Center for Business and Economic Forecasting, Inc.



A BRIEF ECONOMIC HISTORY OF COLORADO

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INTRODUCTION AND OVERVIEW

Colorado's economic history is one of ever changing forces driving industrial and commercial activity. The state's modern economy began with the discovery of gold in the late 1850s. The state was heavily dependent on natural resources through the onset of World War II, with mining and agriculture the leading industries. During the war and post-war period, the Federal government vastly increased Colorado-based, defense-related activities and established a complex of regional offices. Cutbacks in the state's defense industry in 1960s ended the Federal government's dominant role in the economy. The ensuing slowdown was followed by nearly 40 years of mostly robust population and job growth, which saw the development of today's technology and service-oriented economic base. This most recent period will be given the greatest attention in this report.

Focusing on a single industry in a particular period is, of course, an oversimplification. For example, tourism, while never the state's dominant industry, has been an important component of the state's economy since the late nineteenth century. Resource-based industries, despite their diminished status, have enjoyed brief periods of resurgence over the last half-century. Thus, while developments in the dominant industry will be stressed, other sectors will also be examined.

Over the past 150 years, Colorado's economic development was largely determined by availability of natural resources, labor and other inputs into the production process along with access to markets and fluctuations in demand for products. Raw materials, particularly gold and silver, were the critical element in the mining economy. Water and land were necessary for agriculture as were railroads for transporting farm products. Long distances from major population centers and the lack of navigable waterways prevented the development of much heavy industry, although massive coal deposits led to steel production.

Colorado's industries have generally been able to attract workers. The shift toward an advancedtechnology economy since World War II was possible because the state's desirable living conditions enabled Colorado firms to attract workers with the necessary skills. The movement of these workers into the state resulted in one of the most highly educated labor forces in the nation. It has also meant that migration and therefore population growth was usually closely tied to job generation. Chart 2 shows this relationship since 1950. (The charts are at the end of the text beginning on page 25.) Large numbers of people moved to Colorado during the periods of rapid job growth in the 1970s and 1990s while the sluggish job gains in the late 1980s resulted in net out-migration.

The longer-term trends in the state economy can be traced to changes in basic industries. These basic industries served as economic drivers; they were export-based industries, which brought outside dollars into Colorado. However, other industries supplying either basic industries or households have also been critical. Few of Colorado's industries would have grown without a

supporting transportation sector. The state's financial institutions helped channel much of the capital needed for economic growth.

Demographic forces also shaped Colorado's economy. Immigrants from outside the U.S. in the late nineteenth and early twentieth century provided a workforce for the state's mines and farms. Members of the baby-boom generation moving into Colorado in the 1970s fueled the highest rate of residential construction in the state's history. Demographic changes were simultaneously a cause, an effect and a necessary condition for most of the major economic events. Among the most significant demographic changes is the change in age distribution of the population. This is shown in Chart 6, which traces the baby-boom generation through the last 40 years.

Neglecting the economic diversity of Colorado's regions would present an incomplete picture. Colorado's macroeconomic data is heavily weighted toward the Front Range which, depending upon how it is defined, makes up as much as 90 percent of the state's current economic activity. But different economic patterns of economic performance appear in the resource and recreation dominated mountain and western regions as well as in the agricultural areas in the eastern plains and valleys.

Population patterns have varied in the different regions. Chart 1 shows population in the state's three major regions since 1870. Since the early 20th century, and particularly since World War II, the bulk of the growth has occurred along the Front Range. Population in the eastern plains peaked in the 1920s and declined until the 1990s. In the western and mountain regions, overall population stabilized after the mining boom ended, but has grown rapidly over the past 40 years.

Market fluctuations brought prosperity or failure for important segments of the Colorado economy. For example, the discovery of silver deposits led to the state's first great boom in the 1880s but slumping demand brought about a downturn in the following decade. Massive flows of capital into the telecommunications industry more than a century later contributed to the prosperity of the 1990s. But it also led to the downturn in the early twenty-first century.

Colorado's economic cycles have, for the most part, coincided with those of the nation. Chart 4 compares United States and Colorado job growth since 1950. The state has generally grown faster than the nation with the middle 1980s an exception. The overall prosperity of Colorado citizens has varied over the state's history. Chart 3 compares state and national per capita income. Per capita income is a crude measure of economic well- being of the average person and periods of rapid expansion usually saw relative gains for the state.

Fluctuations in construction activity have been an important factor in causing cyclical changes in the state economy. Chart 5 highlights Colorado construction cycles over the past 40 years. Over the past century and a half, the state's industrial makeup shifted away from agriculture and mining toward a greater share of earnings in manufacturing and later in the service industries. Chart 7 traces changes in the distribution of earnings since 1940.

THE RESOURCE BASED ECONOMY: 1850s THROUGH 1940

Colorado in 1850

The first century of Colorado's modern economic history saw the development of important export-based industries as well trade, services and production serving regional markets. By the middle of the nineteenth century, industrial economies were developing in Europe and the eastern U.S. But what was to become Colorado was, for the most part, a subsistence economy. It not only lacked industry, but had little agriculture. The population consisted of native peoples largely dependent on hunting, fishing and foraging. A few Europeans trapped and traded with the natives. Bents Fort on the Arkansas River was a trading center for travelers along the Santa Fe Trail. A small number of farming settlements were found in the San Luis Valley.

The Mining and Agricultural Era: 1860-1920

The first gold rush to Colorado occurred in the late 1850s spurred by discoveries along Cherry Creek. The earliest market economy in Colorado consisted of mining and the various businesses supplying and supporting the mines and the miners. These included retailers, purchasers and processors of gold ore or dust, churches, local governments and, of course, the infamous brothels and saloons. The gold boom quickly receded as the early discoveries were exploited and few new ones were found. The Civil War and battles with the plains Indians took men away from the mines and made commerce with the rest of the nation difficult.

The mining industry rebounded in the 1870s with several major silver discoveries. Leadville became the largest silver producing area in North America with Aspen, Georgetown and Telluride also major production centers. A significant smelting industry also developed. At the peak of the silver boom in the 1880s, the state reached a level of prosperity not to be seen again until the middle of the next century. Colorado's population more than doubled during the 1880s. But silver demand began to recede as the nation entered a period of deflation. The repeal of the Sherman Silver Purchase Act in 1893 marked the end of the national bi-metallic standard and was a watershed event for the Colorado economy. The death of bi-metallism also marked the apex of the metal mining industry, although the Cripple Creek gold strike in 1890 brought a short revival. Replacement of bi-metallism with a gold standard contributed to further deflation, which was generally harmful to the state's business and farms.

