

### 3.9 Social and Economic Values

This section provides information for the assessment of the social and economic setting of the Corridor area, past trends, and likely future developments. Indirect impacts of the alternatives are described in relation to Corridor growth and economics in section 3.9.3, and measures to mitigate impacts are discussed in section 3.9.4. Relationships of historic I-70 construction, I-70 traffic growth, and I-70 peak recreational travel to the Corridor tourism economy and to Corridor growth and development is documented in section 3.9.2 and is used in the evaluation of project alternatives in section 3.9.4.

The area of influence for social and economic values of the Corridor is a nine-county area that centers on I-70 from Glenwood Springs to C-470. The area includes the mountain communities and counties immediately adjacent to I-70 and extends beyond the immediate geographic area to address consequences of alternatives to adjacent counties.

**Social and Economic Values Issues**

- Projected doubling in population growth and buildout in housing in Corridor counties and towns.
- Correlation between population growth and growth in I-70 traffic.
- Employment and commuting—resort counties in the tourism-driven Corridor communities importing workers from adjacent counties.
- Economics and tourism—existing and projected I-70 congestion levels adversely affecting Corridor economic conditions.

#### 3.9.1 Methods and Coordination

##### 3.9.1.1 Area of Study

The area of social and economic study focuses on the Corridor counties, including those traversed by I-70 (Garfield, Eagle, Summit, and Clear Creek) and adjacent counties (Pitkin, Lake, Grand, Park, and Gilpin). Jefferson County is not included in this assessment due to the primary connection of the county’s economy to the Denver metropolitan area rather than to tourism in the Corridor.

##### 3.9.1.2 Methods of Study

###### Demographic and Economic Information

Demographic information, including historic and projected population, historic and projected employment, housing data, commuting patterns, and economic data, was obtained primarily from the Demography Section of the Colorado Department of Local Affairs (DOLA). Demographic information also was obtained from Corridor counties, communities, and planning agencies. DOLA 2025 county population and employment projections developed in late 2002 were used as a baseline to determine indirect impacts on growth and economics from project alternatives. It is recognized that DOLA modified population projections in July 2003 and will continue to modify them over the timeframe of this project. In addition, local, county, and regional growth projections are being updated as new and/or better information becomes available. The Northwest Colorado Council of Governments (NWCCOG) studies have led to the modification (increase) of 2000 Census populations in the region and to DOLA modification of county population projections. Eagle and Summit counties have gathered baseline data that document existing development in relation to planned development buildout. Clear Creek County has recently completed a 2030 Master Plan that contains population projections that are lower than DOLA projections. Although this Corridor-area study of social and economic values has included consideration of all available recent data, the DOLA (2002) projections are being used as the designated Baseline to provide consistency during the PEIS process.

The economic descriptions in section 3.9.2, Affected Environment, use the DOLA Base Industry Analysis. This analysis is an integral part of DOLA’s economic forecasting for Colorado counties and identifies economic functions and services that are “basic” to a county’s economy. In this analytic

process, the driving forces behind a county’s economy are best discerned by separating the county’s employment into three categories: **basic industries**, **indirect basic industries**, and **local resident services**.

- **Basic industries.** Activities that bring in money from outside the county. Basic industries serve a county’s export market by producing goods or services that are purchased by visitors or people living outside the county. Examples include tourism (which includes the second home market), hotels, agribusiness, mining, construction, manufacturing, and federal/state government services.
- **Indirect basic industries.** Activities that support basic industries. These activities typically include local suppliers of goods and services to basic industries. Examples include wholesale trade, trucking, and aggregate mining for construction.
- **Local resident services.** Activities that serve and sustain the people who reside in the county. Examples include local public schools, grocery stores, local medical services, post offices, and barbers.

#### Assessment Approach

Trends in population and I-70 traffic have been increasing since the construction of I-70. These trends are shown from 1985 to 2000 by county in section 3.9.2. Although it is recognized that many factors can affect population growth, better access is likely to have contributed to population growth in some areas of the Corridor and is expected to continue to be a factor in future growth. It is also recognized that population growth can affect transportation systems in certain cases. In addition, there is no existing Corridor-wide public transit system, and historic trends for the public transit mode were not available for the Corridor. It is recognized that trends based on the highway mode may not reflect the transit mode. In recognition of certain necessary assumptions due to available information, a methodology was created to evaluate possible population changes (suppressed or induced growth) associated with each alternative and to provide useful information to Corridor planning organizations and communities. The detailed methodology is presented in Appendix J, Social and Economic Values.

**Supporting Documentation**

- Appendix A, Environmental Analysis and Data
- Appendix J, Social and Economic Values
- Appendix K, Overview of Water Availability and Growth, and Forest Service Land Management

The method is based on the relationship (statistically significant) of growth in I-70 traffic to population growth by Corridor county and assumes such relationships will continue into 2025. The method uses an established 2025 Baseline for expected travel demand and degrees of suppression or inducement for each alternative (from ridership survey and travel demand model) to derive the associated average annual daily traffic (AADT) specific to alternatives and I-70 location. The derived 2025 AADT (by county and alternative) is then used with the county population/AADT regression curve to find the associated population. It is important to note that the resulting populations are only predicted populations and do not represent actual impacts. They are presented for use in evaluating alternatives in relation to growth pressure (beyond existing planned growth; more specifically, DOLA 2025 populations as directed by Corridor counties). Such growth pressure indicators are further examined in light of possible limitations to population growth such as zoning restrictions and infrastructure limitations (further discussed in section 3.10, Land Use). The impacts of alternatives are described in terms of changes to the Gross Regional Product (GRP), personal income, and local revenues of the nine-county area as well as to state of Colorado revenue.

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#### 3.9.1.3 Coordination

Coordination with Corridor and state representatives was an integral part of the social and economic study. Agency and public involvement is described in Chapter 6, Public and Agency Involvement. Specific efforts included meetings with and presentations to Corridor county, community, and regional planning organizations (such as NWCCOG). Numerous discussions involved the Corridor issues of growth, buildout, tourism, and second homes. See Chapter 6, Public and Agency Involvement, for a full list of these coordination organizations. Meetings and growth issue discussions were held with DOLA. Economic meetings were held with the Colorado Department of Budgeting and Long-Range Planning to obtain feedback and corroborate study results and conclusions.

#### 3.9.2 Affected Environment

This section provides information on the major Corridor-wide social and economic issues, including:

- Population and growth
  - Historic growth in the Corridor
  - I-70 development/growth trends
  - Building permits
  - Second homes
  - Population projections to 2025
- Employment and commuting
  - Population/employment relationship
  - Employment/industry sectors
  - Commuting patterns
- Economics and tourism
  - Overview
  - Income and jobs by sector
  - Tourist income and jobs
  - Second homes and the Corridor economy
- Growth and tourism effects on infrastructure and public services

Appendix J, Social and Economic Values, contains a more detailed county-by-county discussion.

#### 3.9.2.1 Population and Growth

The Corridor's historic population growth is discussed in this section, including:

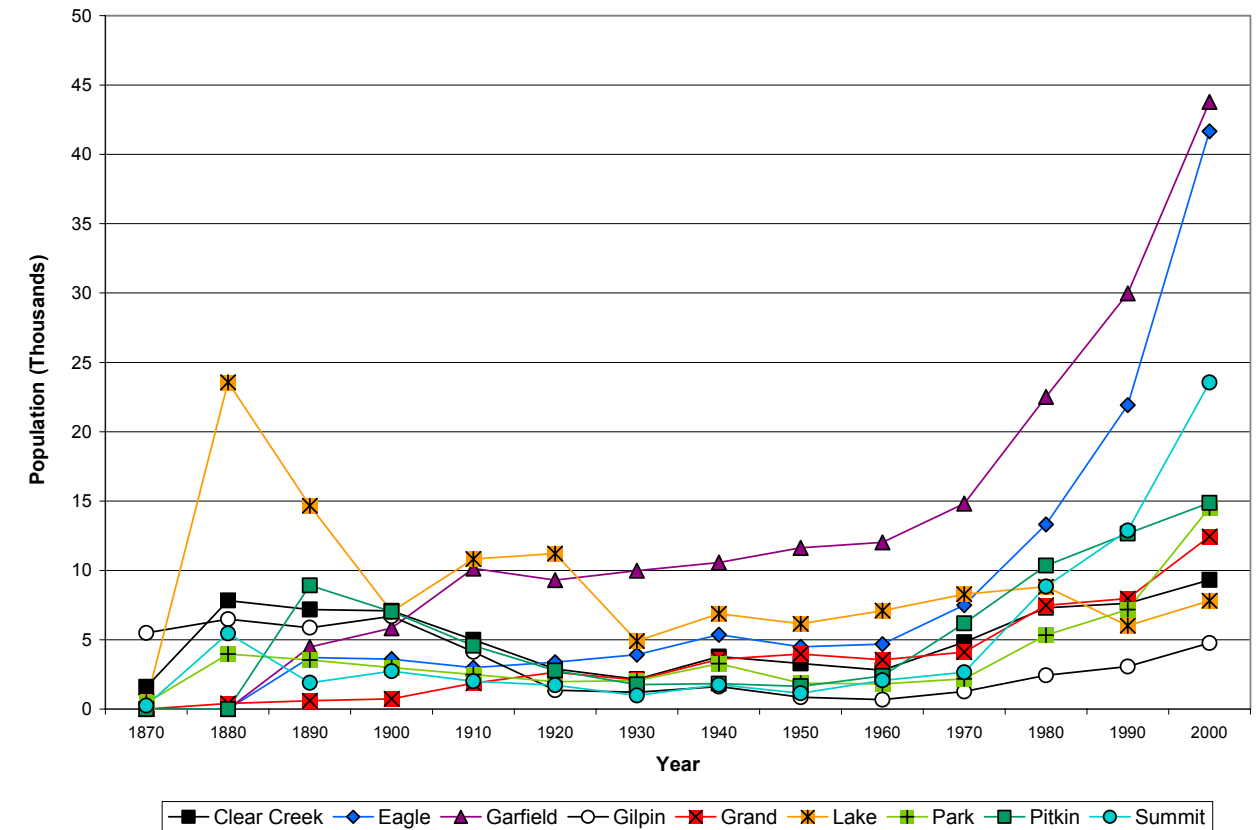
- Historic growth in the Corridor
- I-70 development/growth trends
- Building permits
- Second homes

#### Historic Growth in the Corridor

The counties along the Corridor have experienced substantial fluctuations in population, reflecting the rise and fall of the region's economic fortunes. Chart 3.9-1 (DOLA 2002) shows the trends in number of residents, from the silver and gold boom days of the 1870s and 1880s through the Great Depression and the War years up to the present. Since 1960, growth has been dramatic, with all

counties (except Lake) showing double-digit annual growth rates. For most, growth rates accelerated during the 1990s. Note that Jefferson County is not included due to its predominant association with growth in the Denver metropolitan area. Appendix J includes growth information for two planning areas adjacent to the Corridor in Jefferson County.

Chart 3.9-1. Population Growth by County



Underlying the counties' demographic statistics are the communities that make up the local setting. Over the years many have prospered and grown while others have experienced classic boom-bust patterns of development. Chart 3.9-2 presents the trends of population for the larger towns of the region. For many of these towns, history has been marked by wide swings in population. After the early mining boom period and the static years of the Great Depression and World War II, the towns emerged from their rural remoteness with the discovery (by a rapidly growing Denver Front Range population and by out-of-state visitors) of their winter sports and other natural attractions. This, together with improvements in access, resulted in rapid growth that continues to the present.

#### Development of I-70 and Population Growth Trends

Population growth in the Corridor has generally followed or coincided with I-70 construction periods. County growth rates in Eagle, Clear Creek, Pitkin, and Garfield counties increased during 1960 to 1970 (see Chart 3.9-2). County growth rates in Park, Summit, Gilpin, and Grand counties increased during 1970 to 1980, while the growth rates in Garfield and Eagle counties continued to increase from 1970 to the present. Chart 3.9-3 summarizes historical construction of I-70 from 1955 to the early 1990s. The earliest construction (late 1950s/early 1960s) occurred in the Idaho Springs area of Clear Creek County with the construction of interchanges, the Twin Tunnels, and a highway segment. Heavy construction activities took place west of Idaho Springs from 1965 to 1970, and the period

from 1970 to 1980 encompassed major completion of I-70 from mileposts 145 to 260. The EJMT and Vail Pass highway segments were completed from 1973 to 1979, opening Summit and Eagle counties to a much greater influx of traffic. A highway segment was completed in western Eagle County from 1980 to 1985, and the last segment, Glenwood Canyon, was constructed between 1990 and 1995.

Chart 3.9-2. Community Growth Trends

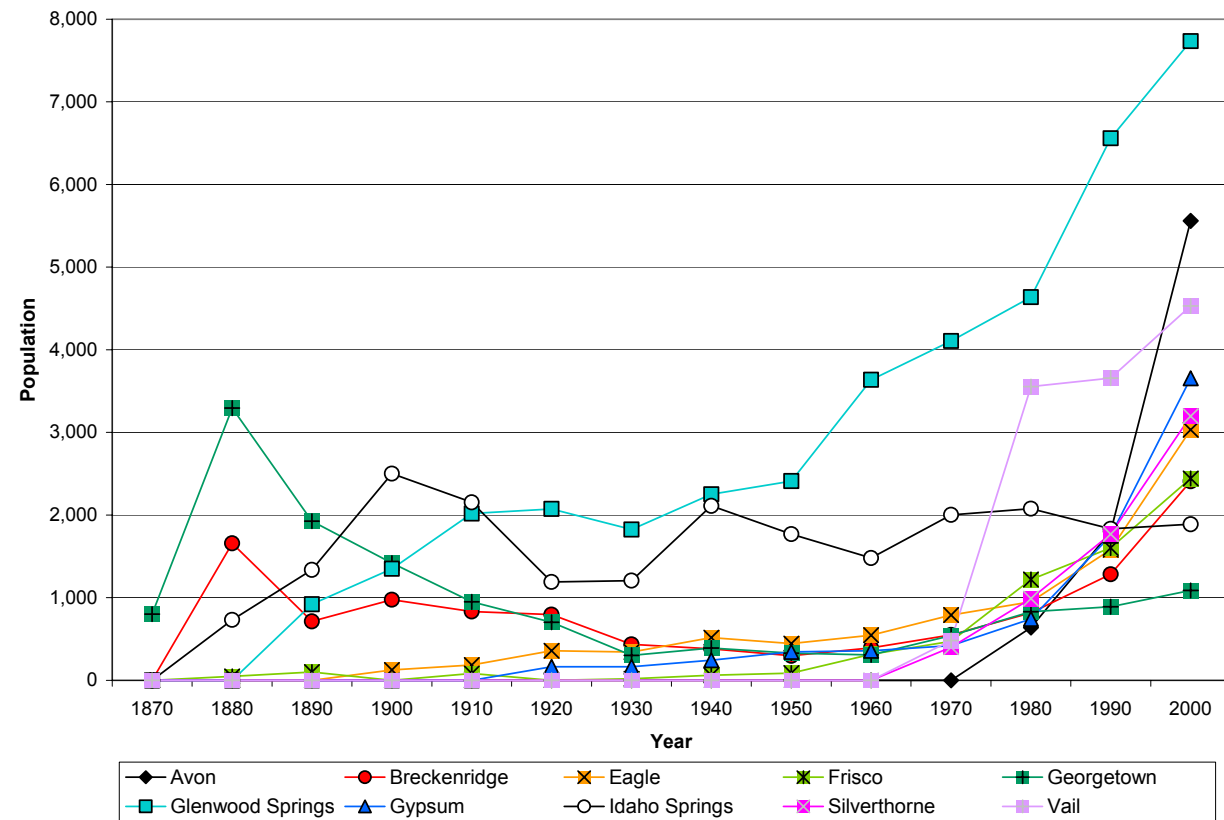
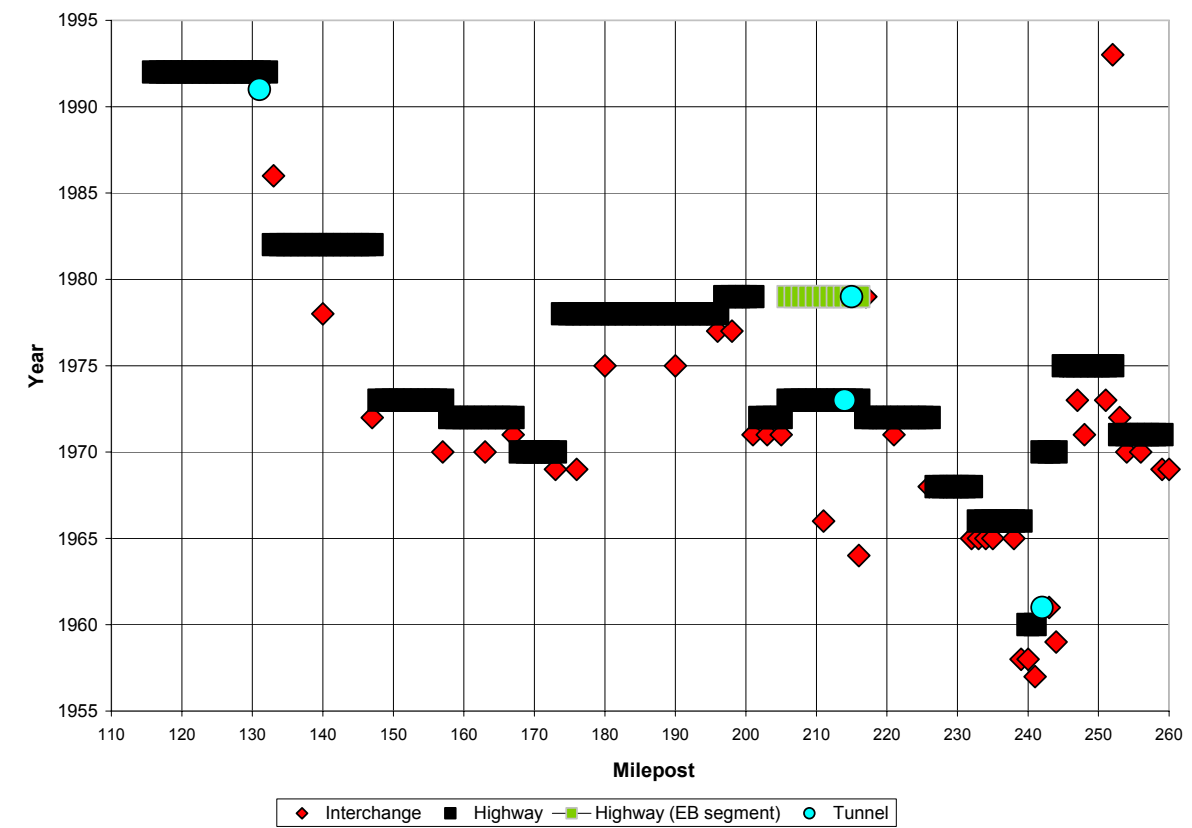


