures:		
	Las Vegas	$3,697 million
	Reno-Sparks	850
	S. Lake Tahoe	204
	Laughlin	242
	Rest of State	197
Gaming Revenues		$3,082
	Total	$8,272 million

Although the method employed here is crude, it does appear that the estimate of $8 billion in visitor expenditures in 1986 using USTDC data is non unreasonable.

APPENDIX B

SELECTED DATA

Table 1. LAS VEGAS VISITOR VOLUME

Year	Number of Las Vegas Visitors	Average Length of Days Stayed	Number of Visitor Days
1970	6,787,650	3.3	22,399,245
1971	7,361,783	3.5	25,766,241
1972	7,954,783	3.5	27,841,741
1973	8,474,727	3.7	31,356,490
1974	8,664,751	3.7	32,059,579
1975	9,151,427	4.0	36,605,708
1976	9,769,354	4.2	41,031,287
1977	10,137,021	4.7	47,643,999
1978	11,178,111	4.5	50,301,500
1979	11,696,073	4.8	56,141,150
1980	11,941,524	5.3	63,290,077
1981	11,820,788	5.2	61,468,098
1982	11,633,728	5.2	60,495,386
1983	12,348,270	5.5	67,915,485
1984	12,843,433	5.3	68,070,195
1985	14,194,189	5.0	70,970,945
1986	15,196,284	4.9	74,461,792

Source: Las Vegas Convention and Visitors Authority.

ENDNOTES

1. Economic Research Associates, The Role of Gaming in the Nevada Economy, An Update (San Francisco: January, 1983), p. 11-1

2. U.S. Travel Data Center, Impact of Travel on State Economies (Washington, D.C.: various years.)

3. U.S. Travel Data Center, Impact of Foreign Visitors on State Economies 1983, (Washington, D.C.: April, 1985.)

4. The compound growth rates were calculated by regressing the natural log of the dependant variables against time.

5. New Jersey State-Local Revenue & Expenditure Commission, New Jersey Gaming Revenues: Issues and Options, January 8, 1988.

6. William R. Eadington, "Possible Effects of the California Lottery on Nevada's Casino Industry: The Early Evidence," Nevada Public Affairs Review, No. 2 (1986), pp. 7-11.

7. To measure the degree of responsiveness, two separate travel demand equations were estimated by regressing the natural log of real U.S. visitor spending in Nevada and the natural log of real state gaming revenues against the natural log of real U.S. gross national product and the real cost of travel.

8. U.S. Travel Data Center, Travel Economic Impact Model, volume 1: Final Economic Analysis Methodology (Washington, D.C.: 1975).

9. Empirical tests show that estimates based on expensive survey-based state input-output models and RIMS II estimates are similar in magnitude. To estimate the total economic contribution of tourist spending in Nevada for calendar year 1986, it was necessary to obtain updated (to 1986) multipliers from BEA, because the RIMS II employment multipliers published in the 1986 Handbook were based on 1983 employment-earnings ratios. The model is known as the RIMS ii, for Regional Input-Output Modeling System. U.S. Department of Commerce, Bureau of Economic Analysis, Regional Multipliers: A User Handbook for Regional Input-Output Modeling System (RIMS II). (Washington, D.C.: Government Printing Office, May, 1986).

10. U.S. Travel Data Center, The Economic Impact of U.S. Visitors on Washoe County, Nevada, 1986 (Washington, D.C.: February, 1986), p. 6.

11. Price Waterhouse, February 26, 1988, p. 12.

12. Based on 1983 ratio. In 1983 there were 42,181 full-time equivalent employees in state and local governments in Nevada (Nevada Statistics Abstract, 1986, p. 140). Total sales and local government employment (full and part-time) was 47,751.

13. Edwin T. Fujii and James Mak, "The Impact of Hotel Size on Staffing Levels in Hawaii," International Journal of Tourism Management (March, 1981), pp. 30-35.

14. In 1986, the average annual wage for all employment in Nevada was $18,739. By contrast, in the tourist industry, the average wage in retailing was $12,454; eating and drinking places, $7522; hotels, motels and tourist courts, $14,908; and amusement and recreation services, $15,347. Wages in transportation were higher ($23,233) than the average wage for all employment. (Price Waterhouse, 1988).

15. Commission on Tourism. In addition to the local governments are permitted to levy a separate room tax of up to 7%. Nevada Taxpayers Association, Nevada Tax Facts (Carson City: October, 1987).

16. For Las Vegas, Reno and South Lake Tahoe the number of visitor days were calculated as the product of the number of visitors and the average length of stay. In 1986, Las Vegas recorded 74,462,000 visitor days; Reno, 19,062,000 visitor days, and South Lake Tahoe (California and Nevada) 6,039,000 visitor days. We elected not to partition South Lake Tahoe visitor days into California and Nevada visitor days. For the rest of the state, the number of visitor days (9,845,000) were derived by multiplying the number of visitor days in Reno by the ratio of tourist non-gaming expenditures in Laughlin and the rest of the state to Reno tourist non-gaming expenditures in Laughlin and the rest of the state to Reno tourist non-gaming expenditures (See Appendix A). The total number of visitor days was $109,407,000. For Nevada residents, we multiplied the 1,008,030 total resident population by the proportion of male and female residents over the age of 24, using data on age distributions from the 1980 U.S. census for Nevada. The product of the two is multiplied by 365 days. The total number of adult resident days in 1986 was 198,560,000. If we had defined adults as males and females over the age of 19, then the number of adult resident days would have risen to 228,125,000 and the ratio of tourists to residents would have fallen to 32% from 36%.

17. One could argue that this number is underestimated since visitors on vacation are likely to consume more alcohol on a per capita daily basis than residents. If the tourist share of alcohol taxes were doubled, its share of excise taxes would rise to $10,436 million.

18. Reno-Sparks Convention & Visitors Authority, Marketing Report, 1986, p. 2 and 6.

19. Las Vegas Convention and Visitors Authority, 1986 Summary, pp. 13-14. See also Reno Marketing Report, 1986, p. 6.

20. The excise tax procedure was used to estimate the portion of the fuel taxes attributable to tourist spending.

21. For any given tax, the additional tourist tax revenues generated through local resident spending is described by the following relationship: increase in tax revenues=ER x (R/Y) x increase in resident income, where R is tax revenue and ER is the revenue elasticity with respect to the state's (disposable) personal income (Y). In FY 1986, tourist spending created an additional $4.3 billion in earnings/income in Nevada; therefore the increase in resident income due to tourist spending was $4.3 billion. The revenue elasticities was estimated by regressing the natural log of the individual tax revenues against the natural log of Nevada disposable personal income. Before calculating the elasticity estimates, the individual tax revenues were adjusted to a fiscal year basis.

22. For the sales, gaming, liquor, gasoline and cigarette taxes, the estimation period was FY 1978-86 and for the insurance tax, FY 1980-86. The tax revenue data were obtained from the State of Nevada, Department of Taxation, Annual Report, Fiscal 1980-81 and 1985-86; Nevada Statistical Abstract, 1986; and Planning and Information Corporation, Nevada State Revenue Analysis (Denver: May 1988). Data on personal income were obtained from the U.S. Department of Commerce, Bureau of Economic Analysis.

23. University of Nevada-Reno, Bureau of Economic Research, Economic Impacts of Tourism in Nevada (Reno: 1988).

24. Las Vegas Convention & Visitors Authority, 1986, Summary.

25. Las Vegas Convention & Visitors Authority, Las Vegas Visitor Profile Study, 1986 and 1987 (Las Vegas: n.d.)

26. Reno-Sparks Convention & Visitors Authority, Marketing Report, 1986.

27. Lake Tahoe Visitors Authority, The Economic Impact of Tourism in South Lake Tahoe (January, 1987).

CHAPTER 7
TAX POLICY AND ECONOMIC DEVELOPMENT

The location of investment is the consequence of a complex decision-making process which involves a variety of factors. Availability and cost of labor, proximity to markets, relative energy costs, presence of research-oriented academic institutions, quality of transportation systems, quality of educational systems, cost of living, quality of life, and climate are all factors which may influence decisions to locate manufacturing plants, research and development facilities, company headquarters or other investments in particular communities.

Tax policy is one of the many factors that can affect the economic development of a state. In this chapter, Nevada's business and personal taxes are compared with those of its neighboring states in order to provide a factual basis for measuring its competitive position with respect to taxes.

The logic of how taxes can influence state economic development is set forth in the first section of the chapter. The second section provides a comparison of overall state and local business taxes for several industries that play an important actual or potential role in the Nevada economy. The third section compares Nevada's overall personal taxes with its neighbors. The concluding section involves a discussion of the strategic implications of these comparisons for shaping tax policy options designed to promote the economic development of Nevada.