The last half of the nineteenth century saw the beginnings of Colorado's farming and ranching industries. The passage of the Homestead Act, which granted land ownership to settlers, opened much of eastern Colorado to small farms. The new farmers soon discovered the difficulty of dry-land farming in the region, but major irrigation projects facilitated crop production in the river valleys. Cattle drives from Texas were first undertaken to feed the miners. Soon cattle were raised and fattened on Eastern Colorado's prairies. Agricultural areas prospered during the early years of the 20th century. The population in the 17 counties in Colorado's eastern region tripled between 1900 and 1920. (Chart 1)

Immigrant workers made an important contribution to Colorado industrial activity in the late nineteenth and early twentieth centuries. Irish and Italian immigrants provided much of the workforce for the larger scale metal mining and smelting operations and later for the coal mines. The farmers settling along the river valleys in Eastern Colorado included recent immigrants, many of them from Germany and Russia, as the railroads recruited potential farmers, and future customers, from Eastern Europe.

While metal mining and agriculture dominated the Colorado economy through 1920, other industries also made important contributions. The state's massive coal reserves were exploited. The turn of the century saw the beginnings of a manufacturing industry. A sparse population meant that the manufacturing was tied to available inputs, mostly the products of mines, farms and ranches. Availability of coal led to a steel mill in Pueblo. Facilities were begun for the processing of agricultural products including sugar beets, alfalfa, livestock and grain.

The development of railroads provided market access for both mining and agriculture. The railroads also stimulated Colorado's tourism industry. Tourists were first attracted to the state in the late 19th century and their numbers increased with the coming of the automobile. Colorado's climate also attracted persons with respiratory ailments and a number of treatment centers were developed.

Depression: 1920-40

The First World War stimulated demand for Colorado's agricultural products as well as for coal and steel. But prosperity was fleeting. While the 1920s are remembered as a boom period for the nation, the natural-resource-based Colorado economy suffered from declining prices for farm products as well as for metals. The impact of the Great Depression of the 1930s was made worse by a prolonged drought. Dust bowl conditions in eastern Colorado drove many farmers from the land. The Eastern plains counties lost more than 10 percent of their population between 1930 and 1940 (Chart 1) and the number of farms in the state, which reached an all time high in the 20s, fell 14 percent. As was the case nationally, the depression ravaged the state's banking sector. The Colorado Banking Commission reported that assets of state-regulated banks fell 40 percent between 1929 and 1934.

The Colorado Economy in 1940

Colorado population in 1940 was 1.1 million after the slowest decade of growth since the 1860s. (Chart 1) With lower family formation and fewer births the median age of the population rose to 29.2 years, up from 27.3 years in 1930. The industrial base of the Colorado economy in 1940 was still heavily weighted toward natural resources. According to the 1940 Census, 21 percent of the state work force was employed in agriculture, and farming accounted for nearly 10 percent of all earnings. (Chart 7) Another five percent was employed in mining. Manufacturing accounted for 10 percent of the workers, with most of them in food processing industries such as meatpacking, beet sugar refining and grain milling. The steel industry employed a large number

of workers, as did producers of rubber products. Trade and distribution also provided livelihoods for many Coloradans and accounted for nearly 20 percent of earnings.

THE ERA OF FEDERAL SPENDING: 1940-66

The Second World War brought not only an end to the depression but a significant expansion of federal government civilian and military activity in Colorado. Defense spending took its place alongside mining, agriculture and tourism as an important source of outside dollars. The war years also marked the beginning of a transition of Colorado from an economy based primarily on natural resources to one driven by technology and service industries. Population and job growth surged during the war and immediate post-war period. Between 1940 and 1950 the number of nonfarm jobs grew more than 50 percent. The state's civilian job growth was significantly faster than that of the nation over the decade.

The demographic impetus in the years after the war was provided by the World War II generation starting families. People moved to Colorado in large numbers during the war and immediate post-war period, a trend that was to continue through the rest of the 20th century. In many cases, the new Coloradans had been stationed at the state's military bases during the war. Population growth during the 1940s was the fastest since the first decade of the century. Stimulated by government spending, the population and job base surged along the Colorado Springs to Fort Collins corridor. Front Range population nearly doubled between 1940 and 1960, increasing from fewer than 700,000 to more than 1.3 million over the twenty years. (Chart 1)

Government Installations

Mobilization for war led to formation or expansion of numerous military facilities in Colorado. These included Lowry Air Force Base, Buckley Field and the Rocky Mountain Arsenal in the Denver area. Among the bases in Colorado Springs were Camp Carson, later Fort Carson, Ent Air Force Base and Peterson Field. War-related government activity in other parts of the state included the Pueblo Ordinance Depot, Camp Hale near Leadville, where ski troops were trained, and the Camp Amache Japanese Relocation Center near Granada. The U.S. Department of Commerce reported that Colorado military earnings grew from \$1.7 million in 1937 to \$152 million by 1945 or from four-tenths of a percent of total earnings to over 13 percent. Defense spending continued after the war. Colorado defense installations added in the post-war period included the North American Air Defense Command (NORAD), the Consolidated Space Command Center (CSOC) and the Air Force Academy in Colorado Springs. Private defense contractors such as the Martin Company, Dow Chemical operating the Rocky Flats plant, Ball Aerospace in Boulder and Sunstrand in Westminster were also important players in the state economy.

Denver's central location led to many regional headquarters for Federal agencies. It was claimed that Colorado was second only to Washington D.C. in number of Federal agencies, although this is difficult to verify. Non-defense Federal facilities included the National Bureau of Standards and the National Center for Atmospheric Research in Boulder along with the Bureau of Reclamation and the U.S. Geological Survey in Lakewood.

