## SLOWER LABOR FORCE GROWTH TO KEEP PRESSURE ON JOBLESS RATES

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Labor Markets, Productivity and the New Paradigm. Colorado population growth has been among the fastest in the nation for much of this decade, nearing 3 percent in 1992 and 1993 before gradually tapering off to around 2 percent the past several years. Statewide job growth (as measured by nonfarm wage and salary employment) has consistently surpassed population increases, ranging from roughly 3.5 to 5 percent during the same period. Because labor force growth is tied so closely to population change the result has been unprecedented low local unemployment rates. Seasonally adjusted unemployment rates in Colorado have remained below 4.5 percent since mid-1996, hitting a series low of 2.5 percent in December 2000 and January 2001.

At the same time, the national rate has fallen to levels not seen in thirty years. The low jobless rates throughout Colorado and much of the nation, along with sturdy job growth in many areas, have led to considerable talk of labor shortages the past couple years. Surveys of businesses by the Federal Reserve indicate that employers in certain industries reported increasing difficulty in recruiting workers last year. According to the Fed " . . . the apparent imbalance between the demand and available supply of workers remains the dominant theme, with the majority of district reports suggesting that the supply of entry-level and skilled workers—most often in technology-related fields, but also in construction and certain skilled craft positions—appears to be insufficient to meet existing production schedules." In addition, the Conference Board's Help-Wanted Advertising Index, an indicator of labor demand, has remained at very high levels in recent years. Although recent softening in the national economy and, in particular, the technology sector, has at least temporarily eased this situation to some degree, the nation's demographics suggest that this problem is likely to be of a longer-term duration.

The tight labor market has not only affected private industry. The nation's military has reported considerable difficulty in reaching staffing goals, blaming the high-powered economy for draining away potential recruits. In response, several years ago the Air Force increased the amount of bonus money it paid to pilots in an effort to prevent them from leaving military service for more lucrative careers in commercial flying.

Some analysts believe that a lack of workers will directly restrict economic growth; fewer workers means fewer goods and services can be produced. This assertion has been increasingly difficult to sustain in the face of consistently high rates of GDP growth over the past several years.

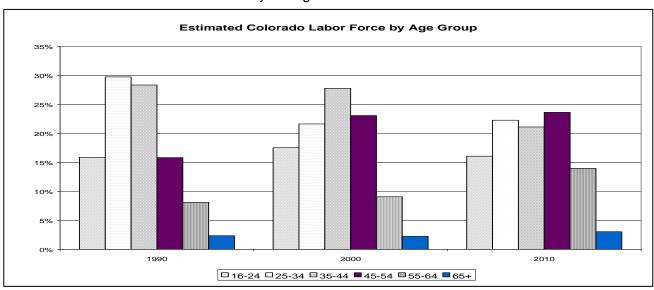
Others worry that a slowly growing workforce will inexorably push wages higher as employers bid up the price of labor and raise product prices in an effort to maintain profit margins. In this scenario, higher prices lead to a tighter monetary stance by the Fed which attempts to slow the economy and counter any incipient inflation by raising interest rates. The combination of increased interest rates and lower corporate profits causes a significant drop in financial markets, resulting in a further contraction of consumer spending. The stage becomes set for a classic Fed induced economic slowdown where producers react to a reduction in demand by lowering production schedules, laying off workers, and cutting back on capital investment outlays. This leads to further declines in consumer spending and another round of production cutbacks and layoffs; the downward spiral is in full effect.

Some elements of the above scenario have occurred. The Fed raised short-term interest rates six times in the past eighteen months, before reversing itself in early January. The technology heavy NASDAQ market suffered a significant correction starting in March 2000 and continuing into the first quarter of this year. However, neither a shortage of workers nor rising labor costs per se will inevitably lead to a full-blown recession. The key, of course, is labor productivity. Annual nonfarm

business productivity growth hit a 6.3 percent annual rate during the second quarter of 2000, a rate surpassed only twice in the past ten years. Meanwhile, the 4.3 percent annual average rate of change in this productivity measure last year advanced at the fastest pace in the past ten years, a remarkable achievement this late in an economic expansion. Low unemployment rates have led employers to seek ways that make existing workers more productive through training, innovative production and management techniques, and increased levels of capital investment. Higher productivity levels in turn allow wages to rise without stoking inflationary pressures. This argument forms the basis of what has been referred to as the new paradigm of the nation's economy.

Even if this proves too optimistic and wages do increase above the long-run productivity trend of labor, the ability of businesses to raise prices to offset higher wage costs will continue to be constrained by global competition and expanded domestic deregulation. So far, the combination of high productivity and intense competition have kept a lid on inflationary pressures. Over-the-year increases in the implicit price deflator have been below 2.0 percent since 1998.

**Labor Force Composition and Growth**. Against this backdrop, let us look at some issues related to slowing labor force growth in Colorado. Labor force estimates and projections from the Colorado Division of Local Government's Demography Section demonstrate how dramatically the age structure and size of the State's workforce may change between 1990 and 2010.



As recently as 1990 about 60 percent of Colorado's labor force was between the ages of 25 and 44 (roughly corresponding to the baby boom generation). This year, the same age group is expected to make up just less than 50 percent of the State's workforce. By 2010 the percentage is projected to fall to just over 40 percent. With the aging of the baby boomers, the percentage of workers age 45 to 64 is projected to expand from 25 percent to nearly 40 percent of the total labor force over the same period. Meanwhile, the share of the State's labor force comprised of younger workers is expected to remain relatively flat between 1990 and 2010—16 to 24 year olds will make up about 15 percent of the workforce over this period.

