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## Telluride 2001 Employee Generation Ratios

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### INTRODUCTION

In 1994, RRC Associates calculated employee generation numbers for various businesses based on more than 1,200 employer surveys from several ski/tourist-impacted communities and provided these figures to the Town of Telluride. The database has expanded to over 2,400 employer survey responses since 1994 and includes the following communities:

- Chaffee County: 1994
- Copper: 2001
- Eagle County: 1990, 1996, 1999
- Estes Park: 1991, 1999
- Frisco: 1998
- Gunnison County: 1992, 1998
- Keystone: 2001
- Pitkin County: 1991
- Routt County: 1990
- San Miguel County: 2000 (plus Telluride 2001)
- Snowmass Village: 1999
- Summit County: 1990, 2001
- Telluride: 1993, 1996
- Composite of Pitkin, Eagle, and Garfield Counties<sup>1</sup>: 1998
- Blaine County, ID: 1990, 1996

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### PURPOSE

The purpose of this report is to provide updated employee generation ratios based on the expanded database. These numbers are compared to the 1994 calculations and the Town of Telluride's Land Use Code commercial linkage requirements to estimate changes in business employee ratios, if any.

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<sup>1</sup> Source: Healthy Mountain Communities surveys of 1997/98 season

**BACKGROUND**

The Town of Telluride's Land Use Code requires new development to provide affordable housing for a minimum of 40% of the employees that will be generated by the proposed development, based on the following employee generation ratios:

Commercial/Public:	4.5 emps/1,000 sf
Hotels and Accommodations Uses:	0.33 emps/lodging unit
Residential:	0.33 emps/dwelling unit.

Alternatively, the developer may submit an independent calculation of the number of employees to be generated by the proposed development, based on submission and review criteria specified in the Land Use Code.

Updated 2001 employee generation figures relate only to the "Commercial/Public" and "Hotels and Accommodations Uses" Code requirements. "Residential" employee generation (employees generated by the construction of single family homes and condominiums) requires a different evaluation method than that for the commercial employee ratios presented herein.

**METHODOLOGY**

RRC Associates has been collecting employer survey data since 1990 for various ski/tourist-impacted communities. One component of these surveys explores the relationship between the type of the commercial establishment (e.g. bar/restaurant, retail, construction, etc.), the size of the commercial establishment in square feet, and the number of employees working in the business. These three measures are used to calculate job generation ratios for different types of businesses, typically expressed in terms of jobs per 1,000 square feet of commercial space. Lodging/hotel and property management businesses are expressed as jobs per room and per managed unit, respectively. By combining business employment information from multiple resort communities and over several years, the composite database serves to "iron-out" local year-to-year fluctuations in employment levels due to "good snow years" and other factors that would otherwise be reflected in strictly local employment evaluations.

The updated 2001 figures presented in this report were calculated using the same method specified in the 1994 Employee Generation Rate summary report presented to Telluride. Job generation ratios are based on over 1,600 complete business survey records and are calculated from reported "peak season" employee numbers. Further adjustment is made to account for multiple job holding by employees. Based on the 2000 Housing Needs Assessment sponsored by the Summit County Housing Authority, employees hold an average of 1.31 jobs during the ski season and 1.25 on average year round, as shown in the following table. Therefore, calculated jobs per commercial area are divided by 1.3 jobs per employee to generate figures in units of employees per 1,000 square feet.

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## Telluride 2001 Employee Generation Ratios

## Average Number of Jobs Held by Season

Season	Average # Jobs Held
Summer	1.22
Ski	1.31
Spring	1.23
Average	1.25

Source: Summit County Housing Needs Assessment, 2000

## EMPLOYEE GENERATION RATIOS

The following table compares employee generation ratios calculated for the 1994 Telluride report to values generated from the current database and specified in the Town of Telluride Land Use Code. Figures are in units of employees per 1,000 square feet of commercial space, unless otherwise noted.