Construction and Real Estate

Between 1950 and 1966 Colorado added 900,000 residents and almost 400,000 new jobs. This created a need for a sizable expansion in the stock of homes and commercial structures. Residential suburbs stretched outward along the Front Range. The Census of Housing showed that the state's housing stock increased by 240,000 or 68 percent between 1940 and 1960. (Chart 5) Shopping centers sprang up along with industrial and office parks. Downtown Denver changed radically in the 1950s after decades of somnolence. Outside capital from investors such as Webb & Knapp in New York and the Murchison family in Texas remade upper downtown Denver. New retail space and hotels were built downtown and two of the state's major banks built new headquarters.

Public construction was also important. The Denver-Boulder turnpike opened in 1952. The Frying Pan-Arkansas water diversion project began in the early 1960s. Colorado's colleges and universities expanded to accommodate the increased enrollment of war veterans. Between 1940 and 1960 enrollment at state supported higher education institutions increased from 10,000 to 26,000.

Agriculture

World demand for foodstuffs in the post war period brought rising farm prices and a period of great prosperity for Colorado's farmers. Agricultural output expanded and farm incomes rose. But in the 1950s falling prices and a dry period brought the agricultural boom to its end. Drought and excessive cultivation of dry land during the post-war years were responsible for a mini-dust bowl in eastern Colorado in the 1950s. The state's food processing industries grew with agricultural prosperity.

Tourism and the Service Economy

Rising incomes and the increase in young families generated demand for Colorado's tourist attractions. Winter tourism assumed a greater importance with development of major ski areas, many of them by former ski troopers who were stationed in the state during the war. This period saw Aspen develop as the state's first large-scale destination resort. Other service sectors such as health care also thrived.

Mining

With the beginnings of the Cold War and an increased emphasis on nuclear power, uranium production became an important industry in western Colorado. In 1956 the state had 150 active producers in the field and 5 mills. Oil and gas production also picked up in the 1950s. Coal mining surged during the war but declined thereafter due to competition from natural gas and other fuels.

Regional Patterns of Development

After experiencing slow growth since the middle 1920s, the state's population exploded, increasing from 1.1 million in 1940 to just over 2 million in 1966. (Chart 1) Total state population increased 56 percent between 1940 and 1960, but the number of children under 15 almost doubled. Virtually all of the growth in this period occurred along Colorado's Front Range. The fastest growth was in Denver's suburbs. The combined population in Adams, Arapahoe and Jefferson Counties increased by a factor of five over the 20-year period. The City and County of Denver, which could still easily annex adjacent land, grew from 323,000 in 1940 to near its present half-million population by the middle 1960s.

Consolidation in agriculture meant the disappearance of many small farms and declines in the agricultural trading centers that supported them. The eastern plains counties lost some 15 percent of their population. The mountain region's overall population was stable. Strong growth in more urbanized counties such as Montrose, La Plata and especially Mesa counties was offset by population losses in the areas dependent on mining and agriculture.

Slump in the 1960s

Significant job cuts by defense contractor Martin Marietta and its suppliers marked the end of the Federal sector's leading role in the Colorado economy. With the completion of a major contract for the Titan II missile, Martin, by far the state's largest defense contractor, cut its work force from 14,000 to 6,000. This brought about a brief slowdown in the state economy, particularly in metropolitan Denver. Job growth slowed in the 1962-65 period and net migration fell into the negative range in 1965. (Charts 3 & 4)

The Colorado Economy in 1966

Over the quarter century ending in the middle 1960s, manufacturing's share of the economic activity grew while that of agriculture declined. (Chart 7) More than one-third of state manufacturing earnings was still accounted for by such long-time standbys as food processing, steel, leather products and rubber products. Defense contracting assumed an increased importance with ordnance accounting for 13 percent of manufacturing earnings. Mining declined in importance while finance and services increased somewhat. Colorado became more

prosperous. Per capita personal income exceeded the U.S. average through most of the two decades after the war. (Chart 3)

THE BOOM YEARS: 1966-84

Between the middle 1960s and the middle 1980s Colorado experienced unprecedented growth. Employers added almost 800,000 new jobs, more than doubling the size of the work force. This was a rate of growth almost twice that of the nation over the same period. Population grew by 1.2 million with almost three-quarters of a million of this increase due to net migration, i.e. persons moving into the state less those moving out.

It was also a time of wealth accumulation that recalled the days of the silver barons a century earlier. A Denver business reporter described the scene. "Denver was rich, unimaginably rich. People made fortunes, sometimes in a matter of days. A fever possessed the city.... Tales of riches echoed across the plains and people came flocking." Government statistics back up this picture of wealth. State per capita person income, which had fallen four percent below the U.S. average by the late 1960s, rose to more than 8 percent higher than the U.S. by the early 1980s. (Chart 3) The driving forces behind this boom were first technology and later energy. The strength in these basic industries unleashed rapid expansion, and eventually excesses, in real estate and finance.

Changes in the Economy

The state's job mix shifted toward higher skills and greater technical sophistication. This period saw Colorado's manufacturing base move away from the traditional industries and toward advanced technology. By 1984, the share of manufacturing earnings accounted for by food processing, steel, leather, and rubber products dropped to 17 percent or roughly half its share in 1966. Other durable manufacturing, much of it advanced technology, registered a comparable increase. Food processing declined in importance. Most of the state's sugar beet mills closed in the 1970s and meat processing plants relocated to lower wage areas. Overall, the manufacturing share of private earnings fell while that for business services and oil and gas production and exploration increased. (Chart 7)

Business Cycles

Between the mid-1960s and the mid-1980s, the Colorado economy's strong growth path was interrupted by two major U.S. recessions. The first occurred in 1974-75 and was compounded by a sharp downturn in the state building activity. The number of net new jobs in the state fell from 82,000 in 1972 to only 4,000 in 1975. Homebuilding dropped by 70 percent. (Charts 4 & 5)

A Brief Economic History of Colorado

In 1981-82 the U.S. economy suffered its most severe downturn since the great depression of the 1930s, as the Federal Reserve invoked sharply restrictive monetary policy in an attempt to rein in double-digit inflation. Colorado job growth slowed from over 90,000 in 1978 to only 11,000 in 1983. Homebuilding fell by one-third, but quickly rebounded by 1984. (Charts 4 & 5) In both these downturns, Colorado's economic path closely tracked that of the nation although the state's performance was somewhat stronger. Both recessions were followed by robust recoveries in both the state and the United States.