Taxes and Economic Development

Taxes can be important to economic development because virtually any tax will affect costs. A tax on capital goods, for example, can raise the cost of business expansion or replacement of equipment. A tax on income can raise the payments required to attract investors or key personnel. Such differentials can be influential not only on plant location (and relocation) decisions, but also on the growth and expansion of establishments that "stay put." The location of economic activity can be moved just as surely by expansion in one state and stagnation in another as by plant relocations. Likewise, business can be developed as much by "growing your own" as by attracting existing companies from elsewhere. Cost differentials are a major contributing factor to such developments.

Taxes are but one element in explaining costs differences among locations. The productivity of labor, the availability of supplies and resources, and the required compensation of executives are often of great importance. These other factors are likely to be similar, however, among nearby states. For this reason, a study of Nevada's taxes as compared to its neighbors may discover differences that are important for economic development. Furthermore, the tax system is one of the few cost factors that a state government can alter in a relatively short period of time. It is also the key to the financing of other state policies that affect economic development, such as the development of education and transportation systems.

The tax structure of a state may have a significant long term influence on economic development because of its effects on the costs of manufacturing and other business activities aimed at producing goods and services for export to other states or countries. Virtually any type of tax can influence costs. A tax that is higher in one state can raise the cost of materials, capital goods, labor or finance to businesses in that state. Unless these tax-induced costs are offset by the advantages of

the present location in the state, they will, in turn, require the producer to charge a higher price to achieve an acceptable profit. When a business is selling in competition with those in other states or supplying to companies that face such competition, higher costs will eventually force that business to decline or to move. Relatively low taxes in a state may contribute to economic growth by the same process in reverse.

The Effect of Each Type of Tax on Costs

Particular types of taxes will have different impacts on the cost structure of a business. Furthermore, it is not always possible to tell from initial tax impacts where the cost effects will eventually be felt. As an example, the following discussion examines four potential tax-induced cost effects on the manufacturing sector. Taxes may produce higher costs for the three major factors of production in manufacturing - labor, capital, and purchases of supplies and services. The principal effects of each of the major state taxes are summarized below.

Corporate Income Tax. Income taxes on business profits will raise the cost of capital to business establishments in the state by increasing the amount of income they must earn on any capital investment to pay the tax and still satisfy their capital suppliers (or the parent company) who can always invest elsewhere. Local suppliers and service businesses who are not involved in interstate competition may pass a higher tax along to manufacturers. By contrast, manufacturers are mainly selling products, or supplying other manufacturers, in competition with those in other states and, thus, a higher income tax is unlikely to be added to a manufacturer's product price. Instead, the higher tax can reduce the number of profitable opportunities to expand (or sustain) manufacturing in the state.

Individual Income Tax. Income taxes on individuals can influence the cost of labor and locally supplied services. Individuals who can withhold their labor services or offer them

in other states may successfully insist on being compensated for a higher income tax. The impact on wages can be especially important in the case of organized workers, those with critical skills, and executive personnel (including those who play a role in company location decisions). Local suppliers of services, who are not in competition with out-of-state suppliers, may be able to pass along higher labor costs associated with the individual income tax.

Sales Taxes. General sales and use taxes or selective sales taxes do not generally apply to out-of-state buyers and cannot be legally avoided by buying out-of-state goods. For these reasons, they can usually be added to the prices of goods sold in the state without encountering competitive pressure. However, sales and use taxes will raise the cost of capital goods to manufacturing establishments to the extent that their purchases - machinery, equipment, vehicles, building materials, etc. - are subject to tax.

Property Taxes. Property taxes and corporate franchise taxes also add to the cost of employing capital in manufacturing. In this respect, their effect is similar to that of the corporate income tax. In some states, the property tax applies to tangible personal property in addition to real estate. Thus, the cost of employing most of the physical capital required in manufacturing is affected. The property tax does not apply, however, to financial and other intangible assets, although these are a part of the franchise tax base. Over time, the franchise tax is virtually the same as an additional income tax because it applies to the capital that generates taxable income.

In summary, the cost of capital may be raised by the corporate income tax, the sales tax on capital goods, the property tax, and the corporate franchise tax. The cost of labor may be affected by the individual income tax, as well as other personal taxes, such as sales taxes on consumer goods and services and property taxes on homeowners.

It should be emphasized that it is only tax differentials between states that matter for business location. If every state levied the same taxes at the same rates, the effect of taxes on business location would be neutralized. To the extent that a state has a relatively high tax on the production of a particular good or service, however, as compared to competing states, that state's tax system will be unfavorable to that activity. The opposite, of course, holds for relatively low taxes. Likewise, it is very important to keep in mind that these tax differentials become important when other cost factors are nearly equal. Differences in other costs, such as labor and land, as well as differences in the quality of education and other public services may also be important factors in specific location decisions.

Comparative Business Tax Methodology

In this chapter, Nevada's overall state and local taxes are compared with those of fourteen other states for six key industries. The fifteen comparison states include all of the western states plus Florida and New Jersey. Florida was included as a competing retirement location and New Jersey was included as a gaming industry competitor. The six industries are the gaming industry plus five industries with growth potential in Nevada: wholesaling, printing, pharmaceuticals, instruments, and electronics.

Combined business tax burdens reflect corporate income, property, sales, and franchise taxes. Sales taxes include only those applied to business purchases. Sales taxes on final business products are not included since they are assumed to be passed through to consumers. Differences in the definition of tax bases as well as tax rates have been carefully accounted for in the tax calculations. In the property tax area, property assessment policies, such as classification and fractional assessment, have also been taken into account. Because property and sales tax rates vary among locations, specific urban and

rural locations were selected for each state. The locations that were selected are appropriate for industrial or commercial expansion and have property tax rates that are at neither extreme of the range within the state. Urban locations are generally suburbs within major metropolitan areas.

The results were produced by a computer model developed to estimate the effective tax burden for each type of tax, for each industry, and in each urban and rural location.

The computer model is used to simulate the tax structure in each state through the following steps.

1. Balance Sheets Created to Represent Each Industry. The model constructs a complete set of financial statements, or balance sheets, for a typical company in each industry. For example, the balance sheet for a printing and publishing company has $24.99 of current assets, $16.38 of inventories, $8.58 of long-term financial assets, $46.81 of depreciable assets, and $3.23 of land for each $100 of total assets. These amounts are the averages for all U.S. printing and publishing manufacturing corporations, according to tabulations of Federal income tax returns.

2. Income and Taxes Projected for 30 Years. Tax provisions have multi-year consequences for an industry. Sales taxes, for example, are paid at the time of an equipment purchase, while property taxes are paid each year. Income and franchise taxes vary according to the amount of profit earned each year. Tax deductions allowed in computing income tax will also vary over time. For example, accelerated depreciation deductions decrease as the property ages. In order to account for these variations over time, the computer program projects before-tax and after-tax income and cash flows over a 30-year period.

3. Tax Liabilities Determined Through the Use of a Tax Calculator. The tax calculator is a part of the program that computes, for each industry in each potential business location, the tax liability that would be incurred by a company as a result of a capital expansion in that location. The tax calculator produces the correct tax base for each type of tax and then applies the appropriate tax rates to this base. Applicable tax credits are also applied against the income tax. The calculation is performed for all 30 years for each case.

The state and local tax laws included in the model are those in effect in 1988.

4. Effective Tax Rates Used as the Measure for Comparison. Calculating the tax liability on a facility for any single year will not produce an accurate measure of the total effect of taxes on costs because annual tax liabilities can vary substantially over time. A consistent measure is needed to facilitate comparisons when the timing of taxes may be different among locations. The "marginal effective tax rate" is a useful yardstick for making such comparisons because it converts all types of taxes to a common value, and accounts for variations in timing of tax payments and in tax bases. The two effective tax rates alculated in this study are called "the tax burden as a percentage of income" and "the annual tax burden per $100 of assets."

The tax burden as a percentage of income is the difference between the before-tax rate of return on the investment and the after-tax rate of return, as a percentage of the before-tax rate of return. For example, if $100 of new assets produce a rate of return of 15 percent before state and local taxes, it may return 10 percent after taxes. In this case, the tax burden is 33 percent of net income (i.e., 5 percent divided by 15 percent). In other words, this measure of the tax burden means, "by what percentage does the tax system reduce the rate of return on business investment as compared to no taxes?"

The annual tax burden per $100 of assets is the constant annual amount per $100 of capital investment that must be set aside to pay the taxes as they come due. For example, an effective tax rate on assets of $5 means that for every $100 of assets, an "annuity payment" of $5 must be made each year to pay the taxes on $100 of investment.

