

SECOND HOMES AND THE ECONOMIC BASE OF FOUR COUNTIES IN WEST CENTRAL COLORADO

AN ECONOMIC DRIVERS STUDY FOR GUNNISON,
HINSDALE, OURAY, AND SAN MIGUEL COUNTIES

PREPARED FOR THE USDA FOREST SERVICE,
REGION 2, IN PARTNERSHIP WITH THE REGION 10
LEAGUE FOR ECONOMIC ASSISTANCE AND
PLANNING, INC.

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LLOYD LEVY CONSULTING LLC, DENVER, COLORADO
WITH
SAMMONS / DUTTON LLC, DENVER, COLORADO

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COLORADO**

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EXECUTIVE SUMMARY

This report presents an economic analysis of Gunnison, Hinsdale, Ouray and San Miguel counties in west central Colorado, focusing on the economic effects of second home development. These counties contain, in part, the Grand Mesa, Uncompahgre and Gunnison (GMUG) National Forests. The counties also are a large part of the Colorado Region 10 planning area and they are all members of the Region 10 League for Economic Assistance and Planning, Inc.

The GMUG-Region 10 analysis takes methods previously used by the Northwest Colorado Council of Governments (NWCCOG) and applies them to the four-county area. The analysis estimates the number of second homes from county assessor's data using the definition derived from the NWCCOG study, i.e. one-family residential units and condominiums were analyzed as second homes when they showed an out-of-county home address for the property owner. IMPLAN Impact Analysis Software estimated the total employment originating from each economic driver in the county, including second-home owner spending, second home construction, tourism and household non-labor income, which includes the income of retirees. The study is useful because total employment attributable to economic drivers is underestimated using only direct local employment and therefore must be estimated by using an economic model.

The number of second homes is relatively large compared to total housing in the four-county area. The study estimated 3,459 second homes in Gunnison County, approximately 36% of total housing units; 836 second homes in Hinsdale County, 62% of total housing units; 672 second homes in Ouray County, 27% of total housing units, and 2,048 second homes in San Miguel County, 36% of total housing units. Condominiums as second homes are common in Gunnison County (32% of second homes) and in San Miguel County (55% of second homes). Both counties have destination ski resorts. Ouray County has a low percentage of condominiums among its second homes, and Hinsdale County has second homes but no condominiums.

The study found that second homes are relatively more important as an economic driver in San Miguel County than elsewhere in the four-county area, with 23% of total employment originating from second homes because of spending by second-home owners and guests, construction of second homes, and (where data was available) real estate commissions on the sale of second homes.

The percentage of jobs attributable to second homes in Hinsdale County is also high at 21%. Approximately 10% and 7% of total jobs respectively originate from second homes in Gunnison and Ouray counties. Traditional tourism, including skiing, is an important economic driver that generates 22% of total employment in Gunnison County, 33% in Hinsdale County, 24% in Ouray County, and 23% in San Miguel County. Gunnison County is also home to Western State College, a four-year institution whose students are predominantly non-local.

The GMUG-Region 10 analysis includes tables that make comparisons among the counties in the four-county area. In addition the second-home situation in the four-county area of Region 10 is compared to selected resort counties in Colorado's Planning Region 12, which was studied in 2004 by the NWCCOG.

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- Paul Gray and Leslie Jones, Interim Executive Director and past Executive Director; Rhona Keckler, Executive Assistant, and Karen Longwell, past Executive Assistant; and the Board of Directors of the Region 10 League for Economic Assistance and Planning, Inc.;
- Judith M. Smith, Gunnison County Assessor, and Vicki Hildreth, Gunnison County Deputy Assessor;
- Amy Wilcox, Hinsdale County Assessor; Rhonda Dunham, Hinsdale County Assessor's Clerk; and Michelle Pierce, Lake City Town Manager;
- Susie Mayfield, Ouray County Assessor, and Doris Johnson, Ouray County Assessor's Office;
- Peggy Kanter, San Miguel County Assessor, and Patty McNall, Administrative Clerk, San Miguel County Assessor's Office; and
- Elizabeth Garner, Jim Westkott and Cindy DeGroen, Colorado Demography Office, Department of Local Affairs.

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INTRODUCTION

This report presents an economic analysis of Gunnison, Hinsdale, Ouray and San Miguel counties in west central Colorado. The study is an effort to understand the economic effects of second homes in the four-county area. These counties contain, in part, the GMUG National Forests. The counties also are a large part of the Colorado Region 10 planning area and are members of the Region 10 League for Economic Assistance and Planning, Inc.

SCOPE OF THE GMUG/REGION 10 ECONOMIC DRIVERS STUDY

The intent of the study is to refine and apply the concepts and methods previously used by the Northwest Colorado Council of Governments (NWCCOG)¹ and apply them to four counties in Region 10 in west central Colorado. Results of the current study will assist the USDA-Forest Service and its collaborators in understanding economic and other implications of second homes in the four counties and promote improved land management, land use, and other decisions by all parties involved.

The Chief of the Forest Service has identified “Four Threats” to the health of National Forest System lands. The development and use of second homes in and around national forests embody aspects of three of the four threats: loss of open space, fire and fuels in the urban interface, and unmanaged recreation.

From the economic and forest health perspectives, then, the relationship between second homes and forest-related communities is an important consideration when planning for national forest management. This study furthers the understanding of such relationships in the Rocky Mountain Region, especially in the context of GMUG National Forests management.

METHODS

The GMUG/Region 10 economic drivers study applies methods that are similar to those used in the NWCCOG analysis. The NWCCOG economic analysis was able to draw upon several previous studies. These studies had already developed information that was incorporated in the NWCCOG economic analysis and had developed methods for using IMPLAN Social Accounting & Impact Analysis Software and data for estimating characteristics of the economy that can not be easily measured at the local level.²

The economic drivers study for the four-county area focused on the collection and analysis of assessor’s data to estimate the number of second homes and the value of new second home

¹ Linda Venturoni, Northwest Colorado Council of Governments, “The Social and Economic Effects of Second Homes.” Prepared for the Council, June 2004 (<http://www.nwc.cog.co.us/Second%20Home%20Study/NWCCOG%202ndHome%20Study%20Binder.pdf>).

² The IMPLAN software and data are products of the Minnesota IMPLAN Group, Inc. (MIG), Stillwater MN 55082. The MIG website address is www.implan.com.

construction. The approach replicated the NWCCOG study which considered single household residential units (including condominiums) to be second homes if the listed property had an out-of-county address.

This criterion was found to be useful in the four-county study area, though the data were scrutinized further in cooperation with the assessor's staff and with private consultants who use the data in their real estate valuation research. The additional scrutiny removed a number of properties from the list where specific characteristics suggested they were probably not second homes. These characteristics include location away from resort areas and structure types unlikely to be acquired as second homes. Culling the list for actual second homes was especially challenging with limited information in the Gunnison area where "absentees" may be owners of rental properties or residences for children attending Western State College.

With the tally and characterization of second homes receiving most of the resources available within the current scope of work, other characteristics and other drivers were estimated using the best available information. In the case of household non-labor income, the same quality of data was available for the GMUG/Region 10 study as for the NWCCOG. In other cases, such as relationships between second home value and second-home owner income, "proxies"—often adapted from the NWCCOG data—were used instead of specific measurements, which were not available at the time of the study but may be available in the future. In other cases, such as for estimating traditional tourism and other export industries, secondary data or estimates were available from the USDA Forest Service or from the IMPLAN model itself.

The study's methodology is useful because the relationship of total employment attributable to economic drivers is not easily measured directly at the local level. The concept of an economic driver is that of a combination of activities representing a "bundle" of final demands for closely related goods and services. An economic driver buys inputs from, and therefore creates jobs in, multiple business sectors that cater to its demands. Since the direct and secondary demands generated by an economic driver impact a range of industries, the total effect of an economic driver is best estimated, as in this study, by applying a model containing representations of both the industry effects of final demands and the subsequent inter-industry linkages. IMPLAN is an example of this kind of economic model.

Some qualifications apply to the analysis and results. All of the tables are economic "snapshots" that show the average state of the economy in a single year – the benchmark year of 2003. This qualification is particularly important in considering the estimate of jobs generated by second home construction because construction effects depend on the pace of development and other factors that vary from year to year. The estimates of jobs generated by second-home owner spending are likely to be more stable since they originate from an asset base that remains in place over time.

Other economic drivers are also subject to year-to-year variation. Jobs generated by commissions on sales of second homes and tourism, for example, may vary with the strength of the national economy. In addition these jobs are seasonal, so the number of jobs that may be observed "in season" may be very different from, and probably much higher than, the annual average numbers produced by the models used in this analysis.

An aspect of the economy that is not explicit in this analysis is how activity within one study-area county may impact another study-area county or even other counties within Region 10 that are not covered by the analysis. Linkages within the region and to other parts of the state and national economy are accounted for implicitly, but the potential cumulative effect of jobs and income moving within larger multi-county regions is not captured by the single-county models used for this analysis. A multi-county model could be constructed to measure this kind of interaction; typically the

multiplier effect of economic drivers within larger regions would be greater than those shown by this analysis for the individual counties.

