Cost of Living Differentials in Colorado: 2005

by Martha Sullins and Elizabeth Garner[1]

Introduction

Colorado's economy is, in fact, a composite of local and regional economic activity that is influenced by the stocks and flows of resources (such as labor, capital, natural resources, transportation and communication linkages). Access to these resources differs across the state, impacting the costs of goods and services available to consumers in different areas. In order to compare the general cost of living in one area with that of another, we constructed a cost of living index (COLI) for all Colorado counties. A COLI measures relative price levels for a similar market basket of consumer goods and services in different areas at a given time. A state average is calculated for the "basket" of goods and given a benchmark index value of 100. Costs for individual areas are then calculated and indexed as a percent of the benchmark. These COLI data provide a cross-sectional view of relative costs across Colorado counties, for the year 2005.

Methodology

This county-level analysis is based on a cost-of-living study released by the Legislative Council of the Colorado General Assembly. The General Assembly is required to conduct this study every two years to update the cost-of-living factors used in the state's school finance funding formula.[2] The results of the 2005 study were used to determine school district cost-of-living factors for fiscal years 2006-07 and 2007-08. The market basket of goods and services used in this study includes housing, goods and services, transportation, and taxes typically consumed by a three-person household with an annual income of $43,000, in each of 178 school districts in Colorado. From these data, we are able to calculate an overall COLI for each county, as well as indices for each expenditure category, per county.

1. Collecting price information

Data from each school district were collected for the Legislative Council staff by two private consultants (Pacey Economics Group and Rocky Mountain Valuation Specialists), through on-site price surveys in each school district, telephone interviews, information obtained from the Public Utilities Commission, and an analysis of nearly all single-family homes in the state to estimate the market value of a 1,300-square-foot home in each school district. The specific categories of data collected are:

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[2] Each school district's total funding is the product of the number of pupils enrolled in the district and the district's per pupil funding. A school district's per pupil funding formula includes a base funding level, plus components relating to the proportion of the district's total costs attributable to personnel, the district's cost of living factor, the district's size factor, and the size of the district's "at risk" population.

1. Housing: mortgage costs of principal and interest, property taxes, and homeowner's insurance (PITI), as well as the cost of utilities, maintenance, household supplies and operations, and household furnishings.
2. Goods and services: groceries, meals away from home, clothing, medical and dental care, recreation, and other day-to-day expenses.
3. Transportation: the annual cost of owning and operating personal vehicles, including maintenance and repairs, gasoline and oil, insurance, and vehicle financing.
4. Taxation: federal and state income taxes and local occupation (head) taxes. Sales taxes are included under the goods and services, and property taxes are included with housing costs.
5. Miscellaneous: long-term saving, investments, charitable donations, and life insurance, among other things. Based on data from the Consumer Expenditure Survey, published by the U.S. Bureau of Labor Statistics (BLS), a value of $5,927 was assigned to all school districts.

2. Understanding shopping patterns

Adjustments to the data collection were made based on shopping patterns of school district personnel for the major expenditure categories, as well as updated information on district-of-residence for all employees in the labor pool area for each district. This is important because some households shop outside of the school district in which they work, based on their geographic proximity to various retail locations and the relative costs of goods and services at those locations. To identify the shopping patterns of the "benchmark" household, the 2005 study relied on a 1997 Shopping Pattern Survey, conducted as part of the cost of living study for that year. This survey was designed to determine the "benchmark" family's spending within and/or outside of the school district in which they resided. The Shopping Pattern Survey contacted more than 10,700 households across the state by telephone to estimate where households in each district purchased selected items from the major expenditure categories.

3. Developing annual expenditures

Spending patterns on various market basket items purchased by the average Colorado household are based on the national expenditure profile developed by the BLS from Consumer Expenditure Survey (CES) data.[3] Next, the average price for each good or service purchased is calculated for each city or county, which included any appropriate city, county, and/or state tax rates. This average city or county price for each good or service is then aggregated to the relevant school district, based either on the weights identified by the 1997 Shopping Pattern Survey or its geographic location. A statewide average for each market basket item is then calculated by taking the average price in each school district weighted by the teacher population for that district. The school district's price for a particular item relative to the statewide average price for that item is calculated as the ratio of the district average price relative to the statewide average price. This ratio is then multiplied by the average annual expenditure for the item using the CES for the benchmark household. This procedure is repeated for each market basket item and then summed for the school district.

[3] The 2005 cost of living study uses data from the 2002-2003 Consumer Expenditure Survey, the most recent available at the time. For more information on the CES, refer to http://www.bls.gov/cex/home.htm#overview.