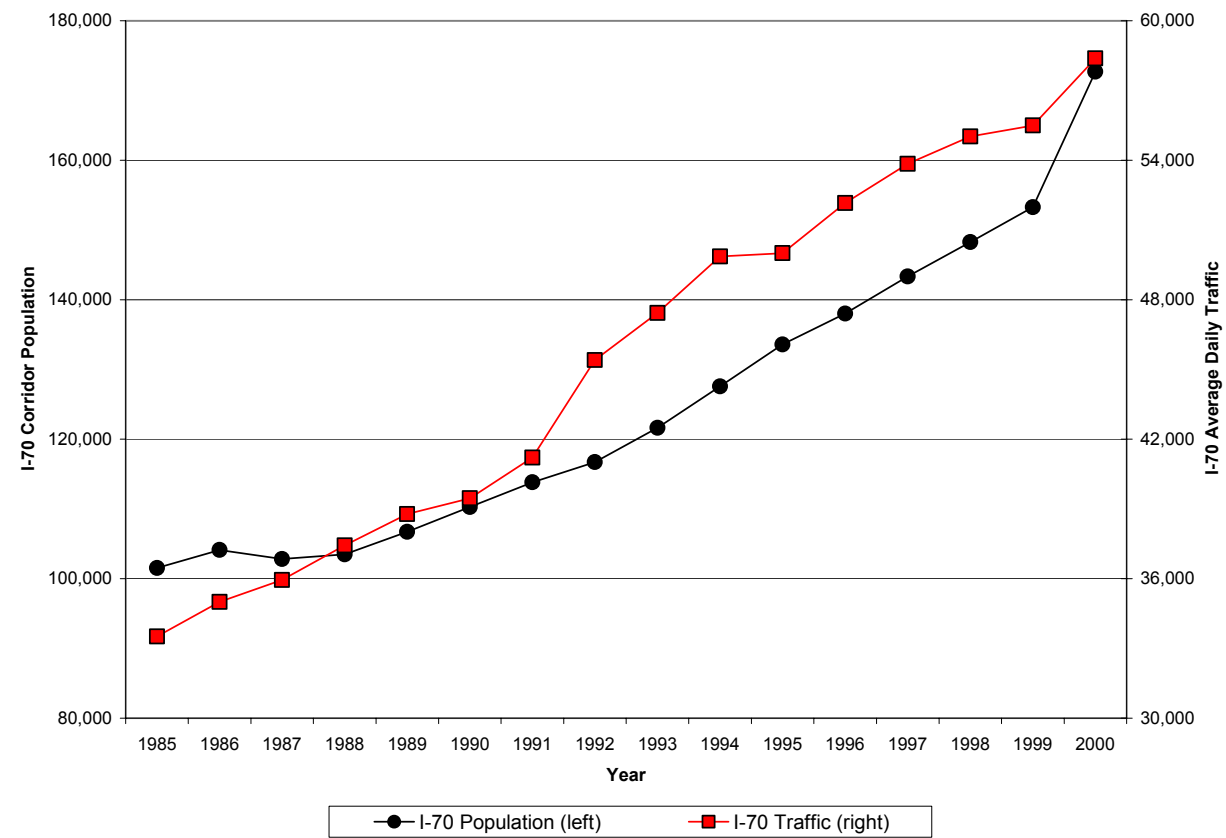
Chart 3.9-3. I-70 Construction History



Corridor growth also can be related to I-70 traffic. Chart 3.9-4 shows the general trend of the Corridor's average annual daily traffic (AADT) volumes at the Genesee interchange plotted against the Corridor population between 1985 and 2000. During this period, the population of the nine Corridor counties covered by the data rose from 101,500 to 173,000, an increase of 70 percent, while the average annual daily traffic reference level (at the Genesee control point in Clear Creek County) rose from 33,500 vehicles per day to nearly 58,400 (an increase of 74 percent).

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Chart 3.9-4. Population and Traffic Trends

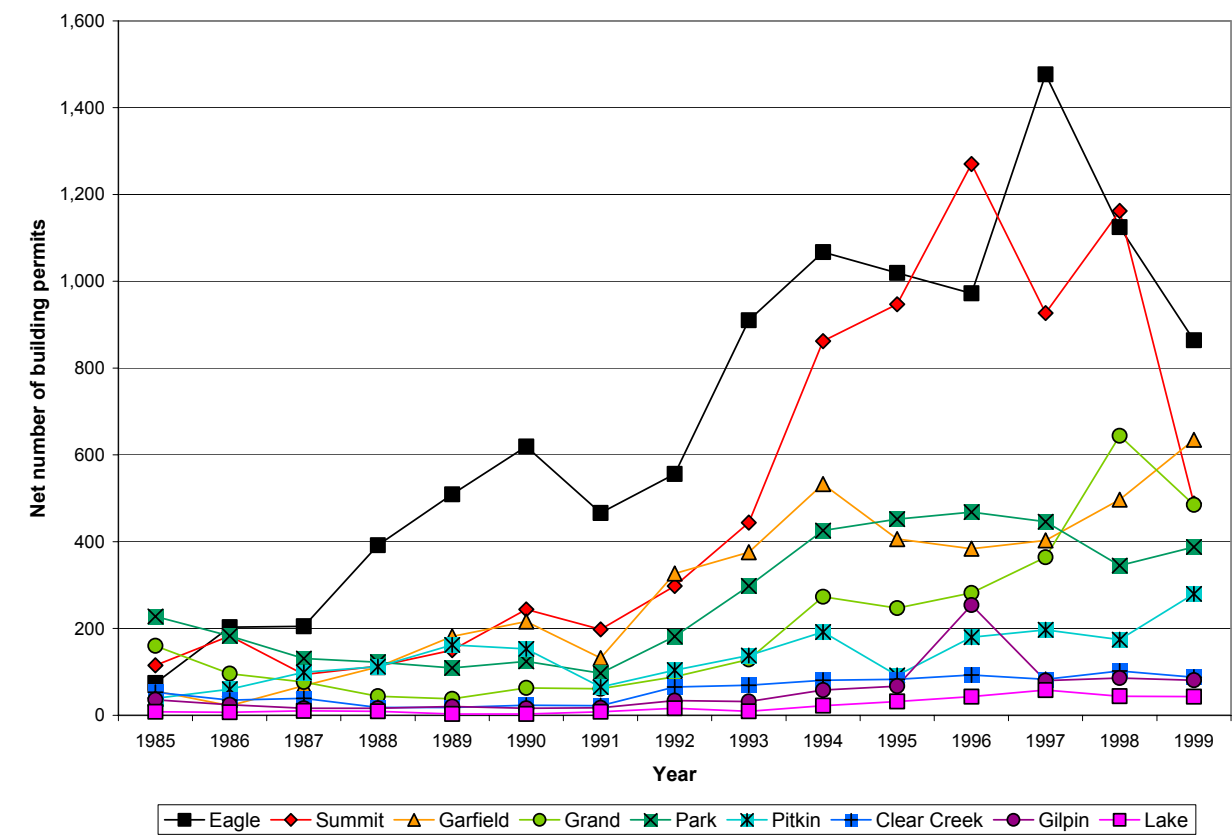


As can be seen in Chart 3.9-4, traffic levels (right scale in the chart) have risen in step with the Corridor’s population growth (left scale). Growth has not been even, however; fluctuations in the business cycle and associated parameters of economic health (such as employment/unemployment rates, consumer income and spending levels, fuel prices, interest rates and the like) have influenced the rates of growth of population and traffic.

#### Growth in Building Permits

Another indicator of the strong upward trend of development in the Corridor is the number of net building permits issued each year. Chart 3.9-5 shows the data for the nine Corridor counties between 1985 and 1999. During the later part of the 1990s, Eagle and Summit counties were issuing more than 1,000 permits each year while Garfield, Grand, and Park counties were registering between 400 and 600 new permits per year (DOLA *County Profiles* 2002).

Chart 3.9-5. Net Building Permits



#### Second Home Growth

Much of the new construction in the Corridor has been for second or vacation homes, a large number of which are vacant for varying periods of time. An estimate of the number of second homes comes from the housing vacancy rate reported in the US Census. In addition, numerous Corridor communities are projected to experience steep increases in the number and percentage of second homes and retirees by 2025.

NWCCOG conducted a survey of second homeowners in four Corridor counties in 2002 and 2003. Preliminary data is shown in Table 3.9-1. The data indicate that second homeowners account for more than 50 percent of the home ownership in these resort counties. The NWCCOG study indicates that as second homeowners and retirees increase in the Corridor, housing for local workers is likely to diminish—especially as much of the baby-boomer population (born from 1946 to 1964) reaches the age range of 55 to 64 in 2010. Additional second homeowner information in the NWCCOG survey includes topics such as “reasons for buying in the mountains,” ages of owners, size of homes, annual income of owners, recreational activities, period of ownership and property use, and property maintenance activities and costs.

Table 3.9-1. Resort County Second Home Ownership, 2000

Jurisdiction	Census 2000		*NWCCOG Non Local Ownership (NLO)			
	Seasonal	Seasonal	Parcels	Owners	NLO	NLO
	# Units	%	Total	Total	Total	%
Eagle County	5,932	26.8	9,244	20,815	10,155	48.8
Grand County	4,783	43.9	6,479	10,058	6,360	63.2
Pitkin County	2,728	27.0	10,185	10,185	5,618	55.2
Summit County	13,235	54.7	12,402	23,535	15,736	66.9
<b>Total</b>	<b>26,678</b>	<b>39.6</b>	<b>38,310</b>	<b>64,593</b>	<b>37,869</b>	<b>58.6</b>

\* NWCCOG 2003

Population Projections to 2025

By 2025 the permanent population of the nine Corridor counties is projected to reach almost 350,000, an increase of almost 175,000 over the 2000 level of 172,726, or more than double (an annual growth rate of approximately 3 percent). Table 3.9-2 provides the numbers, comparing 2000 with current projections for 2025. Clear Creek, Eagle, Garfield, Gilpin, Pitkin, and Summit counties expect to see their populations rising to less than double their current levels by 2025, while Grand and Lake expect to see somewhat greater than doubling of their current populations. Park County expects a considerably larger amount of growth, about 2.8 times its current level.

Table 3.9-2. I-70 County Population, 2000 and 2025

County	2000	2025	Change	Percent Change
Clear Creek	9,322	17,060	7,738	83.0
Eagle	41,659 (42,986)	76,081	34,422	82.6
Garfield	43,791	80,879	37,088	84.7
Gilpin	4,757	7,175	2,418	50.8
Grand	12,442 (12,786)	25,598	13,156	105.7
Lake	7,812	18,458	10,646	136.3
Park	14,523	56,100	41,577	286.3
Pitkin	14,872 (15,842)	23,719	8,847	59.5
Summit	23,548 (25,568)	42,561	19,013	80.7
<b>Total Corridor</b>	<b>172,726</b>	<b>347,631</b>	<b>174,905</b>	<b>101.3</b>
<b>Denver Front Range<sup>a</sup></b>	<b>2,313,715</b>	<b>3,377,254</b>	<b>1,063,539</b>	<b>46.0</b>
<i>Jefferson (Corridor portion estimated)</i>	<i>31,733</i>	<i>53,828</i>	<i>22,095</i>	<i>69.6</i>

2000 Census and NWCCOG Census Challenge, DOLA Projections (2002)

<sup>a</sup> Includes Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties

3.9.2.2 Employment and Commuting

This section discusses employment and commuting issues in the Corridor, including:

- Population/employment relationship
- Employment/industry sectors
- Commuting patterns

Population/Employment Relationship

Chart 3.9-6 and Table 3.9-3 summarize 2000 and 2025 employment in relation to population for the Corridor counties. Overall employment is expected to increase by more than 100 percent; however, county-by-county increases vary considerably. Eagle County is expected to have the greatest increase, projected at 200 percent (more than 66,000 additional workers), and Pitkin and Summit counties are expected to require an additional 20,000 and 21,000 workers, respectively. The most important characteristic of the employment/population relationship is that several counties' employment growth far exceeds their population growth. These counties (Eagle, Pitkin, Summit), which presently require significant numbers of out-of-county workers to meet the local demand for labor, are expected to increase their cross-county demand by 2025. This will most certainly increase the number of commuters and put pressure on adjacent counties to provide additional worker/commuter populations.