Several other assumptions apply to this analysis:

- The “cross-walk” linking second-home value to owner income is based on data from Colorado Planning Region 12. It is assumed to be a good proxy for Region 10, but that assumption won’t be tested until a Region 10 survey of home owners is conducted.
- Fractional ownership properties were excluded from the second home tally and from the second-home spending analysis. The use of fractional ownership units is accounted for under tourism.
- This analysis was conducted independent of the economic base analysis published annually for Colorado counties by the State Demography Office of the Colorado Department of Local Affairs (DOLA). It is similar in concept, but it uses a different set of initial estimates of economic driver activity and, unlike DOLA, it uses the IMPLAN model to estimate the number of total jobs generated by an economic driver. The IMPLAN model, however, was benchmarked to DOLA employment estimates.

Having noted these qualifications, the study is part of an effort to identify the important drivers in the four-county study area and to quantify their impact within a rigorous economic framework. As opportunities arise to update and improve the region’s information base, the completed GMUG-Region 10 economic drivers study can demonstrate how and why further analysis and new research ought to proceed.

STUDY TEAM

The work of estimating, identifying and quantifying second homes and the associated economic parameters was performed by Lloyd Levy Consulting LLC of Denver, Colorado, in association with Ron Dutton of Sammons/Dutton LLC. Mike Retzlaff, Regional Economist, USDA-Forest Service, Rocky Mountain Region, managed the project and provided IMPLAN data and models calibrated to the DOLA employment estimates. Data on employment and data on non-labor income came from DOLA’s Colorado Demography Office, Elizabeth Garner, State Demographer.

JOB GENERATION EFFECTS

The analysis addresses two key questions in quantitative terms for Gunnison, Hinsdale, Ouray and San Miguel counties:

- What shares of the economic base are due to second homes or other drivers?
and
- What is the total effect of second homes and other economic drivers, as measured by the direct and secondary jobs they generate?

The section first summarizes the characteristics of second homes in the four-county area and then presents the results of the economic analysis.

SECOND HOME CHARACTERISTICS

Tables 1 to 3 are breakdowns of the second home inventory in each county by type, valuation, and size (square footage). The tables indicate that:

- Condominiums are the most common second home type in San Miguel County (55%) and the least common in Hinsdale County (1%);
- Second homes are relatively inexpensive in Hinsdale County where more than three-fourths of second homes were valued at less than \$200,000 (as of January 1, 2004, in 2002 dollars) and relatively more expensive in San Miguel County where half of all second homes were valued at \$500,000 and higher; and
- Larger units occur most frequently in Ouray and San Miguel counties where 10% or more of the second homes identified for the study contained 3,000 square feet or more.

Table 1: 2nd Homes by Type in Gunnison, Hinsdale, Ouray and San Miguel Counties as of January 1, 2004

HOUSING TYPE	GUNNISON		HINSDALE		OURAY		SAN MIGUEL	
	UNITS	SHARE	UNITS	SHARE	UNITS	SHARE	UNITS	SHARE
TOTAL 2ND HOMES	3,549	100%	836	100%	672	100%	2,048	100%
Condominium	1,127	32%	9	1%	38	6%	1,124	55%
Other	2,422	68%	827	99%	634	94%	924	45%
TOTAL HOUSING UNITS (1)	9,936		1,353		2,476		5,634	
2nd Homes as % of Total HU	36%		62%		27%		36%	

*Note: Data are from an analysis of county assessor's records by Lloyd Levy Consulting LLC, except as noted.
1. Estimates of total housing units as of January 1, 2004, by Lloyd Levy Consulting LLC from Estimates of Estimates of Population and Households for Colorado Counties and Municipalities (2003 and 2004), tables prepared by Colorado State Demography Office, dated November 9, 2004, and October 2005.*

Table 2: 2nd Homes by Valuation, Hinsdale, Ouray and San Miguel Counties as of January 1, 2004 (market value estimated by county assessors in 2002 dollars)

VALUATION	GUNNISON		HINSDALE		OURAY		SAN MIGUEL	
	UNITS	SHARE	UNITS	SHARE	UNITS	SHARE	UNITS	SHARE
< \$100,000	872	25%	339	41%	101	15%	29	1%
\$100,000-\$199,999	1,133	32%	289	35%	261	39%	153	7%
\$200,000-\$299,999	587	17%	115	14%	172	26%	267	13%
\$300,000-\$399,999	310	9%	59	7%	65	10%	211	10%
\$400,000-\$499,999	181	5%	18	2%	33	5%	196	10%
\$500,000-\$599,999	160	5%	5	1%	17	3%	163	8%
\$600,000-\$699,999	73	2%	7	1%	7	1%	112	5%
\$700,000+	233	7%	4	0%	16	2%	917	45%
TOTAL	3,549	100%	836	100%	672	100%	2,048	100%

Note: Data are from an analysis of county assessor's records by Lloyd Levy Consulting LLC.

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Table 3: 2nd Homes by Square Footage in Gunnison, Hinsdale, Ouray and San Miguel Counties as of January 1, 2004

SQUARE FOOTAGE	GUNNISON		HINSDALE		OURAY		SAN MIGUEL	
	UNITS	SHARE	UNITS	SHARE	UNITS	SHARE	UNITS	SHARE
<1000	1,244	35%	265	32%	143	21%	535	26%
1000-1999	1,601	45%	387	46%	325	48%	713	35%
2000-2999	433	12%	91	11%	134	20%	311	15%
3000-3999	152	4%	15	2%	52	8%	216	11%
4000-4999	76	2%	5	1%	9	1%	87	4%
5000+	43	1%	2	0%	9	1%	186	9%
NA	0	0%	71	8%	0	0%	0	0%
TOTAL	3,549	100%	836	100%	672	100%	2,048	100%

Note: Data are from an analysis of county assessor's records by Lloyd Levy Consulting LLC.

ANALYSIS RESULTS

The analysis identified all of the important drivers, including second homes, and compared their contribution to total employment. The results for each county are presented in the following tables.

GUNNISON COUNTY. In 2003 Gunnison County's economic drivers generated 7,052 direct jobs and total employment of 9,320 jobs (Table 4).

Table 4: Gunnison County—Economic Drivers Study, 2003 Data

DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: TOTAL TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
EXPORT GOODS & SERVICES					
2nd Home Spending (1)	619	9%	757	8%	1.224
2nd Home Real Estate Commissions	NA	NA	NA	NA	NA
Traditional Tourism/Travel/Skiing (2)	1,790	25%	2,054	22%	1.147
Agriculture	228	3%	364	4%	1.596
Mining (3)	2	0%	3	0%	1.277
Manufacturing	100	1%	143	2%	1.421
Western State College Students (4)	88	1%	111	1%	1.255
Other Goods & Services (5)	747	11%	1,334	14%	1.788
SUBTOTAL	3,574	51%	4,766	51%	1.334
CAPITAL CONSTRUCTION					
2nd Home Construction	79	1%	137	1%	1.727
Western State College Capital Expenditures (4)	11	0%	16	0%	1.414
Other Construction (5)	795	11%	1,204	13%	1.515
SUBTOTAL	885	13%	1,357	15%	1.533
GOVERNMENT					
Western State College Operations (4)	324	5%	486	5%	1.499

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DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: TOTAL TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
Other Government (5)	1,226	17%	1,415	15%	1.155
SUBTOTAL	1,550	22%	1,901	20%	1.227
HOUSEHOLD NON-LABOR INCOME					
Retiree (6)	420	6%	522	6%	1.244
Non-Retiree (7)	352	5%	437	5%	1.242
Net Commuter (8)	8	0%	12	0%	1.422
Other Household Non-Labor Income (5)	263	4%	325	3%	1.236
SUBTOTAL	1,043	15%	1,296	14%	1.242
TOTAL (9)	7,052	100%	9,320	100%	1.322

Notes

1. 2nd home spending is based on an estimate of the number of second homes multiplied by standardized data on household spending. The estimating procedure incorporates adjustments for household income and the amount of time the second home is in use by owner and guests. The procedure uses household-income specific models of spending patterns that are available in the IMPLAN.
2. Data on direct jobs from traditional tourism are from Dean Runyan Associates, *The Economic Impact of Travel on Colorado, 1996-2003*, prepared for the Colorado Tourism Office, Office of Economic Development and International Trade, Denver, Colorado. The estimate of total jobs from traditional tourism was estimated by applying an IMPLAN multiplier from a representative tourism-related industry to the direct jobs from the Runyan report.
3. Gunnison County also has approximately 250 direct coal mining jobs that are not shown here. The jobs were removed from the model because, due to their location in northwestern Gunnison County, all of the economic linkages are in adjoining Delta County.
4. Western State College provided the direct employment "head count". The college's secondary effects in the local economy were estimated from payroll and operating expenditures reported by the college and from estimates of student spending prepared by the consultant. The college provided 2003 capital expenditure. Capital expenditures by the college vary from year to year; therefore so do the number of jobs generated in the Gunnison County economy.
5. Items covered by this note are balancing entries.
6. Retiree household non-labor income includes Medicare payments.
7. Non-retiree household non-labor income includes allowances for dividends interest and rent.
8. Net commuter household non-labor income equals the residency adjustment when there is a net in-flow and equals a positive allowance for spending by non-resident commuters working in the local economy when there is a net out-flow. The positive allowance for non-resident commuters was estimated by the consultant.
9. Total county employment is based on the official estimates published by the State Demography Office, Colorado Department of Local Affairs. The estimate of total direct jobs in the county is generated by the IMPLAN model. Amounts in the columns of the table may not add up to the column total because of rounding.