4. Generating county-level indices

In our county-level study, we developed county averages based on a population-weighted average of each county's school districts. In some cases, school districts overlap county boundaries, and the entire school district population and the respective costs were allocated to the county where the majority of the school district was located. The cost-of-living index was generated by taking the ratio of the county average price to the state average price. In developing the final cost of living index, we excluded the portion of the index pertaining to federal and state income taxes and local occupation (head) taxes from the cost-of-living calculation because the state and federal tax burdens are dependent on income levels of the residents, and are not specifically related to the goods and services purchased. Other taxes are incorporated in this index, including sales taxes on goods and services and property taxes on housing. Results are presented for 63 counties, excluding the county of Broomfield as a separate geographic area (45,755 estimated 2005 population), which was created in November 2001 and has no school districts of its own.[4]

5. Limitations of this study

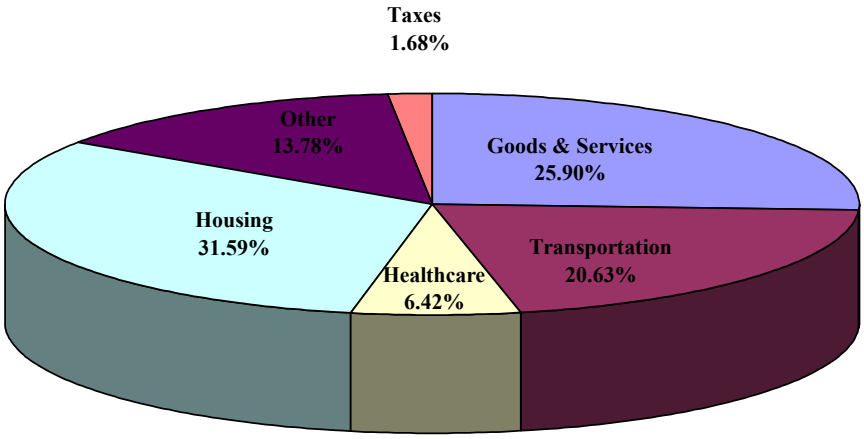
Results from this study are applicable to the year 2005 but cannot be compared readily to other years or to other COL studies conducted for other areas because of methodological differences in how other surveys are conducted (including data collection techniques, composition of the market basket of goods and services, and weighting of consumer expenditures in the typical budget). Furthermore, this study measures the cost of living for a three-person household with an annual income of $43,000. The cost of living for smaller or larger households, or those with greater or lesser annual incomes, may differ significantly. Lastly, when comparing index numbers for two different counties or school districts, small differences cannot be considered significant because of the sampling and non-sampling error inherent to COL indices. A commonly used rule of thumb is to consider index differences greater than 4% as significant.

County-level results

This study presents both the overall cost of living index for each county (school district level results are presented in the Appendix), as well as the individual indices for COL components (housing, transportation, goods and services, and healthcare costs; see Figure 1). In terms of the COLI components, housing made up the greatest share of expenditures at 31.59%, followed by goods and services (25.9%), transportation (20.63%), other expenditures (13.78%), and health care (6.42%). This report will look at relative costs in each county compared to the state average, as well as the share of the average budget in each county that is expended on a particular category of market basket items.

[4] Broomfield County students attend schools located in these 6 districts of 4 neighboring counties: Adams 12 Five Star Schools**,** Brighton School District (Adams 27-J), Boulder Valley School District Re-2, St. Vrain Valley School District (Boulder), Jefferson County School District Re-1, and Fort Lupton School District (Weld Re-8).

Figure 1. Expenditure shares: 2005 cost of living analysis



Composite cost of living index

In terms of the composite COL index, Pitkin County had the highest ratio at 162.3, while Baca County had the lowest at 82.9, relative to the state benchmark of 100 (see Table 1). Figure 2 groups each county into one of five COL categories, with respect to the state benchmark: very low, low, mid-range, high, and very high. The very highest COL indices (more than 10% above the benchmark) emerge in the mountain resort communities where many residents are second-home owners, recreationists, and retirees (index values vary from 162.3 in Pitkin to 111.3 in Grand County). Much of the high cost of living in the mountain resort communities is driven by the higher cost of housing, relative to other expenditure categories. For example, according to this study, annual housing costs are 22% higher than the state average in Grand County and 161% higher than the state average in Pitkin (see Table 2).