Data Sources. The primary data source for constructing the financial statements for the representative firms in each industry (except gaming) is the 1985 IRS Corporate Statistics of Income (SOI). This data source has detailed information on income, expenses and balance sheets by industry. Consequently, the characteristics of the representative firms are based upon actual experience. Some adjustments to balance sheet data have been made to account for the understatement of asset values. (For example, historical cost-based values reflected on balance sheets generally understate the market value of real estate).

The SOI data is supplemented with data from the Bureau of Economic Analysis, Investment Data Tape in order to accurately account for the characteristics of depreciable assets by industry.

Financial statement features for the gaming industry are based upon published data from the 1987 Nevada Gaming Abstract.

ANALYSIS OF BUSINESS RESULTS

The following tables report the results of the multistate business tax analysis. Several kinds of comparisons are displayed by: overall state-local tax rates, effective rates for particular taxes, the composition of business taxes for each state, and overall tax rates by industry. In addition, special attention is focused upon a comparison of levels and composition of the business tax structures of Nevada and California.

These comparisons have been made for both urban and rural locations in each state. Because the results are not very

different, the full set of results is reported for urban locations, with selected tables for rural locations.

Total State-Local Tax Burdens

Table 7.1 shows total state-local business tax burdens for the urban locations in the fifteen states included in the comparative analysis. The results show averages for wholesaling and the four manufacturing industries. Gaming is analyzed separately. Nevada has the lowest general business tax burden of all 15 states. The average total state-local tax equals 8.0 percent of pretax income. Total taxes range from 3.8 percent in Nevada to 11.9 percent in Texas.

Nevada's effective rate is less than half of the average for the 15 states. The absence of a state corporate income tax is clearly a major factor in explaining Nevada's low business tax ranking. However, low business property taxes also contribute to this result. In fact, Texas has the highest business taxes even though it does not have a corporate income tax. Above average property taxes combine with a substantial franchise tax, based upon capital stock, to result in a relatively high total burden in Texas.

To put these tax burden differences into perspective, assume a $10 million enterprise which produces a pretax profit of $1.4 million. Total state-local taxes would be $53,200 in Sparks or Henderson, Nevada, compared to a 15-state average of $112,000. The firm in this example will realize an annual savings of $58,800 by locating in Nevada.

Table 7.2 portrays total taxes as the average annual tax on capital. For the 15 states, state-local taxes raised business costs by $0.96 per $100 of assets. By contrast, the Nevada locations increased costs by only $0.42 per $100 of assets.

TABLE 7.1

Average Urban Income Equivalent Tax Rates
All Industries, by Type of Tax
(percent)

Location	State	State Income	Property	Sales	Other	Total
esa	Arizona	2.5%	7.8%	0.8%	0.0%	11.1%
alnut Creek	California	3.1	3.7	0.5	0.0	7.3
estminster	Colorado	2.1	6.8	0.6	0.0	9.5
lant City	Florida	1.9	7.0	0.8	0.0	9.7
earl City	Hawaii	2.6	1.6	0.6	0.0	4.7
ampa	Idaho	2.9	5.5	0.6	0.0	9.1
reat Falls	Montana	2.6	5.1	0.1	0.0	7.8
enderson	Nevada	0.0	3.0	0.8	0.0	3.8
parks	Nevada	0.0	3.0	0.8	0.0	3.8
ist Brunswick	New Jersey	3.8	3.5	0.8	0.0	8.1
buquerque	New Mexico	2.9	4.5	0.5	0.0	7.9
eaverton	Oregon	2.3	7.5	0.0	0.0	9.8
esquite	Texas	0.0	8.3	0.5	3.0	11.9
est Valley City	Utah	1.8	6.3	0.5	0.0	8.6
enton	Washington	0.0	4.0	1.0	4.6	9.6
asper	Wyoming	0.0	4.5	0.5	0.0	5.0
verage		1.8%	5.1%	0.6%	0.5%	8.0%

ource: Price Waterhouse Business Tax Model

ote: Other taxes include the Texas franchise tax and the Washington business and occupations tax. Wyoming's franchise tax is not significant.

TABLE 7-2

Average Urban Annual Tax on Capital
All Industries, by Type of Tax
Per $100 of Industrial Expansion
($)

Location	State	State Income	Property	Sales	Other	Total
Mesa	Arizona	$0.33	$0.98	$0.10	$0.00	$1.40
Walnut Creek	California	0.36	0.42	0.06	0.00	0.85
Westminster	Colorado	0.27	0.83	0.06	0.00	1.16
Plant City	Florida	0.24	0.86	0.09	0.00	1.19
Pearl City	Hawaii	0.29	0.17	0.06	0.00	0.52
Nampa	Idaho	0.36	0.66	0.07	0.00	1.09
Great Falls	Montana	0.32	0.59	0.01	0.00	0.91
Henderson	Nevada	0.00	0.33	0.09	0.00	0.42
Sparks	Nevada	0.00	0.33	0.09	0.00	0.42
East Brunswick	New Jersey	0.46	0.40	0.09	0.00	0.95
Albuquerque	New Mexico	0.34	0.53	0.06	0.00	0.93
Beaverton	Oregon	0.30	0.91	0.00	0.00	1.21
Mesquite	Texas	0.00	1.07	0.06	0.37	1.50
West Valley City	Utah	0.22	0.75	0.06	0.00	1.02
Renton	Washington	0.56	0.48	0.12	0.56	1.16
Casper	Wyoming	0.00	0.50	0.06	0.00	0.56
Average		$0.22	$0.61	$0.07	$0.06	$0.96

Source: Price Waterhouse Business Tax Model

Note: Other taxes include the Texas franchise tax and the Washington business and occupations tax. Wyoming's franchise tax is not significant.

Levels of Particular Business Taxes

Table 7.1 also indicates effective rates for each of the taxes that are included in the total measure of business tax burden. Several points can be observed:

- The property tax is easily the most important state-local business tax. On average, property taxes are nearly three times greater than state income taxes.

- Nevada business property taxes are the second lowest of the 15 states. For example, property taxes at the Nevada locations equal 3 percent of pretax income, compared with a 15 state average of 5.1 percent. Hawaii has the lowest business property tax burden. The highest business property taxes are found in Arizona and Texas.

- State income tax burdens average 1.8 percent of pretax income. New Jersey has the highest tax on net income-double the 15 state average. Four of the fifteen states have no corporate income tax - Nevada, Texas, Washington, and Wyoming.[1]

- General sales tax burdens average 0.6 percent of pretax income. Oregon has no sales tax. Montana has no broad-based sales tax but applies a 1.5 percent tax on motor vehicles. The other states in the study apply the sales tax to certain business purchases, such as machinery and equipment or construction materials.

- Western states generally do not make use of franchise taxes, based upon capital stock. Franchise taxes are a common although sometimes overlooked business tax, especially in the South and East regions. Texas is the only one of the 15 states which imposes a franchise tax and it is a substantial one -- equal to 3.0 percent of pretax income.

- The State of Washington imposes a business and occupation tax (measured by gross income or gross proceeds) which equals 4.6 percent of pretax income. Consequently, Washington's business tax burden is above-average even though it has no corporate income tax.

Composition of Business Taxes

Table 7.3 shows the percentage distribution of state business taxes, by type of tax. On average, property taxes

TABLE 7.3

Average Urban Income Equivalent Tax Rates, All Industries
Percentage Distribution by Type of Tax
(percent)

Location	State	State Income	Property	Sales	Other	Total
Mesa	Arizona	22.3%	70.4%	7.3%	0.0%	100.0
Walnut Creek	California	41.9	50.6	7.5	0.0	100.0
Westminster	Colorado	22.3	71.8	5.9	0.0	100.0
Plant City	Florida	19.8	72.3	7.9	0.0	100.0
Pearl City	Hawaii	54.6	33.7	11.7	0.0	100.0
Nampa	Idaho	32.5	60.4	7.2	0.0	100.0
Great Falls	Montana	33.9	65.5	0.7	0.0	100.0
Henderson	Nevada	0.0	78.3	21.7	0.0	100.0
Sparks	Nevada	0.0	78.1	21.9	0.0	100.0
East Brunswick	New Jersey	47.2	43.1	9.7	0.0	100.0
Albuquerque	New Mexico	36.4	57.2	6.4	0.0	100.0
Beaverton	Oregon	23.9	76.1	0.0	0.0	100.0
Mesquite	Texas	0.0	69.9	4.6	25.5	100.0
West Valley City	Utah	20.9	73.0	6.0	0.0	100.0
Renton	Washington	0.0	41.1	10.7	48.2	100.0
Casper	Wyoming	0.0	89.1	10.9	0.0	100.0
Average		22.4%	64.2%	7.5%	6.0%	100.0

Source: Price Waterhouse Business Tax Model

Note: Other taxes include the Texas franchise tax and the Washington business and occupations tax. Wyoming's franchise tax is not significant.

account for 64.2 percent of the total. Income taxes are second in importance, followed by sales and use taxes. However, the relative importance of property taxes ranges from a low of 33.7 percent in Hawaii to a high of 89.1 percent in Wyoming. The role of the property tax in Nevada is higher than average, accounting for 78 percent of total taxes. Since there is no Nevada income tax, the sales tax makes up the remainder of the general business taxes included in this study.

