

Center for
Business and
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TOURISM JOBS IN COLORADO

MARCH 15, 2001

ESTIMATES OF A CRITICAL
PART OF THE STATE &
COUNTY ECONOMIES

CENTER FOR BUSINESS AND ECONOMIC FORECASTING, INC

**PREPARED FOR THE DEMOGRAPHY SECTION OF THE
COLORADO DEPARTMENT OF LOCAL AFFAIRS (DOLA),**

**THIS REPORT IS THE PRODUCT OF A
PARTNERSHIP CONSISTING OF THE USDA FOREST
SERVICE, USDI BUREAU OF LAND MANAGEMENT,
AND THE COLORADO TOURISM OFFICE.**

This unique work would not have been possible without the technical and financial contributions provided by these partners. This report is available on the DOLA Website at: <http://www.dola.state.co.us/demog/cbef/tourism.pdf>

Other Demography Section and CBEF reports may be useful in combination with this data. Go to the following addresses:

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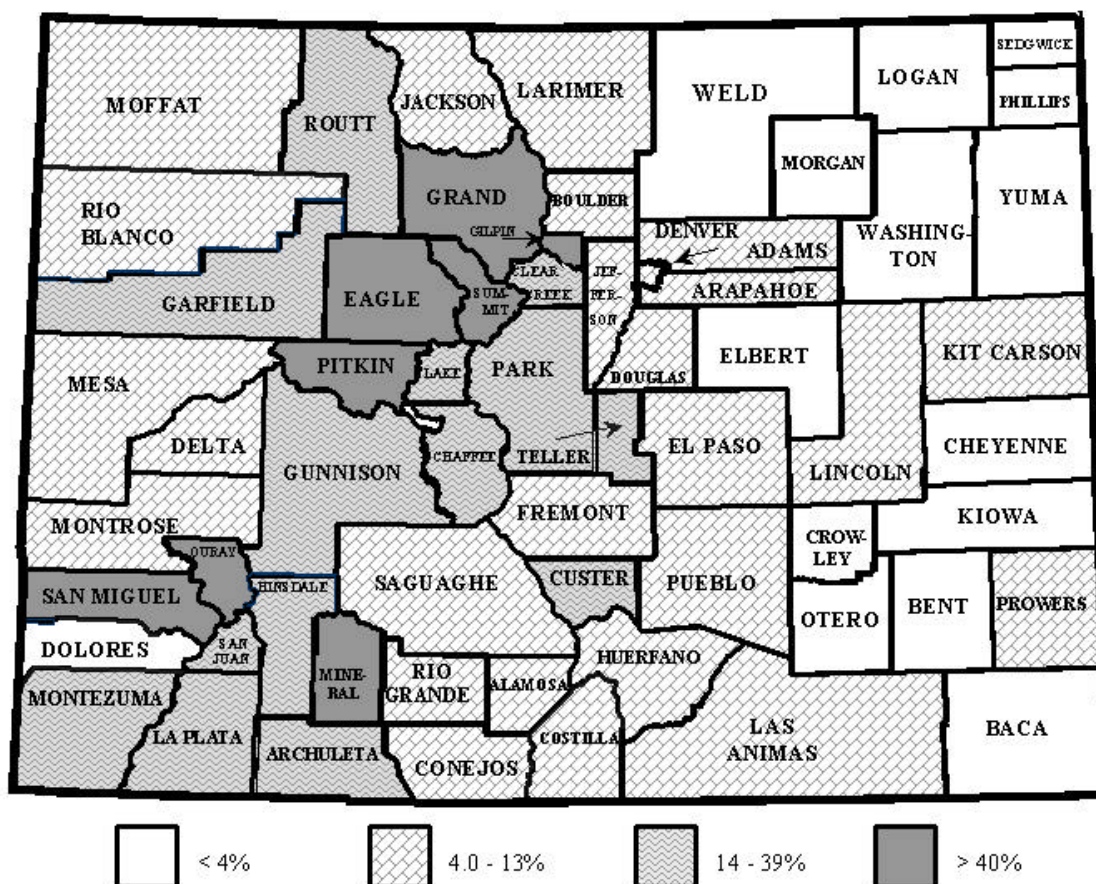
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SUMMARY

Key findings. Tourism plays a major role in the Colorado economy. Tourism jobs totaled 197,898 statewide in 1997, or 8% of all jobs. More than half of those jobs were in the Front Range metropolitan counties, most of them in the Denver Region. Another 45% were found on the Western Slope and in the Central Mountains. Although most of the jobs were found in metropolitan areas, tourism's impact was much greater on the local economies of the state's mountainous regions. In these parts of the state, tourism jobs accounted for at least 40% of the total jobs in eight counties (see Map 1) and over 30% of the total in 5 other counties.

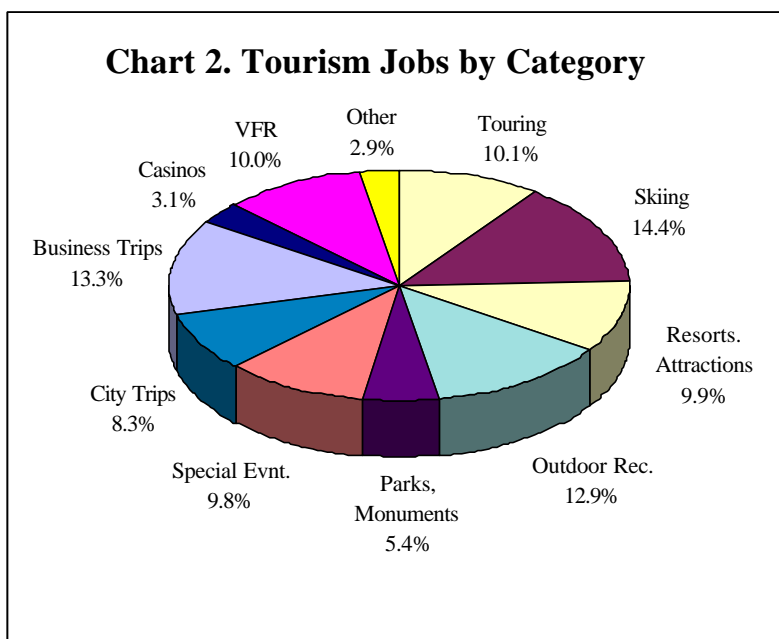
Jobs by industry. Tourism creates jobs across traditional industry lines. Tourism has been difficult to measure in the past since traditional industry definitions do not isolate tourism. In this study, the appropriate slices were carved out of other tourism-related

Map 1- Colorado Tourism Jobs as a % of Total Jobs



industry sectors. For example, the restaurant (eating and drinking) sector was the largest with nearly one quarter of all tourism jobs. Statewide, tourism accounted for 28% of all restaurant jobs. Hotel and lodging establishments were the second largest source of tourism jobs. Hotel jobs were 88% tourism-related. In third place, amusement and recreation service jobs, which included ski resort operations, accounted for nearly 26,000 jobs. Restaurant jobs are part of the retail sector while hotel and amusement jobs are in services.

Jobs by category. To understand the impact of tourism on the economy, it is important to measure the effects of different types of visitor attractions or activities. Tourism jobs were



estimated for eleven categories depicting the type of visit. Skiing generated the most jobs according to this classification scheme, followed closely by business visits and outdoor recreation (see Chart 2). The combination of state, federal and local parks and monuments with outdoor recreation, generated more than 36,000 private sector jobs more than 18% of the total. In-state visitors accounted for more than a third of those outdoor

recreation-related jobs. Touring and visiting friends and relatives (VFR) were also responsible for significant numbers of jobs.

Background. This study documents, in a thorough and comprehensive fashion, the role of tourism in Colorado's economy. The estimates were developed by the Center for Business and Economic Forecasting (CBEF), under contracts with the Demography Section of the Colorado Department of Local Affairs (DOLA) and the Colorado Tourism Board. It is part of a larger effort by the Demography Section of to identify the basic industries or drivers of each county or metropolitan economy in Colorado.

Coverage. The report examines tourism jobs at the county level by industry and by type of visit (category). The study is comprehensive since it begins with the whole economy in each county, as measured by total employment. The study is more thorough than any previous estimates, since it incorporates all aspects of the tourism sector including the effects of second-home owners. Jobs related to second homes are included in estimates of tourism's impact by including portions of the construction, real estate, property rental and other industries. The estimates are based on detailed databases covering the industry and

Colorado's county economies as well as extensive consultation with local planners and industry experts.

The partnership. This report is the product of a partnership consisting of the U.S. Department of Agriculture (USDA) Forest Service, Rocky Mountain Region; the U.S. Department of Interior (USDI) Bureau of Land Management (BLM), Colorado State Office; the State of Colorado Tourism Office (CTO) and its predecessor, the Colorado Tourism Board, as well as private donors. The Demography Office has become the umbrella organization in this new partnership. This unique work would not have been possible without the technical and financial contributions provided by the partners.

Many people from local governments, businesses, professional associations, Colorado State University, and the University of Colorado, Boulder provided valuable input as part of the technical advisory committee. Local governments and community leaders helped to verify the data. In many cases, local governments helped to create the estimates, but their ultimate validation of the data was a distinguishing mark of this study.

OVERVIEW

INTRODUCTION

This report presents estimates of employment in tourism for 57 counties and the Denver Metropolitan Region in the State of Colorado. This study measured tourism as an industry, emphasizing the economic effects of tourist activity rather than the activity itself. Tourism jobs are those that result from the activities of a visitor to a county for either pleasure or business. They include not only the jobs that result from the “traditional” visitors to an area, including day visitors and those from other parts of Colorado, but also the jobs that occur as a result of the second-home occupants.

Estimates of employment from a broad range of tourism activities are not generally available, in Colorado or elsewhere, because of the large number of industries affected by these activities. Tourism as an “industry” is not separately identified in the current standard industrial classification (SIC) systems, nor will it exist in the new NAICS system that will replace the SIC system in 2003. For example, while tourism constitutes most but not all¹ of the hotel and resort recreation industries, it is only a part, albeit a significant one, of the restaurant industry. Consequently, tourism’s part of Colorado’s state and local economies has not been previously estimated at the level of industry, category and regional detail presented here. Previous studies tracked major components of tourism, but the data were fragmented and incomplete.

Tourism jobs are found in at least twenty industries and in 1997 totaled more than 8% of all of Colorado’s 2.5 million jobs. The portions of industries that tourism comprises are listed on p. 18 in Table 3a. CBEF developed estimates of the tourism industry by building upon the Local Economic Information and Forecasting Assistance (LEIFA) data for 1997 described in the background section. This study focused only on the direct employment impacts of different tourism activities. The secondary effects are not quantified in this study.² An explanation of the base industries and direct impacts begins on p. 7.

A unique aspect of the study was its inclusion of second home impacts, which are increasingly important components of tourism in Colorado. When a resort area or scenic county attracts repeat visitors, tourism takes on a new dimension. Such visitors desire more comfortable, private and permanent places to stay. Consequently, second homes

¹ Local weddings, association meetings, and business conferences also use hotels and local residents ski and play golf at local resorts. Hotels are only 88% tourism, statewide.

² These estimates do not include indirect base industries or induced local resident services. Examples of indirect base industries are laundry or landscaping services for hotels and restaurants. Examples of local resident services are housing, and public safety (police and fire protection).

are built and their economic effects can come to dominate an area's tourism sector. Developments along the East Coast seashores provide examples of the overpowering role owner-occupied second homes can play in attractive tourist spots.

The first economic result of the development of second homes is an expansion of the construction industry and providers of goods and services to construction firms. Once the homes are completed, employees are needed in the legal and financial industries to handle property transactions and in the real estate and rental industry to make arrangements for occupancy. Then, with occupancy, comes the need for a wide range of resident services like grocery stores, household goods and services. For higher-end homes, demand develops for specialty services such as catering, hot-tub repair and housekeeping. Previous studies lacked estimates of jobs related to this rapidly growing component of tourism.

BACKGROUND

This study is part of a larger effort by the Colorado Demography Section to understand the economies of each county. The Section, by law, is responsible for working with national and state forecasters and local planners and policy-makers to forecast future population. Experience with these efforts has shown that population forecasts are more reasonable and accurate if they incorporate economic forecasts. The Section has developed a program of economic data and analysis³ to support and enhance its forecasting efforts. The identification of "basic industries" is an important part of this analysis.

In economic base analysis, local economies are divided into "basic industries" and "local resident services." Basic industries are those that export goods or provide services to non-residents such as tourists. They bring in outside dollars that, in turn, provide jobs and income to residents. A portion of basic industry income and wages is spent on locally-produced goods and services. Local resident services (LRS) result from the spending of residents. LRS include housing, retail goods, health services, education, fire and police protection, transportation, and utilities. The basic industries can be viewed as "drivers" of the local economy, in the sense that they generate the outside income that, in turn, stimulate LRS jobs and wages (see Appendix B definitions and footnote 2).

Basic industries are further divided into "direct" and "indirect" components. The former sell directly to non-residents, while the indirect basic industries provide intermediate goods and services to direct basic firms.

As an illustration, recall Colorado's mining past. When a mine opened in a particular location, a whole community of stores, restaurants and schools followed. When the mine

³ The program is titled Local Economic Information and Forecasting Assistance (LEIFA). Publications describing the program are available from the Demography Section.

closed, however, and the source of the local dollars dried up, not only the miners but also many of the townsfolk had to move on, eventually leaving a ghost town.

The estimates of tourism employment developed here are part of a larger effort to analyze the economic bases of Colorado's regional economies. Traditionally, the economic base has been thought to include manufacturing, telecommunications, defense and other primary employers. This larger effort attempts to better enumerate the full list of base industries, including tourism as well as national and regional services⁴, retiree-generated employment and others.

Tourism, by definition, is a base industry because it brings in outside dollars. Just like the mining industries of the past, industries such as skiing create demand for local resident services, because the ski instructors and lift operators need to have housing and grocery stores. As a base industry grows or declines, the local resident services will similarly increase or decrease.

In many of Colorado's Western Slope counties, tourism is the dominant driver of the economy. In others, it is more than 50% the county's economic base. In Front Range metropolitan counties, tourism is a smaller portion of the economic base. Regardless of how small these percentages may seem, the number of the tourism industry jobs in these urban counties is actually larger than the tourism employment in all the rest of the state. In the remaining, mostly-agricultural counties of the Eastern Plains and the San Luis Valley, tourism is only a small proportion of each county's base, but for many, it helps offset volatility in the agriculture sector.

DOLA began estimating tourism jobs in 1995 as part of a larger effort to estimate the base industries of the state's regional economies. This study builds upon these earlier efforts by incorporating tourism-related data sources such as the seasonal-use housing occupancy data available from the U. S. Bureau of the Census, the Longwoods International Colorado Visitor Study, the listing and mapping of tourism destinations in the Colorado Atlas and Gazetteer, the 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation, the 1996 airport study, the latest skiing study, and various metropolitan-specific studies by Tucker Hart Adams (see the complete list of sources in Appendix C, and also p. 28). When combined with the estimates of jobs by industry prepared by the Demography Section⁵, and the confidential firm listings from Colorado Department of Labor and Employment's Labor Market Information (LMI) section, these sources provided a unique tool kit for understanding tourism.

The DOLA base industry estimates have been reviewed and revised by local experts in many counties over the course of several years. For this project, local experts helped to

⁴ These are services provided to national or regional consumers, e.g., a hospital or university serving people living outside its county.

⁵ Labor Market Information (LMI) data is enhanced by income estimates from the Bureau of Economic Analysis in the U. S. Department of Commerce.

develop the initial estimates of tourism. They reviewed tourism sources for accuracy, added valuable insights of tourism activities in their counties and provided additional local data where available.

TOURISM CATEGORIES

These estimates represent the first time in the Demography Section's work where tourism jobs by industry were assigned to specific tourism categories. Assignment to these categories further identifies the county economy's tourism drivers, such as downhill skiing, special events or business conventions. The following eleven (11) tourism categories were developed for this study.

Tourism Categories related to activity on public lands:

1. **Skiing** - downhill and associated Nordic skiing with paid lift or access ticket
2. **Parks & Monuments** - activities in national, state and city parks & monuments.
3. **Other Outdoor Recreation** - activities such as hiking, biking, fishing, hunting, rafting, and snowmobiling.
A. Summer (May-Aug.) B. Fall (Sept.-Nov.) C. Winter (Dec.-April)
4. **Touring** - trips by car or train through areas of scenic beauty, cultural or general interest.