The contributions of Gunnison County's important economic drivers are summarized here:

- 757 jobs, or 8% of total employment, originate from the local spending of second-home owners and guests; 137 jobs (1% of total employment) originate from second home construction.
- Other important drivers are traditional tourism, including skiing (2,054 jobs or 22% of total employment) and the combined effect of Western State College students (demand for "export goods and services"), capital expenditures (demand for "capital construction") and operations (demand for "government" services), which add up to 612 jobs, or 7% of total employment.
- Spending by owners of second homes and their guests contributed 37% as much to Gunnison County's total employment (757 jobs) as tourism (2,054 jobs).
- Household non-labor income as a whole generated 1,296 jobs, or 14% of total employment. This included 522 jobs generated by retiree non-labor income (6%

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of total employment) and 437 jobs generated by non-labor income of non-retiree households (5% of total employment).

- The ratio of total jobs to direct jobs is between 1.16 and 1.73 depending on the economic driver. The ratio of total jobs to direct jobs is 1.32 for the Gunnison County economy as a whole.
- Gunnison County’s economy responds robustly to Western State College as an economic driver. The ratio of total to direct jobs from college operations is approximately 1.50 and the ratio for all economic activity related to the college is approximately 1.45. Second home construction generates more total employment per direct job (a ratio of 1.73) but creates fewer direct jobs than Western State College.

HINSDALE COUNTY. Hinsdale County’s economic drivers generated 386 direct jobs in 2003 and total employment of 460 jobs (Table 5). Traditional tourism and second home activity generate the largest shares of direct and total private sector jobs in this small economy.

Table 5: Hinsdale County—Economic Drivers Study, 2003 Data

DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: SECONDARY TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
EXPORT GOODS & SERVICES					
2nd Home Spending (1)	71	18%	79	17%	1.117
2nd Home Real Estate Commissions	NA	NA	NA	NA	NA
Traditional Tourism/Travel (2)	118	31%	151	33%	1.284
Agriculture	0	0%	0	0%	0.000
Mining	0	0%	0	0%	0.000
Manufacturing	4	1%	5	1%	1.218
Other Goods & Services (3)	0	0%	0	0%	NA
SUBTOTAL	193	50%	235	51%	1.221
CAPITAL CONSTRUCTION					
2nd Home Construction	13	3%	19	4%	1.429
Other Construction (3)	41	11%	51	11%	1.242
SUBTOTAL	54	14%	70	15%	1.288
GOVERNMENT	96	25%	106	23%	1.106
HOUSEHOLD NON-LABOR INCOME					
Retiree (4)	20	5%	23	5%	1.130
Non-Retiree (5)	16	4%	18	4%	1.138
Net Commuter (6)	6	2%	7	2%	1.129
Other Household Non-Labor Income (3)	2	0%	2	0%	1.125
SUBTOTAL	44	11%	49	11%	1.133
TOTAL (7)	386	100%	460	100%	1.192

Notes:

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1. 2nd home spending is based on an estimate of the number of second homes multiplied by standardized data on household spending. The estimating procedure incorporates adjustments for household income and the amount of time the second home is in use by owner and guests. The procedure uses household-income specific models of spending patterns that are available in the IMPLAN.
2. Data on direct jobs are from Dean Runyan Associates, *The Economic Impact of Travel on Colorado, 1996-2003*, prepared for the Colorado Tourism Office, Office of Economic Development and International Trade, Denver, Colorado. The estimate of total jobs from traditional tourism was estimated by applying an IMPLAN multiplier from a representative tourism-related industry to the direct jobs from the Runyan report.
3. Items covered by this note are balancing entries.
4. Retiree household non-labor income includes Medicare payments.
5. Non-retiree household non-labor includes allowances for dividends interest and rent.
6. Net commuter household non-labor income equals the residency adjustment when there is a net in-flow and equals a positive allowance for spending by non-resident commuters working in the local economy when there is a net out-flow. The positive allowance for non-resident commuters was estimated by the consultant.
7. Total county employment is based on the official estimates published by the State Demography Office, Colorado Department of Local Affairs. The estimate of total direct jobs in the county is generated by the IMPLAN model. Amounts in the columns of the table may not add up to the column total because of rounding.

Key findings in Hinsdale County are as follows:

- 79 jobs, or 17% of total employment, originated from the local spending of second-home owners and guests. Nineteen jobs (4% of total employment) originated from second home construction. The combined activity related to second homes accounted for 21% of total employment.
- Other important drivers are tourism (151 jobs or 33% of total employment), all levels of government (106 jobs or 23%), and construction other than second homes (51 jobs or 11%);
- Spending by owners of second homes and their guests contributed 52% as much to total employment (79 jobs) as tourism (151 jobs).
- Though each component of household non-labor income is small on its own, the sector is important as a whole. Household non-labor income generated 49 jobs or 11% of total employment in Hinsdale County.
- The ratio of total employment to direct employment varies from 1.11 to 1.43, depending on the economic driver. The ratio of total jobs to direct jobs is 1.19 for the Hinsdale County economy as a whole.

OURAY COUNTY. Total employment in Ouray County was 2,270 in 2003 (Table 6), including 534 jobs generated by traditional tourism and 170 jobs (7% of total employment) generated by all second home-related activities. The large number of jobs originating from other segments of the construction industry (395 jobs or 17% of total employment) suggests that the driving force behind the construction industry is new residents of the county, perhaps including retiree migrants; local firms working on projects outside the county; or a combination of both.

Table 6: Ouray County—Economic Driver Study, 2003 Data

DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: SECONDARY TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
EXPORT GOODS & SERVICES					
2nd Home Spending (1)	69	4%	83	4%	1.192
2nd Home Real Estate Commissions	11	1%	16	1%	1.434
Traditional Tourism/Travel (2)	470	26%	534	24%	1.135

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DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: SECONDARY TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
Agriculture	57	3%	94	4%	1.651
Mining	9	1%	24	1%	2.502
Manufacturing	30	2%	57	3%	1.930
Other Goods & Services (3)	239	13%	345	15%	1.447
SUBTOTAL	885	49%	1,153	51%	1.302
CAPITAL CONSTRUCTION					
2nd Home Construction	48	3%	71	3%	1.483
Other Construction (3)	294	16%	395	17%	1.347
SUBTOTAL	342	19%	466	21%	1.366
GOVERNMENT					
	307	17%	346	15%	1.127
HOUSEHOLD NON-LABOR INCOME					
Retiree (4)	110	6%	131	6%	1.192
Non-Retiree (5)	77	4%	91	4%	1.191
Net Commuter (6)	53	3%	64	3%	1.191
Other Household Non-Labor Income (3)	16	1%	19	1%	1.197
SUBTOTAL	256	14%	305	13%	1.192
TOTAL (7)	1,790	100%	2,270	100%	1.268

Notes:

1. 2nd home spending is based an estimate of the number of second homes multiplied by standardized data on household spending. The estimating procedure incorporates adjustments for household income and the amount of time the second home is in use by owner and guests. The procedure uses household-income specific models of spending patterns that are available in the IMPLAN.
2. Data on direct jobs are from Dean Runyan Associates, *The Economic Impact of Travel on Colorado, 1996-2003*, prepared for the Colorado Tourism Office, Office of Economic Development and International Trade, Denver, Colorado. The estimate of total jobs from traditional tourism was estimated by applying an IMPLAN multiplier from a representative tourism-related industry to the direct jobs from the Runyan report
3. Items covered by this note are balancing entries.
4. Retiree household non-labor income includes Medicare payments.
5. Non-retiree household non-labor includes allowances for dividends interest and rent.
6. Net commuter household non-labor income equals the residency adjustment when there is a net in-flow and equals a positive allowance for spending by non-resident commuters working in the local economy when there is a net out-flow. The positive allowance for non-resident commuters was estimated by the consultant.
7. Total county employment is based on the official estimates published by the State Demography Office, Colorado Department of Local Affairs. The estimate of total direct jobs in the county is generated by the IMPLAN model. Amounts in the columns of the table may not add up to the column total because of rounding.

In Ouray County:

- 83 jobs (4% of total employment) originated from the local spending of second-home owners and guests, and 71 jobs (3% of total employment) originated from second home construction activity.
- Real estate sales data were obtained in Ouray County making it possible to estimate the value of second homes sold in 2003 to non-county buyers. Those data, plus an estimate of the typical commission rate, indicate that real estate commissions that were earned on second home sales generated 16 jobs in 2003, or 1% of total employment. The 16 total jobs attributable to sales commissions are approximately 16 percent of a total of 97 jobs in the Ouray County real estate

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industry that originate from export (i.e., out-of-county) demand, according to the IMPLAN model.³

- Tourism accounted for 534 jobs or 24% of total employment. The contribution to total employment originating from the spending of second-home owners and guests (83 jobs) was 16% as large as from tourism (534 jobs).
- Other important economic drivers are other construction (395 jobs or 17% of total employment), export of “other goods and services”⁴ (346 jobs or 15%), and government at all levels (346 jobs or 15%).
- Household non-labor income as a whole generated 305 jobs or 13% of total employment. This impact included 131 jobs originating from the non-labor income of retiree households (6% of total employment).
- The ratio of total employment to direct employment is 1.19 for second home spending and 1.48 for second home construction. Export mining and manufacturing have larger ratios of total to direct employment (2.50 and 1.93 respectively) but together they account for only 4% of all jobs in Ouray County. The ratio of total employment to direct employment was 1.27 for the county as a whole.