California provides an example of a diversified state business tax structure. For the California urban location, property taxes account for slightly more than income taxes (50.6 percent v. 41.9 percent).

Comparisons Among Industries

Five industries that are subject to general business taxes are included in this study. Table 7.4 indicates that, on average, effective tax rates range from 6.9 percent for pharmaceuticals to 10.2 percent for printing and publishing. The higher rate for the printing industry reflects the significant role of the property tax in state business tax structures. Depreciable assets, including structures and equipment that are subject to the property tax in most states, make up 46.8 percent of total assets in printing but only 22 percent of total assets in pharmaceuticals. Table 7.5 presents the balance sheet assumption for each industry.

Nevada has the lowest business taxes for all five industries. By contrast, California's effective tax rate is close to the 15 state average. The relationship between business tax burdens in California and Nevada is particularly important because firms choosing to locate facilities near the California market will tend to define site options in terms of neighboring states. The average effective rate in California of 7.3 percent is nearly double the Nevada rate of 3.8 percent. The difference

TABLE 7.4

Total Urban Income Equivalent Tax Rates
(percent)

Location	State	Ware-housing	Printing	Pharmaceu-ticals	Instru-ments	Elec-tronics	Average
Mesa	Arizona	8.8%	14.6%	9.9%	10.8%	11.4%	11.1%
Walnut Creek	California	7.1	9.9	6.5	6.1	6.8	7.3
Westminster	Colorado	7.9	12.5	8.4	9.1	9.6	9.5
Plant City	Florida	7.6	12.9	8.6	9.5	10.0	9.7
Pearl City	Hawaii	4.6	5.5	4.4	4.7	4.4	4.7
Nampa	Idaho	7.5	11.6	8.3	8.8	9.1	9.1
Great Falls	Montana	6.3	10.2	7.3	7.2	7.9	7.8
Henderson	Nevada	2.9	5.6	3.0	3.7	4.0	3.8
Sparks	Nevada	2.9	5.5	3.0	3.7	4.0	3.8
East Brunswick	New Jersey	7.6	9.7	7.5	8.1	7.7	8.1
Albuquerque	New Mexico	6.4	10.1	7.3	7.7	7.9	7.9
Beaverton	Oregon	7.5	13.0	8.9	9.6	10.1	9.8
Mesquite	Texas	12.2	13.2	9.2	12.2	12.6	11.9
West Valley City	Utah	7.0	11.4	7.5	8.2	8.7	8.6
Renton	Washington	13.3	10.5	6.1	8.7	9.3	9.6
Casper	Wyoming	3.6	7.2	3.9	5.1	5.2	5.0
Average		7.1%	10.2%	6.9%	7.7%	8.0%	8.0%

Source: Price Waterhouse Business Tax Model

TABLE 7.5

Balance Sheets, All Industries
Percentage Distribution of Assets, Liabilities & Owner's Equity
(%)

	Ware-housing	Printing	Pharmaceu-ticals	Instru-ments	Elec-tronics	Small Casino	Large Casino
Assets:							
Financial	8.07	8.62	26.45	10.35	11.38	13.66	23.72
Inventories	29.38	16.38	10.57	23.86	26.41	0.00	0.00
Accounts Receivable	29.94	16.37	10.45	20.58	18.74	1.56	4.64
Investments	15.60	8.58	24.51	13.67	6.90	0.00	0.00
Depreciable Assets							
Autos	1.69	0.94	0.30	0.37	0.38	0.77	0.60
Computers	1.69	3.28	0.30	1.42	2.34	1.55	1.21
Long lived equipment	4.76	24.81	13.47	11.45	16.25	17.79	13.87
Structures	7.22	17.79	7.91	11.82	11.97	57.24	44.63
R&D Expense	0.00	0.00	4.10	5.00	3.30	0.00	0.00
Total	15.36	46.81	21.97	25.06	30.94	77.35	60.31
Land	1.66	3.23	1.94	1.47	2.32	7.43	11.33
Total Assets	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Liabilities & Equity:							
Current Liabilities	17.90	10.73	13.67	13.32	13.17	5.98	9.92
Short Term Loans	13.21	1.79	4.42	5.32	4.56	3.87	0.28
Long Term Loans	10.35	8.47	12.77	14.79	7.91	26.36	14.57
Other Liabilities	2.53	4.00	2.14	2.57	2.36	0.79	12.23
Stockholder Equity	56.00	75.00	67.00	64.00	72.00	63.00	63.00
Total Liabilities	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Note: Detail may not add to totals due to rounding.
Sources: Price Waterhouse Business Tax Model;
1984 IRS Corporate Statistics of Income;
Nevada gaming industry data, Gaming Abstract, 1987;
Standard & Poor's Compustat data, 1985; and
Bureau of Economic Analysis, Investment Data Tape.

in burdens is largely due to the absence of a corporate income tax in Nevada.

Of the five industries that are subject to general business taxation, the largest Nevada-California differentials are in warehousing and printing. These two industries are particularly important to Nevada's diversification efforts since these are two growing industries in which Nevada has outperformed the nation since 1979. California taxes on warehousing are more than twice as high as Nevada's taxes. Because inventories make up a large share of total assets and are exempt under the property tax in both states, property taxes are low relative to other industries. Conversely, the role of the income tax in determining overall tax levels is magnified.

Comparisons of Rural Locations

The results of the comparisons of rural locations, presented in Table 7.6 are similar to the comparisons of urban locations. The two Nevada locations (Elko and Fallon) have the lowest overall business tax burdens of the 15 states. Texas, Arizona, Oregon, and Colorado have the highest general business tax burdens at the rural locations.

Gaming Industry - Comparison of Tax Burdens in Nevada and New Jersey

Table 7.7 provides a comparison of overall business tax burdens on casinos in Nevada and New Jersey. The comparisons were made for a representative large hotel/casino with annual gross receipts of $180 million and a representative small casino with annual revenue of $11 million. The balance sheet assumptions are based upon data from the 1987 Nevada Gaming Abstract.

New Jersey taxes the gaming industry more heavily than does Nevada. For the large casino, the total New Jersey effective tax rate is 26.4 percent compared to 17.7 percent in Nevada. The

TABLE 7.6

Average Rural Income Equivalent Tax Rates
All Industries, by Type of Tax
(percent)

Location	State	State Income	Property	Sales	Other	Total
inslow	Arizona	2.5%	8.0%	0.9%	0.0%	11.3%
ehachipi	California	3.1	3.7	0.5	0.0	7.3
imar	Colorado	2.1	7.6	0.5	0.0	10.2
erry	Florida	2.0	5.9	0.8	0.0	8.6
va	Hawaii	2.6	1.6	0.6	0.0	4.7
ost Falls	Idaho	3.0	4.7	0.7	0.0	8.3
elgrade	Montana	2.7	4.3	0.1	0.0	7.1
allon	Nevada	0.0	2.6	0.8	0.0	3.5
lko	Nevada	0.0	3.1	0.8	0.0	3.9
ackettstown	New Jersey	3.9	3.3	0.8	0.0	7.9
ocorro	New Mexico	3.0	2.8	0.5	0.0	6.3
ntario	Oregon	2.3	8.3	0.0	0.0	10.5
illsboro	Texas	0.0	9.1	0.6	3.0	12.6
chfield	Utah	1.9	4.8	0.5	0.0	7.2
ehalis	Washington	4.6	4.1	1.0	4.6	9.7
owell	Wyoming	0.0	4.8	0.4	0.0	5.3
verage		1.8%	4.9%	0.6%	0.5%	7.8%

ource: Price Waterhouse Business Tax Model

ote: Other taxes include the Texas franchise tax and the Washington business and occupations tax. Wyoming's franchise tax is not significant.