Table 3.9-3. 2000/2025 Employment and Population

County	2000 Population	2025 Population	2000 Employment	2025 Employment	Percent Increase in Employment	2000 Employment/Population Ratio	2025 Employment/Population Ratio
Clear Creek	9,322	17,060	3,509	5,529	57.6	0.38	0.32
Eagle	41,659	76,081	33,276	100,531	202.1	0.79	1.32
Garfield	43,791	80,879	25,387	40,954	61.3	0.57	0.51
Gilpin	4,757	7,175	5,747	7,131	24.1	1.20	0.99
Grand	12,442	25,598	9,280	14,108	52.0	0.74	0.55
Lake	7,812	18,458	2,385	5,932	148.7	0.30	0.32
Park	14,523	56,100	2,931	2,994	2.1	0.20	0.05
Pitkin	14,872	23,719	19,191	39,217	104.4	1.28	1.65
Summit	23,548	42,561	23,242	44,261	90.4	0.98	1.27
<b>Total Corridor</b>	<b>172,726</b>	<b>347,631</b>	<b>124,948</b>	<b>260,657</b>	<b>108.6</b>	<b>0.72</b>	<b>0.77</b>
<b>Denver Front Range<sup>a</sup></b>	<b>2,313,715</b>	<b>3,377,254</b>	<b>1,655,759</b>	<b>2,553,236</b>	<b>54.2</b>	<b>0.72</b>	<b>0.77</b>
<i>Jefferson (Corridor portion estimated)</i>	<i>31,733</i>	<i>53,828</i>	<i>19,357</i>	<i>32,835</i>	<i>69.6</i>	<i>0.61</i>	<i>0.61</i>

DOLA 2002, Employment = labor demand (workers needed in county; includes full- and part-time jobs and multiple jobholders)

<sup>a</sup> Includes Adams, Arapahoe, Boulder, Denver, Douglas, and Jefferson counties

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Chart 3.9-6. 2000/2025 Population and Employment

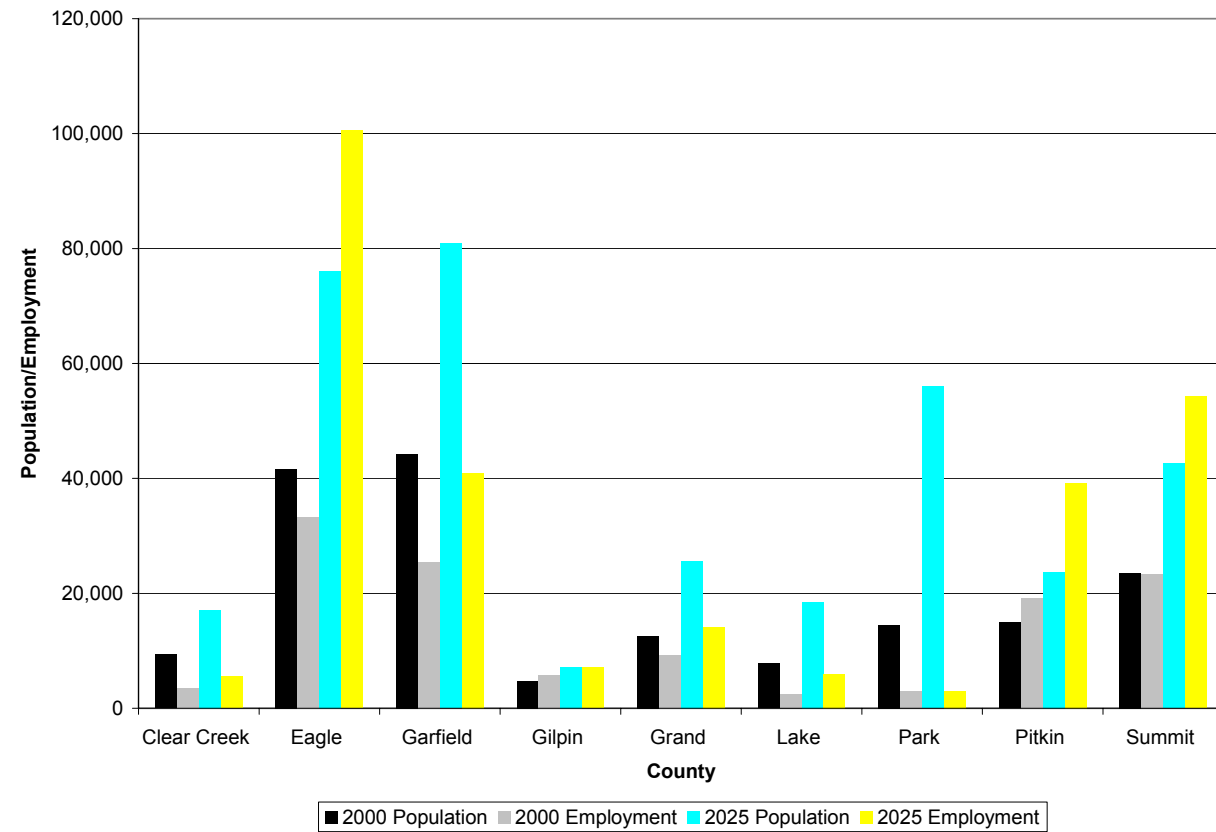
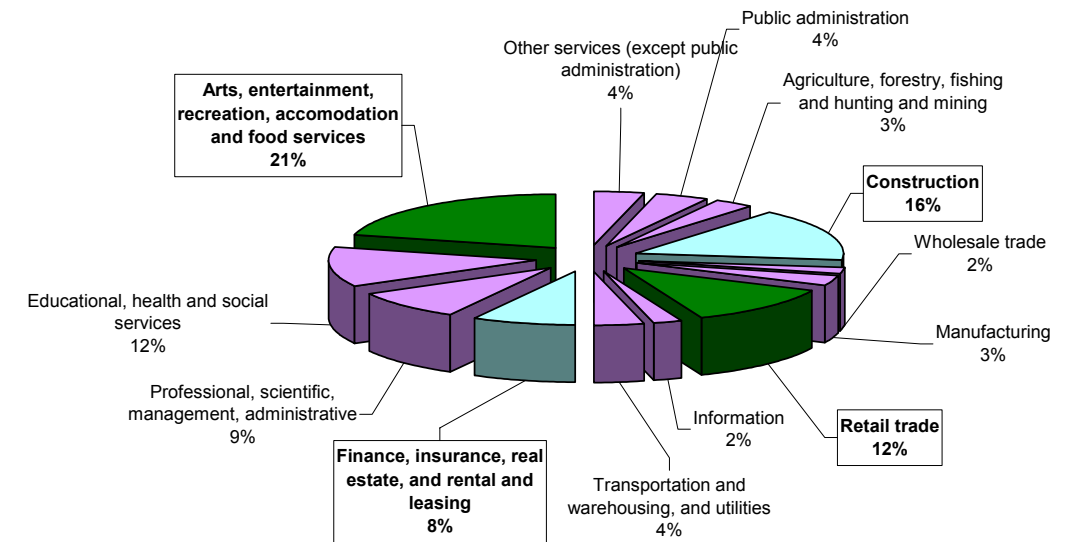


Chart 3.9-7. Employment by Major Industry Sector



#### Employment by Industry Sector

Chart 3.9-7 illustrates employment by major industry sectors in the Corridor area. Tourism-related employment, including the “arts, entertainment, recreation, accommodation and food services” sector and the “retail trade” sector, constitutes 33 percent of the workforce. The “construction” sector and “finance, insurance, real estate, and rental and leasing” sector are related to the second home industry, reflect growth in general, and represent 24 percent of the workforce.

An analysis of place of residence and location of work by major industry sector was performed to further study commuter patterns. The Corridor counties are heavily oriented toward serving tourists, vacation home and other property owners, and a large retired population. In contrast, the occupational makeup of the resident workers, while also heavy in the business and personal services trades (which just about matches the total demand for workers in that sector), tends to be lighter in the other sectors. The bulk of the population and jobs in the nine Corridor counties is located in the western portion of the region.

#### Commuting Patterns

Table 3.9-4 presents data from the US Census Bureau’s Journey to Work series from the 2000 Census for number of workers by county of residence versus county of employment for the Corridor counties (Jefferson County is also included). The table shows the origins and destinations of commuter flows for every pair of counties. It is arranged in a roughly west-to-east order to facilitate identification of commuter concentrations. The yellow highlighted cells show the number of workers employed in their home counties. The blue highlighted cells show the number of intercounty commuters. (The column totals of number of workers in Table 3.9-4 do not exactly agree with DOLA’s data for employment by county in 2000. The differences arise from the table reporting individual persons by place or work and residence, while DOLA’s numbers, which are higher, include multiple jobholders, both full-time and part-time.)

Table 3.9-4. Worker Distribution by County of Work and Residence, 2000

From (down)		Garfield	Pitkin	Eagle	Summit	Grand	Lake	Park	Gilpin	Clear Creek	Jefferson	Total Residents Working in Corridor by County of Residence	Plus: Working in Other Locations	Total Corridor County Resident Workers	Percent County Employed Residents Working in Home County
Garfield	to ==>	16,586	3,685	1,746	10						22	22,049	491	22,540	74
Pitkin	to ==>	420	8,602	254								9,276	167	9,443	91
Eagle	to ==>	502	2,767	21,206	123						11	24,609	411	25,020	85
Summit	to ==>	5	1	235	15,044	39	26	21	9	30	71	15,481	478	15,959	94
Grand	to ==>			9	367	6,436	9	2		36	88	6,947	382	7,329	88
Lake	to ==>		24	1,021	868	13	1,896	4				3,826	135	3,961	48
Park	to ==>		1	16	880	2		2,788	15	4	1,552	5,258	2,479	7,737	36
Gilpin	to ==>			4	13	18		3	1,219	25	520	1,802	1,196	2,998	41
Clear Creek	to ==>			14	153	16			278	2,425	1,262	4,148	1,408	5,556	44
Jefferson	to ==>	33	33	80	240	54		305	2,032	448	137,126	140,351	145,953	286,304	48
Subtotal from other I-70 counties (cross-haul commute)	to ==>	960	6,511	3,379	2,654	142	35	335	2,334	543	3,526	20,419			
Other CO	to ==>	881	417	780	632	213	199	375	1,540	116	73,167	78,320			
Out-of-state	to ==>	176	238	279	348	101	18	53	17	12	1,627	2,869			
Total by County of Employment		18,603	15,768	25,644	18,678	6,892	2,148	3,551	5,110	3,096	215,446	314,936			

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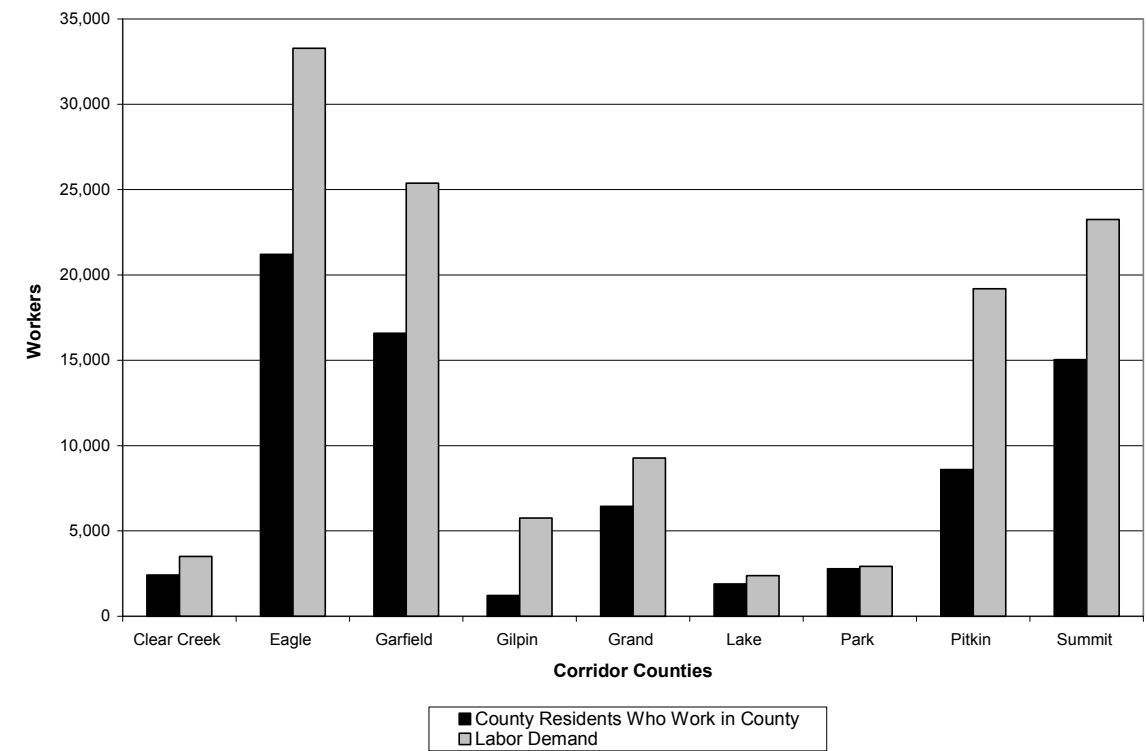
Table 3.9-4 reveals the concentrations of cross-county commuters in the western part of the Corridor, with more than 13,500 daily commuters flowing mainly among Pitkin, Summit, Eagle, and Garfield counties, as well as from some adjacent counties. A second node occurs between Jefferson and its adjoining counties, notably Gilpin, Clear Creek, and Park. These daily flows contribute to the visitor traffic congestion on peak winter and summer season days.

Table 3.9-5, Chart 3.9-8, and Chart 3.9-9 provide an additional perspective on commuting patterns in the Corridor area. Note that Table 3.9-5 does not reflect the total number of workers who work in the counties. Total workers would include both county resident workers, as shown in the table, and workers from outside the county. Total employment (workers) by county is provided in Table 3.9-3 and is depicted in Chart 3.9-8. As noted earlier, Eagle, Gilpin, Pitkin, and Summit counties import significant numbers of workers from adjacent counties to meet their labor demand (see Chart 3.9-8). Lake and Park counties contribute workers to Summit County, and Lake, Pitkin, and Garfield counties provide workers to Eagle County (see more detailed commuting information by county in Appendix J). Both Garfield and Eagle counties help supply Pitkin County with workers. As shown in Chart 3.9-9, Eagle, Garfield, and Park counties contribute more than 15,000 cross-county workers, and approximately 50 percent of the resident workers in Clear Creek, Gilpin, and Lake counties work in other counties. I-70 is used for a portion of the commute route by most Corridor commuters, and localized heavy I-70 traffic exists in certain Corridor areas during commute hours. However, other cross-county commute routes shown in Table 3.9-5 are also important. For example, Garfield County residents (workers from Glenwood Springs and Carbondale) working in Pitkin County could use SH 2 without having to drive on I-70, and Park County residents working in Breckenridge or Frisco would not have to use I-70 as part of their work commute.