SAN MIGUEL COUNTY. San Miguel County is the second largest economy in the four-county region. Like Gunnison County it hosts a major ski resort. Economic activity due to second-homes—including owner/guest spending, real estate commissions on sales of second homes, and second home construction—generated 1,446 jobs in 2003 or 23% of total employment in San Miguel County, which was 6,331 jobs in 2003 (Table 7).

Table 7: San Miguel County—Economic Driver Study, 2003 Data

DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: SECONDARY TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
EXPORT GOODS & SERVICES					
2nd Home Spending (1)	670	13%	792	13%	1.181
2nd Home Real Estate Commissions	41	1%	62	1%	1.500
Traditional Tourism/Travel (2)	1,280	26%	1,446	23%	1.130
Agriculture	67	1%	97	2%	1.448
Mining	27	1%	30	0%	1.124
Manufacturing	75	2%	104	2%	1.381
Other Goods & Services (3)	818	16%	1,299	21%	1.590
SUBTOTAL	2,978	60%	3,830	60%	1.286

³ Many jobs in the real estate industry are part-time or seasonal, and local transactions may be handled by agents from offices in other counties, making it difficult to reconcile IMPLAN-based estimates of industry employment to other kinds of information pertaining to real estate employment. In addition, as defined for IMPLAN, the real estate industry includes businesses primarily engaged in renting or leasing real estate to others; managing real estate for others; selling, buying, or renting real estate for others; and providing other real estate related services, such as appraisal services.

⁴ In the four-county area, jobs originating from the export of other goods and services are typically in the real estate and professional/technical services sectors.

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DRIVER	DIRECT JOBS ATTRIBUTABLE TO DRIVER		TOTAL JOBS ATTRIBUTABLE TO DRIVER		RATIO: SECONDARY TO DIRECT JOBS
	AMOUNT	SHARE OF TOTAL	AMOUNT	SHARE OF TOTAL	
CAPITAL CONSTRUCTION					
2nd Home Construction	400	8%	593	9%	1.485
Other Construction (3)	500	10%	646	10%	1.290
SUBTOTAL	900	18%	1,239	20%	1.377
GOVERNMENT	643	13%	726	11%	1.130
HOUSEHOLD NON-LABOR INCOME					
Retiree (4)	200	4%	239	4%	1.196
Non-Retiree (5)	154	3%	183	3%	1.191
Net Commuter (6)	3	0%	4	0%	1.387
Other Household Non-Labor Income (3)	96	2%	109	2%	1.130
SUBTOTAL	453	9%	535	8%	1.182
TOTAL (7)	4,974	100%	6,331	100%	1.273

Notes:

1. 2nd home spending is based on an estimate of the number of second homes multiplied by standardized data on household spending. The estimating procedure incorporates adjustments for household income and the amount of time the second home is in use by owner and guests. The procedure uses household-income specific models of spending patterns that are available in the IMPLAN.
2. Data on direct jobs are from Dean Runyan Associates, *The Economic Impact of Travel on Colorado, 1996-2003*, prepared for the Colorado Tourism Office, Office of Economic Development and International Trade, Denver, Colorado. The estimate of total jobs from traditional tourism was estimated by applying an IMPLAN multiplier from a representative tourism-related industry to the direct jobs from the Runyan report
3. Items covered by this note are balancing entries.
4. Retiree household non-labor income includes Medicare payments.
5. Non-retiree household non-labor includes allowances for dividends interest and rent.
6. Net commuter household non-labor income equals the residency adjustment when there is a net in-flow and equals a positive allowance for spending by non-resident commuters working in the local economy when there is a net out-flow. The positive allowance for non-resident commuters was estimated by the consultant.
7. Total county employment is based on the official estimates published by the State Demography Office, Colorado Department of Local Affairs. The estimate of total direct jobs in the county is generated by the IMPLAN model. Amounts in the columns of the table may not add up to the column total because of rounding.

Other important observations in San Miguel County include the following:

- 792 jobs in San Miguel County (13% of total employment) originated from the local spending of second-home owners and guests; 62 jobs (1% of total employment) originated from sales commissions on second homes, and 593 jobs (9% of total employment) originated from second home construction.
- Sales commissions on second homes supported 41 direct real estate jobs and a total of 62 jobs throughout the economy of San Miguel County. The 41 direct real estate jobs are approximately 12% of an estimated 354 direct jobs in San Miguel County that originate from export (i.e., out-of-county) demand for real estate industry services, according to the IMPLAN model.⁵

⁵ See note 3.

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- Other important economic drivers in San Miguel were tourism (1,446 jobs, or 23% of total employment) and export of other goods and services (1,300 jobs, or 21% of total employment)
- The contribution to total employment attributable to spending by second-home owners and guests (792 jobs) was approximately 55% as large as the contribution attributable to tourism (1,446 jobs).
- Household non-labor income as a whole generated 535 total jobs or 8% of total employment. This included 239 total jobs originating from the non-labor income of retiree households (4% of total employment) and 183 total jobs originating from non-retiree household non-labor income (3% of total employment).
- Depending on the economic driver, the range of ratios of total to direct employment for San Miguel County (based on 2003 data) falls between 1.13 and 1.59. The ratio of total jobs to direct jobs for the county economy as a whole was 1.27.

STUDY AREA COMPARISONS

Relatively speaking second homes are a more important contributor to total employment in San Miguel County than elsewhere in the four-county study area, with 23% of all jobs in San Miguel County originating from second homes in 2003. The percentage of jobs attributable to second homes in Hinsdale County is also high at 21%.

Figures 1 through 4 (following pages) illustrate the share of total county employment originating from each economic driver. (The drivers are summarized to make the figures easier to interpret.) As the figures show there is variation from county to county in the share of total employment attributable to the second home economic driver, which is defined for this analysis to include the spending of second-home owners and guests, construction of second homes, and (when data are available) real estate commissions on the sale of second homes:

- In Gunnison County (Figure 1), approximately 10% of total jobs can be attributed to second homes (data were not available to estimate real estate commissions on second homes);
- In Hinsdale County (Figure 2), approximately 21% of total jobs can be attributed to second homes (data were not available to estimate real estate commissions on second homes);
- In Ouray County (Figure 3), approximately 7% of total jobs can be attributed to second homes including jobs originating from real estate commissions; and
- In San Miguel County (Figure 4), approximately 23% of total jobs can be attributed to second homes including jobs originating from real estate commissions.

Figure 1: Gunnison County—Number and Percentage of Total Jobs Due to 2nd Homes & Other Economic Drivers in 2003

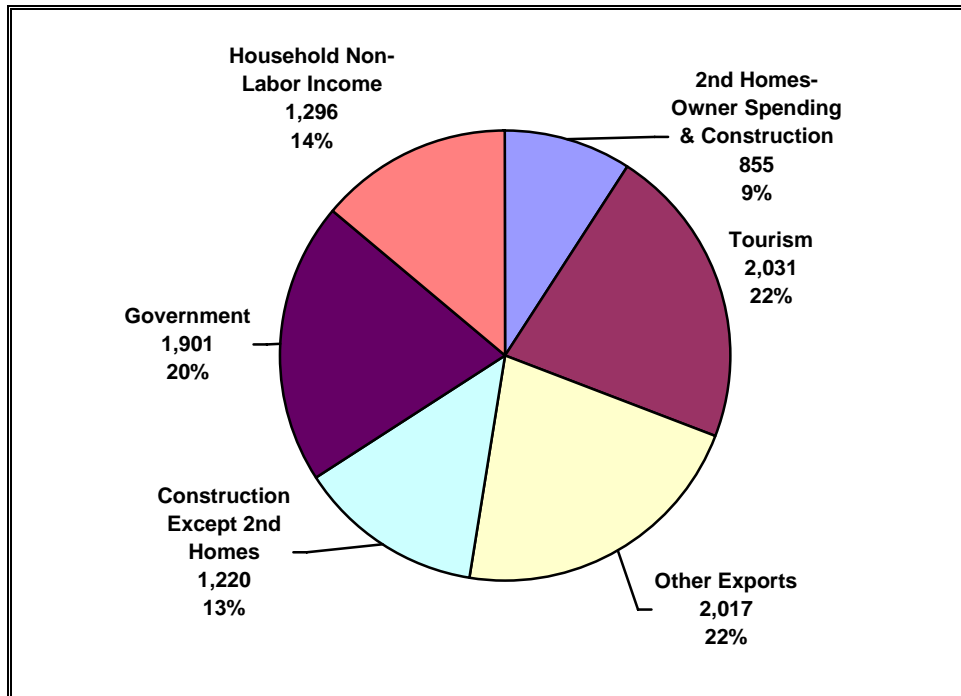


Figure 2: Hinsdale County—Number and Percentage of Total Jobs Due to 2nd Homes & Other Economic Drivers in 2003