TABLE 7.7

Average Urban Income Equivalent Tax Rates
Gaming Industry, by Type of Tax
(percent)

Location	Casino Size	State Income	Property	Sales	Gaming	Total
Atlantic City, NJ	Small	1.2%	9.1%	2.6%	18.8%	31.7%
Atlantic City, NJ	Large	1.8	8.9	2.1	13.7	26.4
Las Vegas, NV	Small	0.0	5.0	3.0	14.2	22.2
Las Vegas, NV	Large	0.0	4.7	2.4	10.6	17.7
Average		0.7%	6.9%	2.5%	14.3%	24.5%

Source: Price Waterhouse Business Tax Model

New Jersey burden is almost 50 percent higher. In addition to higher gaming taxes, New Jersey property taxes are almost twice as high as Nevada's property taxes. New Jersey also imposes a corporate income tax.

The same pattern holds for the small casino comparison. In addition, Table 7.7 indicates that small casinos are taxed more heavily than large casinos. This occurs because both states impose substantial rates upon gross gaming receipts as a tax base. The largest casinos have higher profit margins, on average, than do the smaller casinos. Consequently, gross gaming taxes are a higher percentage of pretax income for the representative small casino. In addition, the largest casinos obtain a smaller percentage of their total revenue from gaming because of more extensive hotel, food, and entertainment operations. The structure of Nevada gaming taxes is analyzed in detail in Chapter 12.

PERSONAL TAX COMPARISONS

Personal taxes on individuals, as well as taxes imposed on businesses, may have an impact upon state economic development. Key technical and managerial personnel, entrepreneurs, and corporate executives may be sensitive to large state-local tax differentials. Technical and managerial personnel who are mobile and have multiple employment options may be unwilling to relocate to a state with high personal tax burdens unless compensated through higher salaries.

Many start-up businesses may be organized as partnerships or sole proprietorships so that the business is taxed under the individual rather than corporate income tax. Entrepreneurs will therefore be concerned with individual income taxes for business as well as personal reasons. Corporate executives who are making headquarters location decisions will certainly examine the impact of alternative locations on the firm; however personal

location preferences, including personal tax factors, may also enter into their decision.

Methodology

The personal tax comparisons for the 15 states take into account state and local income, sales, and homeowner property taxes. Four hypothetical households have been selected to represent certain household types at various income levels. Their income and deduction characteristics are based upon actual data from the Federal Statistics of Income file. Sales taxes are based upon the 1986 tax tables used for Federal tax purposes and are adjusted to reflect sales taxes levied by local governments. Similarly, local income taxes are added to state income taxes. Property taxes are calculated based upon the effective (full value) tax rate levied by a specific city in each state. In general, the cities chosen for this analysis are the largest in each state.

As a result of the Federal Tax Reform Act of 1986, sales taxes are no longer deductible against the Federal income tax. Consequently, the mix of state-local personal taxes (deductible property and income versus nondeductible sales) will affect relative state-local burdens. This analysis also shows the combined federal-state-local burden for itemizers in order to capture this effect.

The comparisons are presented for four representative households. The characteristics of the households are as follows:

Household #1. This household is a family of four with one earner who makes $14,000 in wages. The family receives no other taxable income and does not itemize for Federal tax purposes. This household will not pay Federal tax under the new tax law because of the earned income credit.

Household #2. This household is a middle income family of three. The family has two earners whose combined salary is $35,300, and owns a $60,000 home with a $40,000 mortgage. The household contributes $1,000 to an IRA and has child care expenses of $2,000.

Household #3. This household is a family of three with one earner. Labor income is $90,000, capital gains are $3,000, dividends are $1,000, and interest is $1,000. The family owns a $100,000 home with an $80,000 mortgage (at 10 percent interest). The family makes an IRA contribution of $2,250.

Household #4. This household consists of a single individual who earns a $20,000 salary and has other income of $100. He or she is assumed to not itemize for Federal tax purposes.

Analysis of Results

Nevada personal taxes are the lowest for two of the representative households (the $14,000 married family and the $20,100 single person) and second lowest (after Wyoming) for the other two households. Five of the 15 states have no personal income taxes. In addition to Nevada and Wyoming, Texas also shows consistently low personal taxes. Two other non-income tax states have somewhat higher total tax burdens because rates for other taxes are above-average - high property taxes in the case of Florida and high sales taxes in the case of Washington.

Figures 7.1 through 7.6 portray total state and combined state-federal burdens for the four households. The highest tax burdens for the lower-income family (Case 1) are found in Utah, New Mexico, and Hawaii. The sales tax is the largest direct tax imposed upon low-income renters. These three states have relatively high sales tax burdens because food and consumer utilities are included in their sales tax bases. This factor is only partially offset by income tax credits for sales taxes provided by New Mexico and Hawaii and a lower preferential tax rate on utilities in Utah.