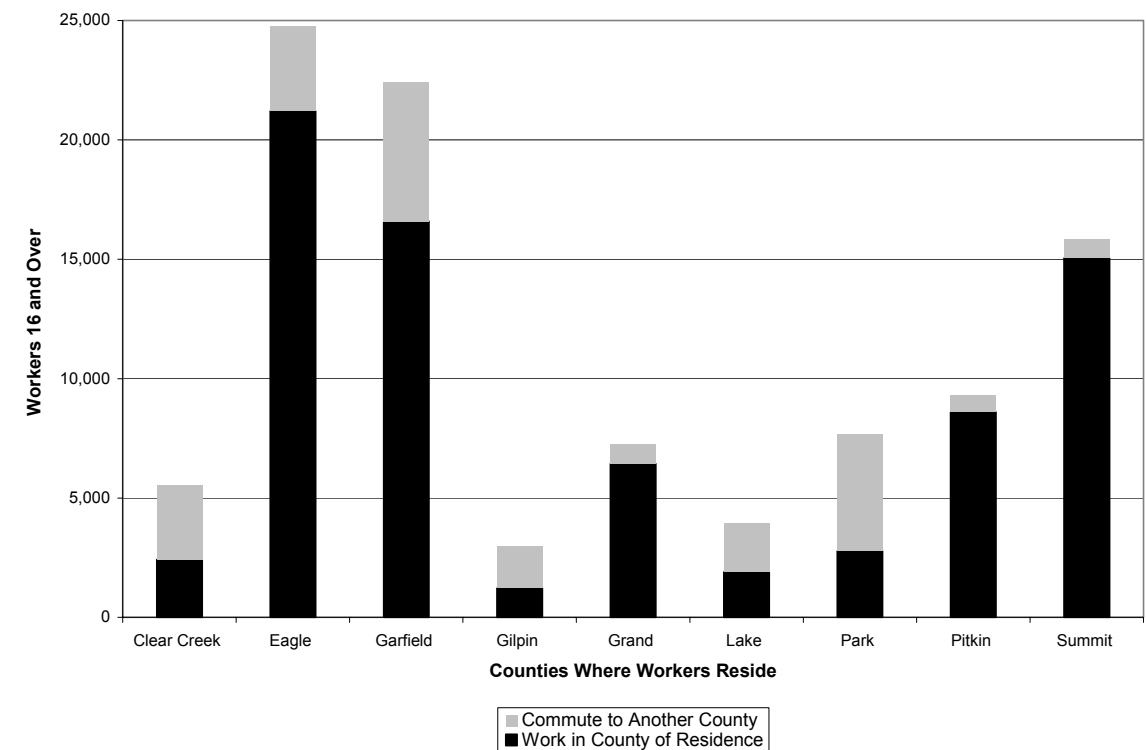
**Table 3.9-5. County Commuting Patterns**

County	Primary Destinations	Net Inflow/Outflow	Primary Originations	Primary Routes
Clear Creek	Front Range (Denver metro), Gilpin	Outflow	Jefferson	I-70, US 6
Eagle	Pitkin, Garfield	Inflow	Garfield, Lake, Pitkin, Summit	I-70, SH 133, SH 82, US 24
Garfield	Pitkin, Eagle	Outflow	Eagle, Pitkin	SH 133, SH 82, I-70
Gilpin	Front Range (Denver metro)	Inflow	Front Range (Denver metropolitan)	US 6, SH 119, I-70
Grand	Summit	N/A	<i>Negligible Inflow</i>	N/A
Jefferson	Denver metro area	Inflow	Front Range (Denver metropolitan)	I-70, US 285, C-470, I-25
Lake	Eagle, Summit	Outflow	<i>Negligible Inflow</i>	US 24, SH 91, I-70
Park	Front Range (Denver metro), Summit	Outflow	Front Range (Denver metropolitan)	US 285, SH 9, I-70
Pitkin	Garfield, Eagle	Inflow	Garfield, Eagle	SH 82, SH 133, I-70
Summit	Eagle	Inflow	Park, Lake, Grand, Front Range (Denver metropolitan)	SH 91, SH 9, I-70

**Chart 3.9-8. Comparison of In-County Workers and County Labor Demand (DOLA 2000)**



**Chart 3.9-9. Place of Work (2000 Census)**





**3.9.2.3 Economics and Tourism**

The vital role of tourism in the Corridor counties' economy is described in this section, including:

- Overview
- Income and jobs by sector
- Tourism income and jobs
- Second homes and the Corridor economy

**Overview of Economics and Tourism**

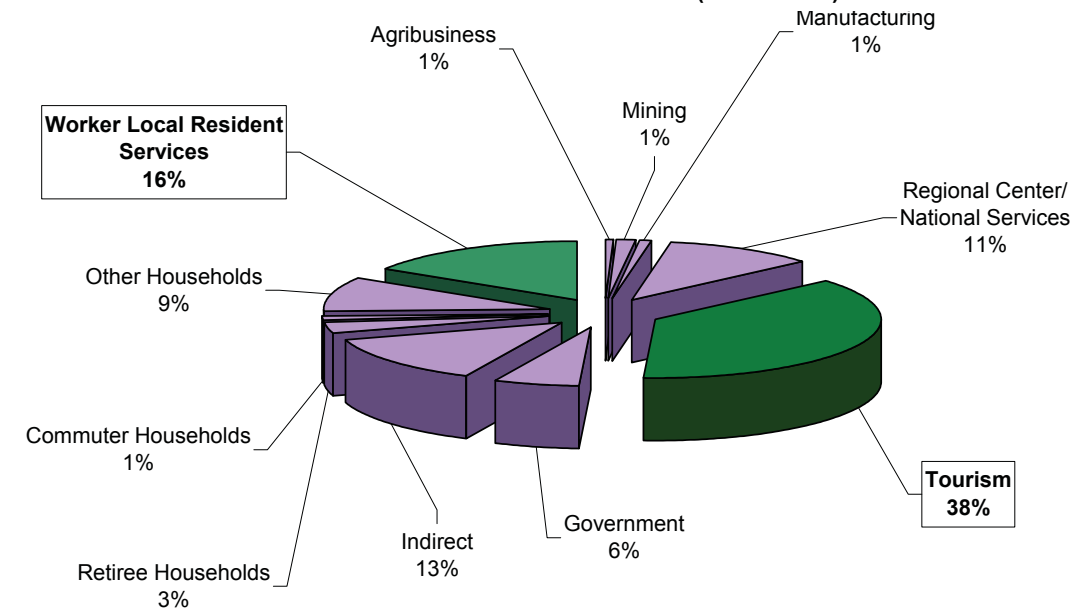
Socioeconomics is about people playing dual roles as producers and consumers of the resources involved in making a living. In the nine Corridor counties, this process—largely driven by tourism and recreation—has resulted in the creation of employment for nearly 125,000 persons, \$4.8 billion in annual personal income.

The private sector accounted for the majority of the value of economic activity: as of the year 2000, there were more than 10,000 private enterprises located in the area employing nearly 90,000 workers and paying more than \$3.5 billion in wages and salaries. Self-employed proprietors generated another \$762 million in earnings, while corporations and other owners of property earned more than \$2.7 billion in profits, dividends, interest, and rents. The state and local governments (including school and other special districts) accrued an estimated \$869 million in sales, property, and other indirect business taxes while employing about 13,700 persons earning approximately \$500 million (CDLE 2002,IMPLAN 2002).

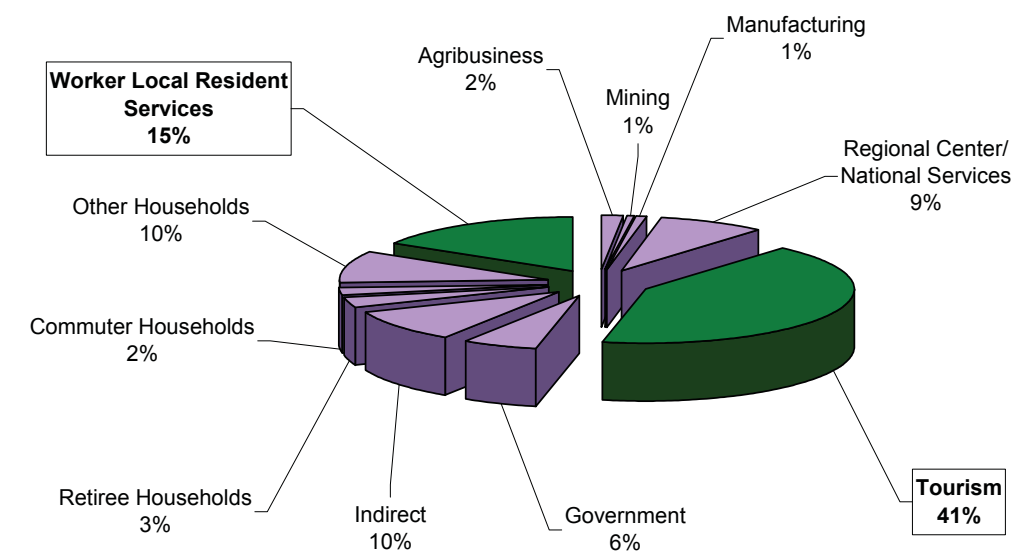
**Income and Jobs by Sector**

According to DOLA's base industry analysis, the tourism industry is the most significant industry/service in the Corridor and generates 41 percent of the jobs and 38 percent of the income, or \$7 billion in the year 2000 (see Chart 3.9-10 and Chart 3.9-11). The tourism industry is made up of many components: recreation (which includes ski areas), visitor lodging, construction for second homes and hotels, real estate, eating and drinking establishments, cleaning services, automotive service stations, wholesale and retail trade, transportation services, and occasionally local government when additional police and fire services are necessary to serve tourism. For this analysis, second homeowners are classified as tourists. In addition, several indirect basic industries are tied to tourism. Jobs in the skiing industry make up 37 percent of these jobs, followed by 13 percent in the resort, and 11 percent in the outdoor recreation industries (see Chart 3.9-10 and Chart 3.9-11). By contrast, local resident services (the only nonbasic industry) generate 15 percent of the jobs and 16 percent of the income.

**Chart 3.9-10. Sources of Income (DOLA 2000)**



**Chart 3.9-11. Jobs by Industry (DOLA 2000)**



### 3.9 Social and Economic Values

#### Tourism Income and Jobs

Chart 3.9-12 and Chart 3.9-13 illustrate the relative contributions of each Corridor county to tourism income/jobs. Summit and Eagle counties generate more than 50 percent of tourism jobs and income. Pitkin County generates about 20 percent of the Corridor tourism economy. The economic importance of commuting in the Corridor area is further illustrated in Chart 3.9-14 based on DOLA information. Although the basic industry analysis indicates that the Corridor area as a whole has a net economic gain from residents with Front Range (Denver metropolitan area) jobs/income, four counties (Pitkin, Summit, Eagle, and Gilpin) must import a significant number of workers and incur a net loss in jobs/income.

Chart 3.9-12. Tourism Income by County (DOLA 2000)

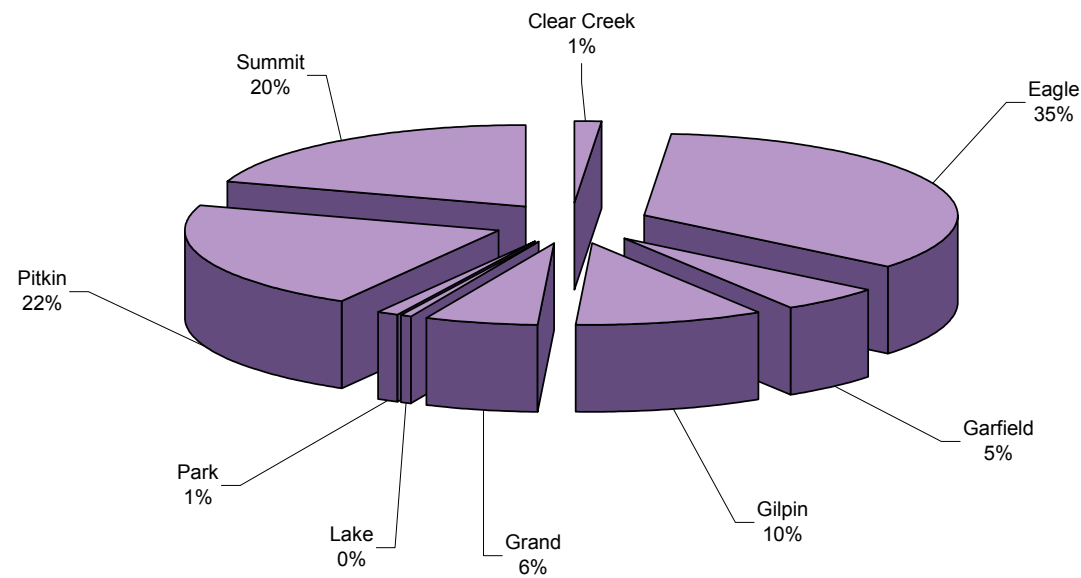


Chart 3.9-13. Tourism Jobs by County (DOLA 2000)

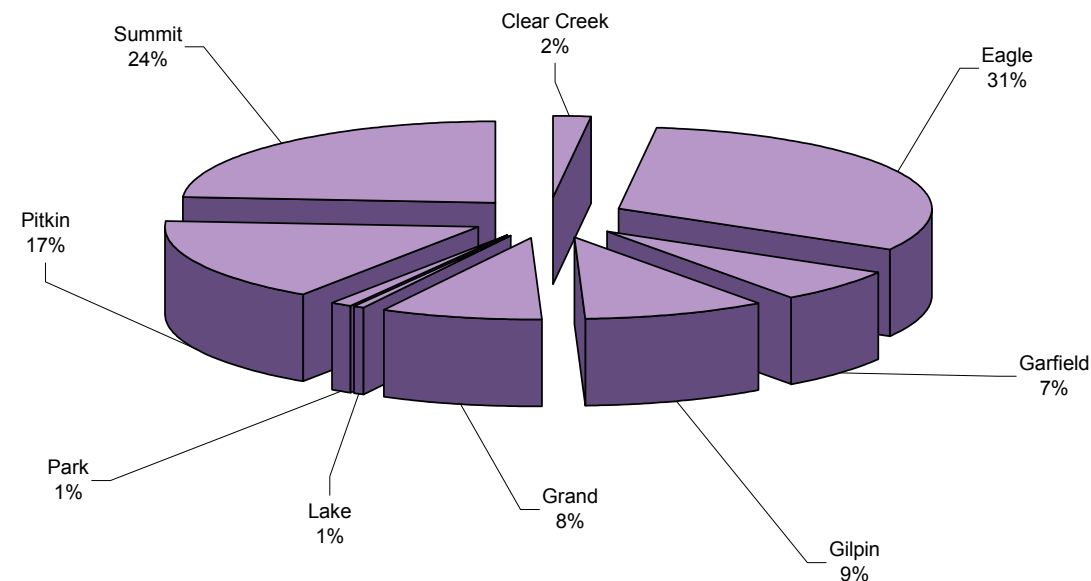
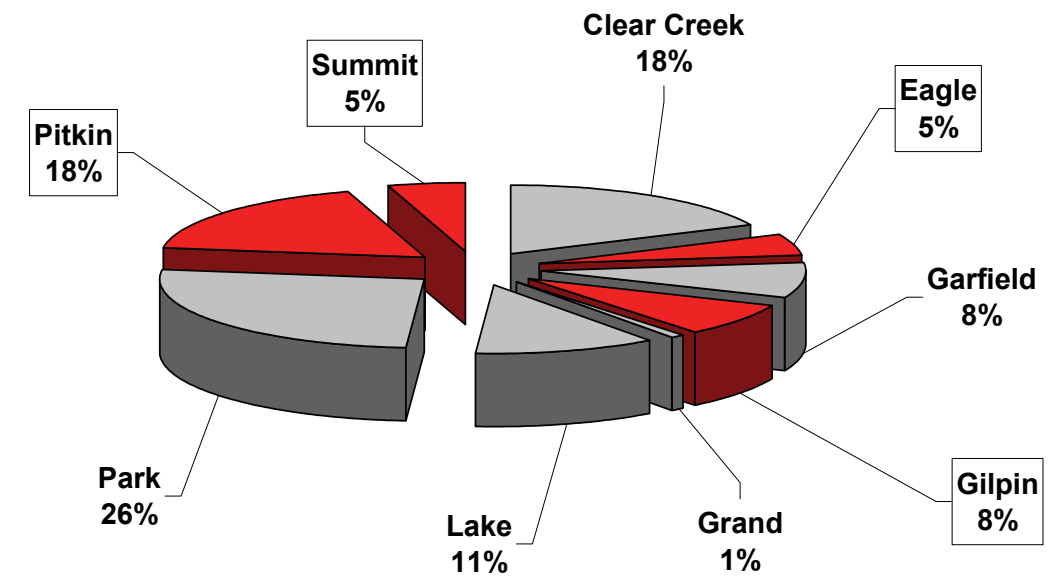


Chart 3.9-14. Commuter Household Jobs by County (DOLA 2000)



(Red represents counties that net import workers and gray represents counties that net export workers)

#### Second Homes and the Corridor Economy

The NWCCOG completed a study in 2004 that tracked the economic impacts of second homes for Eagle, Grand, Pitkin and Summit counties (NWCCOG 2004). The study reports on the most significant economic drivers (second homes, winter visitors, and summer visitors) of the tourism industry in terms of basic spending (money coming from outside the Corridor or county), basic jobs (jobs supported by money from outside the Corridor or county), and total jobs (includes basic jobs and secondary local jobs generated by the need for local services, housing, and so forth for workers and residents). The study data are summarized in Table 3.9-6.