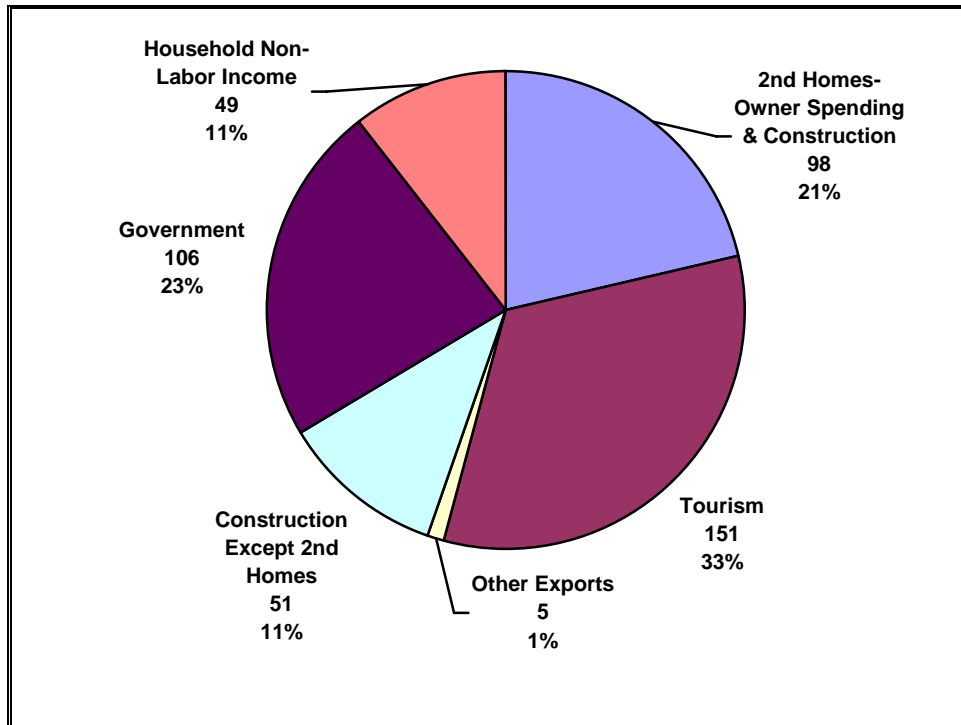


Figure 3: Ouray County— Number and Percentage of Total Jobs Due to 2nd Homes & Other Economic Drivers in 2003

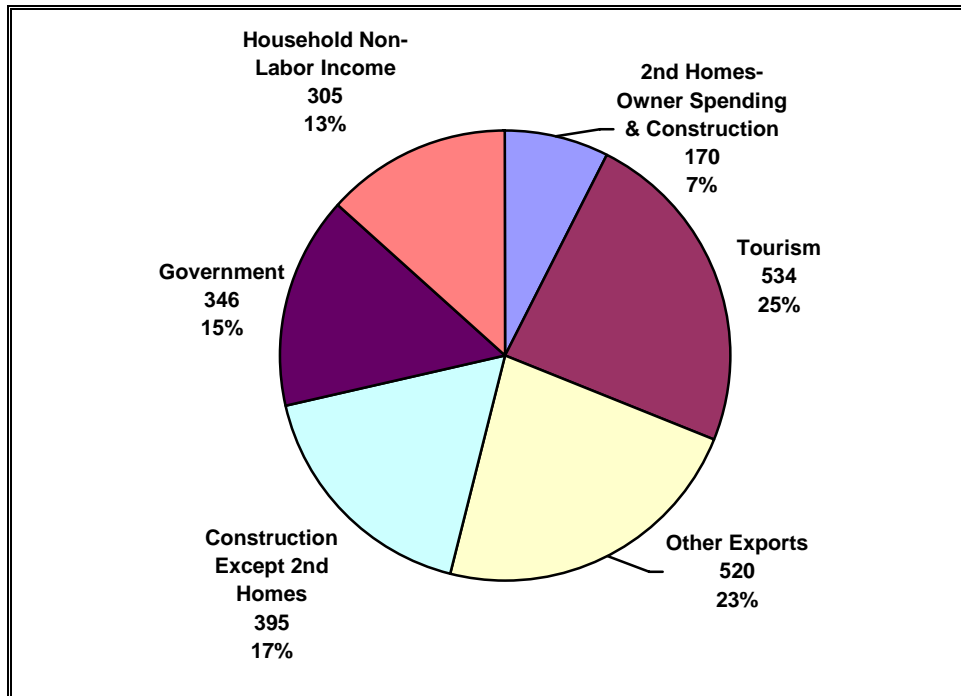
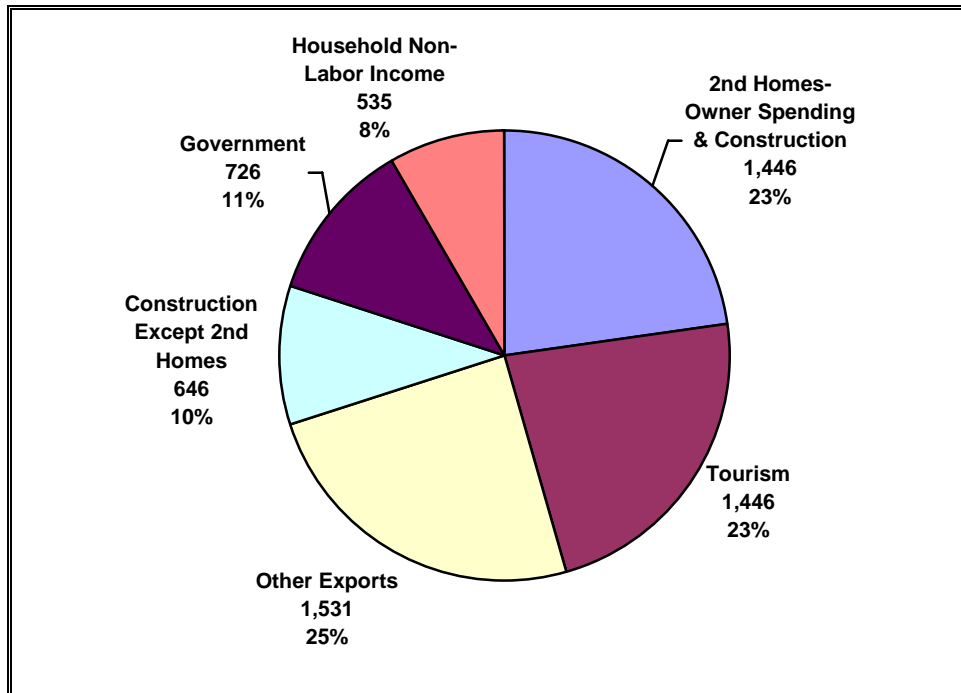


Figure 4: San Miguel County— Number and Percentage of Total Jobs Due to 2nd Homes & Other Economic Drivers in 2003



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Comparing the four-county area with other places that have second homes can offer insights into economic trends related to second homes. A common perspective is that resort economies follow certain patterns as they mature. Will these four counties follow such patterns? Though this analysis does not directly address the question, a pattern that appears when key characteristics of the situation in Region 10 are compared to selected resorts from Colorado’s Planning Region 12 does suggest that possibility (Table 9):

- Condominiums generally characterize vacation home-oriented resorts, with data from Grand and Pitkin counties (50% and 67% condominiums) suggesting that this trend has emerged in San Miguel County (with 55% condominiums); and
- Gunnison, Hinsdale, Ouray and San Miguel counties, which rely of second homes for 10%, 21%, 7% and 23% of total jobs respectively, may trend toward higher percentages in the future if that is what is indicated by Pitkin County, where 41% of total employment originates from second homes.

Table 8: Key Comparisons of Second Homes in Gunnison, Hinsdale, Ouray and San Miguel Counties to Selected Counties in Colorado Planning Region 12

	REGION 10				REGION 12 (1)	
	GUNNISON	HINSDALE	OURAY	SAN MIGUEL	GRAND	PITKIN
Number of Second Homes (2)	3,549	836	672	2,048	6,360	5,618
% Condominium	32%	1%	6%	55%	50%	67%
Total Jobs (3)	9,320	460	2,270	6,331	8,604	19,204
% of Total Jobs Due to Second Homes	9%	21%	7%	23%	32%	41%

Notes:

1. Data for Region 12 from, *The Social and Economic Effects of Second Homes*, prepared by Linda Venturoni for the Northwest Colorado Council of Governments, June 2004 (<http://www.nwc.cog.co.us/Second%20Home%20Study/NWCCOG%202ndHome%20Study%20Binder.pdf>).

2. Data for second homes are as of January 1, 2004 for Region 10 and as of January 1, 2003, for Region 12. 3. Total jobs are annual average in 2003 for Region 10 and in 2002 for Region 12.

Though interesting the information in Table 8 is not conclusive and suggests that more study would be useful to inform local planning efforts. Issues to consider might include specific characteristics of second-home economies in terms of owner income, unit size and value, local availability of services, and opportunities for labor force residency among others. Factors like these would complicate the impact of second homes on jobs. This may be reflected in Table 8 (above) by the contrast between San Miguel County (Region 10), where 23% of total employment is due to second homes, and Grand County (Region 12), where 32% of total employment is due to second homes.

ANALYSIS PROCESS

The following sections provide information on prior research, on economic theory used in the analysis, and on methods and data used in the analysis.