FIGURE 7.1

CASE 1

TOTAL INCOME – $14,000

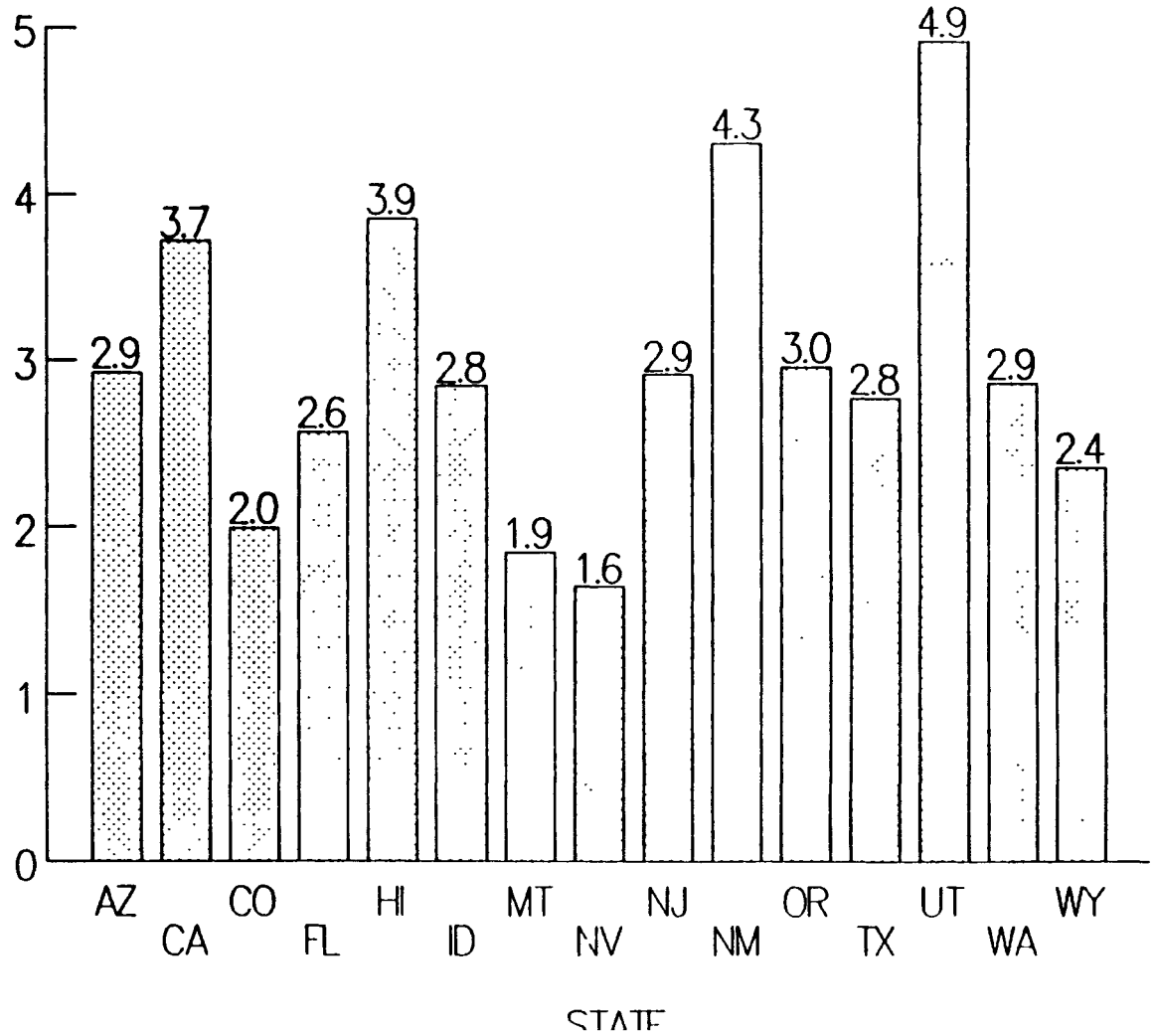


FIGURE 7.2

CASE 2

TOTAL INCOME – $35,300

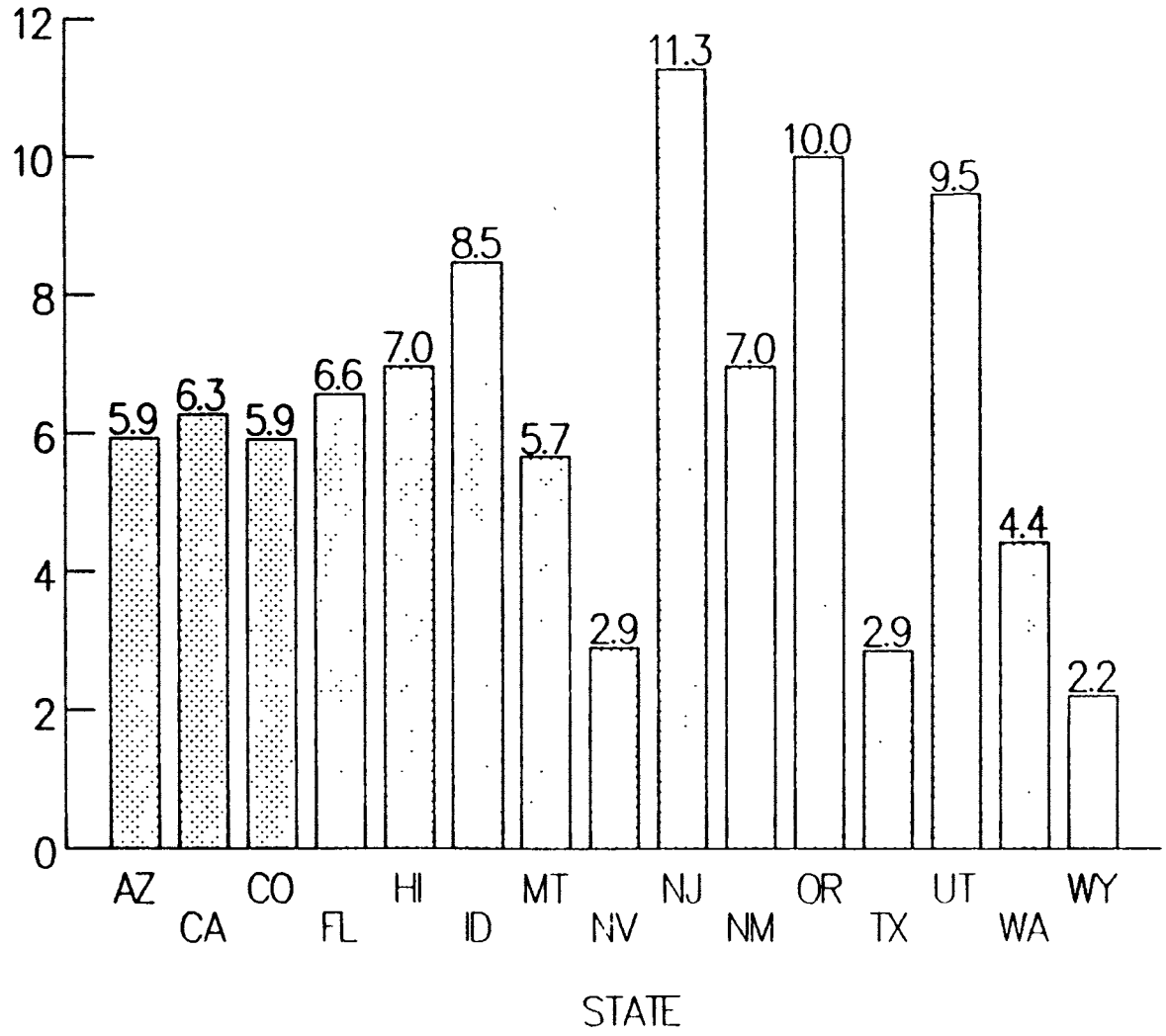


FIGURE 7.3

TAX AS A PERCENTAGE OF INCOME