Demographics

The demographic driver during this period was the baby boom generation. These were the young people born between 1946 and 1964 who were beginning to reach adulthood in the mid 1960s. (Chart 6) The general prosperity of the period gave the older baby-boomers freedom to move, and many moved to Colorado. Net migration into the state reached its all-time peak in 1973 when 90,000 more people moved into Colorado than moved out.

Regional Patterns of Development

Both the Front Range and the mountain regions posted strong growth during this period. The mountain regions were stimulated by energy development and other inflation-induced mining activity as well as by skiing and other tourist activity. The eastern plains benefited from high farm prices, some oil and gas activity and a generally prosperous regional economy. Fifty-six of the states sixty-three counties added jobs between 1969 and 1984.

Technology

In the 1970s, firms such as Hewlett Packard, Storage Technology and Texas Instruments built or expanded along the Front Range. These firms were attracted to Colorado by the availability of skilled labor and access to their markets. The attractive life style in Colorado's cities meant that tech firms could attract workers from elsewhere if they were not available locally. Denver's role as a major air transportation hub facilitated the movement of workers and products in and out of the region.

Construction and Real Estate

As the baby boomers reached adulthood, they created a demand for housing and homebuilding increased rapidly through the late 1960s and early 1970s. Between 1960 and 1980 almost halfmillion new units were added to Colorado's housing stock. This was an increase of nearly 80 percent over the twenty years, even faster than that in the previous two decades.

The most explosive growth was in multi-family building. The building boom prior to the 1974 recession saw the construction of "swinging singles" apartment complexes in areas such as Southeast Denver's Leetsdale Drive. The number of housing units authorized by permits

reached at all-time high of 64,000 in 1972. (Chart 5) Increases in the workforce generated demand for new offices and other work places. Over 40 million square feet of office space were built in downtown Denver during the 70s and early 80s, tripling the existing supply.

Mining and Energy

The oil boycott by the Arab nations in the early 1970s and the Iran-Iraq war in the latter years of the decade caused the price of oil to rocket from around \$2 per barrel in the early 1970s to near \$40 per barrel in the early 1980s. As a result, Colorado oil and gas employment boomed, with the number of jobs growing form 6,000 in 1972 to almost 30,000 in 1982. Most of these jobs did not involve oil production in Colorado, but supporting activities for drilling throughout the Rocky Mountain region.

Denver's central role in oil and gas exploration can be explained by access to transportation. It was noted that the easiest way to get from Billings to Casper was to fly through Denver. The number of drilling rigs operating in the Rocky Mountains surged from 250 in the middle 1970s to 600 in the early 1980s. The industry was also responsible for many in additional jobs in areas such as legal services, business services and financial services.

In the inflationary environment of the 1970s, demand and prices for raw materials climbed rapidly. Among the hot commodity markets was that for molybdenum, which was used as a steel alloy. The largest North American deposits of molybdenum were found in Colorado near Climax and Empire. Production boomed in the late 1970s; metal mining employment in Colorado peaked at over 12,000. But with the end of inflation, competition from third-world producers, and increased production as a copper byproduct, demand slackened. Eventually, the large mines were closed and today the industry employs only a few hundred workers.

Coal production also increased as the cost of oil rose and the demand from electric utilities for clean low-sulfur coal grew. Through the 1960s most coal production took place in underground mines in the Boulder and Trinidad areas. In the 1970s large new surface mines opened in the northwestern part of the state. In 1981 state coal production reached at all-time high with 70 percent of the output from surface mines.

Oil shale development, proposed in the northwestern part of the state, was the most ambitious effort in Colorado's energy boom. The vast oil shale reserves in the Piceance basin in Western Colorado and Eastern Utah had long been viewed as having the potential for large-scale production with improved technology and a sufficiently high price. The first oil shale retort in Colorado was built in 1917 and Union oil operated a surface retort in the 1950s. However, oil discoveries elsewhere rendered production from shale uneconomical.

As the price of oil approached \$40 per barrel in the early 1980s shale development again seemed imminent. The Colorado Energy Research Institute in 1981 listed 16 oil shale projects in western Colorado and eastern Utah. Oil giant Exxon's Colony Oil Shale Project near Parachute

envisioned eventual production of 200,000 barrels of oil per day. Exxon planners projected thousands of jobs and a Grand Junction population of one-quarter of a million people. But the high price of oil stimulated new production as well as conservation. The price of oil fell and it became apparent that production from shale was, once again, not economical. Exxon announced it was pulling out of the Colony Project in 1982.

<u>Tourism</u>

The 1960s and early 1970s were a "golden age" for Colorado skiing. In 1960 the industry had 27 lifts and one half million lift tickets were sold. The Aspen area dominated the state's destination-resort market while Winter Park, Arapahoe Basin and Loveland catered to Front Range skiers. Twenty years later, the 1981-82 season opened with 214 lifts operating and saw eight million skier-days. Major Colorado ski areas opened in the 1960s and early 1970s included Breckenridge, Steamboat, Vail, Snowmass, Copper Mountain, Keystone and Telluride.

REGIONAL RECESSION 1984-90

By 1984, the excesses of the long boom period had reached the point where a downturn was inevitable. The Colorado economy entered a two-year decline followed by several years of relatively slow growth. Job losses during the 1984-86 were the largest since jobs data were first compiled. The state grew more slowly than the nation for the first time since the middle 1960s and more people moved out of the state than moved in for five straight years. The collapse in the energy industry also marked the likely final fling for the natural resource sectors of the state economy.

The 1980s also saw declines in Colorado's traditional manufacturing industries in the face of weakened demand as well as an increasingly cost-competitive environment. Iron and steel employment fell sharply and the leather and rubber industries shifted production to lower cost regions. Cutbacks were also the order of the day in the food processing industry.

Overall Economic Performance

The Colorado economy rebounded robustly from the 1981-82 U.S. recession, posting a very strong 5.7 percent job gain in 1984. (Chart 4) But by late 1984 the expansion had lost its momentum. Over the next two years the Colorado economy declined steadily. Between December 1984 and November 1986 some 30,000 jobs were lost. The state unemployment rate rose to 8.5 percent of the labor force.

Construction activity was sharply curtailed. The number of new housing units dropped from more than 50,000 in 1983 to just over 10,000 by 1989. (Chart 5) Home prices fell throughout the latter half of the 1980s. With nonresidential building also reduced, the number of construction jobs declined by more than one-third.