PREVIOUS STUDIES

Previous studies reviewed included:

- Economic Base Analysis, State Demography Section, Colorado Department of Local Affairs (DOLA). Published annually on the State Demography Section website (<http://www.dola.state.co.us/demog/leifa1.cfm>).
- Special studies of tourism jobs in 2000 and 2001 prepared by DOLA and the Center for Business and Economic Forecasting, Denver, Colorado, with support from the USDA Forest Service, Bureau of Land Management, and the Colorado Tourism Board (available from DOLA);
- Northwest Colorado Council of Governments (NWCCOG), 2003 Resort Homeowners Survey and Analysis of Assessor's Data [data set] (available from the council, Frisco, Colorado);
- Articles on the economic contribution of second homes—The Economic and Social Impacts of Second Homes in Four Mountain Resort Communities of Colorado, presented by Linda Venturoni, Northwest Colorado Council of Governments, Patrick Long and Richard Perdue, University of Colorado, 2005 Annual Meeting of the Association of American Geographers, April 2005, Denver Colorado (proceedings available from the Association); Walter Lamia (2003), Impact of second home ownership on local employment, unpublished paper presented in completion of Colorado State University, EC 563, Stephan Weiler, professor (available from NWCCOG); D. J. Stynes (2003), Economic impacts of seasonal homes in the eastern Upper Peninsula, paper presented at a seasonal home research workshop, Lakehead University, Thunder Bay, Ontario, May 2002 (available from the author, Michigan State University); and Peter Francese (2003), The second home boom, *American Demographics*, June 2001;
- Local government reports—Breckenridge Residential Job Generation Study: Final Report (2000), prepared for the Town of Breckenridge by The Housing Collaborative, LLC, and Rees Consulting, Inc., December 2000 (available from the town); Lloyd Levy Consulting (2004), Job Generation in the Colorado Mountain Resort Economy: Second Homes and Other Economic Drivers in Eagle, Grand, Pitkin and Summit Counties, Prepared for the Northwest Colorado COG by Levy, Hammer, Siler, George Associates, Denver, Colorado (available from the NWCCOG); and Telluride Affordable Housing Strategic Plan: Final Report, EPS #12841 (2004), Prepared for the Town of Telluride by Economic & Planning Systems, Inc., March 2004 (available from the town).
- Studies and articles on tourism—The Economic Impact of Travel on Colorado, 1996-2003, prepared by Dean Runyan Associates for the Colorado Tourism Office, Office of Economic Development and International Trade, Denver, Colorado, June 2004 (available from the Office), and Assessing National Forest Recreation Estimates Using Tourism & IMPLAN: Two Case Studies, presented by David “Tex” Taylor, Department of Agricultural Economics, University of Wyoming, and Mike Retzlaff, USDA Forest Service, Rocky Mountain Region, at Mid-Continent Regional Science Association 37th Annual Conference and IMPLAN 6th Biennial National User's Conference (meeting jointly), June 8-10,

2006, Indianapolis, Indiana (proceedings not yet available; available from the authors).

All of these works served as a foundation for this analysis. The question of how to attribute job generation to specific economic drivers is a common thread in all of these studies. By applying economic base theory to the problem and structuring the analysis around the IMPLAN economic modeling system, this study attempted to address the question in a definitive manner.

ECONOMIC BASE THEORY

A local economy depends on basic economic activities, or “economic drivers,” that bring non-local dollars to the community. Economic drivers include traditional export industries. They can include government agencies and their employees (local examples include the offices of the USDA-Forest Service). And they can include tourists and second homeowners who visit from outside the region and spend money on local accommodations, goods and services.

Other industries and social institutions within the community amplify the direct effect of the economic drivers. It is the variety of producers and consumers and the linkages among them within the region that determine the total impact of an economic driver. Stimulated by the direct spending associated with an economic driver, local business and households respond with their own demand for labor, goods and services that other businesses and households try to anticipate and fulfill.

This is an iterative process, as illustrated in Figure 5 (following pages). An economic driver’s demand for goods and services generates a response by other industries. The response of other industries creates new demand. A part of each new round of demand is captured locally; this generates income and spending and raises the level of income available, with income that is paid to local households and that is spent locally, in part, generating yet more jobs. Adding up the total effects of the jobs generated by the first round, plus jobs generated in each subsequent round represents the economic “multiplier” effect.

The multiplier effect has a limit. Part of the demand from each round is captured locally but some goes outside the region as “leakage.” Leakage can be as simple as the decision to shop for a refrigerator in a trading center 100 miles away instead of at a local store. Because of leakage the internal recirculation of income gradually loses momentum, which limits the multiplier effect.

FRAMEWORK

The analysis process simulates the economic theory just described. Figure 6 (following pages) illustrates the process: available data are obtained or estimates are made to measure the direct effects of economic drivers in terms of spending or employment. The IMPLAN model is used to estimate the total employment effects by driver and industry.

Furthermore the current estimates of total employment published by DOLA were used to calibrate the IMPLAN model to local conditions. The DOLA estimates for 2003 were used as the benchmark for the study, as shown in Table 9 (following pages). Note that DOLA consults with local governments to identify data gaps, misclassifications and other potential problems in the estimates. The final DOLA estimates are generally accepted for use by state and local governments.

Figure 5: Institutions and their Linkages Create a “Multiplier Effect” in Local Economies