CASE 2: TOTAL INCOME – $35,300

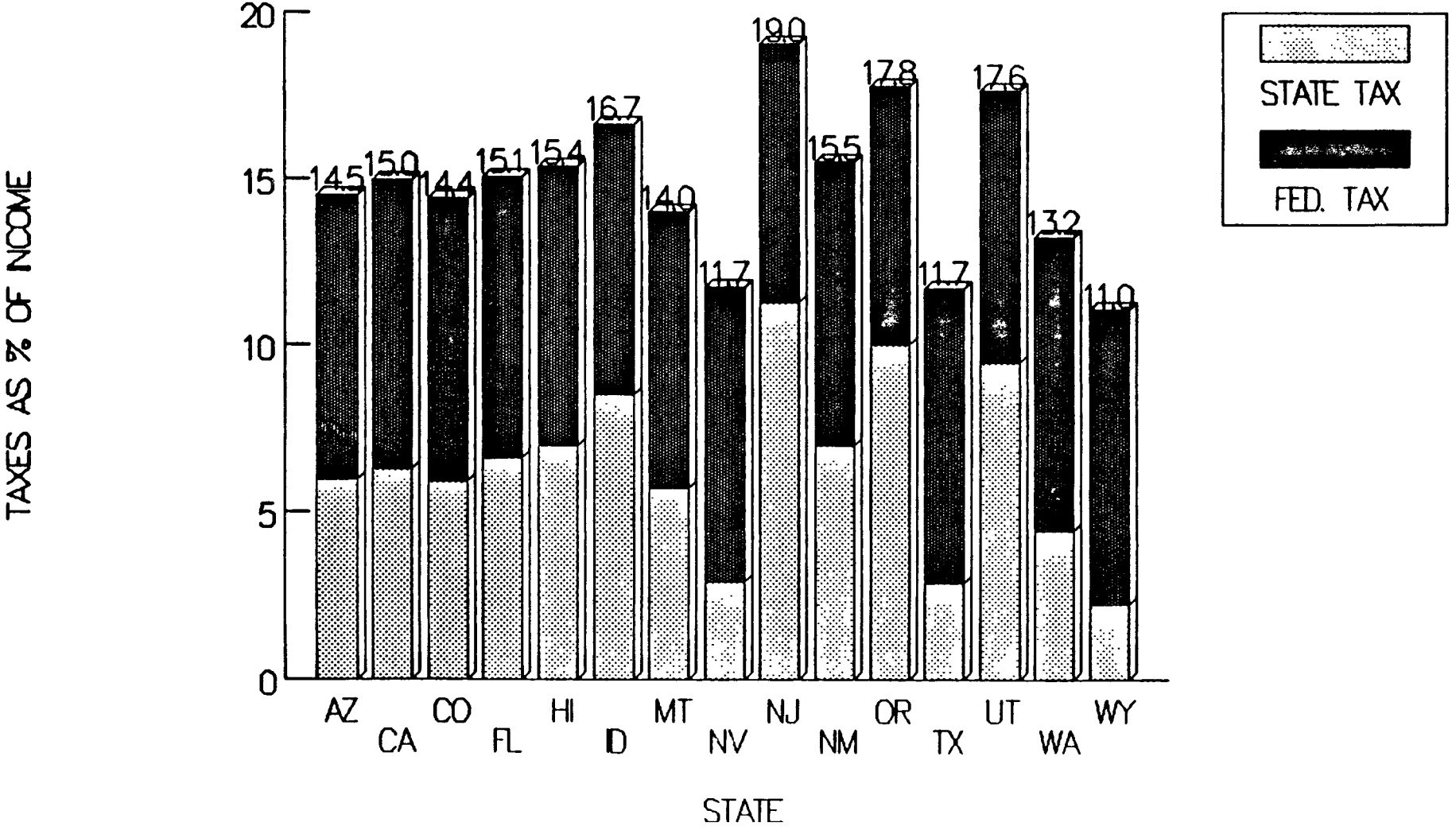


FIGURE 7.4

CASE 3

TOTAL INCOME – $95,000

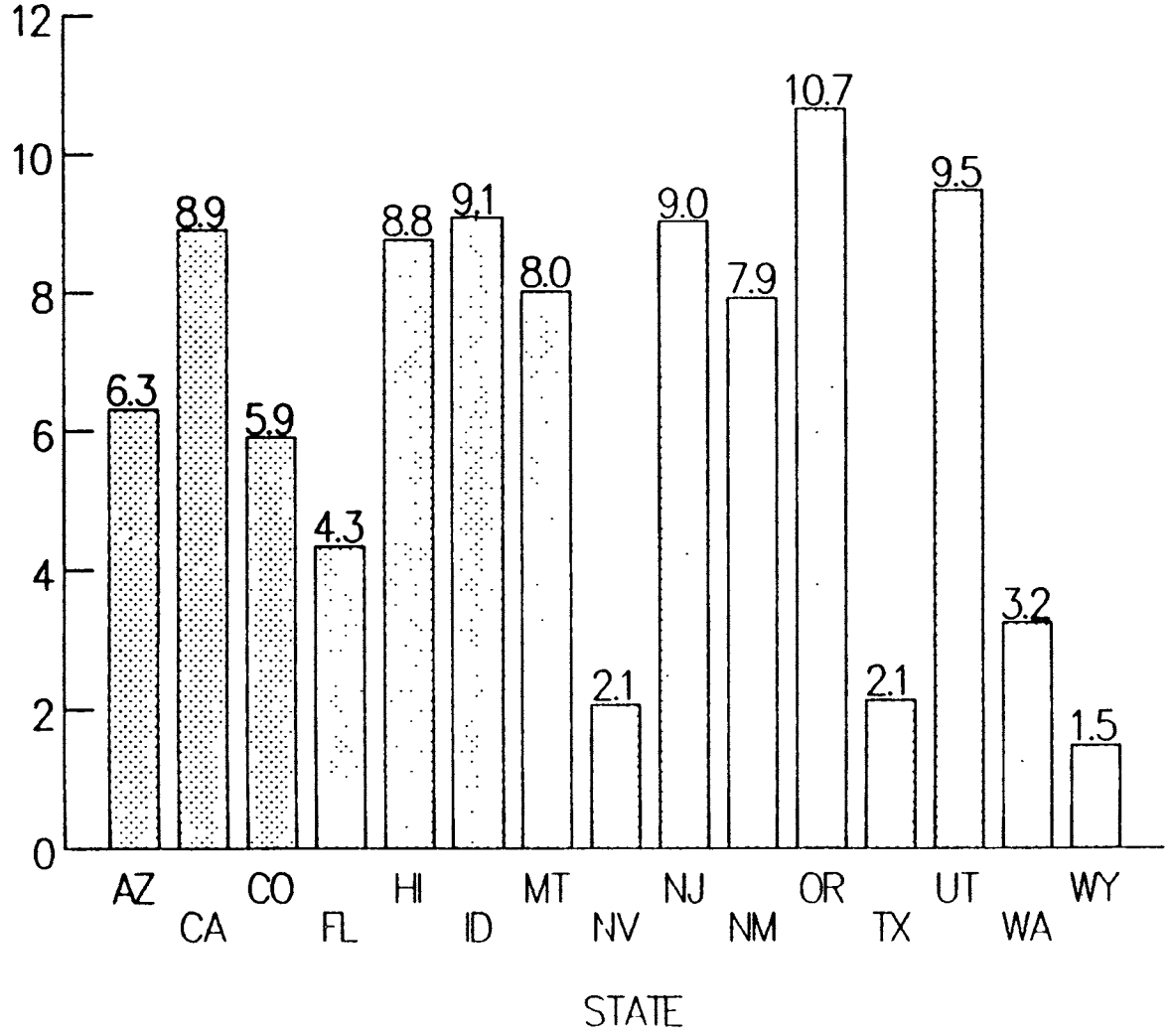
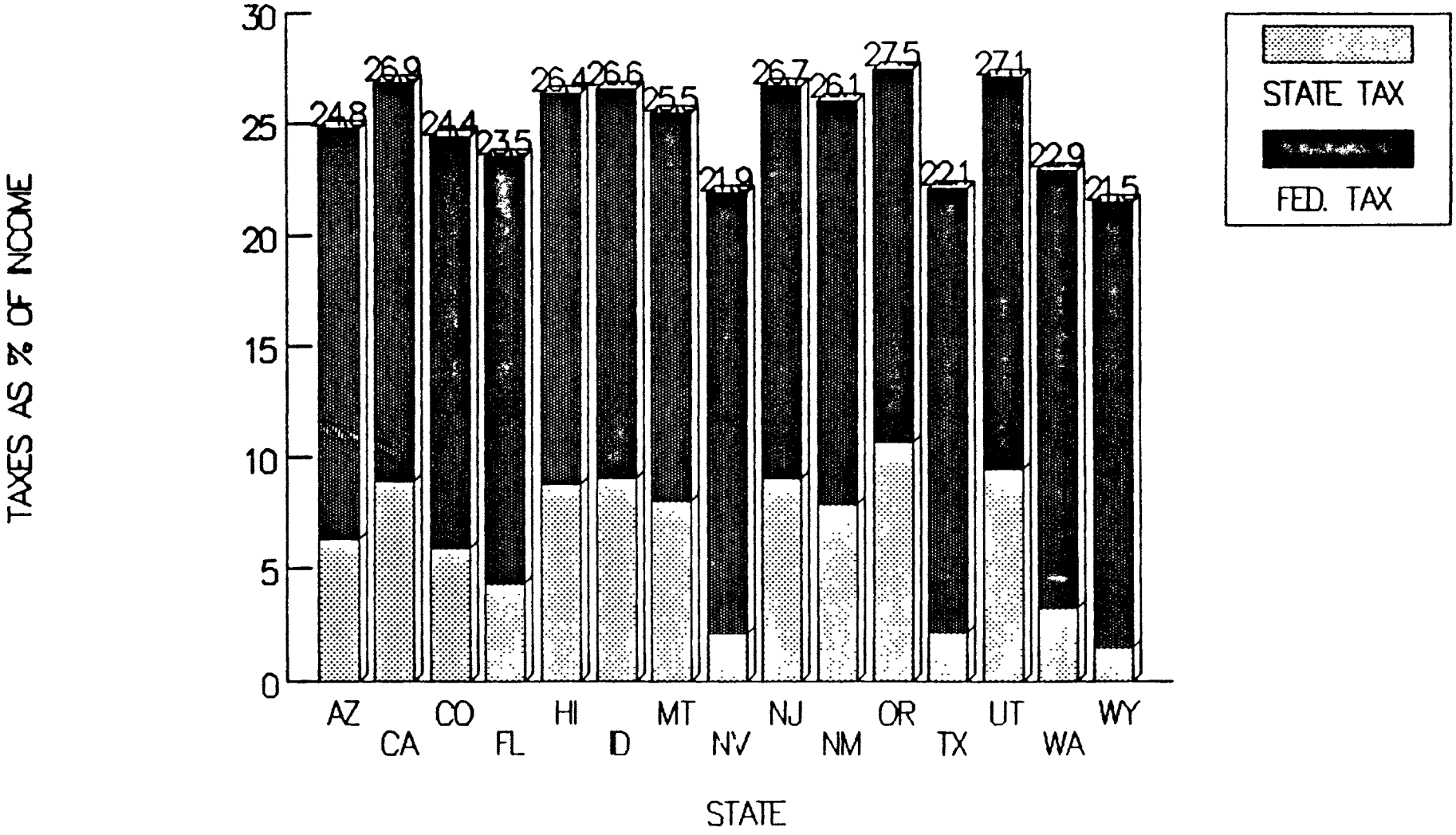