A Brief Economic History of Colorado

During this period, state per capita personal income dropped below the national average. (Chart 3) Faced with lower incomes, declining home values and actual or potential job losses, Colorado consumers trimmed their spending. State retail sales fell in 1985 and showed no gain in 1986. State and local governments were confronted with revenue shortfalls and were forced to cut their budgets. Although the decline in the Colorado economy ended in late 1986, significant recovery was delayed until 1990. The huge overhang of unsold homes and vacant office space limited any gains.

End of the Oil and Gas Boom

The Rocky Mountain region was and still is an expensive place to find and extract oil. Wells drilled here were generally deeper, more expensive and riskier than in other areas and therefore most vulnerable to declines in oil prices. When oil prices started to fall, drilling in the region plummeted. In early 1982 more than 600 rigs were active in the region, but by late the following year the number had fallen to just over 200. By the end of 1986 Colorado's oil and gas employment had been cut in half. The effects spread well beyond the oil industry. Office space was abandoned, demand for legal services, with the exception of bankruptcy law, diminished. A sign hanging behind the bar at the downtown Denver Slant Hole, an establishment frequented by oilmen, summarized the situation. It read, "Please God, just one more boom. I promise not to piss it away this time."

The Real Estate Bust

The Economic Recovery Tax Act of 1981 greatly expanded opportunities for tax-sheltered investment in commercial real estate and stimulated a flow of funds from passive investors such as doctors or entertainers into previously uneconomic projects. The repeal of these measures in 1986 discouraged those investors not already frightened off by the massive supply overhang. Almost overnight lenders and investors realized that there was more office space in Denver than could be filled in the near or even distant future. New projects were canceled, lenders pressured developers to pay off their loans and regulators forced financial institutions to write down their assets.

These cutbacks further reduced economic activity, which in turn eliminated even more potential tenants. The hot money, which had been attracted to Denver, went elsewhere. Office vacancy rates rose rapidly, peaking at over 30 percent in Denver's central business district, nearly twice the national rate at that time. Average lease rates for "Class A" office space dropped from \$25/square foot in 1981 to \$14/square foot in 1987-89. With job losses and falling incomes, the housing boom also collapsed. Foreclosures on housing units rose. The U.S. Department of Housing and Urban Development (HUD) increased its ownership of housing units in the Denver-Boulder CMSA from one hundred in 1983 to more than 6,500 by mid-1985.

Agriculture

Colorado agriculture enjoyed overall prosperity in the 1970s and early 1980s. Prices for farm products were high in this inflationary period. Colorado farm income peaked in the middle 1970s and land prices soared. Prosperity inspired many farmers to invest heavily in land, buildings, machinery and livestock. But by the early 1980s a worldwide recession and increased foreign competition forced prices down. By 1986, the average price Colorado farmers received for wheat had fallen more than a third since the beginning of the decade and that for corn was off almost 50 percent. At the same time farmers were faced with higher interest and energy costs. Land values and farm incomes slumped and Colorado's farmers and ranchers faced severe financial stress.

Troubles in the Financial Sector

The slumping economy took its toll on the region's financial institutions. The most spectacular collapse occurred in the savings and loan industry. In Colorado, as in the nation, thrift institutions, or savings and loans, provided much of the financing for the rapid increase in home ownership after World War II. These institutions received short-term deposits and made long-term loans, almost exclusively home mortgages. As inflation, and interest rates, picked up in the late 70s, depositors were attracted to other higher-paying instruments. Regulations were relaxed so the S&Ls could raise their deposit rates, though they still were only receiving low returns on their older mortgages. The Federal government responded to this dilemma by removing the remaining limits on rates S&Ls could pay depositors and by allowing thrifts to expand their loan portfolio into higher yielding assets such as commercial real estate. The government also raised the insured deposit limit to \$100,000. This allowed S&Ls to offer high rates of return on insured deposits, which attracted funds that then needed to be loaned out at high interest rates, accompanied by higher risks.

This scheme was doomed to failure, but for S&Ls and for developers, who often had close financial ties to the thrifts, it was almost a license to print money. It led to excesses and fraudulent schemes, particularly in fast growing areas like Colorado, before the government stepped in with a multi-billion dollar bailout in the late 1980s. Colorado's poster child for S&L abuses was Silverado Savings and Loan, which received notoriety because then-vice-president Bush's son sat on its board of directors. Silverado was involved in the financing Denver's real estate boom of the 1980s as well as accounting irregularities, conflicts of interest and questionable political connections. Federal regulators shut down Silverado in 1988 at an estimated cost to the taxpayers of \$1 billion.

The troubles were not limited to savings and loans. Many Colorado banks had loan portfolios heavily weighted toward energy, agriculture and real estate. With asset values in these areas plummeting, the banks were forced to write down the loans, putting severe pressures on the institutions' financial stability. Weakness in the banking sector forced the easing of Colorado's very restrictive anti-branch banking laws. Consequently, the late 1980s and early 1990s saw

consolidation of Colorado's banks and acquisition of some the state's largest banking institutions by out-of-state corporations.

Causes of the Recession

The downturn in the middle 1980s was unique in that it occurred during a period of general national prosperity. Not since the "silver bust" of the 1890s had Colorado seen such a severe regional downturn not linked to similar national weakness. The regional slump is often described as an "oil bust" caused by the collapse in oil prices. But the reasons for the downturn are more complex. The energy industry surged in the 1970s and early 1980s and declined sharply thereafter. Oil and gas exploration was a major industry in Metropolitan Denver and production was significant in the northwestern part of the state. But much of the state economy, like that of the nation, was harmed by high oil prices. Colorado consumed more energy than it produced and some economic analyses suggested that the lower oil prices might have a net positive effect on the state economy or, at worst, only a small negative one.

The collapse in the state's real estate markets was probably a greater contributor to the downturn than the fall in oil prices. With deregulation of financial institutions the nature of real estate cycles changed. Previous cycles, such as that in the 1970s, saw tightening of the money supply leading to cutting off funds flowing from lenders into real estate investments. In the 1980s, banks and S&Ls were permitted to raise interest rates and attract new deposits. The monetary spigot was not turned off; it just became more expensive for lenders to attract funds. The higher rates lenders paid for funds meant that they needed to search for assets with a higher return. Thus, tightening by the Federal Reserve in the early 1980s led to funds being funneled into the hottest markets.