Counties with high COLI values (from 5% to 10% above the benchmark) are adjacent to the highest cost counties. In these counties, housing costs are between 2% to 20% above average, and the costs of goods and services (minus healthcare) are as much as 12% above the state benchmark. Index values for counties in this category fall in a much narrower range; from 109.3 for Routt County to 106.1 for San Juan County.

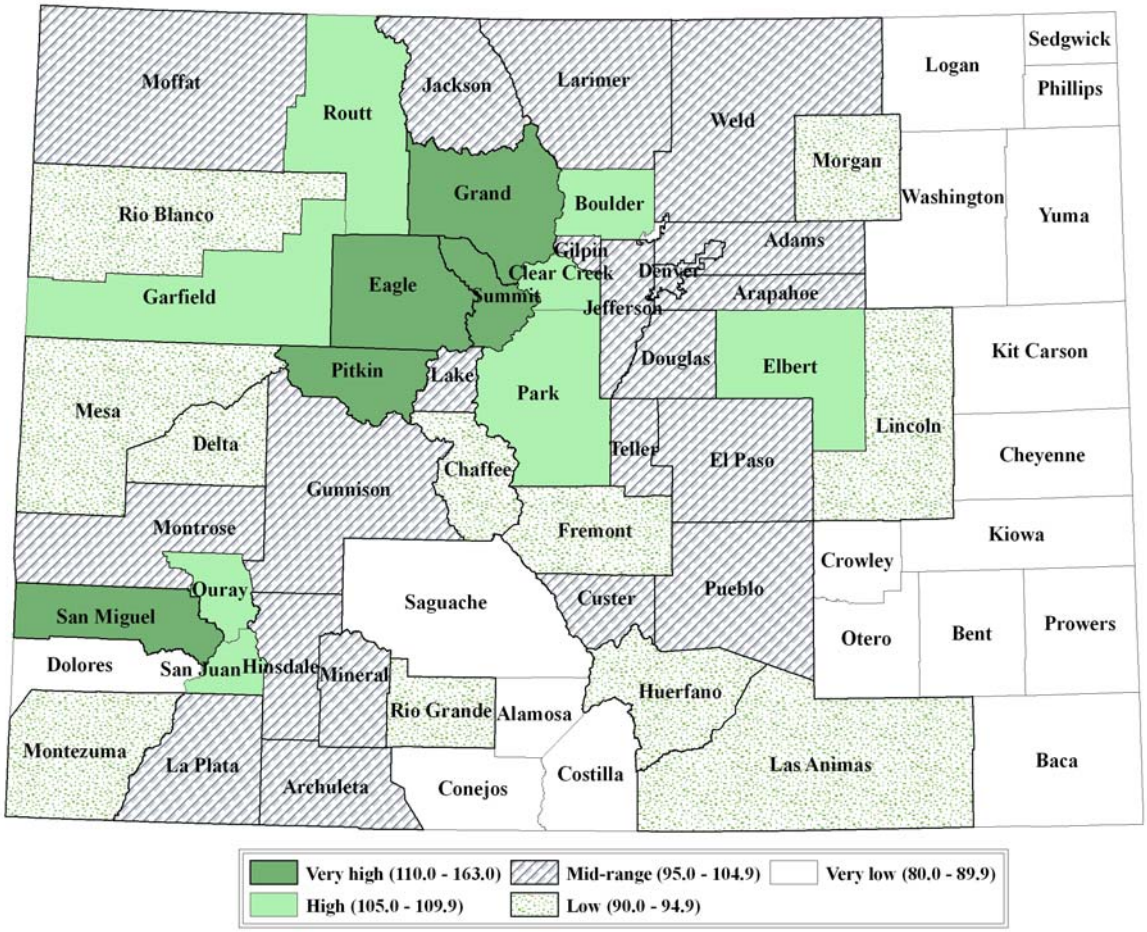
Those counties with a mid-range COLI value (within 5% above and below the state benchmark) are Front Range counties or communities adjacent to high-cost counties, especially the central mountain area of Gunnison, Lake, Hinsdale, Mineral and La Plata counties (which also tend to be a source of more affordable housing for workers unable to live in the higher-cost resort areas). The Front Range counties, in particular, have better access to lower cost goods and services**.** For example, healthcare costs are lowest in Adams, Arapahoe, Boulder, Denver, Douglas, El Paso, Jefferson, Larimer and Weld Counties at 2-10% less than the state benchmark. The cost of other goods and services along the Front Range varies little with respect to the state average, from 3% above the state benchmark (Boulder) to 6% below (El Paso), compared to the highest-cost counties. Index values in this mid-range category extend from 104.1 in Douglas County to 95.2 in Pueblo County.