Selected U.S. Jobless Rates by Age June 2000		
Age Group	% Unemployed	
16-19	14.4	
20-24	7.8	
25-34	3.6	
35-44	3.0	
45-54	2.4	
55-64	2.1	

In general, older workers possess more skills, experience and have a greater labor force attachment than younger workers. As a result, unemployment rates tend to fall with age. Some idea of the extent to which this occurs can be seen by examining national unemployment data. In June of 2000 the not seasonally adjusted U. S. unemployment rate for sixteen to nineteen year olds exceeded 14 percent while just under 8 percent of all persons age 20-24 in the labor force were without work. The jobless rate for persons between the ages of 25 and 54 had fallen to 3.8 percent. Within this group, the rate was progressively lower for each 10-

year age group. The State's aging population is thus likely to display a bias toward lower levels of joblessness.

Not only is Colorado's workforce getting older, labor force growth is slowing. So long as the supply of labor grows more slowly than the demand, pressure will remain on the jobless rate. This is illustrated in the table below. From 1990-95, the increase in the State's workforce grew at a slightly lower rate than the change in nonagricultural employment. Consequently, Colorado's annual jobless rate fell from 5.0 percent in 1990 to 4.2 percent in 1995.

Labor force growth continued to trail the increase in nonfarm payrolls between 1995 and 2000—as a result, the State's unemployment rate has remained low throughout the entire period. Beyond 2000 labor force growth has the potential to slow significantly from the rates seen only a decade earlier. Rather than expanding at a 2 to 3 percent annual pace, the supply of new workers may grow on the order of only 1 to 1.5 percent each year. Barring a national recession, nonfarm job growth will likely continue to exceed labor force increases, thus keeping unemployment rates low well past the year 2000.

Projected Colorado Changes		
	% ∈ Labor	% ∈ Nonfarm
	Force	Jobs
1990-	18.3	20.6
1995		
1995-	13.7	17.5
2000		
2000-	10.3	12.5
2005		
2005-	8.9	NA
2010		
2010-	7.4	NA
2015		
2015-	6.4	NA
2020		

## Migration and Labor Force Participation.

Higher levels of in-migration can make up all or

part of the difference between the demand and supply for labor to the State. Colorado, of course, has long been dependent upon imported human capital to meet its labor needs. Typically, in-migration is responsible for a larger proportion of Colorado's population gains than the increase due to natural increase (the major recent exception to this took place between 1984 through 1990 when about 67,000 more people left Colorado than moved here). For instance, since 1991 the State's population grew by around 726,000, approximately 70 percent of which resulted from persons moving into Colorado.

While much of the migration to Colorado is interstate in nature, international migration has probably played a larger role than previously thought. According to recent Census Bureau estimates, the share of foreign-born Americans is roughly 10 percent, the highest level in seventy years. There is little reason to think that the high-powered U. S. economy will soon stop acting as a magnet for persons around the world. If so, international migration is likely to continue bringing a considerable number of new workers to Colorado over the next decade.

At the same time, however, older persons tend to have lower migration rates than younger individuals. For this reason, an aging population may mean somewhat lower levels of future in-migration to

Colorado. Additionally, tight labor markets and rising wages nationally provide less economic incentive to relocate to the State.

The State's potential pool of workers can also expand due to an increase in labor force participation rates, i.e., the share of the population either working or looking for work. Historically, participation rates for Colorado have exceeded the national average. The national trend over the last half-century has been for participation rates among adult men to decline significantly, a reflection of the movement toward increasingly younger retirement ages. Participation rates for women, on the other hand, have grown dramatically over the same period. The overall net effect has been that the nation's civilian labor force participation rate rose from about 59 percent in 1950 to roughly 67 percent at present. However, projections are that participation rates will remain essentially flat over most of the next two decades, with rates for women increasing modestly and those for men dropping slightly. The flattening out of labor force participation rates makes it improbable that any shortfall in workers over the next decade will be made up through this manner.

**Implication for Colorado**. Rapid job growth accompanied by decelerating labor force growth have helped bring national jobless rates down to levels not seen in more than a generation. In Colorado, rates have been at or near historic lows for more than a year. The entrance of baby boomers into the labor force had largely ended by the mid-1980s and was followed by a much smaller group of labor force entrants. The result has been a population that is both getting older on average and growing less rapidly overall.

Labor force growth in Colorado over the next decade is forecast to be lower than the previous ten years, perhaps by a considerable amount. The demand for workers, however, is expected to remain relatively sturdy throughout the period. Migration, including international migration, will continue to play a vital part in narrowing the gap between the supply and demand for labor. But, the flow of persons into the State is liable to slow so long as the nation's economy remains healthy. That the propensity to migrate diminishes with age may also mean a smaller flow of people into Colorado. Finally, the large increase in the labor force activity of women over the past 30 years appears to have neared an end. The slowdown in the convergence of labor force participation rates for men and women is a major contributing factor to the projected slowdown in labor force expansion over the next ten years. These factors suggest that labor markets are not likely to ease significantly in the near future.