The resulting flow of capital into Denver led to development well in excess of any reasonable projection of demand. As is the case in all speculative booms, a collapse was inevitable. It was hastened by the drop in oil prices, as well as the repeal of the ERTA tax shelter provisions, but would have happened even if oil prices had remained at \$40 per barrel. Similar booms and busts occurred in areas with little energy industry, notably Boston in the late 1980s and California in the early 1990s. Oil prices caused the bust to the extent that they caused the boom. Other export base industries also contributed to Colorado's weak economy. Molybdenum mines laid off thousands of workers. Agriculture suffered a severed collapse in the 1980s

Regional Patterns of Development

During the middle and late 1980s, growth slowed in all parts of Colorado. The mountain regions saw only a modest increase in population while the plains area posted a decline. Growth in the Front Range was the weakest since the 1930s. (Chart 1) The eastern plains regions lost jobs between 1984 and 1990 and growth in both the Front Range and Mountain regions fell to less than half the pace of the 1969-84 period.

The Mountain region's economic decline began somewhat earlier than in the rest of the state. The mountain and western counties lost jobs over the five years following the resource-boom peak in 1982. Of the state's 63 counties, 51 saw slower jobs growth in 1984-90 than in the 1969-84 period.

Demographics

The most striking demographic feature of this period was the number of people moving out of the state. This reversal of the previous quarter century's trend was entirely due to the job losses. (Chart 2) State migration patterns since World War II have been largely driven by job growth. Most of the migrants into Colorado are working age adults and their families. They may choose to relocate in the state because of the climate or the style of living, but unless there are jobs available they will not come. While the number of jobs was declining in Colorado it was growing in other states, notably in California. As a result, the state experienced negative net migration from 1986 through 1990.

THE REBOUND IN THE 90s

The slowdown in the 1980s brought down the cost of doing business in Colorado and sharply reduced the huge excess supplies of homes and office buildings. By 1990, the state again was poised for strong and sustained growth. The surging Colorado economy of the 1990s, like that two decades earlier was fueled by growth in the advanced technology sectors and by a sharp increases in construction activity.

The dominant force in Colorado's 1990s boom was the very strong national economy. Many observers felt that the U.S. was entering a new economic age. These optimists believed that technological breakthroughs would lead to a permanent upward shift in productivity growth, which would mean rapid gains in jobs, output and profits. The promise of the "new economy" attracted record investment, particularly into technologically-advanced industries. Colorado with its industry mix, attractive living conditions and educated population drew more than its share of the "new economy" investment. As noted earlier, the relatively favorable cost environment during the early years of the decade also spurred state growth. The slowdown in the middle and late 1980s limited increases in labor costs and led to lower prices for housing and commercial real estate, providing a temporary cost advantage to firms operating in Colorado.

Overall Economic Performance

The state experienced robust and sustained growth throughout the 1990s. Over the ten years, state population increased by slightly more than 1 million making Colorado the third fastest growing state in the nation. Nearly 700,000 new jobs were added; the annual increase in state employment was almost 2 percent a year faster than that of the nation. (Chart 4)

The average Coloradan benefited from the 1990s boom. The state ranked first among all the states in the rate of personal income growth during the decade. Per capita income grew rapidly, rising to eighth highest in the nation by 2000. (Chart 3) Average weekly earnings in the private sector rose 67 percent over the decade, well above the 43 percent increase in the Metro Denver CPIU.

Technology and Telecommunications

The telecommunications industry was an important force in the boom, particularly in the late 1990s. In Colorado, this industry included local and long-distance telephone services as well as wireless communications, the Internet, fiber optics and cable TV systems. The promise of high demand for broadband access to voice, video and data stimulated aggressive investment. The Telecommunications Act of 1996, which opened local and long distance phone systems to increased competition, attracted additional capital and new firms to the industry.

This industry was an important part of Denver's economy with its share over overall economic activity in the metro area twice that of the nation. Denver had long been a center for the cable TV industry with several major firms headquartered there. Qwest and Level 3, two major players in fiber optic cable networks, were also located in the Denver area.

Between 1990 and 2000, Colorado's employment in the communications industry doubled. Incomes also increased dramatically with average earnings in the industry doubling. However, the torrid pace of investment in the industry was unsustainable. Between 1998 and 20001 the number of miles of fiber increased by a factor of five and, at the same time, advances in technology increased the transmission capacity of each strand of fiber a hundred-fold. Demand, although increasing rapidly, could not keep pace. The promise of seemingly limitless growth attracted new entrants, and competition drove prices down. The companies had borrowed heavily to finance their ambitious expansion plans. Eventually, the telecom firms' financial positions deteriorated and some companies resorted to dubious financial maneuvers to conceal their conditions.

Manufacturers of computers, components and peripherals as well as software firms also benefited from a strong stock market and soaring investment spending. Technology firms along Colorado's Front Range expanded their work forces spurring demand for office and mixed-use real estate. The region was among the national leaders in several tech areas. The Progressive Policy Institute's State New Economy Index, which ranked states based on their technology, knowledge and worker skills, rate Colorado number three in the nation in 1999. In 2000 Boulder County ranked first in software employment relative to population. Denver ranked ninth in these ratings and Colorado Springs 12th. Colorado ranked 12th in the nation in number of firms with biotech headquarters

Construction and Real Estate

Building activity surged, with net new construction jobs averaging more than 10,000 over the decade. Both residential and nonresidential construction activity expanded steadily. (Chart 5) More than 450,000 new housing units were built. A growing population and job base filled the new structures as they were completed. Several major publicly funded construction projects were also undertaken. The first and largest public project was Denver International Airport begun in 1989 and completed in 1995, almost two years behind schedule. Other major projects included three new structures for Denver's professional sports teams, several prisons outside the Front Range and numerous highway projects.

Demographics

Large numbers of people moved to Colorado throughout the decade with an average net migration of over 70,000 annually. (Chart 2) In the first half of the decade, many of the migrants came from California, which was then suffering from an economic downturn. Two features of the demographic changes in the 90s were the growth in the foreign-born population and the increase in the older population.