The next tier of counties falls into the low cost-of-living category, with index values from 5% to 10% below the benchmark. These counties ring the average COL counties but are farther from the state's economic centers, with values from 94.8 for Chaffee County to 90.1 in Fremont County. Finally, those counties with very low COL values (more than 10% below the state benchmark) lie in the eastern part of the state and in the San Luis Valley—the most remote geographically from where the state's primary economic activity occurs. Index values for this category range from 89.7 in Kit Carson to 82.9 in Baca County.

Table 1. 2005 Cost of Living Index (COLI), where state benchmark=100

	County	Composite COL	Ranking in state		County	Composite COL	Ranking in state
Very high	Pitkin	162.3	1	Low	Chaffee	94.8	35
	San Miguel	126.4	2		Delta	94.7	36
	Summit	119.0	3		Rio Blanco	93.4	37
	Eagle	115.6	4		Morgan	93.1	38
	Grand	111.3	5		Mesa	92.8	39
High	Routt	109.3	6		Lincoln	92.0	40
	Elbert	108.9	7		Montezuma	92.0	41
	Clear Creek	107.7	8		Huerfano	91.8	42
	Ouray	107.7	9		Las Animas	90.8	43
	Park	107.2	10		Rio Grande	90.6	44
	Boulder	106.8	11		Fremont	90.1	45
	Garfield	106.2	12	Very low	Kit Carson	89.7	46
	San Juan	106.1	13		Logan	89.6	47
Mid-range	Douglas	104.1	14		Alamosa	89.4	48
	Denver	104.0	15		Prowers	88.7	49
	Gilpin	104.0	16		Saguache	88.1	50
	La Plata	103.5	17		Phillips	88.0	51
	Jefferson	101.7	18		Cheyenne	87.4	52
	Adams	101.6	19		Dolores	87.3	53
	Arapahoe	100.7	20		Washington	86.9	54
	Hinsdale	100.5	21		Conejos	86.7	55
	Lake	100.0	22		Yuma	86.4	56
	Gunnison	99.8	23		Costilla	86.0	57
	Custer	99.6	24		Otero	85.9	58
	Teller	99.5	25		Sedgwick	85.7	59
	Larimer	98.8	26		Kiowa	85.5	60
	Mineral	97.5	27		Crowley	84.8	61
	Moffat	96.5	28		Bent	84.7	62
	Archuleta	96.4	29		Baca	82.9	63
	El Paso	96.0	30				
	Weld	95.9	31				
	Jackson	95.3	32				
	Montrose	95.2	33				
	Pueblo	95.2	34				

Figure 2. Cost of living index, Colorado counties, 2005



Components of the Cost of Living Index

1. Housing

Housing is largely the driver in the COL index, with a weighting of 31.59% for the index (see Table 2). It is also characterized by the most variation. The range of housing cost indices is 207%, compared to 15% for transportation costs. Further, while annual housing costs average $12,148 across counties, the coefficient of variation is 36% compared to 3% for transportation costs (see Table 3). Expenditures on goods and services are much higher at $14,438 annually for the average Colorado household, with a coefficient of variation of only 6%. According to the COLI, the highest cost areas for housing were in the mountain resort communities, followed by some of the Front Range counties (see Figure 3). Pitkin County had the absolute highest cost of housing for 2005 at $35,404, which made up 52% of the cost of living in the county. The lowest housing costs were in Baca County, at $7,270, which made up only 21% of the typical Baca County household budget. The range between these counties is quite large, and the housing index

reveals that, on average, housing costs 4.9 times more in Pitkin County than in Baca. Figure 3 shows the cost of housing relative to the state benchmark, in terms of how much above or below the benchmark each county lies. Other high-cost housing areas include San Miguel, Summit, Eagle and Grand counties in the mountains, and Elbert and Boulder along the Front Range (western Elbert County is within easy commuting distance of both Denver and Colorado Springs). The Front Range counties of Jefferson, Arapahoe and Larimer had housing costs closest to the state average. El Paso, Weld and Pueblo all had lower than average housing costs.