FIGURE 7.5

TAX AS A PERCENTAGE OF INCOME

CASE 3: TOTAL INCOME – $95,000



CASE 4

TOTAL INCOME – $20,100

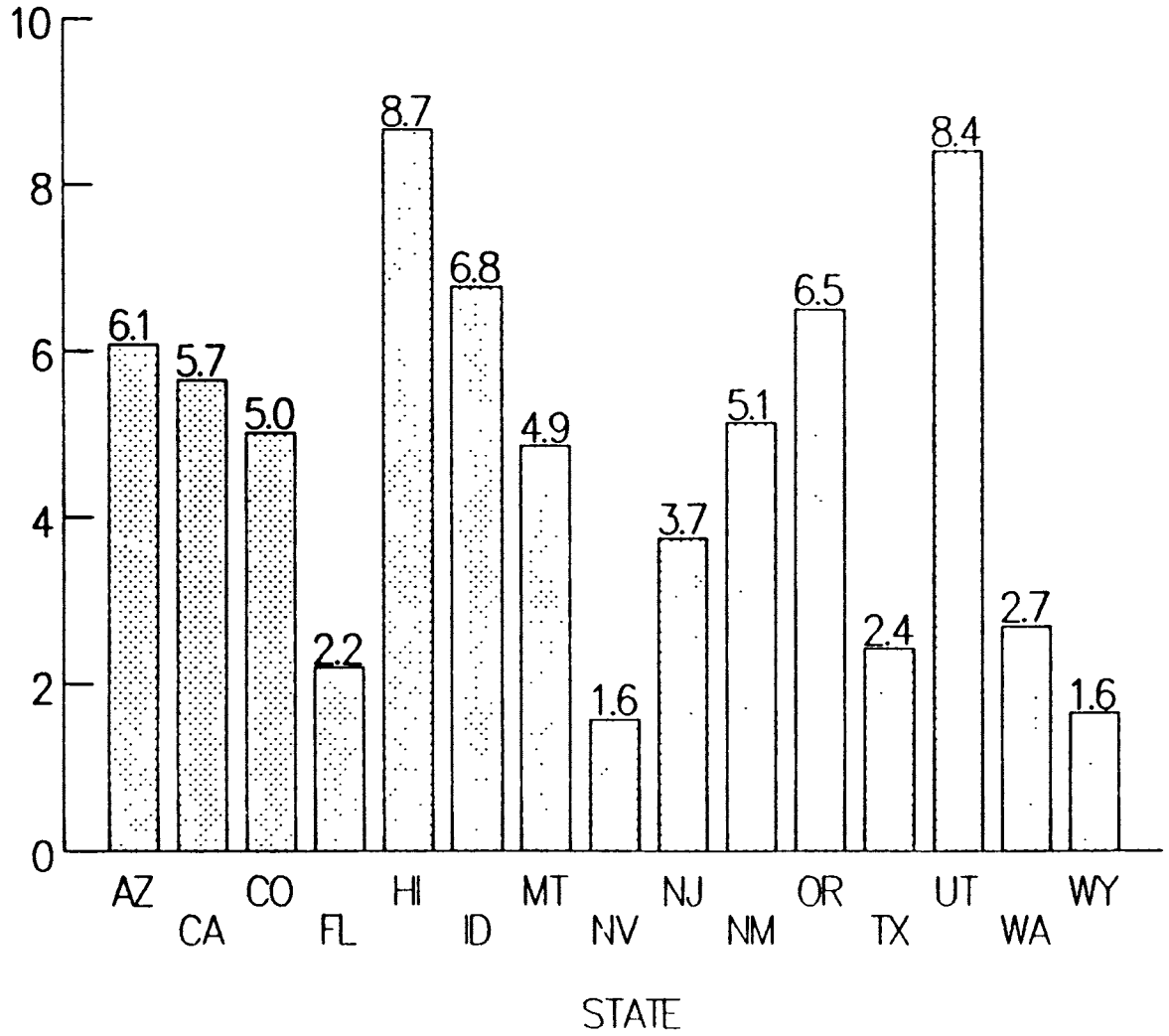


Figure 7.1 shows that Nevada has the lowest tax burden on the lower-income family (Case 1) because of the absence of a personal income tax and the sales tax exemption for food, prescription drugs, and consumer utilities. For this hypothetical family, state and local taxes are 1.6 percent of household income.

Case 2 is a middle-income family with a household income of 35,300. State-local taxes range from a low of 2.2 percent in Wyoming to a high of 11.3 percent in New Jersey. The high level of personal taxes in New Jersey primarily is due to very high residential property taxes. Nevada taxes are second lowest, along with Texas, at 2.9 percent of income. Figure 7.2 portrays state-local taxes as a percentage of income. Figure 7.3 presents state-local taxes and federal income taxes as a percentage of income. Because this household is assumed to itemize for federal income tax purposes, Figure 7.3 captures the interaction of the deductibility of income and property (but not sales) taxes under the federal income tax.

Case 3 portrays a high income family with $95,000 of income. The highest state-local tax burdens are 10.7 percent in Oregon and 9.5 percent in Utah. Both states have relatively high top income tax rates that are applied at low levels of taxable income. The top tax rate in Oregon is 9.0 percent on taxable income over $5,000 for single persons and $10,000 for married couples filing jointly. The top marginal tax rate in Utah is 7.75 percent on taxable income above $3,750 for single persons and $7,500 for married couples filing jointly. Figure 7.4 shows that Nevada state-local taxes are second lowest at 2.1 percent of income for the high income family. Figure 7.5 indicates that the range of personal tax burdens is not so extreme when federal income taxes are taken into account. Combined federal-state-local burdens range from a low of 21.5 percent for Wyoming to a high of 27.5 percent for Oregon. Two factors come into play: (1) the high federal income tax burden relative to state and local taxes and, (2) the deductibility of income and property

taxes against the federal income taxes. The offsetting reduction in federal income taxes is greater for those states that impose higher deductible taxes.

Figure 7.6 presents the comparison for Case 4 -- a single person with $20,100 of income. Nevada and Wyoming have the lowest burdens equal to 1.6 percent of income. Hawaii has the highest burden equal to 8.7 percent of income. Hawaii's high burden is due to its heavy reliance upon the personal income tax and the broad-based character of its sales tax (food and consumer utilities are included in the base).

Implications for Tax Policy and Economic Development Strategies

Tax policy and economic development strategies should be linked in a coherent and consistent manner. Yet the task is not an easy one. Different economic development objectives may pull tax policy in contradictory directions. For example, low business and personal taxes may be used as a selling point in efforts to attract investment. However, if low taxes result in inadequate public services, development efforts will be hampered since quality educational systems, good transportation systems, and public infrastructure are widely perceived to be requisites of a strong state economy. Levels of taxation and spending must be balanced so as to maintain a competitive tax position while financing necessary public expenditures. Furthermore, the mix of taxes should be designed to avoid disadvantaging those industries that are the targets of economic development strategy.

Nevada's current tax position is quite favorable relative to other Western states. Nevada has the lowest overall business taxes for each of the manufacturing and wholesale trade industries included in the multistate business tax analysis. Nevada's personal taxes are also among the lowest at all levels of income for the comparison states. Gaming taxes and tourist-related sales taxes, by contributing more than half of total state general fund tax revenue, have permitted Nevada to combine

low personal taxes with low direct taxes on non-gaming industries. Although the overall tax burden on gaming is high relative to other industries in Nevada, overall taxes on the Nevada gaming industry compare favorably with those of its sole current competitor - New Jersey.

The relationship between tax policy and economic development strategy can be divided into two topics: (1) existing incentives and disincentives; and (2) the role of tax policy in an economic development diversification strategy.

Existing Incentives and Disincentives. Tax policy issues relating to economic development often involve assertions that particular tax policies create barriers to business investment. A higher-than-average level of taxes may be viewed as a disincentive. Higher-than-average taxes imposed directly on business are not the only tax policy areas that are sensitive to development concerns. High personal income taxes were significant development issues in such states as New York, Minnesota, and Wisconsin. Major personal income tax reductions in each of these states were justified, in part, based upon economic development arguments. Because of Nevada's favorable overall business and personal tax position under the current tax structure, issues related to the removal of development disincentives are not prominent in Nevada. Issues may arise related to specific tax policies that may have an adverse effect on business costs, such as the application of the sales and use tax to purchases by businesses. However, overall tax burdens compare favorably with other Western states under the current tax system.

Low general business tax burdens have mitigated pressures to provide selective tax incentives for specific classes of taxpayers. Selective tax incentives are often of questionable effectiveness and introduce inequities into the tax system. New entrants into the state may receive special tax advantages that may not be available to existing businesses whose gradual expansion is a major source of employment growth. The primary focus of business tax policy should be upon the design of a

general business tax structure consistent with economic development objectives.

Relationship to Diversification Strategy. Over the long term, adjustments in the level and mix of taxes are likely to be necessary. If the level of taxes were to be increased at some point in the future, alternatives should be evaluated in terms of their effects upon economic development as well as other tax policy criteria.

The comparative tax burden data included in this chapter can be a useful aid in evaluating the economic development implications of specific policy alternatives. This is especially the case with respect to Nevada's desire to diversify its economic and fiscal base. The notion that the tax structure should be designed to "capture" the fiscal benefits of economic change suggests a broadening of the revenue base. However, if business tax burdens were modified so as to entirely eliminate Nevada's current competitive advantage, accomplishment of the goal of economic diversification could be hampered. Careful analysis of the tax burden implications of alternatives is necessary. Otherwise, the goal of revenue diversification may potentially hamper the objective of economic diversification.

Comparative analysis of overall tax burdens is also of importance in evaluating gaming tax policies as well. Although the Atlantic City and Nevada markets are differentiated to a considerable degree, they are competitive. Thus, Nevada policymakers should be aware of how gaming tax policy changes affect relative burdens in New Jersey and Nevada.

It is important to recognize that tax policy is only one of many public policies that can contribute to economic development strategy. As noted earlier, the quality of public services, such as education and transportation systems, are also significant. States have also undertaken a wide variety of targeted efforts to encourage economic development including venture and seed capital funds, technology transfer programs that link university research and product development efforts, small business incubator

programs, and export financing and assistance programs. An effective Nevada economic diversification strategy must involve a set of nontax programs and policies as well as a competitive general tax structure.

ENDNOTES

1. It should be noted that income tax burdens are lower than statutory rates because (a) deductibility of state taxes against the federal income tax reduces the effective tax rate, and (b) the tax is measured as a percentage of book income which is broader than taxable income.