The increase in the older population was caused by baby boomers nearing retirement either moving into Colorado or remaining in the state. By mid-1990s, the oldest of the baby boomers, many of whom moved to Colorado in the late 1960s and early 1970s, were entering their fifties. Some of the singles apartment complexes constructed for the young boomers in the 1970s were converted into living areas for "mature" couples. Boomers bought second homes in mountain resort communities with plans for eventual retirement. The mild climate in Mesa, Delta and Montrose Counties was particularly attractive to retirees.

The share of population accounted for by the baby-boom generation was muted by the end of the century. Chart 6 shows Colorado's population by age since 1960. Note the bulges in population distribution corresponding to the baby-boom generation. But the bulges "smooth out" over the past forty years. In 1960, the bulge representing the baby-boomers, then aged 0- 14, stands out. By 1980, this generation, now 15-34, is less evident as migration evened out the age distribution of population. In 2000, the number of 25-54 year olds is only slightly higher than those in adjacent population age ranges.

The other important change was the increase in foreign-born persons. Although U.S. immigration policies were liberalized in the 1960s, the most striking increase in migration from abroad occurred with the surging job growth in the 1990s. Colorado, with one of the tightest labor markets in the nation, attracted more than its share. According to the 2000 Census, 370,000 of Colorado's citizens were born outside the U.S., and 201,000 of them entered the U.S. in the 1990s. The share of foreign born in 2000, 8.6 percent of the total population, was twice that in 1990. Although other parts of the world were represented, the bulk of the immigrants came from Latin America, principally Mexico. Over the decade of the 1990s, Colorado's

Hispanic population increased 73 percent, rising from 13 to 17 percent of total population. Still, 75 percent of Colorado Latinos were born in the U.S. and over half were born in Colorado, the greatest share of native Coloradans of any ethnic group.

Regional Patterns of Development

Nearly all areas of the state enjoyed strong growth in the 1990s. Only 5 of Colorado's 63 counties lost population, the fewest in any decade since the 63 county boundaries were established. (Chart 1) Of Colorado's 63 counties, only three lost jobs during the 1990s and 53 showed faster growth than during the recession-plagued 1980s.

Agriculture continued its century-long decline in the eastern plains counties. Falling prices and cutbacks in Federal farm programs reduced incomes late in the decade. However, the plains counties benefited from retirees taking advantage of the communities' safety and low living costs. Large commercial hog farming operations also stimulated some of the agriculture-based local economies. Finally, several penal institutions were built outside the Front Range to accommodate the states growing prison population. The mountain region economies benefited from retiree spending well as tourism. The decade saw the economic impacts of traditional tourists increasingly supplemented by second-home owners.

The Colorado Economy in 2000

By the end of the century, Colorado had evolved into an economy driven by advanced technology and the service industries. As noted earlier, this shift was initially spurred by Federal government activities in the quarter century after the beginning of World War II. As the Federal role receded after the middle 1960s the changes continued and, in many areas accelerated.

Chart 7, which shows the distribution of state earnings by industry in 1940, 1966 and 2000, demonstrates these changes. The traditional, resource industries continued to decline over the last 35 years. Farming's share of earnings, which had declined since the 1920s, continued to fall in the last third of the century, dropping from 4 percent in 1966 to 1 percent in 2000. Mining also dropped falling from 3 percent of all earnings in 1966 to 1.5 percent by 2000, although it surged to as high as 7 percent during the inflationary early 1980s. Within the mining sector, the decline was the greatest in coal and metals.

Manufacturing's share of overall earnings also fell, dropping from 21.6 percent in 1966 to 11.9 percent in 2000. A major contributor to manufacturing's shrinking share of earnings was the trend toward increased use of temporary workers and the outsourcing of many functions formerly performed within the firm. As a result, many of the new jobs in business services replaced manufacturing jobs.

The composition of the state's manufacturing sector changed. As incomes and costs rose, industries with a high proportion of relatively unskilled labor shifted to lower-cost areas.

Colorado lost much of its traditional manufacturing, notably steel, leather goods, rubber and food processing. A bright spot in the food-processing sector was beer production, which thrived both in the state's two large breweries and in many microbreweries. The "traditional industries" accounted for more than one-third of all manufacturing earnings in 1966, but they fell to less than one-sixth by the end of the century. A corresponding increase occurred in printing and publishing, instruments and related products, and industrial and machinery and equipment (computers and components).

The greatest earnings gain over this period occurred in the services sector, which grew from 22 percent to 35 percent of the total. Ten percentage points of this increase were accounted for by the business services sector. Business services is a diverse category, selling predominately to other businesses. It includes software firms, protective and janitorial services firms along with temporary worker firms, a category that grew rapidly in importance during the 1990s. Health services, second only to business services in 2000 earnings within the service sector, grew rapidly through the 70s and 80s, but slowed with the implementation of managed health care programs in the 1990s.

Federal government, civilian and military, which made up more than 11 percent of all earnings in 1966, accounted for less than 5 percent by 2000. Other sectors with notable change included communications rising from 2.7 to 7.4 percent of earnings and finance, insurance and real estate (FIRE), which rose from 7.2 percent to 11.3 percent. All of the growth in FIRE occurred in areas other than depository institutions.

THE NEW MILLENIUM

As was the case with earlier Colorado booms, the euphoria of the 1990s collapsed of its own exuberance. The year 2000 marked a peak in state economic activity. Signs of a bursting tech bubble appeared in the spring with the NASDAQ index reaching its all-time high in March 2000 and falling sharply through mid 2002. U.S. output growth began to slow and the nation fell into a mild recession in early 2001. Colorado's economy also began to decline by the spring of 2001.

After growing considerably faster than the nation throughout the 90s, Colorado lagged the U.S. through 2001 and early 2002. Several factors contributed to the slow state growth. The sluggish national economy led to reduced tourism and to falling demand in the tech sector. The shakeout in the telecommunications industry disproportionably impacted the state economy. The travel and tourism industry took a further blow with the September 11 terrorist attacks. Colorado's booming real estate markets leveled off and, in some cases, declined. Office and apartment vacancy rates rose to heights not seen in over a decade. The rate of appreciation in home values slowed. A severe drought led to a sub-par ski season, extensive damage to many crops and the forced sale of as much as half of the state's cattle. Dry conditions in the mountains caused early-summer wildfires, which further discouraged visitors.