Tourism Categories related to activity on private lands:

5. **Resort Recreation/Attractions** - activities such as golf, tennis, swimming, or commercial attractions, e.g. Silverton train, Cave of the Winds, and shopping in *non-metropolitan or mountain areas*. Hunting and fishing on private lands are included here.
6. **Special Events** - privately and publicly sponsored events, e.g. rodeos, music or film festivals, college games or professional sports, horse or auto races and the state fair.
7. **City Trips** - visits to a city to shop, attend plays, museums, concerts or other entertainment, dine or just stroll around (limited to census-designated metropolitan areas, e.g. Grand Junction, Boulder, Denver).
8. **Business Trips** - trips paid for by non-local businesses, e.g. conventions, sales trips.
9. **Casino Trips** - gambling visits at a casino, casino resort or Indian Reservation.
10. **Visiting Friends and Relatives** - visits to family & friends, including those in prison, hospitals or in nursing homes. *This refers to purpose of visit not type of accommodation!*
11. **Other Leisure** - other visits such as improving/building a second home, agricultural tourism (weekend ranching, harvesting, wine making), charitable/volunteer work, reading, relaxing.

In the course of developing the tourism categories, a distinction was made between those activities that took place on public and those on private lands. This distinction helped to clarify the difference between the impacts of public park and other outdoor recreation (categories #2 and #3) versus those from private resort recreation (category #5). This public/private split was valuable to the federal partners, because it enabled them to see the direct economic impact of activities that take place on lands they manage. However, most of the employment that results from all of these activities actually takes place in the private sector on private lands, the exception being skiing since it takes place on public lands. Often, activities that take place on private land, such as horseback riding at a dude ranch, wouldn't occur without the scenic environment or amenities provided by the public lands.

Uses of the data. The information in this study will have many uses. For some, merely understanding the magnitude and composition of tourism will be beneficial. More specifically, the data can serve to inform the development of local, federal and state policies for land use.

At the local level, the information can be used to enhance local economic development efforts and to assist localities in the planning for (or managing) growth. The identification of each type of existing activity in an area suggests strategies for enhancing existing base industries and/or attracting new ones. For example, the use of this data has led Gunnison County to consider how to expand the markets of its skiing industry and to explore strategies for attracting retirees.

Data and forecasts of tourism activities can be used in conjunction with estimates of the secondary effects to analyze likely future growth patterns. For example, in Eagle County, specific forecasts of expected growth in resorts and outdoor recreation can be used to more accurately project the needs for housing, transportation, and community services. In essence, this enables local governments to understand the tourism industry's complexity and to plan more accurately for future growth and its numerous secondary effects.

FUTURE WORK

The work of this study and its findings constitute Phase I in the larger effort to analyze the impact of tourism in Colorado's counties. In 2001, the estimates will be moved forward to 1999 for all counties and the state. This will include new category aggregations; new instate estimates, comparisons with 1997 and growth rate comparisons. In addition to these updates of the just-completed 1997 estimates, enhancement and expansion of our earlier analyses of tourism's economic impact is envisioned in Phase II. This second phase has five new aims, which were either not anticipated or possible during this initial phase.

- to refine and further detail the tourism categories in order to enhance the value of these estimates to recreation planners and others.
- to identify tourism employment associated with activities taking part on lands of specified federal agencies.
- to estimate the tourism-related employment of the government sector at local, state and federal levels.
- to include preliminary estimates of indirect basic employment from tourism.
- to expand the review and use of the data by local, state and federal agencies.

It is expected that projections of tourism jobs to 2020 or 2025 will be developed in a third phase. Wages and/or income are also slated for further investigation, since employment doesn't capture non-wage income or reflect earnings differentials among jobs.

DETAILED FINDINGS

This study documents the role of tourism, including the impacts of second homes in Colorado's economy. Jobs generated by tourism are estimated for 57 counties and the Metropolitan Denver region by industry and by type of visit (category).⁶

By County. Employment resulting from tourism was identified at the county level and for the state as a whole. Below, Table 1 shows the number of tourism jobs for 1997 in each county and tourism's share of all jobs in the counties. The data from Table 1 is also displayed on Map 1,

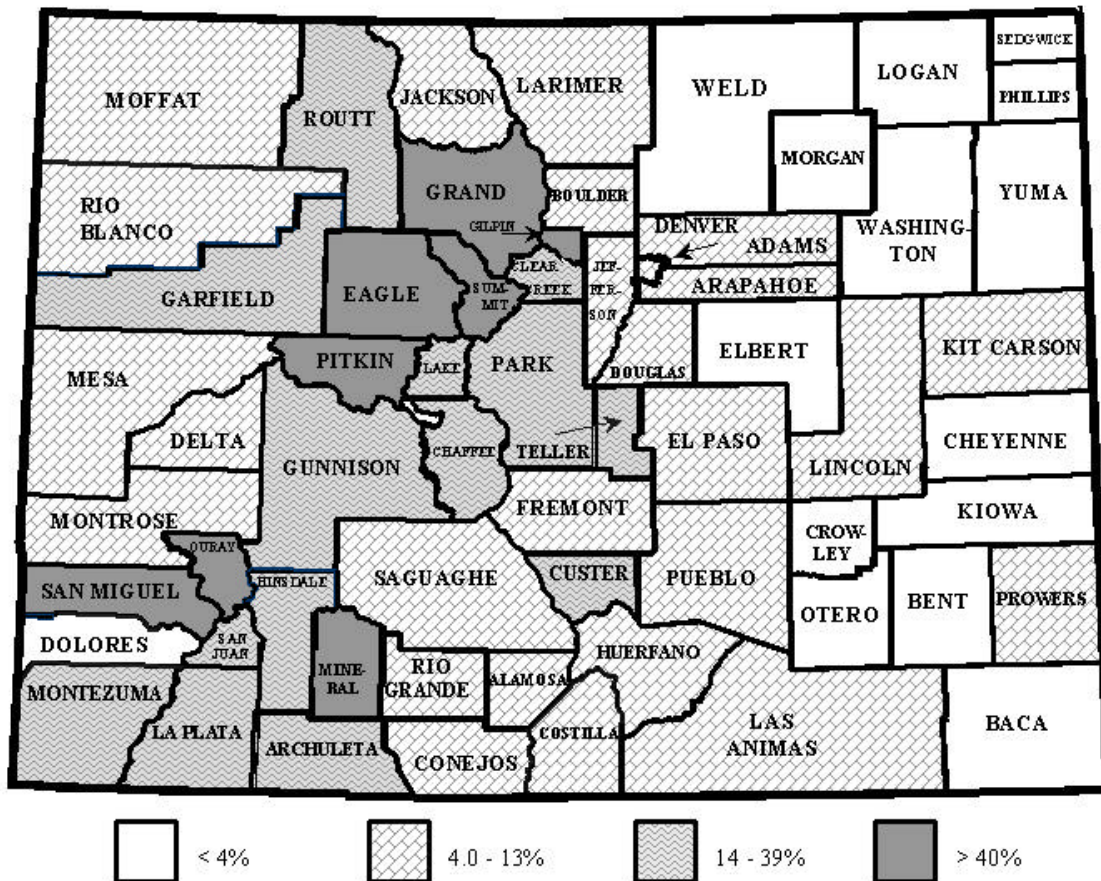
TABLE 1. Tourism Jobs by County
Tourism as a % of Total Jobs

County Name	1997 JOBS	Tourism Jobs	Tourism Percent	County Name	1997 JOBS	Tourism Jobs	Tourism Percent
Gilpin	5,021	4,026	80%	Alamosa	9,524	647	7%
Summit	21,171	12,411	59%	Larimer	131,370	8,506	6%
San Miguel	5,919	3,059	52%	Las Animas	6,699	428	6%
Grand	7,498	3,850	51%	Montrose	30,174	1,746	6%
Eagle	30,939	15,492	50%	Lincoln	3,156	182	6%
Mineral	701	343	49%	Saguache	2,564	144	6%
Pitkin	19,355	9,412	49%	El Paso	286,254	15,502	5%
Ouray	1,981	768	40%	Costilla	1,100	57	5%
Hindsdale	477	181	38%	Denver Metro*	1,454,011	73,625	5%
Teller	9,408	3,350	36%	Rio Grande	6,259	305	5%
Gunnison	10,088	3,552	35%	Prowers	7,909	330	4%
Routt	16,044	5,563	35%	Kit Carson	4,916	200	4%
San Juan	320	96	30%	Pueblo MSA	66,813	2,483	4%
La Plata	28,583	7,807	27%	Conejos	2,921	103	4%
Archuleta	4,296	1,128	26%	Weld	77,851	2,467	3%
Clear Creek	3,775	989	26%	Dolores	703	21	3%
Chaffee	8,406	1,949	23%	Morgan	15,368	406	3%
Park	3,294	606	18%	Logan	11,773	275	2%
Custer	1,240	213	17%	Otero	10,722	221	2%
Lake	2,894	477	16%	Sedgwick	1,740	33	2%
Montezuma	12,344	1,993	16%	Crowley	1,406	25	2%
Garfield	22,865	3,183	14%	Yuma	5,895	75	1%
Rio Blanco	3,897	371	10%	Elbert	4,517	56	1%
Jackson	800	71	9%	Baca	2,780	25	1%
Fremont	16,711	1,411	8%	Bent	2,445	19	1%
Huerfano	3,172	241	8%	Washington	3,068	22	1%
Mesa	62,207	4,696	8%	Phillips	2,762	15	1%
Delta	12,621	900	7%	Cheyenne	1,554	8	1%
Moffat	7,267	518	7%	Kiowa	1,279	4	0%

*The Denver Metro Area includes Adams, Arapahoe, Boulder, Denver, Douglas and Jefferson Counties

⁶ All data in this section is sum-of-county data and is confined to just direct basic employment. State totals that subtract instate tourism are discussed beginning on page 24.

Map 1- Colorado Tourism Jobs as a % of Total Jobs



above. Statewide, tourism is estimated to be 8% of total employment, but on the Western Slope it is a much more significant 26%. More than half of all tourist jobs were in the Front Range Metropolitan counties with most of them in the Denver Region. Another 45% were found on the Western Slope and in the Central Mountains.⁷

Among the counties, Gilpin had the highest percentage of tourism jobs (again see Table 1 and Map 1). Most of these were in the gaming industry and the bulk of workers in the two communities with casinos, Central City and Blackhawk, live outside the county. In the mountain resort counties, tourism jobs accounted for at least 40% of the total jobs in eight counties and over 30% of the total in 5 others. Excluding the 6-county Denver-Boulder area, the counties with the most tourism jobs were Eagle and El Paso, both with roughly 15,500 jobs in 1997. Within the Front Range, Larimer County had the highest proportion of tourism-related jobs with 6% of its total employment in tourism. There are significant numbers of instate visitors in all Front Range counties, (see following section titled Instate Tourism) e.g. Denver metro tourists and businesses

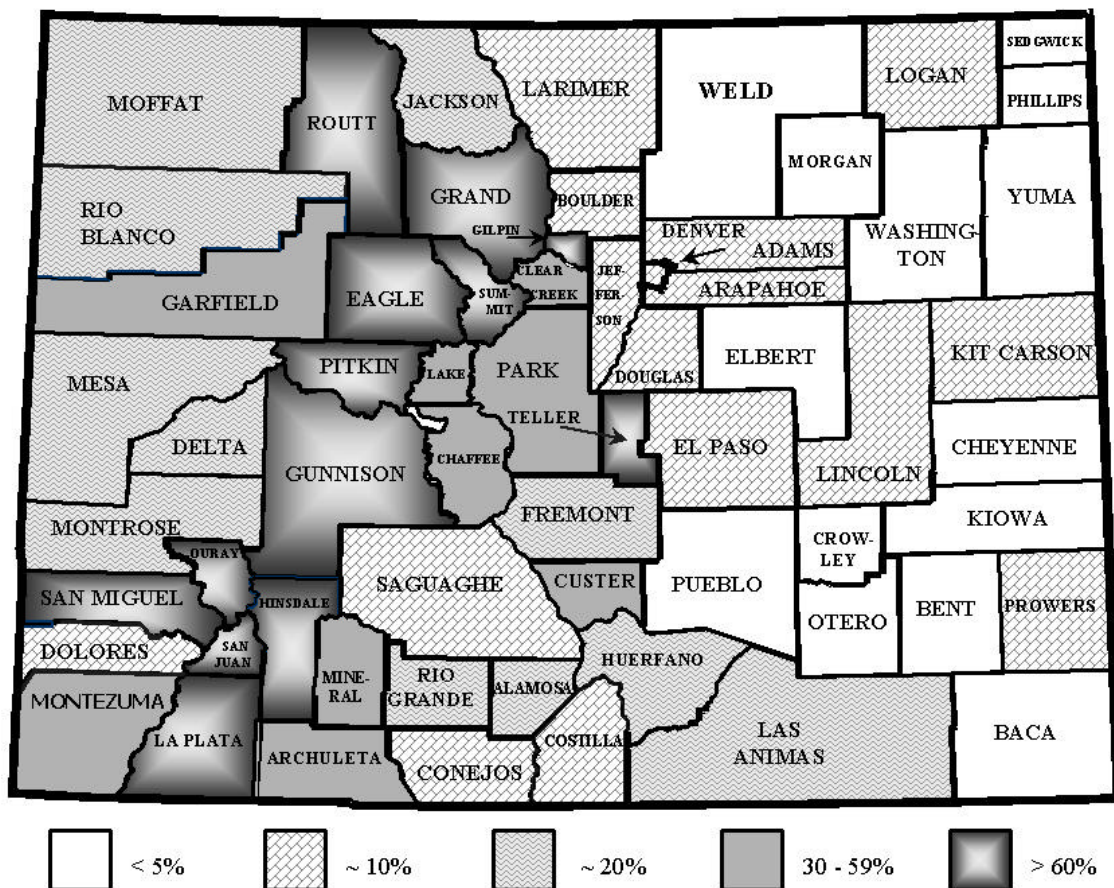
⁷ All employment is for direct base only. See the Background Section on p. 7 and Appendix B.

using Estes Park hotels in Larimer County or the Broadmoor in El Paso County. Tourism jobs were also relatively significant in some Eastern Plains counties lying along major highways.

A comparison of tourism jobs to other “basic” jobs demonstrates the significance of the industry in propelling the state economy. Basic jobs are in industries that bring outside dollars to the state. In turn, these “drivers,” generate jobs in both business services and local resident services. The number of these latter “secondary” jobs can equal or exceed the number of basic jobs which generated them, depending on the industry and size of the region in which they occurred.⁸ For the state in 1997, tourism accounted for between 12 to 15% of basic jobs within the state.

Looking at tourism’s share of all basic jobs shows the relative significance of tourism in Colorado’s 63 counties. At the county level, tourism was the dominant basic industry in many counties. Tourism, in 1997, accounted for more than 75% of the basic employment in eight

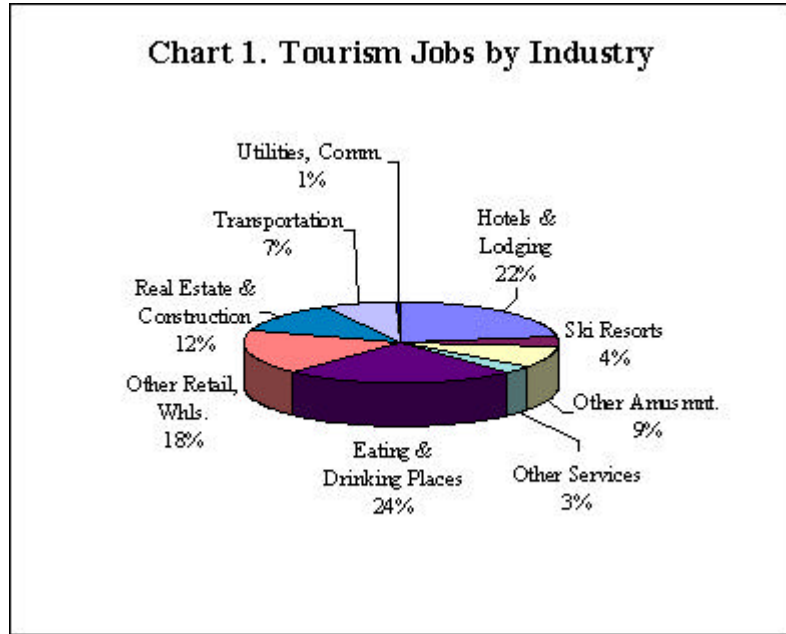
Map 2- Colorado Tourism Jobs as a % of Total Basic Jobs



⁸ Secondary jobs were not estimated in this study. See p. 6 and footnote 2.

counties⁹ of the state and over 60% in another 5 (see Map 2). These counties were nearly all in Colorado's mountain regions. By this measure, tourism was also relatively important, with over 30% or more basic jobs identified as tourism-related, in many of the other counties in the western part of the state. In Front Range counties, which have a more diverse set of basic industries, tourism jobs were a smaller part of the total.