Table 3.9-6. Resort County Second Home Economic Driver Study (2002 data)

	Estimated Basic Spending		Estimated Basic Jobs		Estimated Total Jobs	
	Millions	Share of Total	Amount	Share of Total	Amount	Share of Total
<b>Second Homes</b>						
Eagle County	\$677.2	38.4%	10,018	51.5%	15,133	45.1%
Grand County	\$145.9	24.2%	1,809	35.4%	2,786	32.2%
Pitkin County	\$453.1	34.1%	5,437	46.0%	7,923	41.3%
Summit County	\$517.2	32.2%	3,960	31.6%	5,779	27.6%
All Four Counties	\$1,793.4	33.8%	21,223	43.4%	31,621	38.4%
<b>Winter Visitors</b>						
Eagle County	\$387.0	21.9%	3,611	18.6%	6,752	20.1%
Grand County	\$162.3	26.9%	1,221	23.9%	2,150	24.9%
Pitkin County	\$289.4	21.8%	2,103	17.8%	3,757	19.6%
Summit County	\$632.2	39.3%	5,456	43.5%	9,660	46.1%
All Four Counties	\$1,470.9	27.7%	12,391	25.3%	22,319	27.1%
<b>Summer Visitors</b>						
Eagle County	\$153.5	8.7%	1,194	6.1%	2,259	6.7%
Grand County	\$166.4	27.6%	1,146	22.5%	1,952	22.6%
Pitkin County	\$244.5	18.4%	1,600	13.6%	2,760	14.4%
Summit County	\$185.0	11.5%	1,305	10.4%	2,364	11.3%
All Four Counties	\$749.4	14.1%	5,245	10.7%	9,335	11.1%

\* NWCCOG 2004

According to the study results, the tourism industry (second homes, winter visitors, and summer visitors) generates from 72 percent (in Eagle County) to 85 percent (in Summit County) of all jobs in the counties studied. Jobs attributable to second homes are most important in Eagle and Pitkin counties, where they contribute a higher percentage of jobs to total employment than winter and summer visitors combined. In comparison, the data indicate that spending and jobs in Grand and Summit counties are more dependent on winter/summer visitation (destination skiing and summer tourism).

The general economic effects of second homes have been summarized by NWCCOG (2004) in the quotation below:

*“As second homes have grown to be a large part of the economic and physical landscape, the size and scope of the job-generating effects of second homes have become especially important in the management of development in Colorado’s mountain resorts. Increasing numbers of second homes have begun absorbing large amounts of land in an area where land available for development is limited by terrain and the public domain. The consequence is a growing impact on real estate prices and the cost of living, as well as increasing demands for service from local government.”*

### 3.9.2.4 Growth and Tourism Effects on Infrastructure and Public Services

#### Water Use

As part of this Tier 1 study, water use issues are addressed in relation to land use and development limitations. See Appendix K, Overview of Water Availability and Growth, and Forest Service Land Management, and section 3.10, Land Use, for more detailed discussions of these water use issues.

#### Emergency Services

Emergency medical services are an issue to be addressed in relation to I-70 emergency calls and county resources. Specifically, Clear Creek County was identified as having a disproportionate relationship between its resources and I-70 call response. As shown in Table 3.9-7, Clear Creek and Summit counties have the highest rate of calls per capita. In addition, Clear Creek emergency vehicles must travel out-of-county to the nearest medical facility (leading to the highest ambulance rate in the state).

Table 3.9-7. Emergency Medical Services

Emergency Service	Funding Source	I-70 Miles Covered	I-70 Calls per Year	I-70 Calls per Capita	Distance to Nearest Medical Facility	Ambulance Rate
Eagle County Ambulance District	Mill levy on property tax, fees for service	40	800 to 900 (13% of all calls)	0.02	Facilities in Vail and Eagle	\$575
Summit County Ambulance Service	Operates as an Enterprise fund with no tax support	24	900 (25% of all calls)	0.04	Facilities in Breckenridge and Silverthorne	Not available
Clear Creek County	Fees for service, grants	35	300 to 400 (25% of all calls) <sup>a</sup>	0.04	40 miles	\$875

<sup>a</sup> Note that in addition to I-70 calls, 50 percent of calls in Clear Creek County are nonresident calls (leaving 25 percent local calls)

### 3.9.3 Environmental Consequences: Indirect Impacts

The environmental consequences discussion covers the indirect impacts of induced growth on the social and economic values of the Corridor counties, including the following topics:

- Growth analysis
- Economic analysis (includes regional analysis of construction impacts)
- Construction impacts on Clear Creek County

Note that Clear Creek County is singled out for analysis of local construction impacts because the most project alternative construction would occur in the county. Although other counties would be affected by construction, these tourist destination counties would not have the degree of alternative construction present in their counties that would be present in Clear Creek County over an extended time period.

### 3.9 Social and Economic Values

#### 3.9.3.1 Growth Analysis

##### Indirect Growth Impacts

Table 3.9-8 presents predicted growth suppression/inducement associated with each alternative by county. Possible suppression of population growth would be associated with the No Action and Minimal Action alternatives for all Corridor counties, except Clear Creek County. However, such suppression is considered unlikely in the resort counties (Eagle, Pitkin, and Summit) and in Garfield County based on existing growth and development trends. Clear Creek County has had little past growth in comparison to the historic increase in I-70 traffic. In contrast, a predicted increase in growth pressure for Eagle County would be associated with the Transit and Combination alternatives, and to a lesser extent the Highway alternatives. Predicted increased growth pressure for Summit County would be associated with the Combination alternatives. Population growth for these counties has been the most sensitive to I-70 traffic in the past. Park and greater Jefferson counties were not included in the growth predictions because growth in these counties would be heavily influenced by the Denver metropolitan area and by transportation routes other than I-70.

**Table 3.9-8. Growth and Population Predictions**

County	2025 DOLA Population	DOLA 2000-2025 % Change	Alternatives							
			No Action	Minimal Action	Transit		Highway	Combination Transit/Highway		
					Rail with IMC or AGS	Dual-Mode or Diesel Bus in Guideway	6-Lane Highway (55 or 65 mph)/ Reversible Lanes	6-Lane Highway with Rail and IMC	6-Lane Highway with AGS	6-Lane Highway with Dual-Mode Bus in Guideway
Clear Creek	17,060	82.4%	Less Susceptible							
Eagle	76,161	77.2%	Predicted Suppression (65,000 - 70,000)	Predicted Increase (90,000)	Predicted Increase (86,000)	Predicted Increase (112,000)				
Garfield	80,879	82.9%	Predicted Suppression (54,000 - 60,000)	Less Susceptible						
Gilpin <sup>a</sup>	11,175	134.0%	Predicted Suppression (6,000 - 6,500)	Less Susceptible						
Grand	25,598	100.2%	Predicted Suppression (15,000)	Less Susceptible						
Lake	18,458	135.9%	Predicted Suppression (14,000)	Less Susceptible						
Pitkin	23,719	49.7%	Predicted Suppression (20,000)	Less Susceptible						
Summit	42,720	67.1%	Predicted Suppression (35,000)	Less Susceptible			Predicted Increase (54,000)			

*Predicted Suppression = predicted impacts could suppress anticipated DOLA and county growth projections*

*Less Susceptible = predicted impacts would be less susceptible to growth inducement*

*Predicted Increase = predicted impacts could increase anticipated DOLA and county growth projections*

<sup>a</sup> *Gilpin population based on county projections*

#### Implications of Induced Growth

##### Job Growth and Housing Availability

Job growth is projected to greatly exceed worker supply in the resort counties of Eagle, Summit, and Pitkin as discussed in this section. Future housing growth in these counties is based primarily in second homes. In addition, many second homeowners are expected to make these homes their primary residence (as retirees) in the future. These residents would not contribute significantly to the labor force. In fact, these residents are expected to increase labor demand in the services sector. Although some areas have initiated affordable housing developments, at the current planning stage most workers must seek housing outside these resort counties where second homes are in demand.

##### Travel and Commuting Issues

Possible induced growth associated with the Transit and Combination alternatives, and to a lesser extent the Highway alternatives, would likely increase commuting issues, growth pressure, and housing requirements in commuter “outflow” counties such as Garfield. Weekday commuter-like (rush hour) traffic patterns are emerging along portions of I-70, particularly in Eagle, Summit, and Garfield counties. Existing trends indicate that the resort counties of Eagle, Summit, and Pitkin import a considerable portion of workers and that the import rate is expected to increase in the future (according to DOLA employment projections). These workers will seek housing in adjacent counties, thereby increasing growth pressure in counties such as Garfield and Routt (unless resort counties plan for sufficient future affordable housing). In addition, the availability of Corridor transit would have the potential to increase growth pressure in the Corridor (allow more commuting to the Front Range) and/or allow workers to live a greater distance from Corridor work destination counties (allow more commuting into the Corridor).

Possible induced growth is also expected to increase accidents and emergency calls, especially if major highway safety improvements are not implemented. Although all Corridor emergency services would incur impacts, Clear Creek County would be most affected by increased calls due to the high per capita call rate and the lack of in-county medical destination facilities. Project alternatives that address highway transportation safety issues would have the least impacts on emergency services because they would have the best chance of reducing the demand for emergency services.

##### Land Use and Environmental Resources

Possible induced growth associated with improvements in access would increase development pressure in the Corridor. The associated ramifications to land use and the resulting effects on environmental receptors such as wildlife habitat loss and fragmentation are addressed in section 3.2, Biological Resources. Community infrastructure issues (including water supply) and possible limitations to growth and land development are also addressed in section 3.10, Land Use.

#### 3.9.3.2 Economic Analysis

##### Overview

Considerable economic growth (as reflected in DOLA’s “Baseline” population, employment, and personal income projections) is projected for the nine-county Corridor area during the 2000 to 2025 time period. These projections do not consider potential impacts from I-70 congestion or improvements, but rather assume that supporting transportation and other public service infrastructure will expand in step with demographic trends. The indirect economic impact analysis would focus on providing an indication of possible impacts on Corridor economic conditions resulting from changes in I-70 capacity, peak recreational travel, travel times, and accessibility issues.

The regional economic approach (nine-county area) was selected based on the travel and tourism data available and the regional tourism economy, and to negotiate the inherent limitations (accuracy issues) of long-term economic modeling. Detailed data were not available (for example, for allocation of visitor travel and spending to counties or communities over the Corridor area) and could not be generated at the Tier 1 level. The regional modeling effort captures the aggregated multiplier effects of projected changes in total visitor spending, Corridor-wide issues such as “value of time,” and overall construction impacts.

### Introduction and Methods

Indirect impacts on the regional economy would include impacts caused by tourism spending, consumers’ and producers’ “value of time,” and construction impacts as related to transportation effects. These would encompass effects on Corridor employment, business, and the overall regional economy. An overview of the economics analysis method is presented in this section. The detailed economics analysis method is presented in Appendix J, Social and Economic Values.

Tourism Spending Based on:

- Peak travel time: 20 summer weekends, 20 winter weekends
- Recreational trips (2000 and 2025 theoretical baseline)
- Percent suppression/inducement (specific trips listed in Appendix J) by alternative based on ridership survey, travel demand model, and expert panel discussion

Indirect economic impacts in the Corridor would involve many factors. The primary factors directly related to I-70 travel were evaluated and include the change in the number of visitors associated with the different alternatives (due to an increase or a decrease in travel capacity) and the change in the ability to travel to work and to deliver goods and services (due to an increase or a decrease in travel capacity and travel time/access).

The above input factors and variables were used in a REMI® (Regional Economic Models, Inc.) conjoined econometric/input-output model of the nine-county Corridor region to predict economic impacts of the alternatives. The REMI model incorporates DOLA’s population and employment projections for the 2025 economic baseline in developing the basis for projecting demographic and economic impacts.

The REMI model can translate the loss (or gain) of amenity values (such as free-flowing traffic) into a factor that acts to restrain (or stimulate) worker migration over the longer term, which, in turn, impacts regional income and employment. Value of time is reflected in both a decrease in “real” wages and an increase in production costs. For example, traffic congestion is a major source of wasted time and loss of income (both to commuters and travelers who could be doing other things with their time). Traffic delay while commuting to work or traveling to a recreation destination is considered a cost in terms of time taken away from other activities. Over a period of time, this can lead to a systematic shift in flows of workers and investment capital into the region, thus negatively affecting overall trends in income, employment, and population.

REMI– Regional Economic Models, Inc. (includes nine-county area\*)

- Models tourism spending impacts, 2001–2035
- Models access/travel time impacts on delivery of goods and services
- Models access/travel time impacts related to “value of time” (VoT)
- Models construction spending impacts on regional employment and economy
- No Action scenario, 2001-2035 (range of suppression and VoT – see Appendix J)
- Action alternatives, 2025 to 2035 (alternative economic benefits begin at 2025)

\*Garfield, Eagle, Pitkin, Summit, Lake, Park, Clear Creek, Grand, Gilpin

It is important to note that the prediction of economic conditions is dependent on numerous external factors that cannot be directly related to I-70, such as a general drop in willingness to travel (which resulted from the 9-11 attack), “bad” snow years, changes in the composition of visitors (such as the recent trend in increased visitors from the Front Range and decreased visitors from out of state), and general economic conditions (which might cause an increase/decrease in visitation and degree of spending), to name a few. Therefore, the results of the PEIS economic evaluation to determine alternative effects must be viewed in a very narrow light that assumes such random external factors are neutral (that is, “other things being equal”). Specifically, the economic results are intended as a gauge of the possible economic impacts from the project alternatives and the No Action alternative and do not take the numerous “unknown” economic variables (outside project alternatives) into account. In addition, the REMI model results are regional in nature, and a more localized economic evaluation is limited to a county breakdown of the regional Baseline economic GRP results, as described below. Detailed evaluations of localized impacts are beyond the scope of a Tier 1 PEIS. The PEIS intentionally focuses on the Corridor-wide effects of changes in I-70 access to Corridor amenities and destinations. Economic activity in the Corridor is tourism-based over a regional area as exemplified by cross-county commuting patterns. Localized impacts will be evaluated during Tier 2 studies in consideration of localized attractions, project alternative congestion and access issues, and project alternative travel characteristics.

The economic evaluation of project alternatives is based on the following quantitative information:

- Projected 2025 (and design year +10) GRP, personal income, and employment for the nine-county Corridor region (based on DOLA projections for population and employment). This is the projected economic Baseline and is used to compare alternative economic predictions and determine economic effects of alternatives. “Design Year +10” is 2035 for purposes of economic modeling. This time period assumes alternative construction would be completed by 2025 and provides a 10-year period during which alternatives could affect economic conditions.
- Estimated GRP by Corridor county in “design-year +10.” The REMI model’s Baseline GRP is broken down by county using two methods (see Appendix J, Social and Economic Values). This provides a gauge for counties to estimate possible broad-scale alternative effects.
- GRP is defined as the total value of new goods and services produced in a year—the regional equivalent of the US Gross Domestic Product. Data used in the REMI model is based on the US Bureau of Economic Analysis (BEA) Regional Economic Accounts gross state product and other series.
- Personal income is defined as the value of labor compensation (wages, salaries, and proprietors’ earnings), property income (rents, dividends, interest), and net transfers from institutions (such as social security insurance or welfare payments). These data are also derived from the BEA.