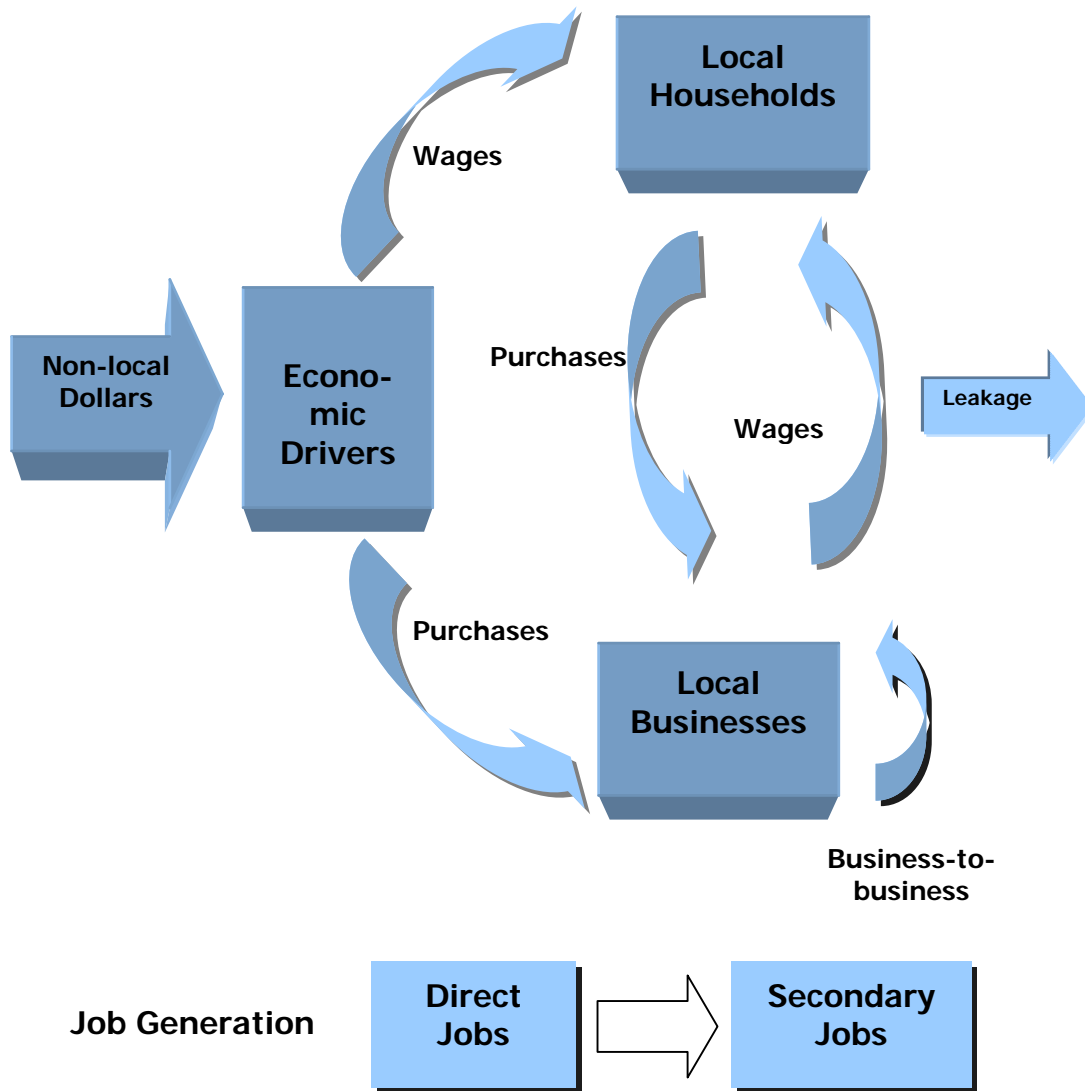


Figure 6: Analysis Process for the GMUG/Region 10 Economic Drivers Study

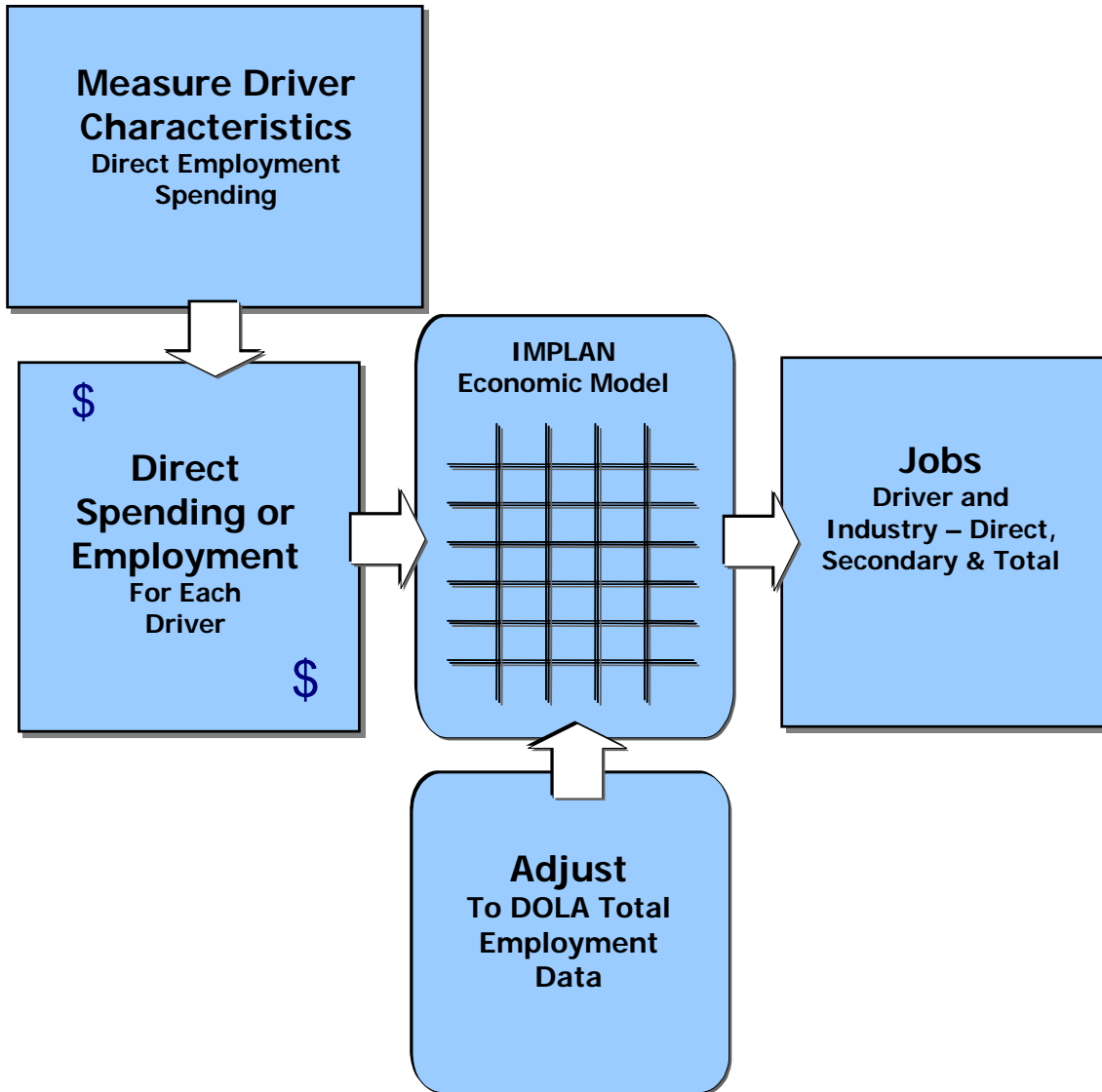


Table 9: Total Jobs in Gunnison, Hinsdale, Ouray and San Miguel, 2003

INDUSTRY SECTOR	GUNNISON	HINSDALE	OURAY	SAN MIGUEL
Ag, Forestry, Fish & Hunting	342	-	100	90
Mining	2	-	10	28
Construction	1,000	60	378	965
Manufacturing	162	5	56	107
Wholesale Trade	52	-	15	34
Transportation & Warehousing	187	3	49	71
Retail Trade	1,086	57	198	522
Information	94	9	38	131
Finance & Insurance	229	18	55	133
Real Estate & Rental	540	30	121	650
Professional, Scientific & Technical Services	482	34	135	358
Management of Companies	9	-	-	1
Administrative & Waste Services	230	27	42	227
Educational Services	174	-	-	83
Health & Social Services	334	9	77	199
Arts, Entertainment & Recreation	725	16	126	505
Accommodations & Food Services	1,456	67	430	1,150
Other Services	595	33	149	351
Government	1,621	92	291	725
TOTAL	9,320	460	2,270	6,331

Notes: Data are from State Demography Section, Colorado Department of Local Affairs. Services in the private sector (e.g. private schools) are categorized in non-government industry sectors. Publicly funded services are categorized in the Government sector. IMPLAN industry sectors are consistent with the definitions in the North American Industry Classification System (NAICS) 2002.

ESTIMATION METHODS

The process used to estimate the spending associated with each driver depends on the character of the driver and the data available. Emphasis was placed on estimating the direct effect of economic activities associated with second homes. Proxy data or secondary data were generally relied upon for estimates of other drivers. DOLA provided unpublished data on household non-labor income broken down into retiree and non-retiree components. How each economic driver was estimated is described in the following.

SECOND HOME SPENDING. An electronic file of assessor's data was obtained from each county. The file contained records representing residential properties with an out-of-county owner's address. This is the criterion that was used by the NWCCOG study, which considered single household residential units including condominiums to be second homes if the property owner has an out-of-county home address.

This criterion was found to be useful in the four-county study area, though the data were scrutinized further in cooperation with the assessor's staff and with private consultants who use the data in real estate valuation research. The additional scrutiny helped to remove a number of properties from the list where specific characteristics suggested they were probably not second homes. These characteristics include structure types unlikely to be acquired as second homes and location away from resort areas. Culling the list for actual second homes was especially challenging with limited information in the Gunnison area where "absentees" may be owners of rental properties or residences for children attending Western State College. Using the basic criterion and additional

information, the data files were “cleaned” by eliminating multi-family structure types, single family and farm/ranch residential properties in the most rural parts of the counties and by eliminating manufactured housing types in non-resort areas of the counties.

Housing units in the cleaned data file were sorted into eight value categories with each category corresponding to an average household income. The “cross-walk” or table of correspondence between second home value and an estimate of household income for the owner was derived from the 2003 Property Owners Survey conducted previously as part of the NWCCOG study.

Household incomes were multiplied by a disposable income factor to estimate total household spending and then by a “full-time household equivalency” factor (FTHE) specific to the second-home county to arrive at an estimate of local spending. The disposable income factor was derived from an appropriate 2003 Consumer Expenditure Survey (CES) consumer unit profile based on household income. (The CES is a product of the U.S. Bureau of Labor Statistics.) Values for the FTHE were adopted from the analysis of second home owner survey data presented by the NWCCOG. The FTHE of 0.2 for Grand County, signifying that owners and guests spend about 20 percent of the year (or about 73 days) at their second home, was used as the proxy for the unknown FTHE in Gunnison, Hinsdale and Ouray counties. The FTHE of 0.29 for Pitkin County, signifying that owners and guests spend about 29 percent of the year (or about 106 days) at their second home, was used as the proxy for the unknown FTHE in San Miguel County. Short-term rental usage of second homes (e.g., through a “rental pool”) is considered to be a type of lodging use, and the spending of rental users of second homes is captured in the traditional tourism driver.

SECOND HOME CONSTRUCTION. Second home construction activity was defined and measured as the cost of new construction put in place in the benchmark year. The total amount for each county was estimated using the data provided by county assessors. Properties flagged with a “year built” of 2003 were extracted from the assessor’s data file and categorized by structure type. The sum of the value of units was taken as an estimate of the value of new construction for the year for that structure type. The impact of second-home construction on a county’s economy will vary from year to year depending on the pace and value of new construction. In addition, differences in the impact of second home construction from county to county will vary according to differences in the availability of local labor and different levels of reliance on imported construction services.

SECOND HOME COMMISSIONS. Real estate commissions earned on second home sales were estimated for Ouray and San Miguel counties. The data were obtained by purchasing custom reports from private vendors that listed single-family and condominium units and their selling price for units sold to out of county buyers in the benchmark year of 2003. The reports are similar to those prepared by the vendors for clients who follow local real estate markets, and the data are considered reliable by the real estate industry. The total value of sales was multiplied by an estimate of the typical real estate commission rate for residential property. The estimate of typical commission rates was provided by the report vendors based on market information available to them either through examination of sales contracts or familiarity with local practices. The estimated typical commission rate used for the analysis of second home sales in Ouray County was 6.5%, and the rate used in San Miguel County was 7%.⁶

TRADITIONAL TOURISM. Estimates of direct spending and employment attributable to visitors were adopted from a report prepared by industry consultant Dean Runyan Associates (2004) for the Colorado Tourism Office. Data from 2003 were used.

⁶ Sales data and the estimate of typical real estate commission rates for Ouray County were obtained from Comparable Sales Research of Montrose, Colorado. Sales data and the estimate of typical real estate commission rates for San Miguel County were obtained from Telluride Consulting of Telluride, Colorado.

AGRICULTURE, MINING, MANUFACTURING AND GOVERNMENT. For agriculture, mining and manufacturing, the IMPLAN model provided an estimate of the direct employment, total employment and output (industry sales) originating from domestic and foreign export market demand. IMPLAN data were also used as the estimate of local final demand of government agencies and government enterprises.