Type of Use	Telluride 1994 Report	2001 Composite Database	Telluride Municipal Code
Restaurant/Bar	5.6	6.5	-
Construction	9.0	7.3	-
Education	2.6	2.3	-
Finance/banking	3.1	3.3	-
Government	2.6	3.2	-
Medical profession	-	2.9	-
Other prof. services	-	3.7	-
Personal services	3.6	1.3	-
Real estate/property management	7.5	5.9	-
Retail	3.0	3.3	-
Recreation/amusements	6.7	5.3	-
Utilities	3.1	2.9	-
Overall	4.2	4.4	4.5
Lodging/hotel	-	0.3/room	0.33/unit
Property management	-	0.3/unit	0.33/unit

Most business categories show small changes in employees per 1,000 square feet of commercial space between 1994 and 2001. Employee ratios for "Restaurant/Bar," "Retail," "Finance/Banking," and "Government" business categories increased slightly in this period, whereas "Education," "Recreation/Amusements," and "Utilities" show slight decreases. Businesses with more noticeable changes include "Construction," "Personal Services," and "Real Estate/Property Management." Differences in the latter two categories result mainly from definition changes since 1994. The "Personal Services" category was not used in the 1994 survey and was, therefore, estimated from the 1994 category "Other Services." Further, "Real Estate/Property Management" has been expanded since 1994 to include "Property Management," where "Property Management"

businesses are "Real Estate/Property Management" businesses that manage a specified number of units. "Real Estate/Property Management" businesses that specify the number of units they manage are calculated as employees per unit under "Property Management" and not included in the employees per 1,000 square feet calculation under "Real Estate/Property Management." Finally, changes in "Construction" between 1994 and 2001 are most likely the result of the expanded database. "Construction" employment is extremely variable by community and type of construction performed, as well as yearly fluctuations in construction projects. As more data is collected, employee ratios for highly variable businesses, such as "Construction," are expected to show less variation over time.

## SUMMARY

Comparing the 2001 figures to the Telluride Land Use Code, we see that the "Overall" figure of 4.4 employees per 1,000 square feet is very close to the 4.5 employees per 1,000 square feet specified in the Code. Additionally, 0.3 employees per room and 0.3 employees per unit for "Lodging/Hotel" and "Property Management" businesses are very similar to the 0.33 employees per unit specified in the Code. Overall, only slight changes are apparent between the 1994 calculated employee ratios and present 2001 figures.

As mentioned above, changes since 1994 may be due to a number of factors, including:

- *More data.* As more businesses are surveyed throughout different communities and over several years, the less the database is subject to variation due to yearly and local fluctuations in employment levels;
- *Definition changes.* Business categories and data selection criteria (e.g. quality control measures) evolve as more data is collected and we learn more about the data and its trends and applications; and
- *Ski/resort community changes.* To some extent, changes in employee ratios will be affected by changes in the ski and resort industries. However, as the database grows, employee ratios will only be affected by changes that are reflected in the majority of the resort communities contained in the composite database.

Because employee ratios may change over time, it is advised, as Telluride has done, to review these estimates once every few years to ensure that employee calculation methods and mitigation measures reflect actual employment generation and housing needs. In addition, periodic assessment of other aspects of the affordable housing program, including the mix of housing created, housing occupancy rates and availability, employee and community satisfaction, and overall effectiveness is also advised to ensure the local housing program as a whole is meeting the needs and goals of the community.

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## Addendum to "Telluride 2001 Employee Generation Ratios"

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### INTRODUCTION AND METHODOLOGY

Employee generation ratios can be calculated in several ways. In 1994, the chosen method of calculation was to calculate the number of jobs per 1,000 square feet for each surveyed business, then average the ratios within each business category to find the mean jobs per 1,000 square feet for each business category. This method was repeated in the "Telluride 2001 Employee Generation Ratios" report, which resulted in very similar ratios as those calculated and presented in 1994.

Two other methods are available to calculate employee ratios: (1) finding the median ("middle") value of employees per 1,000 square feet for each business rather than the average (mean) value and (2) finding the sum of employees and the sum of commercial square footage for each business category, then calculating jobs per 1,000 square feet from these two figures (e.g. (sum of employees) / (sum of square footage) \* 1,000).