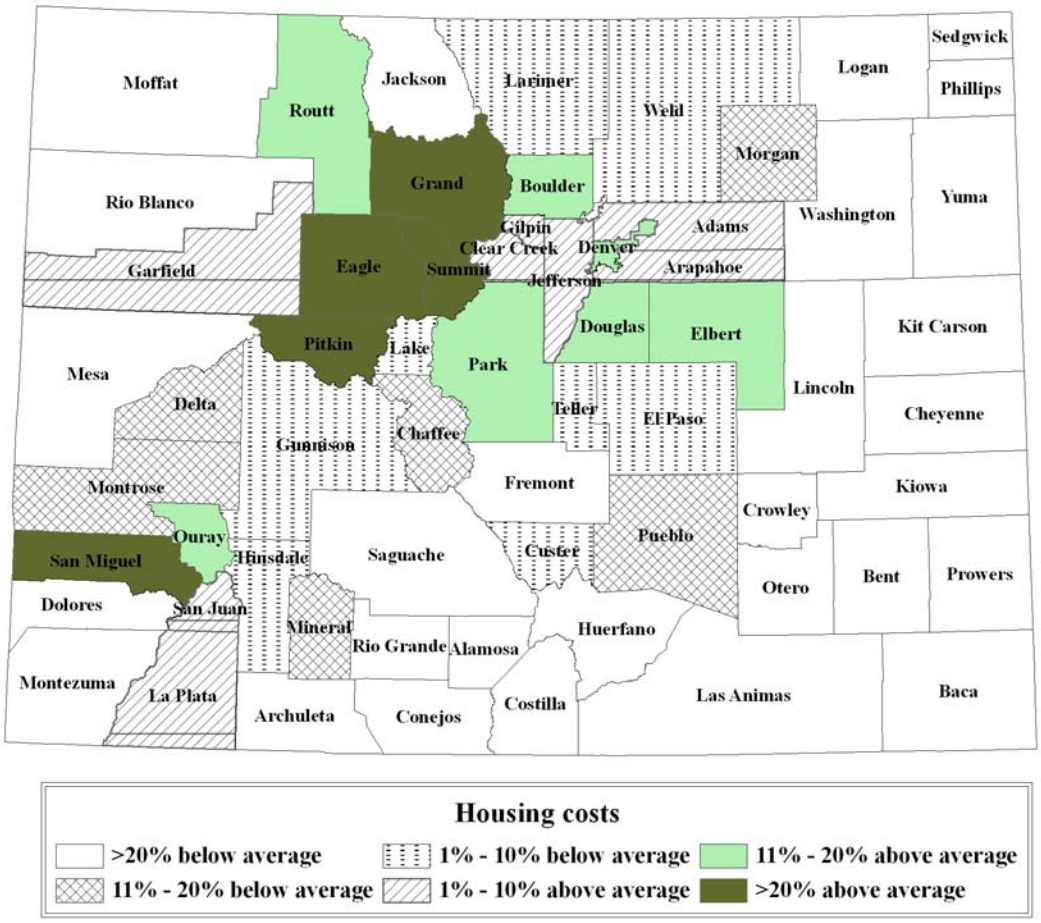
Table 2. Components of 2005 cost of living index

County	**Housing**[1]	**Transport-ation**[2]	**Goods & Services**[3]	**Health-care**[4]	**Other**[5]	**Composite COL**
Weighting	*31.59 %*	*20.63 %*	*25.90 %*	*6.42 %*	*13.78 %*	*100 %*
Adams	105.3	100.8	99.1	94.8	100.0	101.6
Alamosa	67.0	97.9	101.4	122.7	100.0	89.4
Arapahoe	101.2	101.4	100.2	94.8	100.0	100.7
Archuleta	78.4	99.6	110.5	129.1	100.0	96.4
Baca	53.5	97.7	94.8	129.1	100.0	82.9
Bent	58.0	94.6	97.8	122.7	100.0	84.7
Boulder	118.3	99.6	102.9	97.8	100.0	106.8
Chaffee	86.0	96.8	100.0	122.7	100.0	94.8
Cheyenne	56.6	101.9	103.0	122.7	100.0	87.4
Clear Creek	107.4	105.8	112.3	122.7	100.0	107.7
Conejos	57.4	96.1	103.7	129.1	100.0	86.7
Costilla	60.4	92.0	101.1	122.7	100.0	86.0
Crowley	57.3	95.3	98.4	122.7	100.0	84.8
Custer	96.7	98.8	102.9	129.1	100.0	99.6
Delta	80.4	97.7	104.5	122.7	100.0	94.7
Denver	110.8	101.5	100.5	94.8	100.0	104.0
Dolores	55.4	96.4	107.3	129.1	100.0	87.3
Douglas	111.0	102.0	100.5	94.8	100.0	104.1
Eagle	131.7	103.7	114.2	122.7	100.0	115.6
El Paso	94.5	99.1	93.8	89.8	100.0	96.0
Elbert	120.4	103.1	105.3	122.7	100.0	108.9
Fremont	74.8	95.6	97.2	122.7	100.0	90.1
Garfield	108.7	102.3	108.8	122.7	100.0	106.2
Gilpin	102.7	101.9	108.2	122.7	100.0	104.0
Grand	121.7	102.3	111.6	122.7	100.0	111.3
Gunnison	94.8	97.7	106.0	129.1	100.0	99.8
Hinsdale	98.6	99.3	103.4	129.1	100.0	100.5
Huerfano	71.8	98.0	104.0	129.1	100.0	91.8
Jackson	73.1	103.1	110.0	129.1	100.0	95.3
Jefferson	104.7	100.1	100.4	94.8	100.0	101.7
Kiowa	54.1	103.0	99.0	122.7	100.0	85.5
Kit Carson	68.8	98.4	100.2	122.7	100.0	89.7
La Plata	101.3	100.9	108.9	122.7	100.0	103.5
Lake	91.9	100.7	107.5	122.7	100.0	100.0
Larimer	98.9	98.5	98.3	91.7	100.0	98.8
Las Animas	73.8	98.4	98.7	122.7	100.0	90.8
Lincoln	74.9	99.4	100.7	129.1	100.0	92.0