By Industry. Tourism plays a major role in the Colorado economy. Tourism jobs totaled 197,898 statewide in 1997. Tourism jobs are found in at least twenty industries and totaled more than 8% of all of Colorado's 2.5 million jobs. Chart 1 and Table 2 show the number of tourism jobs in the most important tourism industries. Both Chart 1 and Table 2 show the total jobs for all counties in the state, including the jobs due to spending by instate tourists. Table 2 summarizes the industry detail while the data in Tables 3a-3c have the full industrial detail.



Tourism creates jobs across traditional industry lines. Tourism has been difficult to measure in the past since traditional industry definitions do not isolate tourism. For example, restaurants are part of the retail sector while hotel and amusement jobs are in services. In this study, the appropriate slices were carved out of other tourism-related industry sectors.

Of the tourism-related industry sectors, the restaurant (eating and drinking) sector was the largest with nearly one quarter of all tourism jobs. Hotel and lodging establishments were a very close second. Restaurant jobs numbered 47,069 or 24% and lodging establishments contributed 44,457 jobs or 22% to the tourism total. Amusement and recreation service jobs, including ski resort operations, contributed 25,495 jobs, nearly 13% to the tourism total.

Second homes. Second homes were 4.3% of the state's total housing units and numbered 77,740. Yet in 13 Western Slope counties, second homes were more than 30% of the county's total housing units. This study is more thorough than any previous estimates, since it incorporates all aspects of the tourism sector, including the effects of second-home owners. Jobs related to second homes are included in estimates of tourism's impact by including portions of the construction, real estate, property rental and other industries.

⁹ The eight counties include: Eagle, Gilpin, Grand, Hindsdale, Pitkin, San Juan, San Miguel, and Summit.

TABLE 2. Tourism Jobs by Industry

Industry Description	Total	Tourism Jobs	
	1997 Jobs	Amount	% of total
TOTAL JOBS	2,480,827	197,898	8.0%
Services	366,148	76,075	20.8%
Hotels & Other Lodging Places	50,476	44,457	88.1%
Amusement & Rec. - Ski Resorts	9,407	8,560	91.0%
Amusement & Rec. - All Other	45,264	16,935	37.4%
Ag. Services - Landscape	29,060	1,190	4.1%
All Other Tourism Services	231,941	4,934	2.1%
Wholesale and Retail Trade	537,502	82,449	15.3%
Wholesale Groceries, Apparel, etc.	108,406	3,913	3.6%
Eating & Drinking Places	167,397	47,069	28.1%
Building Material, Hardware, Garden	20,796	1,822	8.8%
All Other Tourism-Related Retail	240,903	29,645	12.3%
Real Estate & Construction	214,071	23,270	10.9%
Real Estate	45,672	9,063	19.8%
Building, Speciality, Hvy. Const.	168,399	14,207	8.4%
Transportation	62,224	14,786	23.8%
Local Transit and Taxi Services	6,132	1,979	32.3%
Air Transportation	25,711	8,401	32.7%
Arrangements, Car Rental, Repairs	30,381	4,406	14.5%
Public Utilities, Communication	57,255	1,317	2.3%
Communications	45,827	1,054	2.3%
Electric & Gas	11,428	263	2.3%

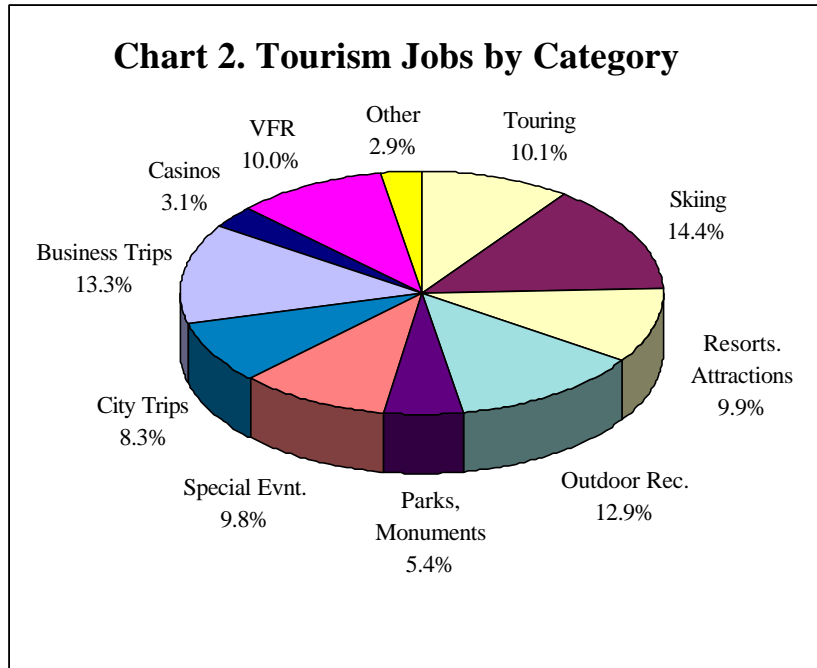
Jobs related to second homes make up an important share of tourism jobs. Most of these are jobs in the construction industry. But as Colorado second-home building boomed in the 1990s, the effects have gone well beyond construction. Second home activity dominates real estate sales and property management in several counties including Summit, Eagle and Pitkin. Tourism-related real estate jobs statewide exceeded the number of private sector, tourism-related airport jobs. The retail sector, the utility and communications industries are also impacted by second homes. In addition, numerous business and personal services cater to the owners of second homes.¹⁰

By category. To understand the impact of tourism on the economy, it is important to measure effects of different types of visitor attractions or activities. Tourism jobs were estimated for eleven categories

depicting the type of visit. Skiing generated the most jobs according to this classification scheme, followed closely by business visitors and those coming for outdoor recreation (see Chart 2).

In the course of developing the tourism categories, a distinction was made between those activities that took place on public and those on private lands (see p. 9, p. 25, p. 34 and Appendix B, p. 42). This distinction helped to clarify the difference between the impacts of public parks and other outdoor recreation versus those from private resort recreation. This public/private split was valuable to the federal partners, because it enabled them to see the direct economic impact of activities that take place on lands they manage. Furthermore, the two categories called Outdoor Recreation and Parks and Monuments were developed separately to again help the federal partners identify the impact tourism has on land they manage.

¹⁰ The estimates of second home-related jobs were a central focus in county workshops. The 1990 Census seasonal occupancy data was a basis for preparing these estimates. See the Methodology Section, p. 33.



Outdoor recreation, when combined with parks and national monuments, generated the largest numbers of tourism jobs of any category. The combination of state, federal and local parks with outdoor recreation, generated more than 36,000 private sector jobs. Table 3b on p. 21 has the number of jobs by category that are displayed in Chart 2.

After outdoor recreation, touring and visiting friends and relatives (VFR) rank highest in importance. Table 3b in the top row has the

percentages by category total as displayed in the chart. Touring was 10.1% of the tourism pie, or a proportion of .1, while VFR was just slightly smaller.

The Tourism Matrix. The tourism job estimates for each county can be viewed as a two-dimensional array or matrix with the dimensions being the eleven tourism categories listed above and the industry groupings. Data for each dimension of the matrix can be shown across all geographic areas. This array allows accounting of all tourism employment by category, industry and area. It can be viewed as a rectangular block with the height as industries, the width as categories and the depth as counties.

Table 3 presents a 2-dimensional view of tourism jobs summed across all counties and showing state totals by industry and by category. The figures in the three-part table (Tables 3a, 3b, 3c) are for all tourism jobs including those due to instate travelers. Table 3b shows the number of jobs by category and by industry for the state. Table 3c shows the proportion of all tourism jobs in a given industry by category. For example, Business travelers are responsible for almost 7,500 hotel jobs (17% of the 44,457 tourism jobs), the most of any category, followed by Skiing. Business travelers are also responsible for the most jobs in Eating and Drinking places followed closely by Visiting Friends and Relatives and Outdoor Recreation. As many skiers are second homeowners, Skiing is the largest contributor to jobs in Construction and Real Estate. Unfortunately, the detail presented in Table 3 at the state level cannot be disclosed for all individual counties for reasons of employer confidentiality.

**TABLE 3a. Tourism Jobs
As a Percentage of Total Jobs**

INDUSTRY DESCRIPTION	Total Jobs	Tourism Jobs	Tourism %
TOTAL	2,480,827	197,898	8.0%
<i>Services</i>	<i>366,148</i>	<i>76,075</i>	<i>20.8%</i>
Hotels & Other Lodging Places	50,476	44,457	88.1%
Amusmnt & Rec. - Ski Resorts	9,407	8,560	91.0%
Amusmnt.- Motion Pictures Prod.	1,936	102	5.3%
Amusmnt & Rec. - All Other	45,264	16,935	37.4%
Pers. Serv. - Laundry, Cleaning	11,709	850	7.3%
Pers. Serv. - All Other	18,309	1,220	6.7%
Business Services -film dvlpmt., etc.	151,653	1,782	1.2%
Private Education Services	28,787	380	1.3%
Agricultural Livestock, outfitters	19,547	598	3.1%
Ag. Services – Landscape	29,060	1,190	4.1%
<i>Retail Trade</i>	<i>429,096</i>	<i>78,536</i>	<i>18.3%</i>
Eating & Drinking Places	167,397	47,069	28.1%
Building Material, Hardware, Garden	20,796	1,822	8.8%
General Merch.,Apparel, & Furniture	85,787	8,764	10.2%
Food Stores	57,068	4,836	8.5%
Service Stations	45,166	6,549	14.5%
Drugs, Liquor, Used	14,822	1,918	12.9%
Goods	38,060	7,578	19.9%
<i>Real Estate & Construction</i>	<i>214,071</i>	<i>23,270</i>	<i>10.9%</i>
Real Estate	45,672	9,063	19.8%
Building Construction	35,115	5,245	14.9%
Maintenance - Special Trades	112,833	7,818	6.9%
Heavy Const. other than building	20,451	1,144	5.6%
<i>Transportation</i>	<i>62,224</i>	<i>14,786</i>	<i>23.8%</i>
Local & Suburban Transit	6,132	1,979	32.3%
Air Transportation	25,711	8,401	32.7%
Arrangements	6,674	1,121	16.8%
Auto Rental	5,796	2,212	38.2%
Parking	1,157	82	7.1%
Repair Services	16,754	989	5.9%
<i>Wholesale Trade</i>	<i>108,406</i>	<i>3,913</i>	<i>3.6%</i>
Apparel	2,076	331	16.0%
Groceries	13,192	1,738	13.2%
Beverages	2,596	200	7.7%
All other wholesale	90,542	1,644	1.8%
<i>Public Utilities, Communication *</i>	<i>57,255</i>	<i>1,317</i>	<i>2.3%</i>
Communications	45,827	1,054	2.3%
Electric & Gas	11,428	263	2.3%

**TABLE 3b. Tourism Jobs
By Industry and by Category in 1997**

INDUSTRY DESCRIPTION	Tourism Jobs	CATEGORY										
		Skiing	Resorts	Outdoor	Parks	Spl Evnt	City	Busns	Casinos	Touring	VFR	Other
TOTAL	197,898	28,441	19,606	25,456	10,714	19,377	16,433	26,364	6,127	19,930	19,798	5,651
<i>Services</i>	76,075	14,613	9,201	8,063	3,459	8,199	4,842	10,100	5,787	7,348	3,155	1,307
Hotels & Other Lodging Places	44,457	7,057	4,700	5,229	2,524	6,152	3,542	7,464	441	5,679	644	1,026
Amusmnt & Rec. - Ski Resorts	8,560	6,167	2,202	106	0	21	0	32	0	11	11	11
Amusmnt.- Motion Pictures Prod.	102	47	21	8	1	20	0	3	0	1	1	0
Amusmnt & Rec. - All Other	16,935	754	1,481	1,856	745	1,290	962	1,290	5,290	1,315	1,870	80
Pers. Serv. - Laundry, Cleaning	850	146	116	116	27	71	51	172	3	78	51	20
Pers. Serv. - All Other	1,220	76	121	133	26	174	77	208	44	121	180	61
Business Services -film dvlpmnt., etc.	1,782	38	159	39	22	219	160	785	0	98	201	62
Private Education Services	380	9	28	62	39	47	49	38	6	27	63	12
Agricultural Livestock, outfitters	598	0	47	379	30	61	0	2	0	17	45	19
Ag. Services - Landscape	1,190	319	327	135	46	144	0	107	3	1	90	17
<i>Retail Trade</i>	78,536	6,552	6,482	11,467	4,901	7,249	8,423	9,594	232	9,540	11,530	2,565
Eating & Drinking Places	47,069	3,461	4,505	6,458	2,958	4,547	4,670	6,980	170	5,315	6,568	1,436
Building Material, Hardware, Garden	1,822	174	218	303	134	73	259	178	5	11	348	119
General Merch.,Apparel, & Furniture	8,764	962	493	1,284	482	807	1,441	768	3	952	1,265	307
Food Stores	4,836	445	290	912	344	450	487	184	17	664	879	164
Service Stations	6,549	290	253	1,109	424	513	702	712	11	1,230	1,065	241
Drugs, Liquor, Used	1,918	121	129	321	117	178	224	183	7	255	321	62
Goods	7,578	1,099	595	1,079	442	682	640	589	18	1,114	1,084	236
<i>Real Estate & Construction</i>	23,270	5,253	3,049	3,906	1,370	2,198	920	2,828	42	1,188	1,505	1,010
Real Estate	9,063	2,752	1,377	1,417	462	894	230	981	5	394	256	295
Building Construction	5,245	946	527	1,000	288	536	290	723	9	240	403	282
Maintenance - Special Trades	7,818	1,447	1,051	1,293	525	666	312	956	25	429	743	370
Heavy Const. other than building	1,144	107	94	196	95	102	88	168	3	124	104	63
<i>Transportation</i>	14,786	1,719	701	1,235	704	1,224	1,365	3,316	26	1,240	2,709	546
Local & Suburban Transit	1,979	339	127	184	89	172	126	408	3	50	414	67
Air Transportation	8,401	950	357	625	387	675	829	1,983	0	625	1,620	352
Arrangements	1,121	97	68	123	59	103	49	295	0	142	184	2
Auto Rental	2,212	254	90	169	103	170	214	562	0	206	351	93
Parking	82	6	1	6	3	4	8	20	22	6	4	2
Repair Services	989	74	57	129	63	101	139	48	1	211	135	31
<i>Wholesale Trade</i>	3,913	114	38	615	208	378	775	353	0	481	764	186
Apparel	331	31	14	44	13	44	50	45	0	16	61	13
Groceries	1,738	43	19	288	97	155	367	55	0	221	412	82
Beverages	200	7	5	37	16	14	29	7	0	30	44	9
All other wholesale	1,644	33	0	247	82	164	329	247	0	214	247	82
<i>Public Utilities, Communication *</i>	1,317	190	135	170	72	128	107	173	40	132	133	37
Communications	1,054	152	108	136	58	103	86	138	32	106	107	29
Electric & Gas	263	38	27	34	14	26	21	34	8	26	27	7