### 3.9 Social and Economic Values

#### Indirect Economic Impacts

##### Regional Indirect Economic Impacts

Chart 3.9-15 through Chart 3.9-17 show the REMI model results for employment, personal income, and GRP through time. Table 3.9-9 summarizes economic impacts by alternative in relation to Baseline conditions for years 2010, 2025, and 2035. The following general observations can be made:

1. The Baseline economic trends show a slightly depressed rate of growth from 2000 to 2014 (reflecting the current recession and expected recovery) and an increased rate of growth from 2014 to 2025, after which growth again levels off due to land use and development capacity constraints. These trends present a model scenario to reflect DOLA 2025 economic projections.

The No Action alternative would represent suppression of projected 2025 baseline economic growth due to increased highway congestion and reduced access to recreational and tourist amenities. The degree of suppression is based on transportation model data that provides trip suppression based on a range of travel times that travelers are willing to accept (range of No Action suppression, as discussed in Appendix J, of recreation-oriented trips during peak season, peak days was used for the economic analysis).

2. The action alternatives would show depressed economic growth in relation to Baseline until 2025, due to worsening travel conditions on I-70 before improvements are realized in the design year or year that alternative construction would be complete. This would reflect the impacts of travel delays and decreased access for commuters, tourists, and business (impacts on delivery of goods and services).
3. All action alternatives (except the Minimal Action alternative) would show an increased rate of growth in relation to Baseline after 2025 due to the beneficial effects of the transportation improvements on transportation capacity and accessibility.
4. All action alternatives (except the Minimal Action alternative) would either meet or surpass the economic Baseline projection in design year +10 (2035). The No Action and Minimal Action alternatives would fall well below the economic Baseline in design year +10 (2035) (see Table 3.9-9).
5. The Combination Highway/Transit alternatives would exceed Baseline employment, GRP, and personal income predictions in design year +10 (2035). The Combination alternatives results would reflect the effects of predicted trip inducement.
6. Transit and Highway alternative GRPs would be similar in design year +10 (2035) and show that Baseline conditions could be slightly exceeded, but not to the extent of the Combination alternatives. The Transit alternatives' employment and GRP would slightly exceed Baseline conditions (2035), while the Highway alternatives would illustrate that these economic indicators might fall slightly below Baseline conditions (2035). However, the Highway alternatives would indicate continued growth after 2035 and are expected to reach or slightly exceed Baseline conditions in the future.

Table 3.9-9. Economic Indicators by Alternative

	Baseline	No Action	Minimal Action	Transit	Highway	Combination Highway/Transit
<b>2010</b>						
Employment	145,200	127,700	128,200	129,000	127,600	129,600
Personal Income (\$ billions)	7.95	7.14	7.17	7.18	7.13	7.2
GRP (\$ billions)	16.36	14.52	14.56	14.62	14.51	14.67
<b>2025</b>						
Employment	270,000	214,400	218,200	234,500	233,500	235,400
Personal Income (\$ billions)	17.65	14.51	14.71	15.47	15.4	15.5
GRP (\$ billions)	37.51	30.6	30.92	32.89	32.81	32.99
<b>2035 (Design Year +10)</b>						
Employment	286,100	220,700	228,300	289,900	280,800	298,100
Personal Income (\$ billions)	23.03	18.38	18.86	22.81	22.3	23.25
GRP (\$ billions)	45.14	35.85	36.53	45.38	44.65	46.05

Chart 3.9-15. Employment

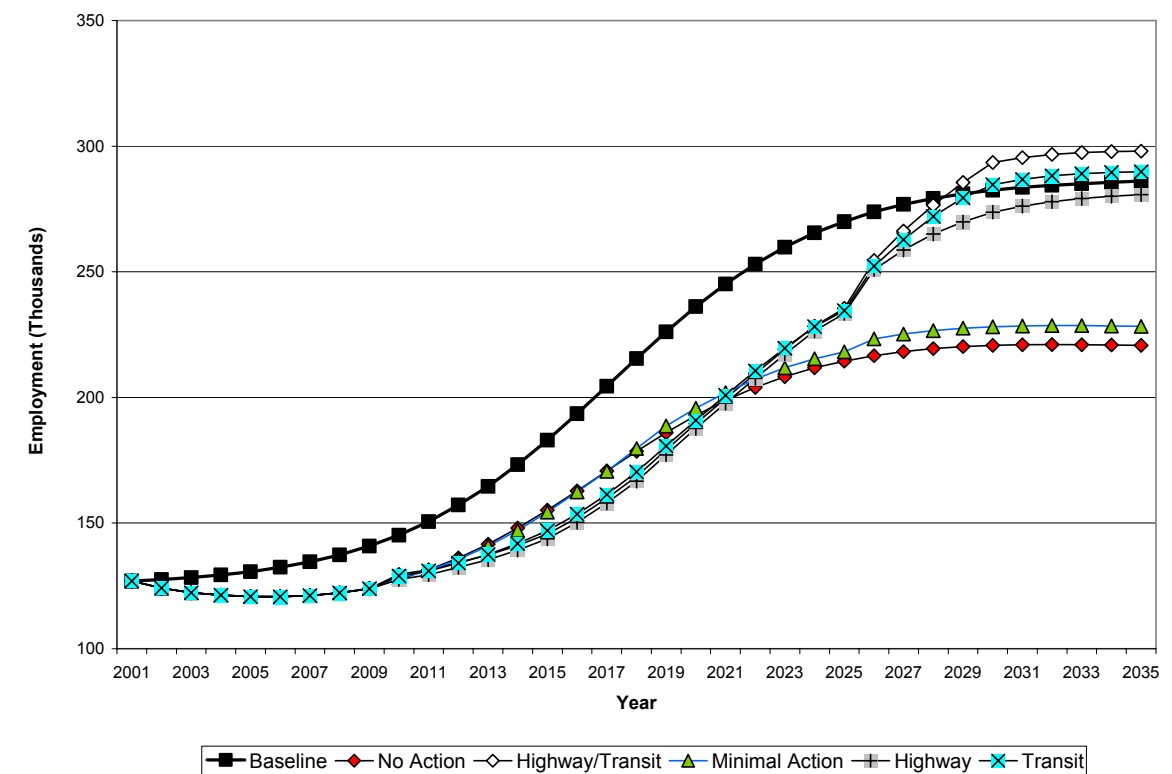


Chart 3.9-16. Personal Income

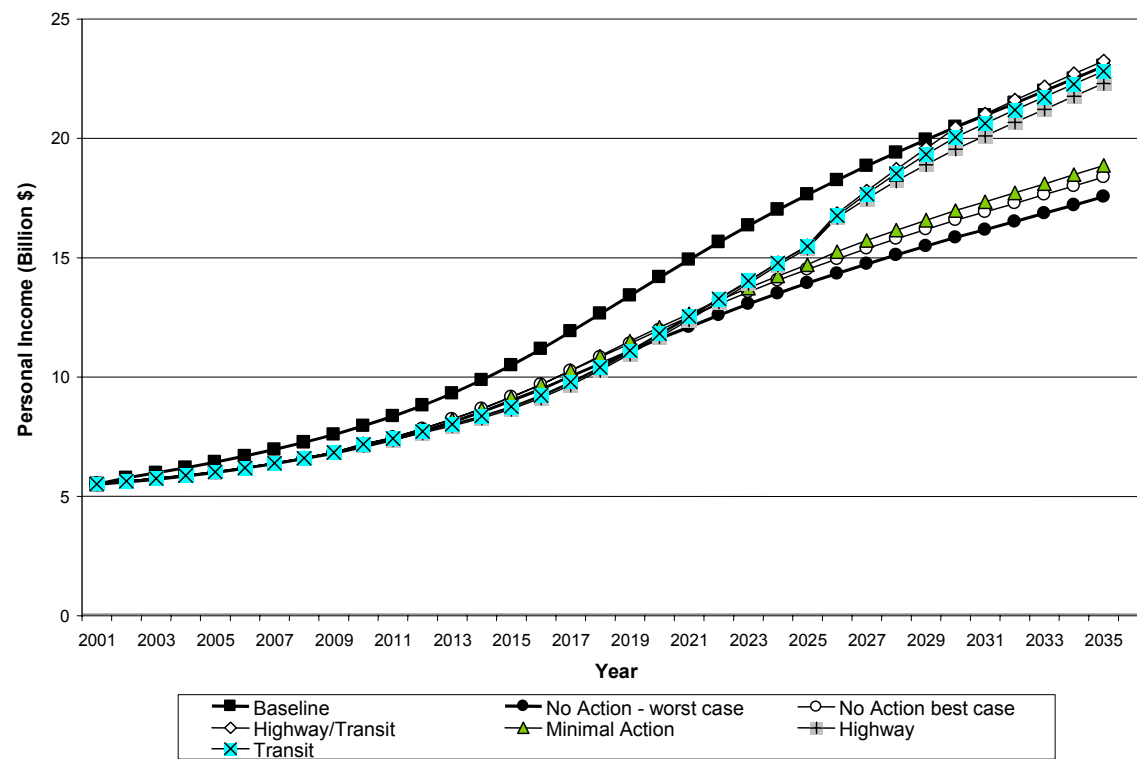
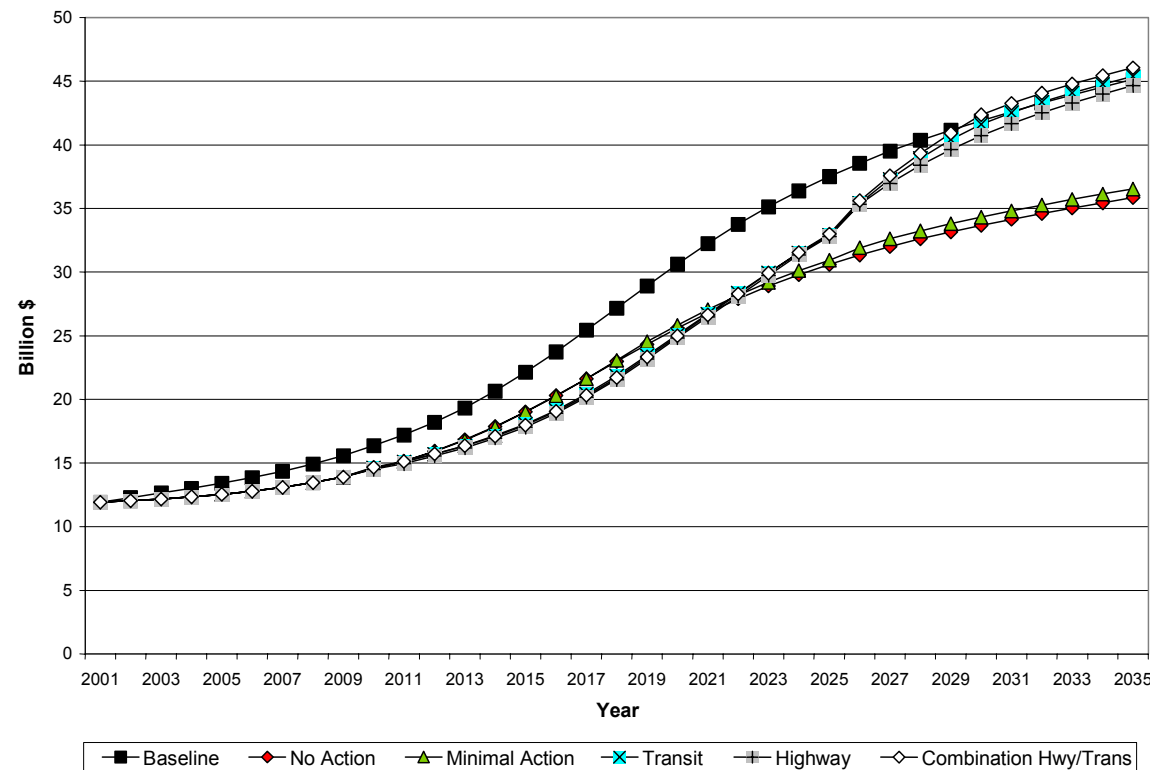


Chart 3.9-17. Gross Regional Product



County Indirect Economic Impacts

Table 3.9-10 shows the estimated shares of Regional Baseline GRP from the REMI model for each county using two breakdown methods. The breakdown method is described in greater detail in Appendix J, Social and Economic Values. The two methods provide a range of possible Baseline economic conditions for each county based on DOLA projections and a weighted method that uses DOLA projections, sales tax forecasts, and traffic predictions for the year 2035 (see Appendix J).

The baseline economic conditions for each county are presented for a broad-scale evaluation of the regional alternative impacts. As for the regional results, the No Action and Minimal Action alternatives are expected to greatly depress economic conditions in relation to Baseline projections; by 2035 the No Action and Minimal Action alternatives would depress regional GRP by nearly \$10 billion per year from the “Baseline” case, a factor of more than one-fifth of the potential level of economic activity for the region. The action alternatives (except the Minimal Action alternative) are expected to either meet or surpass projected economic Baseline conditions by design year +10 (nominally 2035).

Table 3.9-10. GRP by County

County	Estimated 2001 GRP (\$ Billions) <sup>a</sup>	Estimated 2035 GRP (\$ Billions) <sup>b</sup>	Estimated 2035 GRP (\$ Billions) <sup>c</sup>	Percentage Distribution
Clear Creek	\$0.61	\$0.95	\$1.13	2.5
Eagle	\$3.30	\$17.92	\$14.31	31.7
Garfield	\$2.32	\$6.36	\$6.46	14.3
Gilpin	\$0.32	\$0.99	\$0.54	1.2
Grand	\$0.64	\$1.90	\$3.79	8.4
Lake	\$0.53	\$0.59	\$0.50	1.1
Park	\$0.72	\$0.95	\$0.68	1.5
Pitkin	\$1.94	\$7.81	\$7.13	15.8
Summit	\$1.74	\$7.67	\$10.61	23.5

<sup>a</sup> Based on REMI model

<sup>b</sup> DOLA projections: Percentage is based on 2025 DOLA projections for population and employment

<sup>c</sup> (0.4\*DOLA Projection %)+(0.4\*2000 Sales Tax %)+(0.2\*Traffic-Based %)  
See Appendix J for further discussion.

Alternative methods based on the Regional Baseline GRP of \$45.14 billion in 2035.

Table 3.9-10 demonstrates how the bulk of economic activity would be concentrated among the central and western counties of the Corridor counties: Eagle, Summit, Pitkin, and Garfield (see highlighted percentages). These “resort” counties would have the greatest share of the Corridor tourism industry and, therefore, would have the greatest vulnerability to commercial disruptions and loss of attractiveness arising from chronic traffic congestion and route interruptions. These counties also would have the largest contingents of intercounty commuting workers, which would exacerbate the traffic problems afflicting the route. In view of the limited options available for access, and as the core destinations for out-of-state visitors, second homeowners, Front Range residents, and locals, these counties would be particularly sensitive to the viability of I-70 as their primary means of communication and commerce for their livelihood.

### 3.9 Social and Economic Values

#### Local Revenues and Out-of-State Visitors

In 2000, according to DOLA, various local jurisdictions of the nine Corridor counties accrued about \$611 million in general revenues. County governments took in about \$210 million, while municipalities and school districts took in about \$401 million. Taxes generated about 73 percent of the total revenues, with sales taxes and property taxes accounting for approximately one-third each of the \$444 million total in tax revenues. Non-tax revenues (\$167 million, or 27 percent of total revenues) were composed primarily of intergovernmental transfers (11 percent) and charges for services (7 percent).

Based on estimates and the composition of property ownership and estimates of the incidence of taxes on various groups, Table 3.9-11 was developed to show the breakout of sources of revenues by ownership. As indicated, out-of-state property owners contributed an estimated 24.6 percent of total local revenues, of which their input to tax-based sources was 28.4 percent of total tax-based revenues, while they supplied an estimated 14.5 percent of non-tax-based revenues.