County	Housing[1]	Transport-ation[2]	Goods & Services[3]	Health-care[4]	Other[5]	Composite COL
Weighting	*31.59 %*	*20.63 %*	*25.90 %*	*6.42 %*	*13.78 %*	*100 %*
Logan	69.9	96.0	100.2	122.7	100.0	89.6
Mesa	79.4	97.2	100.0	102.7	100.0	92.8
Mineral	84.2	99.3	108.3	129.1	100.0	97.5
Moffat	79.1	102.9	108.1	129.1	100.0	96.5
Montezuma	70.5	98.4	105.5	122.7	100.0	92.0
Montrose	82.2	97.6	104.3	122.7	100.0	95.2
Morgan	80.3	96.1	100.9	122.7	100.0	93.1
Otero	61.1	94.7	98.5	122.7	100.0	85.9
Ouray	112.0	100.6	111.2	129.1	100.0	107.7
Park	114.0	103.0	106.3	122.7	100.0	107.2
Phillips	64.7	94.4	101.4	122.7	100.0	88.0
Pitkin	260.7	107.3	127.9	122.7	100.0	162.3
Prowers	68.0	96.1	99.4	129.1	100.0	88.7
Pueblo	85.9	101.0	98.5	114.7	100.0	95.2
Rio Blanco	70.1	103.4	107.0	129.1	100.0	93.4
Rio Grande	67.7	97.3	104.8	129.1	100.0	90.6
Routt	114.4	103.3	112.1	122.7	100.0	109.3
Saguache	60.3	100.9	101.9	122.7	100.0	88.1
San Juan	110.1	102.5	107.1	129.1	100.0	106.1
San Miguel	160.2	104.0	118.9	129.1	100.0	126.4
Sedgwick	56.3	96.1	101.6	122.7	100.0	85.7
Summit	146.7	101.6	111.1	122.7	100.0	119.0
Teller	95.7	103.0	100.7	122.7	100.0	99.5
Washington	62.8	95.6	99.5	122.7	100.0	86.9
Weld	91.7	97.5	97.3	91.7	100.0	95.9
Yuma	64.1	95.3	96.7	122.7	100.0	86.4
Min. value	53.5	92.0	93.8	89.8	100.0	82.9
Max. value	260.7	107.3	127.9	129.1	100.0	162.3
Value range	207.2	15.3	34.1	39.3	0.0	79.4

1. Housing includes principal, interest, taxes, and insurance (PITI), plus utilities, maintenance, supplies, and furnishings.
2. Transportation includes the costs for two vehicles, such as gas, oil, insurance, and maintenance.
3. Goods and services include food, clothing, entertainment, etc., as well as applicable sales taxes.
4. Healthcare is based on health insurance premiums.
5. Other costs include long term savings, investments, charitable donations, life insurance, etc.

Figure 3. Housing costs for Colorado counties based on housing index



2. Transportation

Pitkin County has the highest annual transportation costs at $9,521, but they comprise the lowest budget share at 14%. The lowest transportation costs are in Costilla County at $8,161 (with a 22% budget share). The highest budget share of transportation costs is in the eastern plains counties of Cheyenne, Kiowa and Baca where transportation reaches 25% of the average household budget. In fact all counties with the highest shares of transportation costs are the farthest outlying counties in the state as a whole, yet their absolute values fall 3% to 8% below the state average of $8,873. The counties whose transportation budget shares are lowest include Pitkin (14%), San Miguel (16%), Summit (18%) and Eagle (19%), whose absolute values are all 4% to 7% above the state average.