**TABLE 3c. Proportion of Tourism Jobs
By Industry and by Category in 1997**

INDUSTRY DESCRIPTION	CATEGORY											Total
	Skiing	Rsrts	Outdr	Parks	Spl Evt	City	Busns	Csno	Trng	VFR	Other	
TOTAL	0.14	0.10	0.13	0.05	0.10	0.08	0.13	0.03	0.10	0.10	0.03	1.00
<i>Services</i>	<i>0.19</i>	<i>0.12</i>	<i>0.11</i>	<i>0.05</i>	<i>0.11</i>	<i>0.06</i>	<i>0.13</i>	<i>0.08</i>	<i>0.10</i>	<i>0.04</i>	<i>0.02</i>	<i>1.00</i>
Hotels & Other Lodging Places	0.16	0.11	0.12	0.06	0.14	0.08	0.17	0.01	0.13	0.01	0.02	1.00
Amusmnt & Rec. - Ski Resorts	0.72	0.26	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00
Amusmnt.- Motion Pictures Prod.	0.46	0.20	0.08	0.01	0.20	0.00	0.03	0.00	0.01	0.01	0.00	1.00
Amusmnt & Rec. - All Other	0.04	0.09	0.11	0.04	0.08	0.06	0.08	0.31	0.08	0.11	0.00	1.00
Pers. Serv. - Laundry, Cleaning	0.17	0.14	0.14	0.03	0.08	0.06	0.20	0.00	0.09	0.06	0.02	1.00
Pers. Serv. - All Other	0.06	0.10	0.11	0.02	0.14	0.06	0.17	0.04	0.10	0.15	0.05	1.00
Business Services -film dvlpmnt., etc.	0.02	0.09	0.02	0.01	0.12	0.09	0.44	0.00	0.06	0.11	0.03	1.00
Private Education Services	0.02	0.07	0.16	0.10	0.12	0.13	0.10	0.02	0.07	0.17	0.03	1.00
Agricultural Livestock, outfitters	0.00	0.08	0.63	0.05	0.10	0.00	0.00	0.00	0.03	0.07	0.03	1.00
Ag. Services – Landscape	0.27	0.28	0.11	0.04	0.12	0.00	0.09	0.00	0.00	0.08	0.01	1.00
<i>Retail Trade</i>	<i>0.08</i>	<i>0.08</i>	<i>0.15</i>	<i>0.06</i>	<i>0.09</i>	<i>0.11</i>	<i>0.12</i>	<i>0.00</i>	<i>0.12</i>	<i>0.15</i>	<i>0.03</i>	<i>1.00</i>
Eating & Drinking Places	0.07	0.10	0.14	0.06	0.10	0.10	0.15	0.00	0.11	0.14	0.03	1.00
Building Material, Hardware, Garden	0.10	0.12	0.17	0.07	0.04	0.14	0.10	0.00	0.01	0.19	0.07	1.00
General Merch.,Apparel, & Furniture	0.11	0.06	0.15	0.05	0.09	0.16	0.09	0.00	0.11	0.14	0.04	1.00
Food Stores	0.09	0.06	0.19	0.07	0.09	0.10	0.04	0.00	0.14	0.18	0.03	1.00
Service Stations	0.04	0.04	0.17	0.06	0.08	0.11	0.11	0.00	0.19	0.16	0.04	1.00
Drugs, Liquor, Used	0.06	0.07	0.17	0.06	0.09	0.12	0.10	0.00	0.13	0.17	0.03	1.00
Goods	0.15	0.08	0.14	0.06	0.09	0.08	0.08	0.00	0.15	0.14	0.03	1.00
<i>Real Estate & Construction</i>	<i>0.23</i>	<i>0.13</i>	<i>0.17</i>	<i>0.06</i>	<i>0.09</i>	<i>0.04</i>	<i>0.12</i>	<i>0.00</i>	<i>0.05</i>	<i>0.06</i>	<i>0.04</i>	<i>1.00</i>
Real Estate	0.30	0.15	0.16	0.05	0.10	0.03	0.11	0.00	0.04	0.03	0.03	1.00
Building Construction	0.18	0.10	0.19	0.05	0.10	0.06	0.14	0.00	0.05	0.08	0.05	1.00
Maintenance - Special Trades	0.19	0.13	0.17	0.07	0.09	0.04	0.12	0.00	0.05	0.10	0.05	1.00
Heavy Const. other than building	0.09	0.08	0.17	0.08	0.09	0.08	0.15	0.00	0.11	0.09	0.06	1.00
<i>Transportation</i>	<i>0.12</i>	<i>0.05</i>	<i>0.08</i>	<i>0.05</i>	<i>0.08</i>	<i>0.09</i>	<i>0.22</i>	<i>0.00</i>	<i>0.08</i>	<i>0.18</i>	<i>0.04</i>	<i>1.00</i>
Local & Suburban Transit	0.17	0.06	0.09	0.05	0.09	0.06	0.21	0.00	0.03	0.21	0.03	1.00
Air Transportation	0.11	0.04	0.07	0.05	0.08	0.10	0.24	0.00	0.07	0.19	0.04	1.00
Arrangements	0.09	0.06	0.11	0.05	0.09	0.04	0.26	0.00	0.13	0.16	0.00	1.00
Auto Rental	0.11	0.04	0.08	0.05	0.08	0.10	0.25	0.00	0.09	0.16	0.04	1.00
Parking	0.07	0.02	0.07	0.03	0.05	0.10	0.24	0.27	0.07	0.05	0.03	1.00
Repair Services	0.08	0.06	0.13	0.06	0.10	0.14	0.05	0.00	0.21	0.14	0.03	1.00
<i>Wholesale Trade</i>	<i>0.03</i>	<i>0.01</i>	<i>0.16</i>	<i>0.05</i>	<i>0.10</i>	<i>0.20</i>	<i>0.09</i>	<i>0.00</i>	<i>0.12</i>	<i>0.20</i>	<i>0.05</i>	<i>1.00</i>
Apparel	0.09	0.04	0.13	0.04	0.13	0.15	0.13	0.00	0.05	0.19	0.04	1.00
Groceries	0.02	0.01	0.17	0.06	0.09	0.21	0.03	0.00	0.13	0.24	0.05	1.00
Beverages	0.04	0.03	0.19	0.08	0.07	0.15	0.03	0.00	0.15	0.22	0.05	1.00
All other wholesale	0.02	0.00	0.15	0.05	0.10	0.20	0.15	0.00	0.13	0.15	0.05	1.00
<i>Public Utilities, Communication *</i>	<i>0.04</i>	<i>0.03</i>	<i>0.19</i>	<i>0.08</i>	<i>0.07</i>	<i>0.15</i>	<i>0.03</i>	<i>0.00</i>	<i>0.15</i>	<i>0.22</i>	<i>0.05</i>	<i>1.00</i>
Communications	0.14	0.10	0.13	0.05	0.10	0.08	0.13	0.03	0.10	0.10	0.03	1.00
Electric & Gas	0.14	0.10	0.13	0.05	0.10	0.08	0.13	0.03	0.10	0.10	0.03	1.00

Table 4 is another three-part table that shows tourism jobs by area and by category. Just as in Tables 3b and 3c, the columns in Tables 4b and 4c are the categories. The estimates shown in this view of the tourism matrix sum across all industries. Table 4b shows the number of tourism jobs in each category while Table 4c shows each category's share of all tourism jobs in the county or region. The information in these tables demonstrates the diversity of Colorado's tourism industry.

Skiing dominates the tourism industry in Region 12, which has almost two-thirds of all the state's skiing jobs (18,218 jobs out of 28,441, as noted in Table 4b). Resorts, parks and outdoor recreation are most important in the rest of the Western Slope and in the Central Mountains. Business travel is the largest source of tourism employment in Metro Denver, employing 15,161 (Table 4b) but 21 percent of the 73,625 tourism jobs. While business travel is also important in the remaining Front Range counties, other categories such as city trips, resorts or special events contribute more jobs in the other Front Range counties. Casinos account for 84 percent of tourism jobs in Gilpin County and 62 percent in Teller County.

**TABLE 4a. Tourism Jobs
By Region as a Percent of Total Jobs**

REGION OR COUNTY	Total Jobs	Tourism Jobs	Tourism Percent
STATE TOTAL	2,480,827	197,898	8.0%
FRONT RANGE	2,016,299	102,583	5.1%
Denver Metro	1,454,011	73,625	5.1%
Colo. Springs	286,254	15,502	5.4%
Fort Collins	131,370	8,506	6.5%
Pueblo MSA	66,813	2,483	3.7%
Greeley PMS	77,851	2,467	3.2%
WESTERN SLOPE	299,549	76,817	25.6%
Region 9	46,246	11,046	23.9%
La Plata	28,583	7,807	27.3%
Montezuma	12,344	1,993	16.1%
Region 10	61,260	10,206	16.7%
Gunnison	10,088	3,552	35.2%
Montrose	30,174	1,746	5.8%
San Miguel	5,919	3,059	51.7%
Region 11	112,280	14,330	12.8%
Garfield	22,865	3,183	13.9%
Mesa	62,207	4,696	7.5%
Routt	16,044	5,563	34.7%
Region 12	79,763	41,235	51.7%
Eagle	30,939	15,492	50.1%
Grand	7,498	3,850	51.3%
Pitkin	19,355	9,412	48.6%
Summit	21,171	12,411	58.6%
CENTRAL MTNS	60,620	13,688	22.6%
Region 13	29,251	4,050	13.8%
Chaffee	8,406	1,949	23.2%
Region 14	9,871	669	6.8%
Region 3n	8,796	5,014	57.0%
Gilpin	5,021	4,026	80.2%
Region 4n	12,702	3,955	31.1%
Teller	9,408	3,350	35.6%
E. PLAINS, SLV	104,359	3,493	3.3%
Region 1	40,606	825	2.0%
Region 5	14,143	446	3.2%
Region 6	26,541	624	2.4%
Region 8	23,069	1,598	6.9%

**TABLE 4b. Tourism Jobs
By Region and by Category in 1997**

REGION OR COUNTY	Tourism Jobs	CATEGORY										
		Skiing	Resorts	Outdoor	Parks	Spl Evnt	City	Busns	Casinos	Touring	VFR	Other
STATE TOTAL	197,898	28,441	19,606	25,456	10,714	19,377	16,433	26,364	6,127	19,930	19,798	5,651
FRONT RANGE	102,583	2,026	6,964	11,238	6,334	11,038	15,633	19,273	0	12,313	13,623	4,140
Denver Metro	73,625	1,758	732	8,670	3,777	8,307	11,494	15,161	0	9,269	10,758	3,699
Colo. Springs	15,502	252	3,140	715	297	1,292	3,740	2,335	0	2,054	1,550	127
Fort Collins	8,506	0	2,835	802	1,646	399	233	1,004	0	773	548	267
Pueblo MSA	2,483	16	0	325	614	626	109	307	0	85	400	0
Greeley PMS	2,467	0	258	726	0	414	57	465	0	133	367	47
WSTRN. SLOPE	76,817	25,103	10,840	10,941	3,263	7,655	693	6,016	638	5,412	5,056	1,199
Region 9	11,046	1,493	2,070	2,364	1,613	196	0	667	638	831	974	200
La Plata	7,807	1,348	1,322	1,760	889	179	0	552	352	587	667	152
Montezuma	1,993	23	161	466	698	16	0	94	286	92	157	0
Region 10	10,206	3,042	1,016	2,087	591	867	0	690	0	756	790	366
Gunnison	3,552	1,351	622	496	58	162	0	328	0	176	296	64
Montrose	1,746	168	0	259	327	244	0	227	0	272	173	76
San Miguel	3,059	1,478	331	588	0	381	0	82	0	51	75	73
Region 11	14,330	2,350	1,689	2,843	422	999	693	1,250	0	2,283	1,526	275
Garfield	3,183	253	826	1,121	39	89	0	51	0	461	255	88
Mesa	4,696	115	0	770	144	141	692	472	0	1,548	626	187
Routt	5,563	1,973	845	582	183	656	0	658	0	192	475	0
Region 12	41,235	18,218	6,065	3,647	637	5,593	0	3,409	0	1,542	1,766	358
Eagle	15,492	6,861	2,543	1,410	117	1,752	0	1,333	0	645	648	183
Grand	3,850	1,448	692	735	281	96	0	145	0	163	116	175
Pitkin	9,412	2,597	1,504	492	0	3,234	0	1,174	0	197	214	0
Summit	12,411	7,312	1,326	980	229	511	0	753	0	518	782	0
CENTRAL MTNS	13,688	976	1,463	2,095	729	386	0	602	5,448	1,060	704	225
Region 13	4,050	652	677	1,294	0	182	0	242	0	544	398	62
Chaffee	1,949	570	242	563	0	54	0	105	0	214	169	32
Region 14	669	28	56	190	190	7	0	20	0	114	25	38
Region 3n	5,014	296	145	352	44	165	0	246	3,378	246	91	50
Gilpin	4,026	0	0	128	44	144	0	196	3,378	70	45	20
Region 4n	3,955	0	585	259	495	32	0	93	2,070	156	189	75
Teller	3,350	0	414	93	367	24	0	79	2,070	102	146	54
E. PLAINS, SLV	3,493	145	204	1,012	316	171	0	301	0	1,013	281	49
Region 1	825	17	0	95	16	32	0	109	0	474	82	0
Region 5	446	9	22	199	0	52	0	61	0	52	50	0
Region 6	624	0	48	303	0	51	0	68	0	89	65	0
Region 8	1,598	119	133	415	300	35	0	63	0	398	85	49

**TABLE 4c. Proportion of Tourism Jobs
By Region and by Category in 1997**

REGION OR COUNTY	CATEGORY											Total
	Skiing	Rsrts	Outdr	Parks	Spl Evt	City	Busns	Csno	Trng	VFR	Other	
STATE TOTAL	0.14	0.10	0.13	0.05	0.10	0.08	0.13	0.03	0.10	0.10	0.03	1.00
FRONT RANGE	0.02	0.07	0.11	0.06	0.11	0.15	0.19	0.00	0.12	0.13	0.04	1.00
Denver Metro	0.02	0.01	0.12	0.05	0.11	0.16	0.21	0.00	0.13	0.15	0.05	1.00
Colo. Springs	0.02	0.20	0.05	0.02	0.08	0.24	0.15	0.00	0.13	0.10	0.01	1.00
Fort Collins	0.00	0.33	0.09	0.19	0.05	0.03	0.12	0.00	0.09	0.06	0.03	1.00
Pueblo MSA	0.01	0.00	0.13	0.25	0.25	0.04	0.12	0.00	0.03	0.16	0.00	1.00
Greeley PMS	0.00	0.10	0.29	0.00	0.17	0.02	0.19	0.00	0.05	0.15	0.02	1.00
WSTRN. SLOPE	0.33	0.14	0.14	0.04	0.10	0.01	0.08	0.01	0.07	0.07	0.02	1.00
Region 9	0.14	0.19	0.21	0.15	0.02	0.00	0.06	0.06	0.08	0.09	0.02	1.00
La Plata	0.17	0.17	0.23	0.11	0.02	0.00	0.07	0.05	0.08	0.09	0.02	1.00
Montezuma	0.01	0.08	0.23	0.35	0.01	0.00	0.05	0.14	0.05	0.08	0.00	1.00
Region 10	0.30	0.10	0.20	0.06	0.08	0.00	0.07	0.00	0.07	0.08	0.04	1.00
Gunnison	0.38	0.17	0.14	0.02	0.05	0.00	0.09	0.00	0.05	0.08	0.02	1.00
Montrose	0.10	0.00	0.15	0.19	0.14	0.00	0.13	0.00	0.16	0.10	0.04	1.00
San Miguel	0.48	0.11	0.19	0.00	0.12	0.00	0.03	0.00	0.02	0.02	0.02	1.00
Region 11	0.16	0.12	0.20	0.03	0.07	0.05	0.09	0.00	0.16	0.11	0.02	1.00
Garfield	0.08	0.26	0.35	0.01	0.03	0.00	0.02	0.00	0.14	0.08	0.03	1.00
Mesa	0.02	0.00	0.16	0.03	0.03	0.15	0.10	0.00	0.33	0.13	0.04	1.00
Routt	0.35	0.15	0.10	0.03	0.12	0.00	0.12	0.00	0.03	0.09	0.00	1.00
Region 12	0.44	0.15	0.09	0.02	0.14	0.00	0.08	0.00	0.04	0.04	0.01	1.00
Eagle	0.44	0.16	0.09	0.01	0.11	0.00	0.09	0.00	0.04	0.04	0.01	1.00
Grand	0.38	0.18	0.19	0.07	0.02	0.00	0.04	0.00	0.04	0.03	0.05	1.00
Pitkin	0.28	0.16	0.05	0.00	0.34	0.00	0.12	0.00	0.02	0.02	0.00	1.00
Summit	0.59	0.11	0.08	0.02	0.04	0.00	0.06	0.00	0.04	0.06	0.00	1.00
CENTRAL MTNS	0.07	0.11	0.15	0.05	0.03	0.00	0.04	0.40	0.08	0.05	0.02	1.00
Region 13	0.16	0.17	0.32	0.00	0.04	0.00	0.06	0.00	0.13	0.10	0.02	1.00
Chaffee	0.29	0.12	0.29	0.00	0.03	0.00	0.05	0.00	0.11	0.09	0.02	1.00
Region 14	0.04	0.08	0.28	0.28	0.01	0.00	0.03	0.00	0.17	0.04	0.06	1.00
Region 3n	0.06	0.03	0.07	0.01	0.03	0.00	0.05	0.67	0.05	0.02	0.01	1.00
Gilpin	0.00	0.00	0.03	0.01	0.04	0.00	0.05	0.84	0.02	0.01	0.00	1.00
Region 4n	0.00	0.15	0.07	0.13	0.01	0.00	0.02	0.52	0.04	0.05	0.02	1.00
Teller	0.00	0.12	0.03	0.11	0.01	0.00	0.02	0.62	0.03	0.04	0.02	1.00
E. PLAINS, SLV	0.04	0.06	0.29	0.09	0.05	0.00	0.09	0.00	0.29	0.08	0.01	1.00
Region 1	0.02	0.00	0.11	0.02	0.04	0.00	0.13	0.00	0.57	0.10	0.00	1.00
Region 5	0.02	0.05	0.45	0.00	0.12	0.00	0.14	0.00	0.12	0.11	0.00	1.00
Region 6	0.00	0.08	0.49	0.00	0.08	0.00	0.11	0.00	0.14	0.10	0.00	1.00
Region 8	0.07	0.08	0.26	0.19	0.02	0.00	0.04	0.00	0.25	0.05	0.03	1.00

INSTATE TOURISM

When examining tourism's impact on the state economy as a whole, it is necessary to isolate those jobs generated by purchases of tourists from outside the state. For example, a Denver resident's visit to the Broadmoor in El Paso County is basic to El Paso County, but it doesn't bring outside dollars into the state as a whole. From the state's perspective, it is equivalent to a local resident visiting the hotel.