HOUSEHOLD NON-LABOR INCOME. Income data were provided by DOLA on non-labor income of retiree households, non-retiree households, Medicare payments, and the “residency adjustment.” The total non-labor incomes by type were multiplied by a disposable income factor to estimate total household spending. In each case, the disposable income factor was derived from an appropriate consumer household profile from the 2003 CES based on estimated household income. For “in-commuters,” an assumption was made that 10 percent of household expenditures for a few types of consumption (principally groceries and eating out) are made in the workplace county.⁷ In every county, employment estimated by the IMPLAN as attributable to household non-labor income exceeded the employment estimated from the income data provided by DOLA. The difference is presented in the tables in the category titled “Other Household Non-Labor Income.”

IMPLAN MODELING

IMPLAN is an input-output based model originally developed by the USDA-Forest Service and has been in use since 1979. It was privatized in 1993, and is now owned by Minnesota IMPLAN Group, Inc. (MIG). The MIG product is now in its second Windows version. IMPLAN is a widely recognized and accepted tool for economic impact assessment and has been used by academics, cooperative extension services, government agencies, and consulting firms in thousands of studies conducted across the U.S.

The application of IMPLAN in this study combines IMPLAN’s impact assessment function with its descriptive model of economic structure and linkages in a county economy. The study team assigned spending estimates either to appropriate institutional consumption categories available in the IMPLAN model or to appropriate industries. Each driver for each county was analyzed using the specific county IMPLAN model. Model outputs were then consolidated into a comprehensive report that relates total employment to the direct employment generated by each driver.

ESTIMATING DEMAND

Table 10 presents an estimate of the amount of “exogenous” final demand (i.e., originating or funded from outside of the local economy) that is represented by each economic driver. These final demands lead to the sales of local goods and services that create direct and indirect jobs in the local economy. The estimates are directly related to the job generation effects of the economic drivers that have been presented in previous sections. Sources for the data items are presented in the notes attached to the table.

Table 10: Estimates of Local Demand in 2003 by Economic Driver, in millions of 2003 dollars

DRIVER	GUNNISON	HINSDALE	OURAY	SAN MIGUEL
EXPORT GOODS & SERVICES				
2nd Homes (1)	\$91.2	\$15.9	\$16.4	\$138.3
2nd Home Real Estate Commissions (1)	NA	NA	3.1	13.4
Other Tourism/Travel (2)	92.6	11.4	23.5	102.1

⁷ A community survey in Region 10 may provide primary data to replace this assumption in the future. Community surveys are already under way in Region 12 and data from those efforts also may be useful in refining the value assigned to this factor.

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Agriculture	15.6	0.0	8.9	8.0
Mining	0.2	0.0	8.8	1.8
Manufacturing	14.3	0.5	5.6	17.0
Western State College (1)	36.3	NA	NA	NA
Other Goods & Services (3)	16.1	0.0	20.7	42.1
SUBTOTAL	266.1	27.7	86.9	322.7
CONSTRUCTION				
2nd Homes (1)	12.7	2.1	7.9	65.6
Western State College (1)	1.3	NA	NA	NA
Other Construction (3)	86.3	3.2	38.1	48.9
SUBTOTAL	100.3	5.3	46.0	114.5
GOVERNMENT				
	78.4	3.7	13.9	34.7
HOUSEHOLD NON-LABOR INCOME (1)				
Retiree (1, 4)	66.1	5.3	27.1	43.8
Non-Retiree (1)	54.6	4.1	17.8	33.3
Net Commuter (1)	3.6	1.6	12.4	2.1
Other Household Non-Labor (1, 5)	41.9	0.7	7.3	52.8
SUBTOTAL	166.2	11.7	64.5	132.0
TOTAL	\$611.0	\$48.5	\$211.4	\$604.0

Notes: Data extracted from IMPLAN model except as noted.

1. Estimated by Lloyd Levy Consulting LLC.

2. Dean Runyan Associates (2004). *Economic Impact of Travel on Colorado, 1996-2003*, prepared for the Colorado Tourism Office, Office of Economic Development and Trade, Denver, Colorado, June 2004.

3. Balancing entry.

4. Retiree household non-labor income equals dividends, interest and rent to residents over 65 plus Medicare payments.

5. It was not possible to determine the exact source of this balancing entry. It may originate with the spending down of private assets.

Some of the demand estimates in Table 10 were “built up” from sources of information gathered specifically for this analysis while others are values generated internally by the IMPLAN model. In a few categories the estimates are balancing entries consistent with totals available from the IMPLAN model. One characteristic of the demand estimates presented in Table 10 is that they do not always equal local purchases; therefore they are not the same as local sales. The difference between demand and local sales occurs because of “leakage” due to consumer shopping preferences and the local offerings of goods and services.

POTENTIAL APPLICATIONS

This study contributes to the USDA-Forest Service and Region 10 goals of understanding second homes, other local economic drivers, and their regional economic effects. Application of the analysis will advance their respective goals in several ways.

NEW UNDERSTANDING OF ECONOMIC DRIVERS

The results presented here are the first quantitative estimates of the size and relative importance of the full range of economic drivers in the four-county study area. By analyzing all drivers, including the separate but closely related second home and tourism sectors, the study puts second-home construction, sales, and use into the context of the totality of each county economy.

The economic importance of second homes is illustrated directly by this approach. The study also shows the relative importance of household non-labor income that accrues to such groups as retirees and residents with income from dividends, interest, and rents. The contribution of retirees especially is a topic of interest to communities exploring a range of economic development strategies.

The methods developed for this analysis also have potential application in future studies of other rural resort counties. It is likely to be especially useful in counties with economies that share a similar reliance on natural resources, travel and tourism, and the combination of natural and built amenities that characterizes places attractive to visitors and second homeowners. These characteristics often occur where public lands provide significant contributions to the available amenities.

ENHANCEMENT OF LOCAL PLANNING AND POLICY

At the local level the information can be used to develop policy, assist in planning for and responding to growth, and strategize for economic development. Current estimates and forecasts of second home demand can be used in conjunction with the estimates of the secondary effects to analyze likely future growth patterns. These can be translated into projections of needs for housing, transportation and community services. In sum the data from this study are useful for understanding the amenity-driven economies in the four-county study area.

The GMUG National Forests are a major provider of natural amenities in the study area. This study offers managers a better understanding of the economic linkages between the Forests and surrounding communities. Planning for recreation, scenery, watchable wildlife, and wildfire potential—all captured within three of the four threats identified by the Chief of the USDA-Forest Service—may be influenced by the economic prominence of second homes in these counties.

FUTURE STEPS

The study team used a range of data sources to accomplish its goals. Lacking survey data on second homes, analogous data collected by the NWCCOG in Region 12 bridged the gap. For other drivers data requirements were met with official state estimates (DOLA employment and non-labor income data), existing studies (tourism data prepared for the Colorado Tourism Office by Dean Runyan Associates), IMPLAN model estimates (viz., the export components of agriculture, mining and manufacturing) and primary data collected specifically for the economic drivers study (e.g., from Western State College). In the end filling any remaining gaps required the study team to draw on its experience and to exercise its judgment so as to assure a reliable result.

Another issue for the future is the fact that these findings will become obsolete over time. Local, regional and national trends can significantly alter the mix of local economic drivers. In addition growth can bring structural change to local economies by changing the roster of industries and their linkages. Structural change is especially likely if the study area grows to the point that local businesses offer a larger and more varied range of goods and services.

POTENTIAL FOR FUTURE ENHANCEMENT

For the future, enhancement of the data in a number of areas would facilitate updates and enable new perspectives:

- Surveys of second-home owners would potentially strengthen the analysis in the future by determining current use of housing units, intended future use, attitudes, behaviors and values, and expenditure patterns;

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- Tracking changes in the housing stock, in terms of structures and uses, would improve future economic analysis by refining local knowledge of the inventory of second homes and by tallying the annual change in the inventory occurring from new construction or conversion;
- Linking the economic analysis to demographic data on both second-home owners and other segments of the community would assist in the understanding of the social effects of economic drivers.
- Location data are part of each record in the lists of second homes that were developed for this study. The location data found in the lists are limited to a specific quarter section that contains the land associated with second-home improvements, though the quarter section may or may not contain the improvements themselves.⁸ The location data provided can be used by federal, state and local governments to map second home locations for use in conjunction with land management plans, land use plans, and community fire plans.

PLANNING FOR UPDATES

The study has relied on data “snapshots” of the local economies. With time it will be useful to update the analysis as economies grow and other aspects of the socioeconomic landscape change. Tracking important variables over time will indicate when significant structural changes may have occurred. Some of the tracking variables are published data items. Others may require surveys or survey updates:

- The number and characteristics of second homes in the housing stock;
- Resident and second-home owner incomes;
- Characteristics of other visitor markets;
- Usage and occupancy of conventional lodging, units under management (including second homes), and timeshares/interval ownerships;
- Retiree household, retirement income and other asset-based income; and
- Commuting patterns, commuter income and in-commuter spending.

⁸ Location data are encoded in the parcel number according to the State of Colorado permanent parcel numbering system. See State of Colorado, Department of Local Affairs, Division of Property Taxation, Assessor’s Reference Library, Volume 2, Administrative and Assessment Procedures, Chapter 14, Assessment Mapping and Parcel Identification. Available online at <http://www.dola.state.co.us/PropertyTax/Publications/2006Manuals/ARL%20VOL%202%20406.pdf>.