**Table 3.9-11. Local Revenues and Out-of-State Contributions**

Sources of Corridor Counties' Local Government General Revenues, 2000					Estimated Composition of Spending (%)			
Source of Revenue	County Governments	Municipal Govts. and School Districts	Total Local Govt. Revs.	% Total Revenues	Total Revenues	In-State Nonlocal Owners (NLO)	Out-of-State NLOs	Transients
Total Revenues	210,378,107	400,968,774	611,346,881	100.0	47.4	20.6	24.6	7.3
Total Non-Tax Revenues	90,640,331	76,475,547	167,115,878	27.3	73.4	12.1	14.5	0.0
Total Tax Revenues	119,737,776	324,493,227	444,231,003	72.7	37.7	23.8	28.4	10.1%
of which:								
Property Tax Revenues	56,451,646	101,098,320	157,549,966	25.8	38.3	28.1	33.6	0.0
Sales and Use Tax Revenues	43,293,673	94,510,636	137,804,309	22.5	26.3	19.3	23.1	31.3

Sources: DOLA 2003; J.F. Sato and Associates estimates.

#### Implications for the State

A certain portion of the regional economic effects of project alternatives would influence the state economy. An estimate of these effects was determined through calculation of the influence of out-of-state contribution to the Corridor economy. The method assumes that Corridor spending by Colorado residents would primarily remain in state. Residents would spend elsewhere in the state if they chose not to spend in the Corridor (for reasons such as congestion or access).

A recent study by Dean Runyan Associates (2001) for the Colorado Tourism Office noted that of the \$9.33 billion spent on tourism expenditures statewide in 2000, \$2.07 billion was spent in the nine Corridor counties. These expenditures, which included Colorado residents' and out-of-state visitors' outlays, generated an estimated \$77.2 million in local taxes for county and municipal governments in the nine-county region, plus another \$59.2 million to the state government (Table 3.9-12). (The Dean Runyan Associates study includes the following tourism categories: accommodations, eating/drinking, food stores, ground transport, recreation (does not include gaming), and retail sales.)

**Table 3.9-12. Sources and Distribution of Tourism Taxes, 2000**

I-70 Counties	Total Tourism Spending 2000 (\$ Million)	Tourism Spending Tax Receipts 2000		
		Local	State	Total
		(\$ Thousand)	(\$ Thousand)	(\$ Thousand)
Clear Creek	21.30	572.00	823.00	1,395.00
Eagle	670.20	26,239.00	18,677.00	44,916.00
Garfield	110.90	3,169.00	4,176.00	7,345.00
Gilpin <sup>a</sup>	10.30	302.00	269.00	571.00
Grand	177.30	7,685.00	4,873.00	12,558.00
Lake	16.60	501.00	542.00	1,043.00
Park	19.50	364.00	593.00	958.00
Pitkin	492.40	18,138.00	13,588.00	31,725.00
Summit	550.40	20,181.00	15,638.00	35,818.00
Subtotal I-70 Counties	2,068.90	77,151.00	59,179.00	136,329.00
Percent of State Total	22.18%	28.25%	21.34%	24.77%
Colorado Total	9,327.00	273,065.00	277,274.00	550,339.00

Source: Dean Runyan Associates 2001

<sup>a</sup> Gilpin County's casinos in Black Hawk and Central City generate approximately \$75 million to \$80 million in gaming taxes, of which the state government keeps about 80 percent. In fiscal year 2002-2003, Gilpin County netted \$8.72 million in gaming taxes while Black Hawk and Central City accrued another \$7.26 million. Most gaming revenues are generated by Colorado residents, and thus represent more a transfer of financial resources within the state economy rather than an infusion of new money from outside the state. About three-eighths (\$38 million) of the gaming taxes go to the state general fund.

According to various travel studies, including Dean Runyan Associates, the Denver-based Center for Business and Economic Forecasting, Inc. (CBEF), Longwood's International, BBC Research and Consulting, and the town of Vail, it appears that out-of-state visitors to the mountain resort area counties account for between 60 percent and 75 percent of total tourism spending. Typically, nonresident visitors stay longer and spend more money than in-state visitors. These values suggest that a conservative estimate of the share of state and local governments' tourism-related tax revenues arising from nonresident tourist spending in the Corridor counties would be in the order of two-thirds. It follows, then, that in 2030, if the Baseline forecast of tourist spending holds true, the state would accrue around \$143 million in tourist-related tax revenues stemming from nonresident visitors (out of a total of \$215 million), while the local governments' share would be in the order of another \$187 million (out of the \$280 million in total tourism-related local revenues). Absent the unconstrained "Baseline" conditions (that is, under the No Action or Minimal Action improvement scenarios) the state and Corridor local governments' tax revenues from out-of-state visitors, instead of totaling about \$330 million, would amount to an estimated \$274 million (based on the difference in GRP under the action versus No Action scenarios). This is a negative difference of \$56 million per year; that is, state revenues from out-of-state visitors might decrease by more than \$50 million per year if no action is taken to improve I-70 congestion, travel times, and access.



### 3.9.3.3 Construction Impacts, Clear Creek County

#### Issues

Clear Creek County is singled out for analysis of local construction impacts because all alternative modes are proposed within the County; therefore, construction impacts would occur in the County regardless of which alternative is selected. Although other counties would be affected by construction, these tourist destination counties do not have the degree of alternative construction present in their counties that would be present in Clear Creek County over an extended time period.

The growing demand for recreational visitation and second homes in the Corridor is expected to bridge a possible period of decreased visitation/travel during construction. An absolute downturn in travel and visitor spending from existing levels is not indicated. The economic and demographic dynamics of Colorado simply do not support such a vision due to the state's high rank as a recreational destination. People are expected to continue traveling to and from the Corridor towns, resorts, and other attractions throughout project construction. These statements are supported by the results of the REMI model.

The residents of Clear Creek County, their visitors, businesses, governments and other institutions, and the people traveling through the county (all of them) would be affected by construction work associated with project alternatives. Although consideration of regional construction impacts is included in the REMI model study (see above section), localized impacts are expected to be most prominent in Clear Creek County. The concern is the nature and severity of any economic impacts on the county:

- What effect would delays in travel time due to traffic congestion and interruptions have on commuters and businesses dependent on I-70 travelers?
- What public safety issues would be raised?
- How vulnerable, in the final analysis, is the economic and social well-being of Clear Creek County to the I-70 PEIS project alternatives?

The REMI modeling study indicates economic benefits would flow to the I-70 nine-county region from improved access (associated with alternatives) through reduced user costs of transportation; improved traveler safety; expanded markets for goods and services produced by the region's businesses; and improved local governments' finances to support public services. Remaining issues of concern include:

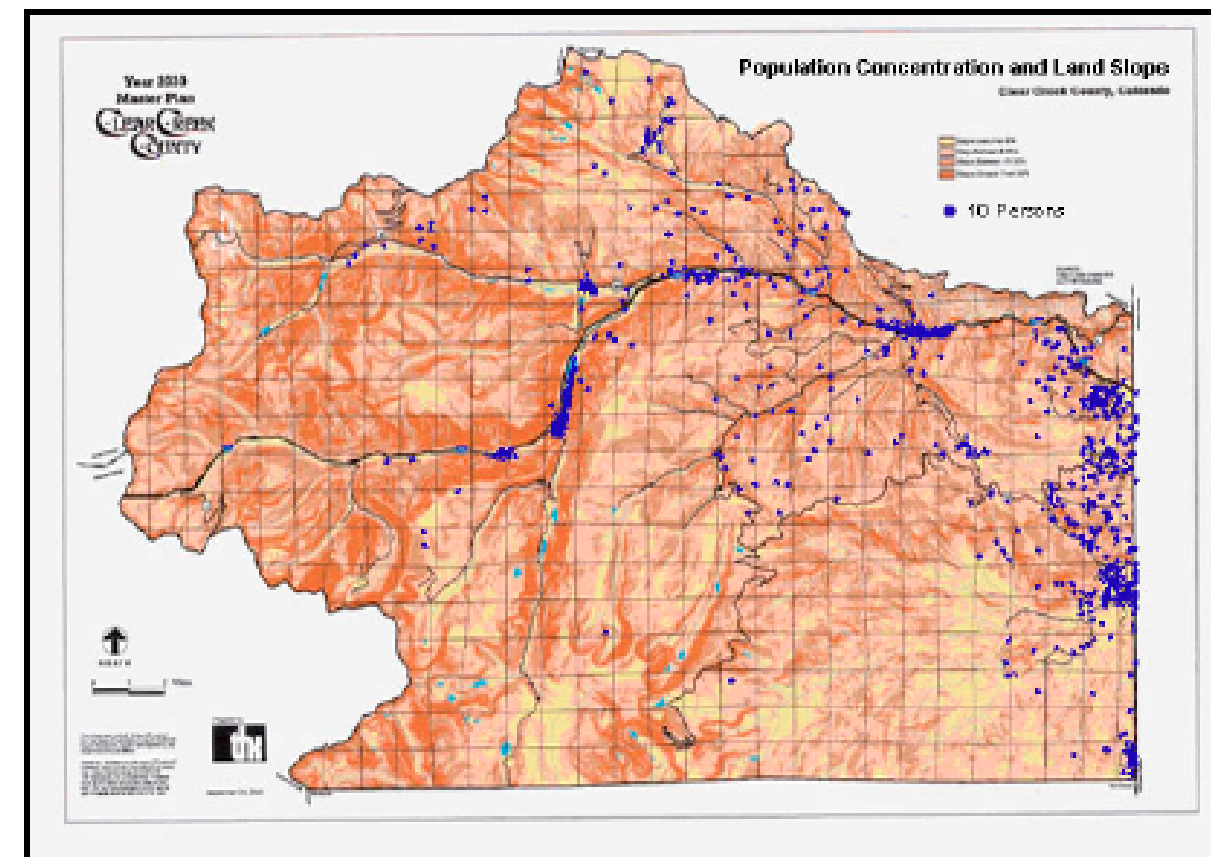
- How long would it take to get from now to then?
- How much inconvenience and even economic loss, during the transition, would have to be endured?

This section examines the possible economic ramifications of the construction work in Clear Creek County in light of possible localized economic impacts from project alternatives.

#### County Setting and Growth

Figure 3.9-1 shows the concentrations of Clear Creek County's population in 2000 superimposed on a relief map of the county (Clear Creek County 2030 *Master Plan*). The figure illustrates the effect of terrain on the location of people and the means of transportation.

Figure 3.9-1. Clear Creek County Population Concentration and Land Slope



The Corridor through Clear Creek Canyon includes the communities of Idaho Springs, Georgetown, Empire, and Silver Plume. These communities have historically been the demographic and economic axis of the county. In recent decades, however, the unincorporated areas along the eastern edge of the county have experienced the principal growth in the county. The county's 2030 *Master Plan* reports that:

*“Growth has occurred primarily in unincorporated Clear Creek County. Of the 600 building permits issued from 1990 to 2000, almost 90% of new construction occurred in the unincorporated portions of the county. The Census shows that almost 87% of population growth occurred in the same areas. The perception is that most of the new growth has occurred east of the “twin tunnels” in the Floyd Hill and Upper Bear Creek areas.”*

Another perceived consequence of growth would be traffic. The daily vehicle miles of travel (DVMT) for all the roads in Clear Creek County has increased only 5.7 percent from 1998 to 2001. The greatest increases in DVMT occurred on roads such as US 40 and US 6, which showed an increase of 25 percent, and SH 103 and Fall River Road, which had increases of 23 percent. I-70 showed only a 5.4 percent increase, and there were declines on roads such as Stanley Road and Alvarado Road.

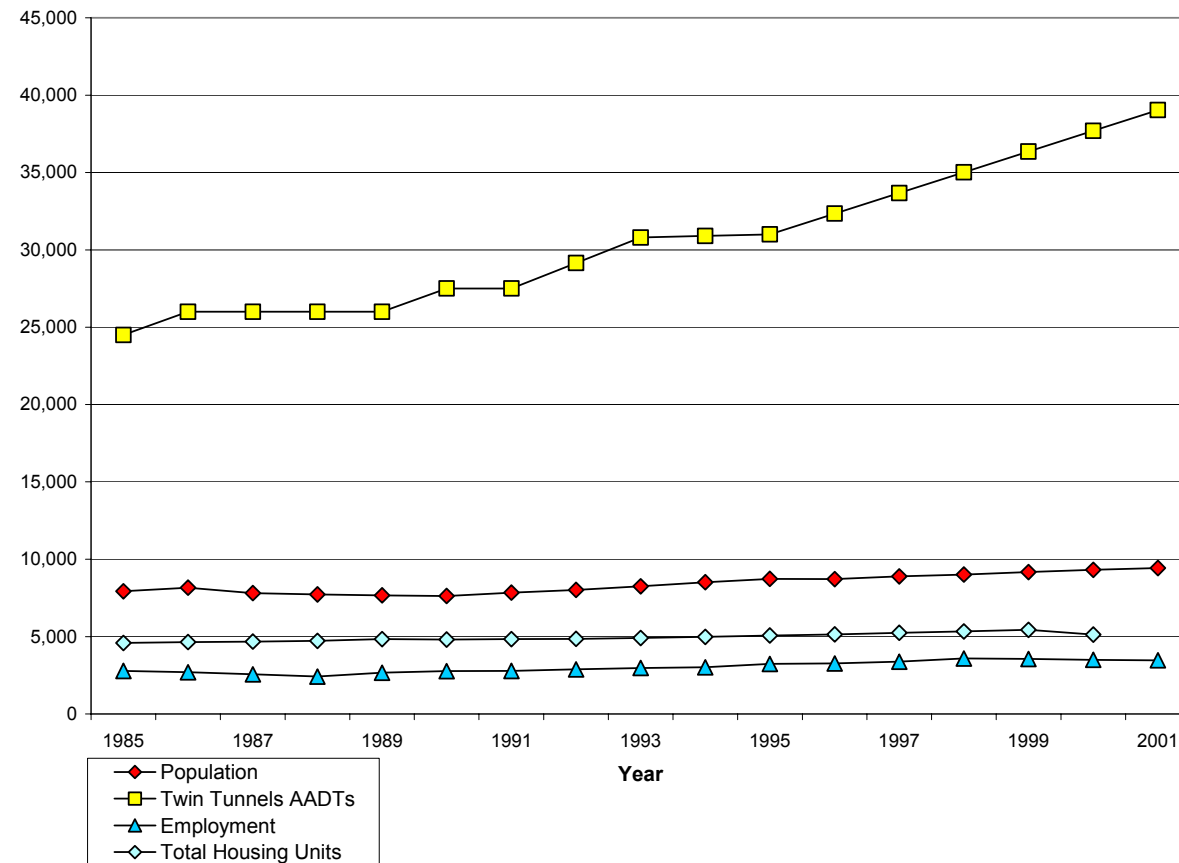
Between 1980 and 2002, the county population grew from 7,308 to 9,553 (an increase of 2,245, or 31 percent). More than three-fifths of the residents (62.4 percent) are located in unincorporated parts of the county, with the vast majority along the eastern border. In all, 95 percent of the county's growth since 1980 has taken place in the unincorporated areas of the county. The municipalities of

### 3.9 Social and Economic Values

Idaho Springs (1,885 in 2002) and Empire (399) actually lost a few hundred residents over the last two decades, while Georgetown (1,107) and Silver Plume (205) added a couple hundred.