Some 60,000 tourism jobs are due to visitors from one Colorado county to another (see Table 5). Nearly one third of the total tourism and recreation jobs were generated from the activities of those living and vacationing within the state. Table 5 shows the distribution of total and instate jobs by tourism category and compares percentages to data from the 1997 Longwoods International Colorado Visitor Study. The Longwoods study attributed 32% of all overnight pleasure trips to Colorado residents. Casinos and city trips had the largest instate share while the smallest share occurred in skiing and business trips. The Longwoods Study is described in detail below and in the following Method and Process section.

TABLE 6. Total and Instate Tourism Jobs By Category

1997	CATEGORY											
Jobs	Skiing	Resorts	Outdoor	Parks	Spl Evnt	City	Busns	Casinos	Touring	VFR	Other	Total
Total	28,441	19,606	25,456	10,714	19,377	16,433	26,364	6,127	19,930	19,798	5,651	197,898
Instate	5,055	6,135	9,681	2,903	7,045	7,136	4,718	5,820	4,707	5,475	1,670	60,345
Instate %	18%	31%	38%	27%	36%	43%	18%	95%	24%	28%	30%	30%
Longwoods Resident Use % By Category												
Instate %	24%	n.a.	58%	n.a.	38%	46%	20%	54%	25%	31%	n.a.	32%

The estimates of the share of jobs accounted for by instate tourists were done for the state as a whole for each of the 11 categories. No instate estimates were done for individual counties. Industrial sector detail is available only for the state as a whole. For most categories, the estimates were based on the Longwoods estimates of the share of instate trips.¹¹

Activities associated with second homes are responsible for many of these 60,000 instate jobs. Increasing numbers of Coloradoans own secondary residences or weekend retreats (mountain homes, ski condos or lakeside cabins). Knowing about this "resident" visitor group helps in further understanding the present uses of Colorado's extensive public lands and growing residential (instate) tourism industry. Data about tourist behavior can be used to better plan for future demand.

Among the jobs generated by Colorado tourists, outdoor recreation contributed the most to the total with 9,681. Examples of such tourists include resident hikers and other outdoor enthusiasts

¹¹ There were only three categories where this was not applicable: skiing, outdoor recreation and casino visits. See p. 36 for more details on the methods used to estimate instate visitors in these three categories.

who work in the Front Range and drive to the mountains in the Western Slope on weekends to recreate. In the winter, they take advantage of a wide array of outdoor activities, such as snowmobiling, cross-country skiing or ice fishing. Table 5 shows that 58% of outdoor recreation visitors to the state were from within Colorado, but they generated only 38% of the jobs. When tourism in parks, monuments and outdoor recreation categories was combined, instate activity across all three seasons accounted for 35% of total jobs. The Longwoods study found instate activity at 58% of visitation in 1997. This closely matched the wildlife-related proportion (54%) of residential spenders, according to the 1996 census (see Table 9, Method and Process Section).

DIFFERENCES BETWEEN ESTIMATES

The Longwoods Study. This study combined with economic analysis by Dean Runyan & Assoc. (DRA), Portland, Oregon, was often a valuable point of comparison for local experts, especially in the more complex urban economies on the Western Slope and in the Front Range. Longwoods¹² has been conducting surveys of the U.S. travel market in Colorado for more than a decade. The Longwoods findings were based on survey data for 200,000 U.S. households and 2,000 Colorado visitors. This data was reviewed and considered in developing the categories for this study.

The Longwoods Study segments categories based on expenditure or activity patterns. For instance, business visitors who stay in hotels may rely on restaurants for meals while those visiting friends may eat at home or shop at grocery stores. These differing expenditure patterns affect how employment is distributed into categories. The 11 categories in this study are similar to those used in the Longwoods study, although there are some differences in definitions which are described in detail in Appendix B. One of the biggest differences was in the way the category of Visiting Friends and Relatives was handled. This study used a day visit concept in determining purpose of visit. A comparison of the categories in the two reports is shown below:

Study Categories

Visiting Friends and Relatives
Touring (driving)
Casinos
Business Trips
City Trips
Special events
Skiing
Outdoor Recreation
Resorts/Attractions
Parks and Monuments
Other Leisure

Longwoods Categories

Visiting Friends and Relatives
Touring (driving)
Casinos
Business Trips
City Trips
Special events
Skiing
Outdoor Recreation
Other

¹² Longwoods International report, Colorado Travel, May 1998. Dean Runyan & Assoc., Portland Oregon, prepared companion economic analysis, Travel Spending Trends Within Colorado 1992-1997.

The Longwoods study was a critical foundation to build upon when defining categories. It was also a critical building block in the estimate of jobs related to day visitors or in-state tourists, as well as pass-through visitors. For the purposes of this analysis, business visitors were counted as tourists, just as they were in the Longwoods study. This implies that a non-local business is paying for the trip. There were more differences than just the category definitions, mentioned above. The following section details some of the other major differences between this study, the Longwoods study and other estimates.

Table 6 compares the estimates developed in this report with results from two other important studies. When Dean Runyan & Assoc. (DRA) was asked to develop the economic impacts, the firm conducted a detailed follow-up survey. Longwoods tracks numbers of visitors and the purpose of their visit, while (DRA) modeled the sales or expenditures and other economic impacts based on the behavior of those surveyed visitors, including jobs generated. Out of the 2,000 Colorado visitors responding to the initial Longwoods survey, 1,577 responded to this detailed DRA follow up survey. The results covered a large part of Colorado visitors. The highest and lowest income visitors were probably not fully represented in the Longwoods sample, but the DRA analysis compensated for this by using spending by all income groups to

TABLE 6. Comparison with Other Estimates of Tourism Jobs

Type of Industry Job	This Study	Longwoods /DRA *	Travel Ind. Assoc.(TIA)
Hotels and other lodging places	44,457	32,090	35,000
Amusement/recreation services	16,935	17,910	15,200
Personal, business and other services	4,934	(e)	(e)
Ski resort operations	8,560	(e)	(e)
Eating and drinking places	47,069	47,400	49,100
General Merch.,Apparel, & Furniture	8,764	(d)	(d)
Miscellaneous retail trade - e.g. liquor, sporting goods	9,497	8,080	9,000
Groceries, retail food stores	4,836		
Service stations, auto dealers	6,549	(c)	6,900
Wholesale trade	3,913		
Air transportation **	8,401	2,080	28,700
Auto rentals, repair, parking services	3,284	(c)	(c)
Transp. svs.-Arrangements (travel agents), taxis	3,101	4,760	5,700
Construction & landscaping (second homes)	15,397		
Retail trade -2nd homes, bldg. materials, furniture	1,822	(d)	(d)
Utilities, communications, electric and gas	1,317		
Real estate sales, rental, mgmt. (second homes, time shares)	9,063		
Total Tourism Jobs	197,898	112,320	149,600

* Based on ES-202 Data only, excludes proprietors, second home impacts.

** This study excludes the hub role at DIA and resident service travel. TIA, in contrast, includes nearly all air travel.

Footnotes: (c) combined with Trans. services. (d) Apparel, etc. combined with Misc. retail. (e) combined with Amusement and Recreation

estimate employment impacts. Because the DRA employment estimates were predicated on much of the Longwoods data the reports are often referenced together.

Differences in Scope. Longwoods/DRA estimates the number of tourism jobs in Colorado at 112,000 or 85,000 fewer than in this report. Appendix B has full details of the definitions and differences between this study and the Longwoods/DRA study, but several of the major differences are highlighted below.

- This study covers all visits, including those by day visitors and international visitors. The Longwoods survey covers only overnight stays by domestic visitors. While the Longwoods/DRA study came close to capturing the tourism proportion of restaurants' hourly employees, an estimate of proprietors was not included. Proprietors are also important to other industries e.g. some types of retail, such as souvenir shops, bed and breakfast lodging and outfitting services for hunters and rafters.
- The Longwoods/DRA analysis also excluded construction jobs related to second home building, real estate jobs related to sale and/or purchase of second homes as well as property management for second homes or time share condominiums. Landscaping related to second home tourism and personal and business services were also left out of the Longwoods/DRA jobs. This exclusion accounted for more than 25,000 jobs.
- The Longwoods/DRA estimates only count visitors staying for 30 days or less. This study includes visitors who spend longer periods in the state, e.g. the Front Range teacher who vacations at her Grand Lake cabin all summer. If, by Census definition, a person is a resident of another state or county, this study counts him or her as a visitor, no matter how long the stay.
- The two studies have differences in the treatment of pass through travelers. These are visitors who pass through one region of the state and stay overnight in another. The Longwoods/DRA limited pass-through traveler impacts to the Pikes Peak and Denver Boulder metro areas. However, other parts of the state, in particular those lying along I-25, I-70, US 40, US 50 and I-76 have jobs due to pass-through travelers, who may be day visitors, as well as those who stay overnight. This study counts both. Skiers are an important part of pass-through visitor traffic. Skier impacts are counted in counties that do not have ski areas when there are overnight stays in hotels or employment impacts from travelers passing through such communities as Grand Junction in Mesa County or Limon in Lincoln County.
- Finally, in the Longwoods/DRA analysis, grocery store employment wasn't specifically measured, so some of the employment generated by visiting friends and relatives was missed.

Differences in findings. While the Longwoods Study was useful in understanding the instate and out-of-state employment impacts of various types of visitors. However, in some cases, other information was believed to present a more complete picture of Colorado tourism. Several Longwoods findings, outlined below, were questioned by the Tourism Advisory Committee. The visiting friends and relatives (VFR) category seemed unusually high and did not sufficiently

delineate the multitude of activities that visitors undertake when visiting friends or relatives. Visitors may come to stay with friends or family, but they often behave like traditional tourists, going out to eat, visiting attractions, going hiking, etc. Such visitors generate employment across all tourism industries, except hotels. The activities of the visitors in this study were more completely delineated, by analyzing the jobs by county and categorizing them in the county workshops.

The Longwoods/DRA study underestimated skiing visitors and job impacts compared to a recent report done for Colorado Ski Country USA, by RRC Associates, Boulder, CO. A number of factors contributed to this difference. Longwoods/DRA only surveyed overnight visitors, thus missing significant numbers jobs that could be attributed to day skiers going from the Front Range to the Western Slope. Longwoods/DRA data excluded second-home-related jobs and expenditures, as discussed above. Finally, international visitors who come primarily for skiing are missed by the Longwoods domestic sample, although the DRA economic analysis may have captured a good portion of the job impacts of the international skier and other international visitors. Travel Industry Assoc. (TIA) specifically identifies 10,000 jobs related to international travelers.

In effect, the Longwoods/DRA study excluded more than 85,000 jobs related to tourism. This tourism study used the LEIFA base analysis to fill in these gaps, often at the county level (see the Overview and Background for a description of LEIFA, p.7).

Other Estimates of Colorado Tourism In addition to the Longwoods/DRA Study, several other studies were used for comparison. The Utah Economic and Business Review, March/April 2000 issue, used location quotients to measure tourism in Utah, Colorado and three other western states (Appendix B has a definition of this method). The report, titled *Tourism Jobs and Wages in Utah: a Quantitative and Qualitative Analysis*, concluded that in 1997, Colorado's tourism jobs accounted for 8.41% of total non-agricultural, private-sector jobs of 1,654,110. Tourism-generated employment totaled 139,098 jobs. While the report used a different basis for employment, the study places tourism as a very similar percentage of the overall jobs. This study found tourism jobs to be 8.0% of the total 2,480,827 for the state as a whole.

Travel Industry Assoc. (TIA), Washington, D.C., also prepared an estimate of Colorado's tourism jobs in 1997 (see Table 6). This study reported that tourism-generated jobs in the state totaled 149,600, of which 89% were derived from domestic spending and 11% driven by international visitors. In their ranking of travel expenditures, Colorado was in 17th place in terms of spending by US residents and 14th in terms of international expenditures. The TIA state expenditure model does not include second home impacts in its job tallies. TIA also has other differences from this study. For example, the hub activities of airports are not counted as tourism-related in either this estimate, or the Dean Runyon analysis that was done in conjunction with the Longwoods Study. Table 6 compares this study and two of the others mentioned above.

Other important studies include The Economic Impacts of Colorado Airports by Wilbur Smith Associates, Columbia, So. Carolina, Colorado Ski Country USA's 1996/97 Profile of Colorado by RRC, Inc., Boulder, Colo., and Tucker Hart Adams's Metro Denver and Mesa County tourism studies. The full list of studies is in Appendix C, the Bibliography. These sources were used to develop and evaluate the findings of this report.

METHOD AND PROCESS

This study focused on the direct employment impacts of different tourism activities. CBEF developed estimates of the tourism industry by building upon and refining data initially developed by the Demography Section of the Colorado Department of Local Affairs (DOLA). The methods used to develop the job estimates were consistent with the larger base analysis estimates the Demography Section has been preparing over the past five years. Estimates of tourism jobs were developed for each pertinent industrial sector in each county and for the Denver metropolitan area. These jobs were then distributed among eleven tourism categories based on the purpose of visit.

Initial assignments of tourism jobs were prepared for each industry based on detailed databases covering the tourism industry and Colorado's county economies. Then, county or area workshops were conducted to review these initial assignments. Participants in the workshops were asked to identify the specific firms that produced goods or services for visitors to the county. All aspects of the tourism sector were addressed in the workshops, including the effects of second-home owners.

The county workshops were also critical in assigning the industry jobs into eleven tourism categories. First, existing information on tourism activities in the county, including destinations identified in the Colorado Atlas and Gazetteer, was compiled. Then, county-level meetings were held with tourism experts, large tourism-related businesses and other community leaders to interpret the existing data and assign the tourism employment in each industrial class to the eleven categories. Local governments and community leaders helped to verify the data. In many cases, local governments created the estimates, but their ultimate validation of the data was a distinguishing mark of this study.

Knowledgeable people at the state and industry levels then reviewed the results of the work of all the counties. In some cases, the review focused on particular tourism categories such as skiing, or fall outdoor recreation.¹³ In the case of skiing, Ski Country USA and consulting firm, RRC Associates, reviewed the ski data. The Colorado Department of Natural Resources evaluated the Outdoor Recreation category in tandem with federal partners, the USDA Forest Service and the USDI Bureau of Land Management.

The Jobs Data. The jobs figures were developed from estimates of total jobs at the county level prepared by the Demography Section. This study is comprehensive since it begins with the whole economy in each county, as measured by total employment. The job estimates were based on data from the US Department of Commerce, Bureau of Economic Analysis. BEA supplements or edits the state-produced, non-agricultural wage and salary data, develops data for agricultural and military sectors, and produces a complete BEA wage and salary job series.