3. Goods and services

Expenditures on goods and services make up the second largest share of the average budget, at 25.9% of the total. Pitkin County has the highest average annual expenditures on goods and services ($17,775), while El Paso County had the lowest cost ($13,036). The range of relative costs across counties goes from 10% below the state average in El Paso, to 28% above in Pitkin. The distribution, however, is skewed toward higher average costs; only 14 of the 63 counties had

average costs of goods and services below the state average; while 10 counties were 10% or more above the state average (all of which were mountain resort areas). Goods and services make up the largest budget shares in the eastern plains counties and the San Luis Valley, ranging from 38% to 40%, and the lowest budget share in the mountain communities, where they comprise only 14% to 17% of the total budget in those counties.

4. Healthcare

Average annual healthcare costs range from $3,563 in Rio Grande County (9% of the budget) to $2,478 in El Paso County (6% of the budget). Pitkin County has the lowest budget share spent on healthcare at 5%, while Baca County's is double that at 10%. As with transportation and goods and services costs, the largest budget shares are among residents of outlying counties such as the eastern plains counties and the San Luis Valley, while the smallest budget shares on healthcare are among the Front Range Counties which average about 6%, with the exception of Pueblo which is 8%.

Table 3. Summary statistics for 2005 cost of living index

	Housing composite	Transport. composite	G&S composite	Healthcare composite	Taxes composite	County COL	Count COL less taxes
Average value	$12,148	$8,826	$14,438	$3,312	$712	$42,051	$41,339
Standard deviation	$4,414	$280	$832	$318	$61	$5,183	$5,230
Coefficient of variation	36%	3%	6%	10%	9%	12%	13%

Influences of the cost of living on real purchasing power

If we apply the cost of living index to median family income for each county, we gain a better understanding of how individuals' purchasing power differs across the state. Median family income (MFI) is the central value above which lie half of the incomes for an area's families and below which lie the other half. In areas with a higher cost of living, the median family income might overstate the buying power of household incomes, while households in areas with a lower cost of living frequently do better than their relatively lower incomes might suggest. Table 4 shows what happens when median family income is adjusted by the COLI.[5] This table shows median family income for a family of three, each county's ranking according to that MFI, the amount by which the original MFI changes when it is adjusted by the cost of living, and the ultimate effect on median family income and average purchasing power. Figure 4 shows the geographic distribution of counties, based on their relative purchasing power.

Pitkin County has the highest MFI for 2005 at $87,840 for a family of three, and Costilla County has the lowest at $27,090. However, when the local cost of living is taken into consideration,

[5] For this study median family income for a family of three is used to be commensurate with the parameters of the Legislative Council report which analyzed a market basket of goods and services available and affordable to a three-person household. These data are derived from Department of Housing and Urban Development median family income limits data for 2005.

family purchasing power in Pitkin drops to just $54,122 for 2005, while rising slightly in Costilla to $31,500. To illustrate, the goods and services one could purchase with $25,000 in Costilla County would cost $47,180 if purchased in Pitkin County.

Seventeen of the 63 Colorado counties analyzed can be considered high-cost counties where median incomes are above the state average of $58,860 for an average three-person family. Among these counties, Pitkin, San Miguel and Summit saw the greatest decreases in purchasing power when their median incomes were adjusted by their relative costs of living. Larimer and Teller Counties were the only above-average income counties that had average to slightly lower costs, indicating greater purchasing power for residents in those counties, relative to other counties.

Six counties can be considered to be below-average income with higher than average costs, which effectively decreases purchasing power for those residents. They include Grand, Garfield, Ouray, La Plata, San Juan and Hinsdale Counties. Grand County is a resort community, but the remaining counties are characterized as either counties of residence for workers traveling to other resort areas (Garfield), or counties with moderate tourism visitation but more scarce and, thus, higher cost housing (La Plata, Ouray, San Juan and Hinsdale). It should be noted that Garfield is a county in transition. The increased activity in oil and gas extraction is gradually resulting in higher wages paid to workers (both local and non-local), and higher costs of goods and services resulting from those increases in local labor costs.

Of those remaining counties with median incomes below $58,860, Lake County had approximately average costs, while 39 counties had lower than average median incomes and lower than average costs. Median family incomes in these counties ranged from $27,070 for Costilla, to $57,060 for El Paso. When we consider the cost of living in each of these counties, their adjusted incomes increase to $31,500 and $59,438, respectively. Of this group of counties, the highest increases in purchasing power are seen in Baca ($7,352), Cheyenne ($6,734), and Yuma ($6,623).