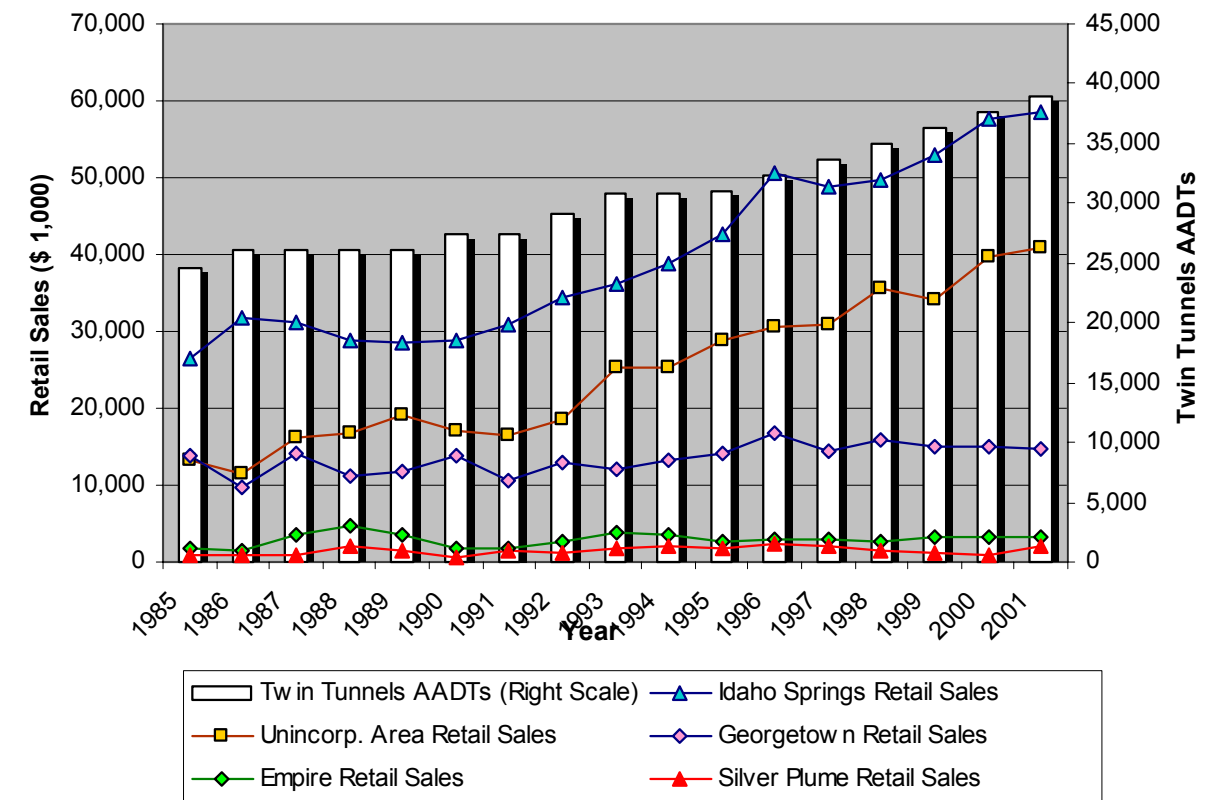
During the period 1985 to 2001, average daily traffic (ADT) levels on I-70 at the Twin Tunnels traffic counter rose from about 24,500 vehicles per day (vpd) to 39,000 vpd (see Chart 3.9-18), an increase of almost 60 percent. As illustrated in the chart, despite the rising traffic volume on I-70, population (and other growth indicators) in Clear Creek County did not reflect similar growth rates.

Chart 3.9-18. Clear Creek County Trends



In addition, the merchants of I-70 communities, with the exception of Idaho Springs, did not experience growth of business, as reflected in the flat trends of retail sales in Georgetown, Empire and Silver Plume (see Chart 3.9-19). In contrast, the retail establishments in Idaho Springs and the unincorporated areas of the county doubled their nominal volume of business over the 16-year period. The 1991-1992 Idaho Springs “special improvement district” investment project provided a more-attractive downtown business area. The rate of retail sales in Idaho Springs increased following completion of the project after a period of relatively little growth.

Chart 3.9-19. Clear Creek County Retail Sales and I-70 Traffic Trends

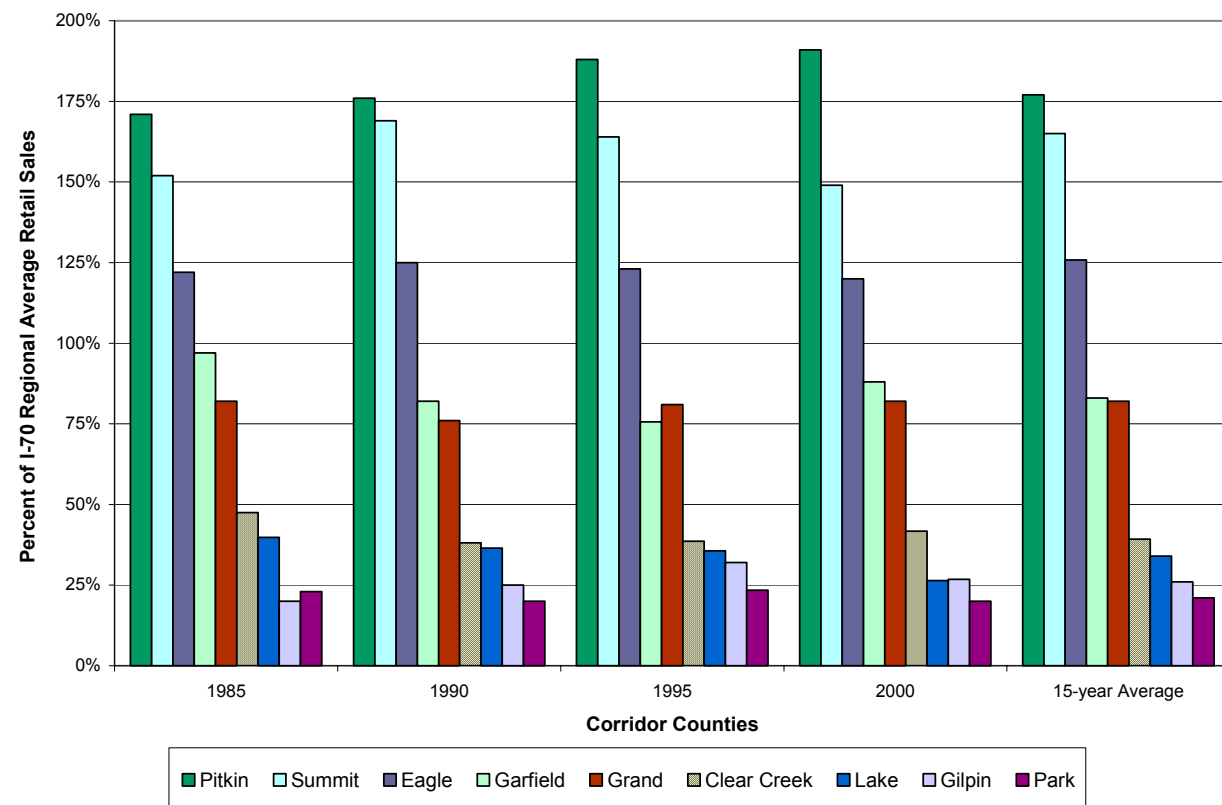


#### Regional Economic Perspective

Another dimension to the county’s economy is revealed by a comparison of the level of retail sales per resident among the nine counties making up the Corridor impact area. Retail trade is a major component of a local economy; it generates an important share of the county’s employment, income, and sales taxes. The statistic is significant because it indicates the extent to which the individual counties rely on their own residents as opposed to visitors to support local merchants. The higher the ratio of a county’s per capita sales as a percent of the regional average, the more the county is benefiting from inflows of spending from visitors. Chart 3.9-20 compares each county’s per capita retail sales in terms of the percentage of the nine-county regional average for the years 1985, 1990, 1995, 2000, and the 15-year average.

Since 1990, Clear Creek County’s rate of per capita sales has run at about 40 percent of the nine-county regional average. In dollars, the county’s per capita retail sales averaged about \$12,475 in 2000, less than half of the region-wide average of \$29,950. Clearly, Pitkin (with per capita sales of \$57,390 or 192 percent of the regional average), Summit (\$44,600 or 149 percent), and Eagle (\$39,950 or 120 percent) counties dominate the region in terms of visitor-boostered retail trade. Garfield and Grand counties fall slightly below the regional averages. At the opposite end of the spectrum are Clear Creek, Lake, Gilpin, and Park counties. What the analysis indicates is that these latter four counties neither attract significant amounts of spending by visitors nor capture a significant share of their own residents’ consumption spending.

Chart 3.9-20. County Per Capita Retail Sales



harvest from the visitor trade. In the final analysis, any restriction of visitor access to Idaho Springs or the other towns in the County further west on I-70 due to highway construction work would affect their local businesses. Travel delays and other construction-related issues would also affect resident commuters and local traffic in these I-70 communities. Project alternative construction, however, is not likely to be a major burden on the bulk of the county’s residents (those residing along the eastern border) who are primarily oriented to Jefferson and Denver counties.

The effects of construction workers on the Clear Creek County economy are primarily dependent on worker commuting and residence conditions. In Clear Creek County, it is expected that most of the construction workers would commute from the Denver metropolitan area (the principal labor market for such workers) and would not reside in the county. Most workers would commute daily to project job sites in the county (assuming commute times would not exceed an hour), preventing the need for temporary workweek accommodations in the county. Construction workers are expected to generate some local spending in communities along the route, but the amount would be considerably less than their total earnings. Workers commuting to job sites daily generally spend relatively little on the job for products and services such as gasoline, lunches, and snacks, or other casual and brief recreation.

The regional economic input-output model used for the I-70 Draft PEIS estimated that highway construction work in the nine I-70 counties would support 832 direct onsite jobs per \$100 million of direct expenditures (see Appendix J). Expenditures by the direct workers would, in turn, support a multiple level of overall employment in the regional economy, arising from the multiplier effect of their local consumption expenditures circulating in the local economy. These two analyses suggest that \$100 million in annual expenditures for highway construction would support approximately 800 direct onsite construction jobs. Under these project alternative expenditure conditions, if worker spending in Clear Creek County averaged \$10 per worker-day, and the work-year consisted of 250 workdays, then the 800 workers would expend approximately \$2.0 million locally during a year. Compared with the \$116 million in gross retail sales in Clear Creek County in 2000 (DOLA 2002), it is evident that construction worker contributions to the local economy would not be very significant.

Commuting and Employment

A major factor in the economic makeup of Clear Creek, Lake, Gilpin, and Park counties is that they are commuter-based suburban areas. Major shares of their residents’ jobs and incomes are based in the Denver metropolitan area, and as a result, much of their consumption spending is oriented to the metropolitan area. According to the 2000 census, Clear Creek County had 5,556 employed persons not working at home that year. Of these, less than one-half (43.6 percent, or 2,425 persons) worked in Clear Creek County. Most of the remainder (2,653 or 47.8 percent) worked in Jefferson, Denver, Gilpin, and Arapahoe counties. This means that a major part of the County’s economic base, its residents’ personal income, is derived from income and employment generated outside the County. Moreover, consumer expenditure data indicate that county residents obtain a significant amount of their supplies and services outside the county.

Transportation Construction Effects

With respect to Clear Creek County’s relationship to I-70, the above information provides an indication of how construction work on the highway might affect the county’s economic welfare. First of all, it is necessary to distinguish the growing population in the eastern unincorporated area along the Jefferson County border from the towns further west along I-70. The eastern border area, home to most of the county’s residents, is a satellite of the Evergreen area of Jefferson County. This area is served by several alternate routes (such as SH 103 and SH 74) for access to shopping, jobs, entertainment, and recreation in Jefferson and Denver counties. I-70 becomes more significant to this area east of the Twin Tunnels. In contrast, the incorporated towns of the County are largely dependent on travelers along I-70 for the visitor spending generating a surplus over earnings from serving local residents. Of these communities, only Idaho Springs has demonstrated any ability to reap a significant

Construction-Related Issues

The PEIS assumes a 15-year construction period between 2010 and 2025 for all project alternatives. The actual timing and location of construction activities associated with a preferred alternative will be determined at the Tier 2 level of study, including:

- Workforce levels and sources of manpower
- Possible mitigation measures (traffic management, detours, seasonal scheduling)

Until detailed project planning, scheduling, bidding, and contracting are accomplished, it simply is not possible to predict what is going to happen when, where, and to what degree. Annually, hundreds of millions of dollars’ worth of construction work would be involved, much of which would be dedicated to minimizing impacts on communities and travelers along the way. In addition, the expenditures of construction workers for lodging, food, drink, automobile services, and so forth in nearby communities would benefit local providers, as would procurements by contractors of construction materials and miscellaneous supplies.

Conclusions

No Action Alternative

If the No Action alternative is adopted, then over time projected increases in traffic on I-70 (reflecting increases in population and income) would lead to greater congestion and delays (especially on peak weekends and holidays). Eventually, traffic growth would be attenuated; growth would still occur, but

### 3.9 Social and Economic Values

at a reduced rate relative to the unsuppressed “Baseline” trend that would occur if traffic growth were accommodated by route improvements. Estimates of the suppression in traveler spending in the Corridor under the No Action scenario relative to the Baseline case are expressed by a range (see Appendix J), depending on the degree of optimism that is attached to the projection.

#### Action Alternatives

Widening of the existing highway is expected to be the most intrusive during the construction phase, particularly in communities located in steep-sided, narrow valleys where there is no space for major realignment of the right-of-way. From a “worst case” standpoint, the Six-Lane Highway (55 or 65 mph) alternatives would probably entail the greatest degree of construction impacts for local communities along the route. Less intrusive would be construction of alternative modal facilities, such as transit guideways on elevated or isolated structures in median strips or shoulders (such as for the Rail with IMC, AGS, and Bus in Guideway alternatives).

Under the Six-Lane Highway (55 or 65 mph) alternatives, there would be lane closures and narrowings, detours, and conveying of traffic through one-way stretches, all of which would add to travel times. There are countervailing forces at work, however. On the one hand, increased congestion may stimulate travelers (at least those who continue to travel to Corridor destinations) to simply endure longer travel times without changing their patterns of travel with respect to stops or diversions along the way. In this case, businesses along the way would see slower growth of trade over time. Alternatively, congestion at choke points along the route might induce more travelers to take more rest stops and breaks along the way, thus generating more business for local merchants and services. It could go either way, depending on how aggressively and imaginatively the business communities along the route responded to the changed commercial environment.

Tier 2 studies will provide information regarding how long the work would persist at any given location and will indicate what diversions, detours, lane closings and other disturbances would occur. Tier 2 studies also will include measures to avoid and minimize impacts on Clear Creek communities along I-70. Such measures would include considerations for peak seasonal traffic (such as cessation of construction activities during ski season weekends) and accessibility to Idaho Springs businesses. Moreover, because it will be the better part of a decade before any significant work might commence, there is ample time for Corridor communities (and cooperating state and federal entities) to formulate strategies to deal with an uncertain future.

Construction activities associated with project alternatives are expected to have the following economic impacts in Clear Creek County:

- Primary construction impacts on Clear Creek County would be localized to I-70 communities. Community resident commuters, resident local travelers, and retail businesses would bear these impacts. Implementation of construction mitigation plans (formulated during Tier 2) would minimize these impacts. There would be some (as yet not quantified) economic benefits associated with construction activities.
- Because the bulk of the county population is located along the eastern border of the county, these residents/commuters (and the personal income they generate) are not expected to incur substantial impacts from I-70 construction.
- A large portion of Clear Creek County’s income is not likely to be affected by project alternative construction. This portion would include the resident commuter income. Clear Creek County residents are expected to continue to seek a major portion of their goods and services outside the County.

### 3.9.4 Mitigation Measures

Measures to mitigate and avoid construction impacts on social and economic values would require coordination with Corridor communities. Efforts to control growth and maintain quality-of-life values in the Corridor are greatly dependent on localized efforts and “political will.” Corridor-wide coordination, state involvement and support, and land use planning (see section 3.10, Land Use, for further discussion) would improve the ability of Corridor communities to maintain and protect social and economic values in the light of I-70 actions. From a regional perspective, the results of the social and economic assessment indicate that the No Action and Minimal Action alternatives might suppress growth and cause economic conditions to fall well below design year +10 projections. In contrast, Combination alternatives are predicted to induce growth and cause economic conditions to slightly exceed design year +10 projections. The mitigation and avoidance decision-making process would likely require consideration of social and economic “tradeoffs.”