BEA's wage and salary employment estimates were built on the Labor Market Information (LMI) data from the Colorado Department of Labor and Employment. It covers all employers under the federally-mandated Unemployment Insurance Program, also known as the Employment Security Act. In the data, commonly called "ES202", individual firms are assigned

¹³ The Tourism Advisory Committee list of experts is in Appendix A

a Standard Industrial Code (SIC) based on predominant activity. ES202 data are available only to the Demography Section and to other government agencies to prevent the release of firm-specific information. The use of ES202 data is governed by strict rules of disclosure that protect the confidentiality of individual firms. ES202 employer lists were essential to creating county-specific category and industry proportions.

BEA also estimates the employment of proprietors and self-employed individuals, primarily on the basis of Schedule C income tax records. Accounting for the activity of proprietors (such as store owners, consultants, doctors and dentists) is extremely important, but the implied number of “workers” reported here can be significantly overstated, especially in some industries that are tourism-related. The data may be misinterpreted to represent full or nearly full time workers in the sectors where a significant number of the people reporting Schedule Cs spend only a small amount of their time in the self-employed activity, for instance real estate sales and restaurants. The principal modification of the BEA estimates by the Demography Section was the downward adjustment of self-employed to more accurately reflect substantive employment.

Assignment by Industry. Tourism jobs were estimated for 25 industries shown in the list below. These industries included those with significant numbers of tourism jobs with the exception of those noted in the “Exclusions” section (p. 36). For each industry, an estimate of the proportion of all county jobs accounted for by tourism was prepared. This estimate was based on professional expertise, local knowledge and existing data sources.

Standard Industrial Classifications With Significant Tourism Activity

<u>SIC (Industry)</u>	<u>Class Title</u>
Services	
70	Hotels and other lodging places
Select 79	Amusement & recreation - ski resorts
78	Amusement, Motion picture, video production
79, 44, exc. ski	Amusement & recreation - casinos, all other
72	Personal services - laundry, beauty shops
73, exc. 737	Business services-film process., tourist bureaus
82, 84	Private education services-zoos, hist. museums
01-09	Ag., Outfitters, river & tour guides, not in SIC 79
Retail Trade	
58	Eating and drinking places, restaurants
52	Building materials, hardware, garden supplies
53, 56, 57	General merchandise, apparel and furniture
54	Retail food stores
55	Service stations, auto dealers
591-593	Liquor, drugs, used goods, antiques
594, 598-9	Miscellaneous - sporting goods, luggage
Real Estate & Construction	
65	Real estate: property management, sales, rentals
15, 17	Residential construction and maintenance (2nd homes)
16	Heavy construction (interstate highways, airports)

Standard Industrial Classifications With Significant Tourism Activity (cont.)

<u>SIC (Industry)</u>	<u>Class Title</u>
Transportation	
41	Local & suburban transit
45	Air transportation (commercial)
472	Transp. services-arrangements
751-753	Auto rentals, repair, parking services
Wholesale Trade	
513	Apparel
514	Wholesale Groceries
518	Beverages

TABLE 7. Ratio of Restaurant to Hotel Jobs in Top Tourism-Based Counties

Tourism County	1997 Jobs in Hotels	Restaurant/ Eating Emplmt.	Ratio of Rest. to Hotel jobs	Tourism % of Total jobs
Summit	4,423	2,699	0.6	59.0
Ouray	233	243	1.0	40.0
San Miguel	582	548	0.9	52.0
Grand	767	876	1.1	51.0
Eagle	2,966	3,389	1.1	50.0
Pitkin	1,830	2,465	1.3	49.0
La Plata	1,768	2,288	1.3	27.0
Archuleta	202	411	2.0	26.0
Routt	707	1,671	2.4	35.0
<u>Gunnison</u>	<u>491</u>	<u>1,325</u>	<u>2.7</u>	<u>35.0</u>
Total	13,970	15,915	1.1	8.0*

*Statewide total

The ease of assignment of industrial jobs to tourism and tourism categories varied from one county to the next. In some places, including several of the resort counties, the tourism proportions were obvious (see the Grand County Sample in Appendix D). In other places, such as the Denver metropolitan area, estimating a tourism component for all industries involved was more difficult because of the complexity of the economy. Nonetheless, a “sketch” was made for all industries in all counties.

The estimates for several industries warrant further explanation. Among these are hotels and lodging places, which primarily serve visitors in all areas of the state. However, local residents also use hotels for such activities as association meetings,

Christmas parties, banquets and weddings. In addition, local businesses use hotels as extensions of their offices or plants for off-site meetings with suppliers, sales conferences even parties. Consequently, the proportions assigned for hotels were generally something less than 100%. In the Front Range, these local resident services and business services, i.e. uses of hotels by locals, were significant, but elsewhere, hotel customers were almost all visitors and the share of tourist jobs was estimated at 90% and above.

Developing a reasonable estimate for the restaurant industry (eating and drinking places) was more difficult than for hotels, because local residents are more frequent customers of restaurants. The critical assumption in developing estimates of the share of tourism jobs in restaurants was that hotel employment is an indicator of the importance of tourist activity and therefore could be used to indicate the share of tourist jobs in restaurants. The ratio of hotel employment to

restaurant employment was calculated for the tourism-based counties to estimate the ratio of tourist jobs in the two industries. This was possible because most of the jobs in both industries in these counties were due to tourism (see Minimum Requirements discussion, Appendix B). Table 7 shows these ratios for tourism-based counties. In key tourism-based counties such as Summit, Ouray, San Miguel, Grand, Eagle, Pitkin, Archuleta, La Plata, Gunnison and Routt, the ratio averages 1.1 eating and drinking employee per hotel employee. This ratio was then used as a “rule of thumb” for other counties.

Compared to other parts of the state, the Front Range receives a higher concentration of air travelers, who might eat in a local restaurant before traveling to a final destination. It also attracts a large number of convention and business visitors, who rely more heavily on restaurants than those who come to Colorado to visit friends and relatives. Finally, those who are driving through or touring the state by car often stop in the Front Range for shopping, museum visits or a sports event. Therefore, slightly higher ratios of restaurant tourism jobs to hotel tourism jobs were used in these ten counties. The estimated proportion of tourism-related eating and drinking jobs also depended on whether the county had full service hotels with their own restaurant facilities. Weld County, for example, does not have full-service hotels and visitors must go to outside restaurants or food stores for meals. Thus, a higher ratio of tourist jobs in restaurants to those in hotels was used there.

Wholesale trade is treated uniquely in base analysis. Those jobs mainly due to the sales of outgoing goods are treated as direct base jobs, i.e. those sold to retailers outside the county. These jobs are viewed as a service to outsiders. Wholesale sales for resale to visitors are considered service exports and hence are basic as well. For instance, wholesale jobs related to apparel purchases by a retailer to sell in its ski-slope rental and sports shops would result in direct basic wholesale jobs and these jobs are included in this report. Jobs attributed to incoming goods which do not get resold to tourists are treated as indirect base jobs, e.g. the snow shovels purchased by a ski area from a local wholesaler. Indirect basic jobs are not part of these estimates. The proportion of wholesale food, beverage or apparel attributed to tourism is similar to that in the retail stores, in addition to any unique wholesale activities that can be identified as tourism dependent. In most of the major tourism counties, wholesale jobs generated from purchases of second-home owners are a very large part of the direct-basic wholesale jobs.

Second homes. Among the areas showing rapid growth are those related to construction and other activities related to second-home use. Tourism is undergoing a transition in Colorado from more traditional tourism to second home tourism, especially on the Western Slope. More affluent visitors are building seasonal-use homes in Colorado, which they are visiting more frequently and staying in for longer periods.

Employment generated by occupants of second homes is dispersed over a large number of industries. For example, second home visitors eat in restaurants like traditional visitors. However, because second-home owners have relatively high disposable incomes, they may generate greater employment in sporting goods, clothing shops and numerous services than do traditional tourists. Real estate sales and property management jobs are generated by second activity in such counties as Summit, Eagle and Pitkin. Second homes also have a direct effect on the use of utilities including gas, electric and communication services. However, because of the centralized nature of utility employment, estimates of these job impacts were not prepared at the

TABLE 8. Second Homes

Seasonal and Occasional Use by County

County Name	Seasonal % in 90	Seasonal Units 98	County Name	Seasonal % in 90	Seasonal Units 98
Mineral County	71.4	948	Moffat County	4.7	256
Hinsdale County	70.9	986	Larimer County	4.2	4039
Grand County	57.4	6564	Morgan County	3.6	356
Summit County	55.7	12275	Garfield County	3.6	544
Custer County	55.7	1582	Kiowa County	2.5	22
Park County	50.4	4847	Washington County	2.3	54
Jackson County	39.1	550	Boulder County	2.1	2389
San Miguel County	36.7	1449	Montrose County	1.7	204
Gunnison County	36.2	3301	Lincoln County	1.6	37
Gilpin County	35.6	1062	Mesa County	1.6	719
Eagle County	33.1	7209	Alamosa County	1.3	73
Pitkin County	31.0	3354	Pueblo County	1.2	668
Routt County	30.4	3474	Yuma County	1.2	50
Archuleta County	27.6	1422	Phillips County	1.1	22
Teller County	26.8	2532	Cheyenne County	1.1	12
Dolores County	25.9	257	Sedgwick County	1.1	16
Ouray County	24.8	504	Elbert County	0.9	58
Clear Creek County	22.9	1216	Baca County	0.9	22
Huerfano County	22.8	985	Bent County	0.9	22
San Juan County	20.8	108	El Paso County	0.8	1532
Conejos County	18.3	716	Jefferson County	0.8	1613
Chaffee County	16.2	1242	Kit Carson County	0.7	23
Lake County	15.1	561	Logan County	0.6	49
Rio Grande County	14.5	831	Douglas County	0.6	303
La Plata County	13.7	2569	Crowley County	0.5	7
Saguache County	13.4	355	Prowers County	0.4	24
Costilla County	11.9	207	Otero County	0.3	27
Las Animas County	6.8	507	Weld County	0.3	179
Rio Blanco County	6.8	198	Adams County	0.2	250
Delta County	5.0	519	Denver County	0.2	496
Fremont County	4.9	751	Arapahoe County	0.1	191
Montezuma County	4.8	402	Total Colorado	4.3	77,740

Sources: US Census, 1990, National Association of Homebuilders

county level. These jobs were estimated only for the state as a whole. In Colorado, about half of gas and electric revenue comes from residential users.¹⁴ Second homes account for 4.6% of total housing stock, according to the 1990 Census, therefore approximately 2.3% of gas and electric

¹⁴ The estimates are based on information from Xcel Energies, formerly Public Service Co.

employment could be attributed to second home use. A similar percentage was applied to phone, cable and other communication service jobs.

The 1990 census of seasonal-use homes was a starting point for assigning a portion of building and specialty trades construction jobs to second-home related tourism (see Table 8). This information also was important in assessing the importance of expenditures by their owners in other industries, especially in tourism-based counties. In some counties, like Summit where more current data was available, the Census estimates were revised. New Census 2000 data, which will be available at the end of 2001, should provide fresh estimates of second home (seasonal use) percentages.

Assignment of Jobs into Categories. The purpose of the assignment is to further identify the type of tourism, which is driving the local economy. In Colorado's diverse county economies, different types of tourism such as downhill skiing, special events, or business conventions may be dominant. The eleven tourism categories developed for this study are listed below.

Tourism Categories related to activity on public lands:

1. **Skiing** - downhill and associated Nordic skiing with paid lift or access ticket.
2. **Parks & Monuments** - activities in national, state and city parks & monuments.
3. **Other Outdoor Recreation** - activities such as hiking, biking, fishing, hunting, rafting, and snowmobiling.
A. Summer (May-Aug.) B. Fall (Sept.-Nov.) C. Winter (Dec.-April)
4. **Touring** - trips by car or train through areas of scenic beauty, cultural or general interest.

Tourism Categories related to activity on private lands:

5. **Resort Recreation/Attractions** - activities such as golf, tennis, swimming, or commercial attractions, e.g. Silverton train, Cave of the Winds, and shopping in non-metropolitan or mountain areas. Hunting and fishing on private lands are included here.
6. **Special Events** - privately and publicly sponsored events, e.g. rodeos, music or film festivals, college games or professional sports, horse or auto races and the state fair.
7. **City Trips** - visits to a city to shop, attend plays, museums, concerts or other entertainment, dine or just stroll around (limited to census-designated metropolitan areas, e.g. Grand Junction, Boulder, Denver).
8. **Business Trips** - trips paid for by non-local businesses, e.g. conventions, sales trips.
9. **Casino Trips** - gambling visits at a casino, casino resort or Indian Reservation.
10. **Visiting Friends and Relatives** - visits to family & friends, including those in prison, hospitals or in nursing homes. *This refers to purpose of visit not type of accommodation!*
11. **Other Leisure** - other visits such as improving/building a second home, agricultural tourism (weekend ranching, harvesting, wine making), charitable/volunteer work, reading, relaxing.

Outdoor recreation occurs in areas where access is not controlled. Often there is no gated entry or visitor center, but open, free, public access. Outdoor recreation jobs were segmented into three key seasons. Summer activity (May-August) includes rafting, hiking, biking, swimming, camping, wildlife watching and boating. Fall activity is dominated by hunting, fishing and

viewing the changing fall colors (September-November). Winter sports like back country skiing, ice fishing, snowmobiling or snowshoeing are the biggest activities in the months of December to April. Jobs generated from parks like Garden of the Gods in El Paso County, Steamboat Lake State Recreation Area, Rocky Mountain National Park and Colorado National Monument in Mesa County are separated from outdoor recreation jobs to try to better understand areas where visitor data is not collected.

In the course of developing the tourism categories, a distinction was made between those activities that took place on public and those on private lands (see p. 9, p. 16, p.25 and Appendix B, p. 42). This distinction helped to clarify the difference between the impacts of public parks and other outdoor recreation versus those from private resort recreation. This public/private split was valuable to the federal partners, because it enabled them to see the direct economic impact of activities that take place on lands they manage. Furthermore, the two categories called Outdoor Recreation and Parks and Monuments were developed separately to again help the federal partners identify the impact tourism has on land they manage.

In county workshops, local experts made the initial assignments of county tourism in terms of visitation to the various tourism categories (see Profile of Tourism Activities, Appendix D). Often the local experts had access to visitor logs, hotel or second home surveys or other sources of visitor data. Typical workshop participants included the representatives of large tourism employers, county planners, chamber or visitors' bureau experts and public land managers. These local experts were encouraged to think of activities and the subsequent distribution of jobs using a visitor-day concept, i.e. the jobs were assigned based on the principal activity of the visitor each day. For example, if the visitor stayed at home visiting a friend for the whole day, the resulting jobs were counted as Visiting a Friend or Relative (VFR). If, the visitor merely used the friend's home as an evening accommodation and spent the days hiking or skiing, the jobs were classified under outdoor recreation or skiing, rather than VFR. In this way, local workshop participants made assignments of county tourism jobs in each industry to the various tourism categories (see Profile of Tourism Jobs, Appendix D). In effect, the SIC employment data was integrated with the information from studies related to visitation.

Instate Tourism Jobs. The estimates of the share of jobs accounted for by instate tourists were done for the state as a whole for each of the 11 categories (see p. 26). For most categories, the estimates were based on the Longwoods estimates of the share of instate trips. This reflected the assumption that overnight trips by Coloradoans resulted in roughly the same amount of spending and the same number of jobs per category as trips by out-of-state visitors. There were only three categories where this was not applicable. These are described below.

For the ski industry, the allocation of jobs between instate and out-of-state tourism was based on a study done for Colorado Ski Country USA, by RRC Associates of Boulder. Differences in spending patterns of a variety of ski visitors made RRC's expenditure data a more reliable link to jobs than the purpose of visit results that were available from Longwoods. Day visitors spend only \$49 per day visit while foreign and out-of-state visitors spend \$189 per day visit. Differences between the Longwoods/DRA and RRC estimates are also discussed in a comparison section (p. 25).