When measured by the number of jobs lost through the middle of 2002, the latest downturn was the worst in state history. The percentage job decline was more than twice that at the national level. The state unemployment rate doubled. Homebuilding fell by 25 percent in early 2002. The volume of retail sales declined for the first time since the middle 1980s.

The mid-year outlook for the Colorado economy is uncertain. The national economy appears to be struggling, with some economists calling for a "double dip" following the 2001 recession. The Colorado economy, after declining for a year and a half, may have hit bottom. But there are few signs of recovery. Weak spending by businesses and tourists has taken its toll and the telecommunications sector remains severely depressed. The defense industry is one of the few bright spots in the Colorado economy and single-family housing markets are holding up reasonably well. The longer-term outlook is more favorable. Technology and tourism are expected to rebound and Colorado should once again post faster growth than the nation.



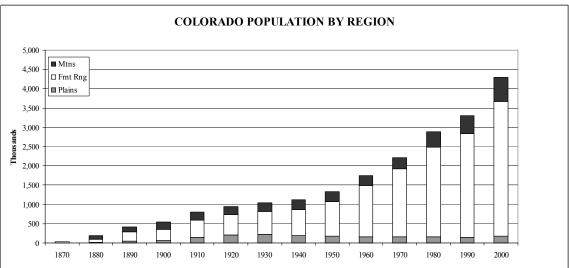
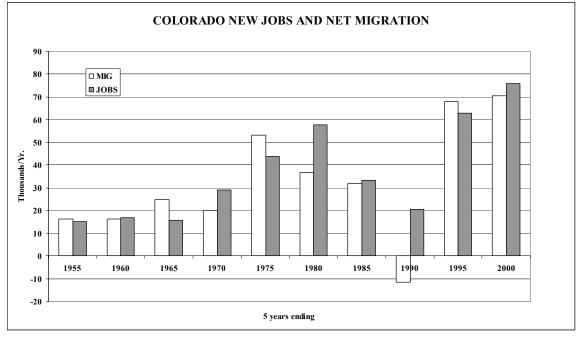
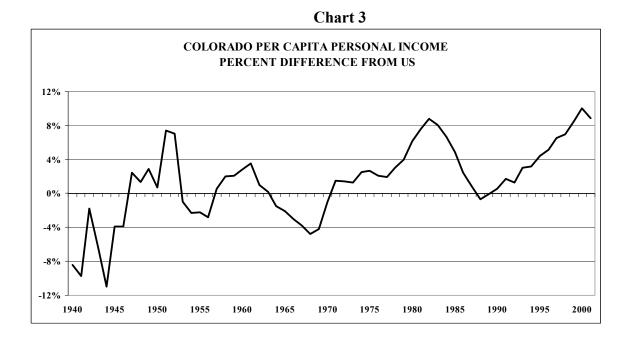
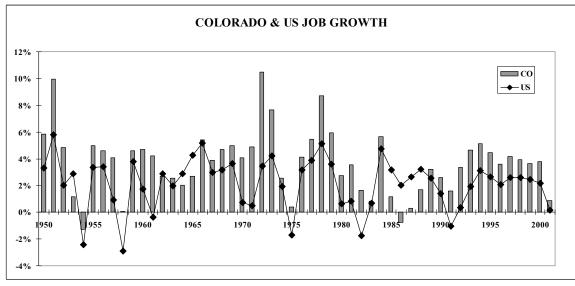


Chart 2









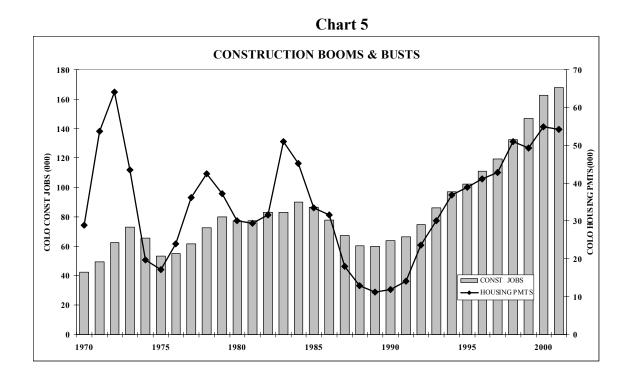
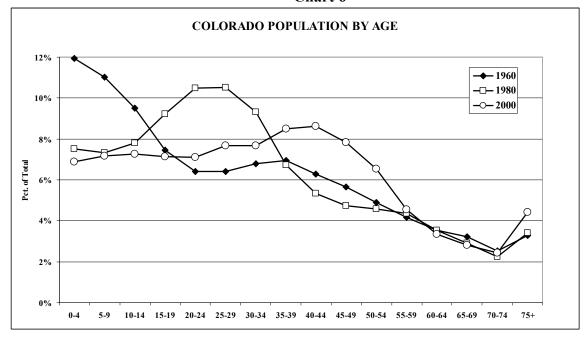
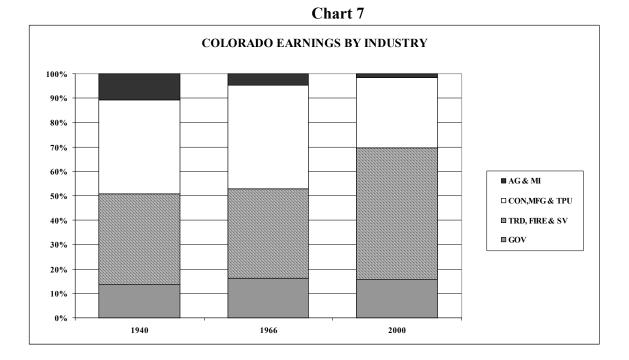


Chart 6





Notes

Nearly all data cited in this report are from government sources. Population statistics come from the U.S. Bureau of Census, job data from the Bureau of Labor Statistics. Income and earnings are from the Bureau of Economic Analysis. Concurrent descriptions of the performance of the state economy were found in the reports on the University of Colorado, College of Business's annual Business Economic Outlook Forum and in the publications of the Center for Business and Economic Forecasting. Other useful references included BBC's "The Turnaround of the Colorado Economy" (1993) and Senator Mike Bird's "The Economic Development of Colorado in Historical Perspective" (1993). <u>Silverado</u> by Steven Wilmsen (1991) chronicles the debacle of Colorado's thrift institutions in the 1980s. The quote on page 9 is from this publication.