The final step in all calculation methods is to divide jobs per 1,000 square feet by 1.3 jobs per employee. This accounts for multiple job holding and presents figures in units of employees per 1,000 square feet, as further described in the "Telluride 2001 Employee Generation Ratios" report.

The following table shows the 2001 composite database employee generation ratios and those calculated from the database that existed as of the Telluride 1994 report using each of the three calculation methods. Results are presented in units of employees per 1,000 square feet, unless otherwise noted.

Addendum to "Telluride 2001 Employee Generation Ratios"

Type of Use	2001 Composite Database			Telluride 1994 Report		
	(1) Mean	(2) Median	(3) Sum(emps)/Sum(sf)	(1) Mean	(2) Median	(3) Sum(emps)/Sum(sf)
Restaurant/Bar	6.5	5.8	5.9	5.6	5.5	5.2
Construction	7.3	4.5	3.2	9.0	3.8	2.7
Education	2.3	1.2	1.0	2.6	1.3	1.2
Finance/banking	3.3	2.3	2.6	3.1	2.3	2.8
Government	3.2	1.9	1.5	2.6	1.9	1.8
Medical profession	2.9	2.5	2.3	-	-	-
Other prof. services	3.7	2.7	3.0	-	-	-
Personal services	1.3	0.6	1.2	3.6	2.8	2.4
Real estate/property mgt	5.9	3.8	4.7	7.5	5.0	6.6
Retail	3.3	2.3	2.3	3.0	2.1	2.2
Recreation/amusements	5.3	3.6	4.5	6.7	3.8	3.5
Utilities	2.9	1.6	1.3	3.1	2.0	1.5
Overall	4.4	2.8	2.2	4.2	2.8	2.5
Lodging/hotel	0.3/room	0.2/room	0.4/room	-	-	-
Property mgt	0.3/unit	0.2/unit	0.2/unit	-	-	-

\*Source: RRC Associates calculations from composite database consisting of surveys conducted in over 15 communities, with over 2,400 businesses represented.

**BACKGROUND**

Since 1994, RRC Associates has more thoroughly reviewed these different calculation methods. While all three methods are valid means of calculation, it has been found that the third method (e.g. (sum of employees) / (sum of square footage) \* 1,000) tends to result in the most conservative employee estimates. This is because, for all business classes except "Lodging/hotel," as the square footage of the business increases, we see a slight decrease in the total number of employees per 1,000 square feet. The "sum" method gives more weight to these larger and less employee-intensive operations, placing the employee generation ratio at the more conservative (lower) end of the scale. The "mean," on the other hand, calculates the average of employees per 1,000 square feet for each business class, where each input value carries equal weight. As a result, this value tends to fall toward the middle-to-upper end of the employee generation scale. The "median" tends fall toward the middle-to-lower end of the employee generation scale, but represents the distribution of employee generation ratios rather than the actual values.

## CONCLUSION

This information is presented as an addendum to the "2001 Employee Generation Ratios" report in an effort to clarify the different calculation methods available and their corresponding results. As described above, each calculation method results in estimates within a valid range of employee generation ratios, where the "sums" method tends to be most conservative and the "mean" method tends to reflect the middle-to-upper end of the scale. Depending on community desires and local needs, more conservative estimates may or may not be desired. For example, communities that are trying to play "catch-up" with affordable housing may desire less conservative (though still valid) employee generation estimates than those communities that have more established housing programs. Additionally, because the "sum" method weights employee generation ratios more toward large commercial space businesses, the "mean" method may more accurately reflect actual employee generation ratios in communities that tend to have smaller-to-moderate sized commercial structures.

In any event, the variability of employment levels within and between business categories and communities makes it difficult to quantify employee generation ratios with one number for all businesses. However, by providing a base number supported by data as presented herein and permitting the developer the option of showing that employment levels may or may not agree with the codified number, as exists in the Town of Telluride Land Use Code, communities can establish a defensible and fair employee housing calculation and mitigation program.