Detailed survey information was also available on outdoor recreation expenditures from the

**TABLE 9. Instate and Out-of State
Tourism related to Outdoor Recreation and Parks**

Wildlife-Related Recreation in 1996 (Table 36*)

In-State trip-related expenditures for non-residential participation

	Amount (\$000)	Pro- portion	Spenders (000)	Pro- portion	Avg. per spender
Total	426,201	1.00	958	1.00	444.89
State Residents	120,818	0.28	518	0.54	233.24
Non-residents	305,382	0.72	439	0.46	695.63

Hunting and Fishing Recreation in 1996 (Table 21*)

	Amount (\$000)	Pro- portion	Spenders (000)	Pro- portion	Avg. per spender
Total	503,243	1.00	992	1.00	507.30
State Residents	305,129	0.61	631	0.64	483.56
Non-residents	198,114	0.39	361	0.36	548.79

* Tables from U.S. Fish and Wildlife Service, 1996 National Survey of Fishing, Hunting and Wildlife-Associated Recreation, Colorado Book.
Web address: <http://www.census.gov/prod/www/abs/fishing.html>

Colorado Book of the 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation with expenditure estimates based on a very large census of Colorado visitors. Expenditures for different types of tourism are shown in Table 9.

Again, this data was preferred to the Longwoods/DRA data since visitor expenditures are closely related to job creation. These estimates are done every five years and were useful in allocating jobs between resident and nonresident tourism. Instate summer outdoor recreation and park jobs were assumed to reflect patterns of

wildlife-related recreation--a broadly defined activity that included sightseeing and photographing wildlife but excluded hunting and fishing. Non-residents, although fewer in number, outspent instate visitors. State visitors spent \$233 versus \$696 for non-residents for wildlife-related recreation (see Table 36 from the US Fish and Wildlife census tables, within our Table 9). Hunting and fishing figures were used in allocating jobs in fall outdoor recreation. Here too, nonresidents spent more. Table 21 in the Colorado Book is the source of this data and can be viewed on the website that is footnoted in Table 9.

Customers for the casino industry, which is concentrated in Gilpin and Teller Counties, are predominately residents of Colorado's Front Range metropolitan areas. Thus, it was estimated that 95 percent of the 6,127 state jobs due to casino gaming were generated by instate tourism. The casino jobs in the Southwest (Region 9) are primarily Native American and have some out-of-state visitation from Farmington, N.M.

Exclusions. Several industries that generate a significant number of tourism-related jobs were not included in the initial phase of this study, but are discussed below. Either the importance of these industries was not anticipated or developing defensible estimates was not possible within the time frame and the available resources. The section titled Future Phases (p. 10-11) discusses possible additional studies to develop estimates in some of the areas excluded here. In addition to these industries, indirect basic employment is excluded. Here too, estimates may be developed in Phase 2, as funding permits.

The tourism jobs in federal, state, and local government were industrial exclusions that will be estimated in Phase 2. In the current estimate, the job impacts of tourism are limited to private sector impacts. Federal employment with the Forest Service, National Park Service, state jobs in the Parks Division of the Dept. of Natural Resources and a large number of the City of Denver jobs at the Denver International Airport are among the government sector tourism jobs excluded in this report. Many of these jobs are primarily administrative and are concentrated in the Denver metro area, but serve the whole state or even a multi-state area. Federal government is counted as a basic industry in the broader LEIFA estimates, but Federal jobs are not included in tourism.

Some portions of the transportation industry were intentionally excluded. Truckers and passengers traveling through transportation centers were not counted as tourists. They were instead treated as part of a county's national service center (or regional service center). The employment generated at a truck stop is still considered part of a county's basic employment, but it is classified as transportation rather than tourism. This is also true for hub activities at Denver International Airport.

In addition to the exclusions by design, described above, jobs may be underestimated in a few industries. For example, jobs in hotels or restaurants may be understated. In family-owned businesses, the participation of family members may go unreported. The number of workers in second-home construction may also be underreported. Wages in construction are sometimes paid in cash and the workers are therefore not included in job estimates.

APPENDIX A

Partnerships and the Technical Advisory Committee

This is the first report from a partnership that was started by the State Demographer's Office of the Department of Local Affairs and the USDA Forest Service several years ago. Last year, the USDI Bureau of Land Management (BLM) and the Colorado Tourism Board joined the partnership. This work would not have been possible without the technical and financial contributions provided by these partners. Credit also goes to numerous people from local governments, businesses, associations, and state universities for their valuable insights and suggestions. The following is a list of participants in CBEF's Technical Advisory Committee:

Committee Co-Chairmen:

Bill Kendall, President, Center for Business and Economic Forecasting
 Jim Westkott, State Demography Office, Department of Local Affairs

<u>Member Name</u>	<u>Organization/Firms</u>
Tucker Hart Adams	US Bank and The Adams Group
Sue Baldwin	Colorado Ski Country USA
Dave Bamberger	Colo. Spgs., Econ. Development Research
David Becher	RRC Associates
Bob Benton	Colo. Hotel and Lodging Assoc.
Don Bruns	USDI Bureau of Land Management (BLM)
Helen Buelke	Colorado Springs Visitors Bureau
Fred Crowley	Pikes Peak Area Council of Governments (El Paso)
Harvey Cutler	Colo. State Univ. (CSU), Economics Dept.
Eugene Dilbeck	Denver Metro Visitors Bureau and Colo. Tourism Office
Maryjo (Jo) Downey	East Central Council of Governments
Tom Dunn	Legislative Council Staff, Colo. General Assembly
Ron Dutton	Hammer, Siler, George & Assoc.
Peter Fix	CSU and Colo. Dept. of Natural Res. (DNR)
Ford Frick	BBC Research & Consulting
Chuck Goeldner	Marketing and Tourism, Univ. of Colo. (CU)
Julie Hart	Governor's Office of State Planning & Budgeting
Doug Jeavons	BBC Research & Consulting
Joe Kiely	East Central Council of Governments
Dick Knoespel	Colorado Assoc. of Commerce & Industry
Judy Koucherik	CDOT-Div. of Highways, GIS & Mapping
Dave Larson	Colo. Dept. of Labor and Employment
Bob Lohney	CDOT - Division of Aeronautics
Sue Piatt	Governor's Office of Economic Development & Int'l Trade
Bob Polestra	Colo. Dept. of Natural Resources (DNR)
Mike Preston	Southwest (Region 9) Coordinator
Mike Retzlaff	USDA Forest Service, Rocky Mountain Region

CBEF's Tourism Advisory Committee (cont.):

<u>Member Name</u>	<u>Organization/Firms</u>
Chuck Romanella	USDI Bureau of Land Management (BLM)
Jeff Romine	Denver Regional Council of Governments
Eric Scorsone	Colo. State Univ. (CSU), Economics Dept.
Tim Sheesley	Xcel Energies (formerly Public Service Co.)
John Smeltzer	Colo. Dept. of Natural Resources
Linda Ventroni	Northwest Council Of Governments
Judy Walden	Publications Representatives West (Colorado.com)
Stephan Weiler	Colo. State Univ. (CSU), Economics Dept.
Rich Wobbekind	Univ.of Colo.-Boulder, Bus. Research Div.

APPENDIX B – DEFINITIONS AND TERMS

Overview of Base Analysis

Basic Industries - Economic base analysis is predicated on the assumption that growth and change in a region is driven by industries that sell goods and services to parties residing outside the region. Typically, industries such as agriculture and manufacturing are cited as examples of basic industries. These industries produce a greater supply of goods than the local region can absorb and the excess is exported and consumed by other regions. An industry, or a firm, may export some of its output and sell the remainder within the community. The term "basic industry" would apply only to that portion of the industry or firm activity, which produces output for export. A basic industry may also sell services to businesses or people who are outside the area, as is the case for tourism-related business such as hotels. Those who visit the area have incomes and spending money earned from outside the region. The visitors use outside income to purchase locally-provided services, such as lodging and amusements.

Indirect Basic Industries - While direct basic industries serve outside customers and the world-at-large, indirect base industries provide services and supplies to these direct basic firms, e.g. advertising agencies that serve hotels. This study did not attempt to estimate the indirect basic industries.

Local Resident Services - Basic industries are distinct from local resident services. Local resident service industries act as suppliers to basic industry firms e.g. local newspapers or act as suppliers to households, e.g. grocery stores, police and fire protection, education, health services, telephone and cable services. Local resident services benefit households and residents. This study did not attempt to estimate local resident services. However, the larger DOLA base analysis effort makes estimates of LRS by county available on its website.

Assignment Method also called **Assignment by Industry** in the Method and Process Section (p. 34) or **Initial Assignments**. The base industry analysis was conducted by defining the economy in terms of very detailed industrial sectors. Allocation of economic activity was divided up into these sectors then further divided among sub-sectors: direct basic (DB), indirect basic (IB), or local resident services (LRS). Most often, detailed employer lists by county provided the means for assigning a base proportion or weight. The expert assignment method (or assumption approach) uses personal estimates to assign employment to basic and non-basic industries. Because assignments started with hard data on employment by sector, were constrained by regional employment control totals, considerable local input and insights, the resulting estimates can be regarded with a high level of confidence.

Location Quotient Method - the most widely used method to estimate base employment. A location quotient analysis helps define sectors where an economy has a greater than average -- or some "basic" -- share of a certain activity. Export-related employment is estimated by summing the export shares ($LQ > 1$) of employment of those industries whose location quotient is greater than one (Richardson, 1985). A number of conditions are assumed to hold when using location

quotients. Equal per employee consumption and productivity must exist between the study region and the nation.¹⁵ This approach also implies that the U.S. parameters are appropriate benchmarks, which may be problematic for certain industries. In the broader DOLA study of Colorado's base, location quotients were most helpful with communications and least helpful identifying manufacturing as a basic industry. The Utah Economic and Business Review, Vol. 60, Numbers 3&4, March/April 2000, article titled *Tourism Jobs and Wages in Utah: a Quantitative and Qualitative Analysis*, had comparisons with Colorado and other western states based on this method.

Minimum Requirements Analysis - another method of defining "basic" activities as those above a certain minimum level. The technique evaluates a sample of comparable areas against one another to estimate base industries. Within a sample, the region with smallest employment share devoted to a given industry is identified e.g. hotels per capita in most of the Eastern Plains counties are small relative to per capita hotel employment in Summit County. Base employment for another region is calculated by subtracting the identified minimum level from that base area's employment share in the same industry. The three major assumptions are equal productivity per employee, equal consumption per employee for the same good, and that production in the minimum industry is for local consumption only.¹⁵ However, it should not be used in highly-specialized regions, since in these cases the method systematically underestimates exports. Assessing which areas are indeed comparable for such analyses presents a further problem. This approach was very helpful in determining basic proportions for hotels and eating and drinking places, especially in the Denver metro area. Counties with the highest per capita employment devoted to hotels as well as eating and drinking places were identified and compared. The ratios between hotels and restaurants were also useful. See Methodology Section, p. 31-32.

Instate activity, and trade area boundary issues - The key issue in a base study is the estimation of exports by regional industries. Because of the permeability of regional/state borders, trade flows between regions are difficult to estimate and are one of the most important sources of error in economic base analysis. This study undoubtedly suffered from some of this type of error. A bottom-up approach was used to define base industries at the county or metropolitan area, meaning that statewide totals would be overstated. What might be an export for Denver, might not be an export for the Front Range or the state as a whole. For example, if a Denver resident stays overnight in Estes Park (Larimer County), Larimer can count that as an export of its hospitality services, but if the Front Range or state were the area of study, the visit would be considered a local resident service. In the Detailed Findings and in the Methodology Section, there are explanations of our attempts to correct for this over-estimation by subtracting out the instate tourism from the state totals.

¹⁵ Stephan Weiler, Colo. State Univ. (CSU), Economics Dept and Eric Scorsone a CSU graduate who has taken a position at Kentucky State contributed to our understanding of base analysis and these definitions.

Terms Related to Tourism

Visits, visitors and tourists - In the categories¹⁶, all business and pleasure visits, including day visitors and international visitors are counted in the earnings and employment impacts. The visitor is assumed to have traveled outside his county¹⁷ of residence to enjoy recreation or go on business away from home.

Tourists are essentially non-residents who visit a county for leisure or business purposes. When a county has a sizable number of second homes, tourists are classified as either “traditional” or “second-home” visitors. Traditional tourists are those that do not own lodging of any sort. Second-home visitors either own a home, condominium, or other lodging in the county or have use of the second home without payment of rent. If these second homes are rented during some or all of the year, the visitors are then counted as traditional tourists. Non-owner visitors to time share condos pay what amounts to rent and again are counted as traditional tourists. All counties were asked to make estimates regarding “traditional” tourists. But only in counties where second homes comprised more than 20% of total housing stock, were “second-home” tourism impacts more fully addressed.

Categories or Purpose of Visit - In the Longwoods study, visitor data can be studied by purpose of visit, as done in this study, but also by place of accommodation, e. g. second homes, hotels, friends homes or campgrounds and thirdly, by region. Below are the definitions of the different types or purposes of the visit. Purpose of visit is classified in one of eleven categories and each visitor is given just one classification, so as to avoid double counting. If a family comes to stay in an Eagle County hotel but only the kids ski, while dad gambles and mother shops, each individual’s main purpose of visit during each day of the visit is counted. They are not all lumped together under skiing. For each category, day trips and international visits were included, unlike Longwoods categories. Dean Runyon & Assoc. partially accounted for international visitors in its job impact analysis, but did not include second home visitor impacts, day visit impacts or proprietors.

Activity on public versus private lands – In the course of developing the tourism categories, a distinction was made between those activities that took place on public and those on private lands. This distinction helped to clarify the difference between the impacts of public park and other outdoor recreation (categories #2 and #3) versus those from private resort recreation (category #4). This public/private split was valuable to the federal partners, because it enabled them to see the direct economic impact of activities that take place on lands they manage. However, most of the employment that results from all of these activities actually takes place in the private sector on private lands, the exception being skiing since it takes place on public lands. The first four categories below are those that involve public land.

¹⁶ The Local Economic Information and Forecasting Assistance (LEIFA) program and categories are described in the background section p. 9 and on p. 25.

¹⁷ Also includes the 6-county metro Denver region, which is treated as a single economic area.

Ski Trips - include both alpine (downhill) and cross-country skiing. Snowboarders are also included in the ski category since they share the terrain with skiers. Cross country skiers who do not buy a lift ticket or who do not pay for access to a facility or groomed track are counted as back country skiers under winter outdoor recreation. The Breckenridge Cross Country Center skier visits are counted here since the employment is part of Breckenridge's larger ski company operations. Nearly all skiing in Colorado occurs on public lands.

Park & Monument Trips - activities in national, state and city parks & monuments like Garden of the Gods (city-owned), Steamboat Lake State Park (state-owned) as well as federally-owned lands like Rocky Mountain National Park (Larimer County), Dinosaur National Monument (Moffat County) or Mesa Verde (Montezuma County) are counted here. If the park has a visitor center, a gated entrance, issues day passes or is a public lands attraction; it is counted here rather than under the touring or outdoor recreation categories.

Other Outdoor Recreation Trips - are for the purpose of enjoying the natural environment where the visitor may engage in activities on public lands that can occur in any one of three key seasons: summer, fall, winter. Summer and fall activities include hiking, camping, fishing, hunting, river rafting, and boating. Autumn trips also include viewing the changing colors, which is often done on public lands. Winter sports are snowshoeing, snowmobiling, back-country and wilderness cross country or back county downhill skiing. Generally, the activities occur on public lands and involve less spending than resort, ski or city trips. Other Outdoor Recreation is compressed into three seasons: Summer (May-August), Fall (Sept-Nov), Winter (December-April) since Spring is not marketed to tourists and is not a key attraction for the state. Colorado has no Cherry Blossom season like Washington D.C.

Touring Trips - are usually trips by car or train through areas of scenic beauty, cultural or general interest. People can be passing through an area with no particular destination. They may visit several places, e.g. the Broadmoor, Mesa Verde then leave the state and go the Grand Canyon. The visitor may have flown to a destination like Colorado Springs before beginning the tour. Skiers who stay in Mesa or Lincoln counties and are just stopping for the night on their way to counties like Eagle or Pitkin are counted as having a skiing impact in Grand Junction (Mesa County) or Limon (Lincoln County). This type of visitor produces the curious effect of listing skiing-related jobs in a county where there are no ski mountains or operations e.g. in the City of Limon (Lincoln County). Touring is a category the involves both public and private lands.

Resort Trips/Attractions - are visits to non-metropolitan areas or to mountain areas in the summer and fall for those who like to play golf or tennis, even fly general aviation aircraft. Visitors may simply come to resorts like Vail or Steamboat for reasons other than skiing, e.g. swimming and golfing in the summer or viewing the changing colors in the autumn. Since LaPlata County is not a census metropolitan area, all visits normally classified as "city" would be included here, not just visitors to resorts like Tamaran. In El Paso County, "city trips" are separate from "resort & attraction" visits to the Broadmoor or Cave of the Winds. The category also includes dude ranches, as well as private-land hunting and fishing activity.

Special Event Trips - are for the purpose of attending an event such as the Pueblo State Fair, the Renaissance Festival in Larkspur, the Aspen Music Festival, and the Annual Stock Show. Other

events are school sports meets, college games or professional sports, horse, bike or auto races, pageants, rodeos, jazz or film festivals.

City Trips - are for the purpose of visiting a city to shop, attend plays, museums, concerts or other entertainment, dine or just stroll around. Shopping has become a big tourist activity at places such as the 16th Street and Cherry Creek Malls. Trips to go to theme parks like Elitch's or WaterWorld are included here. If the county is not an official census metropolitan area or part of one, multi-purpose and other trip types listed above are usually classified as resorts/attraction visits. For example, shopping and attending a play in Aspen is a "resort" visit.

Business Trips - include five types of travel and are paid for by business.

1. Sales or service trips for the primary purpose of meeting a client or customer for sales, service or discussion.
2. Conventions, including political conventions, conferences, and trade shows.
3. Meeting trips where hotels, convention centers or large public meeting spaces often house an organized business event or public interest meeting, including charitable, or social meetings for Kiwanis, Shriners, League of Women Voters, and the Sierra Club.
4. Combined business and pleasure trips occur when a business trip is extended by at least one overnight for pleasure, e.g. business often pays for travelers to stay over a Saturday night to take advantage of lower airfares.
5. Professional archeological digs or scientific expeditions to Dinosaur National Monument (Moffat County) or Mesa Verde (Montezuma County) are counted here. They are not classified as park or monument visits. If the visit is paid for by a university, government or business originating outside the county and it is for predominately business purposes, it is counted here.

Casino Trips – are for the main purpose of gambling at a casino, casino resort or Indian Reservation. Black Hawk, Central City, Cripple Creek and the Southern Ute Indian Tribe Casinos in the Southwest counties of La Plata and Montezuma are included.

Visiting Friends and Relatives - (VFR) is a trip whose main purpose is to spend time with friends or relatives. Visitors who come to see inmates in prison, mental institutions, and nursing homes or those who come to visit sick friends or relatives in hospitals are included here. This refers to purpose of visit not type of accommodation!

Other Trips - include improving/building a second home, agricultural tourism (weekend ranching, harvesting, wine making), charitable/volunteer work, reading, and relaxing.

Dimensions – The purpose of visit categories discussed above are viewed as the first dimension (columns of the matrix). Columns in the first dimension are titled skiing, outdoor recreation, touring, etc. The industrial classes are the second dimension. The hard income and employment data by planning region or county for key tourist activity captured in adjusted ES-202 and BEA data for hotels, eating and drinking places, amusement air transportation, etc. is displayed in rows of the matrix. These two dimensions are available by area. The rows and columns of data (the first two dimensions) are available for the state as a whole and by county.

APPENDIX C

Bibliography, Research Papers and Other Sources

1. For purposes of assigning base weights, we used two studies done by Tucker Hart Adams: *The Impact of Tourism on the City and County of Denver*, December 1997 and *The Impact of Tourism on the Grand Valley*, May 1998.
2. The Forest Service draft *Environmental Impact Statement for the White River National Forest*, which covers 7 Western Slope counties.
3. Colorado Ski Country USA's 1996/97 *Profile of Colorado Skiing*, prepared by RRC Associates, Boulder, Colo. David Becher, (303) 449-6558, assisted in estimating in-state ski visitor impacts versus out-of state visitors impacts and air transportation jobs related to skiing.
4. The report by Patrick Long and Richard Wobbekind, *How Local Tourism Business and Industry Representatives View Their Contribution to Colorado's Economy and Quality of Living*, June 1998, University of Colorado at Boulder (303) 492-3725.
5. Longwoods International, report titled *Colorado Travel, May 1998* was critical in estimates for in-state versus out-of state visitors and for data on business versus other visitors. Dean Runyan & Assoc., Portland Oregon, prepared the companion economic analysis titled *Travel Spending Trends Within Colorado 1992-1997*.
6. Travel Industry Association of America, (TIA, or sometimes TIAA) Washington D.C., Suzanne Cook, (202) 408-8422. Like Longwoods, TIA tracks tourism employment in Colorado. This organization surveys international and domestic visitors.
7. Colorado Hotel and Lodging Assoc., Eileen Kamsler, E.D. and Bob Benton, publish a newsletter called *Rocky Mountain Lodging Report* with tourism data in a 4-state area. No statewide aggregates, only county level, some sub-state level, and Front Range data were available.
8. *Colorado River Use in the State of Colorado* published by Colorado River Outfitters Assoc., January 2000, Joe Greiner, Buena Vista, Colo. (719) 395-2112.
9. Utah Economic and Business Review, Vol 60, Numbers 3&4, March/April 2000. Article titled *Tourism Jobs and Wages in Utah: a Quantitative and Qualitative Analysis*. Had comparisons with Colorado and other western states.
10. *1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation*, Colorado, downloaded from <http://www.census.gov/prod/www/abs/fishing.html> for in-state and non-resident data, Tables 21 and 36.
11. *Colorado Atlas and Gazetteer*, Topo Maps of the Entire State, DeLorme, Yarmouth, Maine, 4th Edition, 2nd Printing, 1998.

12. *An Analysis of Economic Trends in the White River Forest Region*, BBC Research and Consulting, Denver, Colorado, Sept. 1997

13. *The Economic Impacts of Colorado Airports*, Wilbur Smith Associates, Columbia, So. Carolina, June, 1998. This study was used to identify all 17 commercial airports in Colorado and attribute direct impacts to tourism in those 17 facilities.

APPENDIX D

Grand County Workshop Materials and Data

The following worksheets and data exhibits given to Grand County were typical of the data presented in the county workshops. The packet included an agenda, forms to be completed by the committee and background data.

Agenda

GRAND COUNTY TOURISM MEETING Steps for developing county-level tourism estimates

<u>TOPIC</u>	<u>HANDOUTS</u>
I. Introduction	Background/Agenda LEIFA Summary LEIFA Text (optional)
II. Review of Base Analysis	Base data from Fall Meeting
III. Review of Tourism (base weights by industry)	1 - page county-specific listing
IV. Review of tourism categories	Categories
V. Estimating Process	Allocation Table
VI. Discussion of Prospective Changes & Implications for the County	

GRAND COUNTY		SUMMARY					
	1990	1995	1997	2000	2005	2010	
JOBS							
Direct Base Industries Jobs			4,845	5,354	6,210	7,142	
Tourism			3,745	4,071	4,458	4,609	
Agricultural Prod. & Services			318	346	379	391	
Wholesale and Retail Trade			103	112	123	127	
Government			142	154	169	175	
Residency adjustment related local resident services			43	138	160	178	
Retiree-related local resident services			493	533	600	705	
Impacted Industries Jobs			2,618	2,893	3,357	3,860	
Multiplier - Total Jobs/Direct			1.54	1.54	1.54	1.54	
Estimated Total Jobs	5,354	6,886	7,463	8,247	9,567	11,002	
Average Annual Percent Change		5.2	4.1	3.4	3.0	2.8	
LABOR FORCE							
Jobs demand	5,354	6,886	7,463	8,247	9,567	11,002	
Commuters:							
-coming in to county	60	500	1,000	2,000	2,250	2,500	
-residents wrkg. out of county	700	1,000	1,500	2,000	2,000	2,000	
Jobs demand on residents	5,994	7,386	7,963	8,247	9,317	10,502	
X Multiple job holding rate	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	
Employed persons demand	5,449	6,714	7,238	7,496	8,469	9,546	
Unemployed persons	170	213	212	200	208	225	
Unemployment rate	3.0%	3.1%	2.8%	2.6%	2.4%	2.3%	
Labor force demand	5,619	6,927	7,450	7,696	8,677	9,771	
Average annual percent change		4.3	3.7	1.1	2.4	2.4	
Difference: Demand - Supply	395	871	944	636	514	334	
Estimated Labor force supply (CDLG)	5,224	6,056	6,506	7,060	8,163	9,437	
Estimated Labor Force Part. Rate	71.7	71.5	60.0	59.0	58.0	57.0	
POPULATION							
Estimated Actual Population	8,807	10,140	10,844	11,966	14,075	16,556	
(Assumes 10% undercount)							
Total Population	8,006	9,218	9,858	10,878	12,795	15,051	
Average annual percent change		2.9	3.4	3.3	3.3	3.3	

LOCAL ECONOMIC INFORMATION AND FORECASTING ASSISTANCE

Provided by the Colorado Demography Section

1. Data Preparation:

- clarification and resolution of data sources
- resolution of disclosure problems
(related to confidentiality of data)
- provision of data by *detailed* industrial categories
- local input and review

Result: single, complete, detailed and credible source of data on local economy

2. Base Industry Analysis:

- analytical approach that focuses on industries and sources of income that cause change in the local economy
- types of industries: direct and indirect base industries, and local resident service industries
- how base industries are determined: local knowledge, surveys, data from input-output data/models
- major base industry sectors include tourism and retirees
- geographic unit is the county except for within the Denver Region

3. Uses:

- National Forest Plans
- county economic development plans and forecasts
- Demography Section economic and population forecasts
- impact analyses and other special projects

PROFILE OF TOURISM ACTIVITIES

County _____

Question 1 In your opinion, of all the tourism-related *visitation* in your county, how would you estimate each tourism category listed below.* Use the following scale:

A is very large

B is large

C is medium

D is small

E is very small, but nonetheless exists in the county.

Where there is no activity at all, the category is simply crossed out. Several categories may receive the same rating.

Tourism Categories	“Traditional” Tourists	“Second-home” Tourists*
<i>On public lands:</i>		
1. Skiing		
2. Parks & Monuments		
3. Other Outdoor Recreation		
Summer (May-Aug.)		
Fall (Sept.-Nov.)		
Winter (Dec.-Apr.)		
<i>On private lands:</i>		
4. Resort Recreation		
5. Special Events		
6. City Trips		
7. Business Trips		
8. Casino Trips		
9. Touring		
10. Visiting Friends and Relatives		
11. Other Leisure		

*County officials are asked to estimate visitation using the broad letter designations specified above in order to establish a context for subsequent estimates of jobs. County officials are *not asked to estimate the primary purpose of tourist trips*, but to consider that a tourist may engage in activities associated with several tourist categories during one trip. The unit of measurement is a visit.

Question 2 What is the relative importance of “traditional” versus “second-home” tourism?

	%		%
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PROFILE OF TOURISM JOBS

County _____

Question 3 In your opinion, of all the tourism-related ***jobs*** in your county, how would you estimate each tourism category listed below. What would you estimate to be the proportions adding to 100% in each of the following tourism categories?

Tourist Categories	Tourist % or Proportion	# jobs from Tourism
<i>On public lands:</i>		
1. Skiing		
2. Parks & Monuments		
3. Other Outdoor Recreation		
Summer (May-Aug.)		
Fall (Sept.-Nov.)		
Winter (Dec.-Apr.)		
<i>On private lands:</i>		
4. Resort Recreation		
5. Special Events		
6. City Trips		
7. Business Trips		
8. Casino Trips		
9. Touring		
10. Visiting Friends and Relatives		
11. Other Leisure		
Total Jobs		

*This will be used to allocate jobs for construction, landscaping, real estate and rental activity. All counties are asked to make estimates regarding “traditional” tourists; only those counties where the housing stock is comprised of more than 20% second homes are asked to make additional estimates regarding “second-home” tourists.

Question 4 What proportion of tourism-generated total jobs are from within the county? Within the state? And from out-of-state?

CBEF Tourism Report

The final worksheets were returned to the county after the workshop for final approval. The Matrix is in summary form. The full worksheet also had jobs by category.

GRAND COUNTY - ABBREVIATED TOURISM MATRIX FOR 1997															
INDUSTRY DESCRIPTION	EMPLOYMENT			Proportion of Tourism Assigned to Category											
	Total	Tourism	Prop	Skiing	Resorts	Outdoor	Parks	Sp/Evnt	City	Busns	Casinos	Touring	VER	Other	Total
TOTAL	7,463	3,818	0.51	0.38	0.18	0.19	0.07	0.03	0.00	0.04	0.00	0.04	0.03	0.05	1.00
<i>Services</i>	<i>2,380</i>	<i>1,957</i>	<i>0.82</i>	<i>0.44</i>	<i>0.21</i>	<i>0.18</i>	<i>0.05</i>	<i>0.02</i>	<i>0.00</i>	<i>0.03</i>	<i>0.00</i>	<i>0.03</i>	<i>0.02</i>	<i>0.03</i>	<i>1.00</i>
Hotels & Other Lodging Places	703	689	0.98	0.31	0.15	0.27	0.08	0.03	0.00	0.04	0.00	0.05	0.01	0.06	1.00
Amusement.-3 Ski Co. + All Other	1,392	1,219	0.88	0.52	0.25	0.11	0.02	0.02	0.00	0.03	0.00	0.01	0.02	0.02	1.00
<i>Retail Trade</i>	<i>1,674</i>	<i>1,035</i>	<i>0.62</i>	<i>0.31</i>	<i>0.15</i>	<i>0.18</i>	<i>0.10</i>	<i>0.04</i>	<i>0.00</i>	<i>0.04</i>	<i>0.00</i>	<i>0.08</i>	<i>0.05</i>	<i>0.06</i>	<i>1.00</i>
Eating & Drinking Places	931	652	0.70	0.28	0.15	0.18	0.10	0.04	0.00	0.05	0.00	0.08	0.06	0.06	1.00
General Merch.,Apparel, & Furniture	100	57	0.57	0.42	0.16	0.14	0.11	0.04	0.00	0.04	0.00	0.06	0.02	0.01	1.00
Food Stores	214	96	0.45	0.26	0.13	0.23	0.13	0.04	0.00	0.00	0.00	0.08	0.06	0.07	1.00
Service Stations	72	27	0.37	0.31	0.11	0.21	0.11	0.04	0.00	0.04	0.00	0.09	0.05	0.04	1.00
Drugs, Liquor, Used	70	28	0.40	0.33	0.16	0.14	0.10	0.04	0.00	0.04	0.00	0.08	0.06	0.05	1.00
Sporting Goods, Luggage	203	128	0.63	0.37	0.13	0.20	0.11	0.02	0.00	0.02	0.00	0.09	0.03	0.03	1.00
<i>Real Estate & Construction</i>	<i>1,150</i>	<i>781</i>	<i>0.62</i>	<i>0.33</i>	<i>0.15</i>	<i>0.23</i>	<i>0.09</i>	<i>0.02</i>	<i>0.00</i>	<i>0.04</i>	<i>0.00</i>	<i>0.03</i>	<i>0.04</i>	<i>0.08</i>	<i>1.00</i>
Real Estate, Property Mgmt.	600	438	0.73	0.31	0.15	0.27	0.08	0.03	0.00	0.04	0.00	0.05	0.01	0.06	1.00
Building Construction	207	138	0.67	0.35	0.15	0.18	0.10	0.00	0.00	0.04	0.00	0.00	0.08	0.10	1.00
Maintenance - Special Trades	293	196	0.67	0.35	0.15	0.18	0.10	0.00	0.00	0.04	0.00	0.00	0.08	0.10	1.00
<i>Transportation</i>	<i>118</i>	<i>32</i>	<i>0.62</i>	<i>0.29</i>	<i>0.20</i>	<i>0.09</i>	<i>0.22</i>	<i>0.04</i>	<i>0.00</i>	<i>0.08</i>	<i>0.00</i>	<i>0.03</i>	<i>0.06</i>	<i>0.00</i>	<i>1.00</i>
Local & Suburban Transit	72	18	0.25	0.30	0.25	0.00	0.22	0.05	0.00	0.10	0.00	0.00	0.08	0.00	1.00
Air Transportation	0	0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Repair Services	39	8	0.20	0.25	0.10	0.24	0.20	0.00	0.00	0.03	0.00	0.10	0.08	0.00	1.00