Figure 4. Income to cost comparison

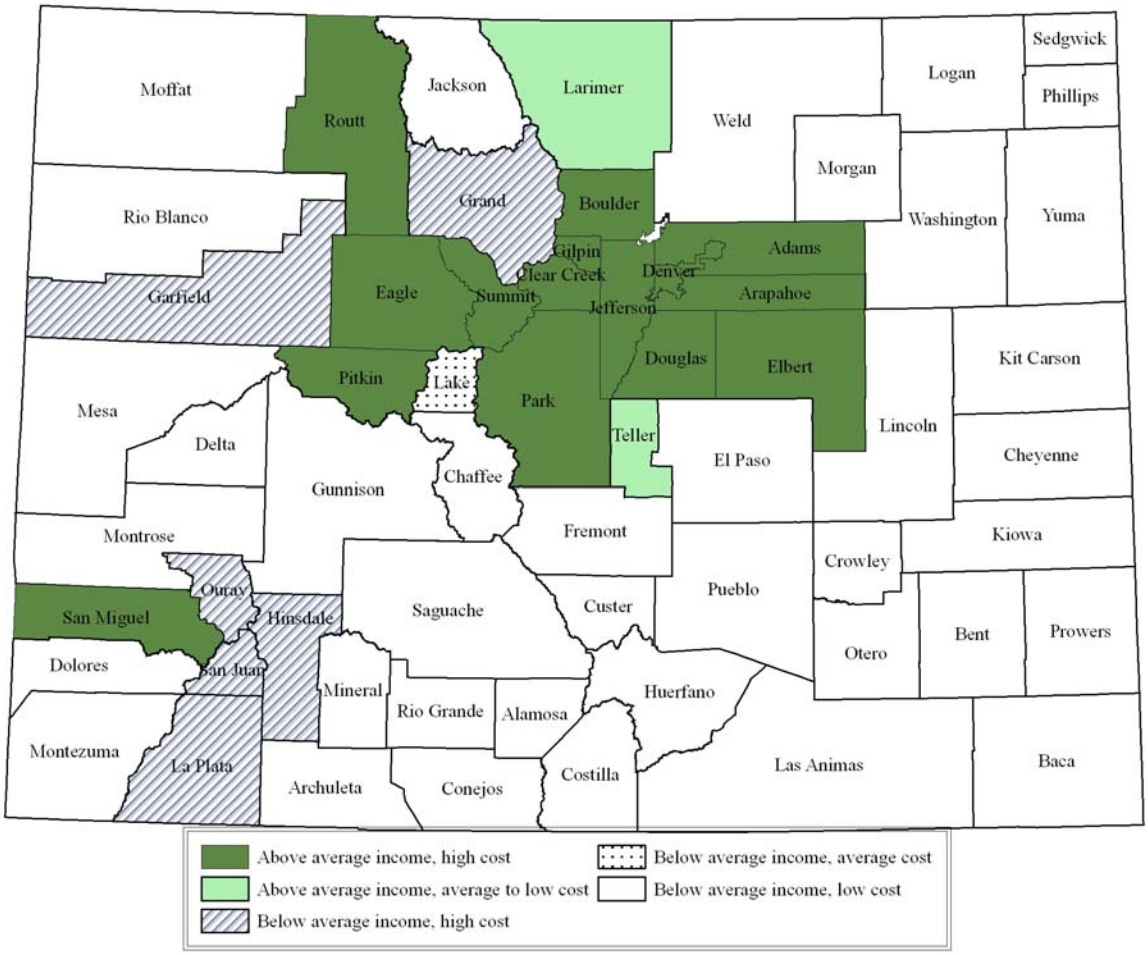


Table 4. Influence of COLI on real purchasing power by county

County	Median Family Income (MFI $)	Ranking by MFI	Com-posite COLI	Adjust-ment to MFI ($)	COLI-adjusted MFI ($)	New ranking by MFI	Change in MFI ranking
Pitkin	87,840	1	162.3	(33,718)	54,122	19	-18
Elbert	74,790	2	108.9	(6,112)	68,678	2	0
Boulder	73,800	3	106.8	(4,699)	69,101	1	2
Eagle	71,955	4	115.6	(9,710)	62,245	8	-4
Summit	70,515	5	119.0	(11,259)	59,256	15	-10
Routt	65,430	6	109.3	(5,567)	59,863	12	-6
Gilpin	65,385	7	104.0	(2,515)	62,870	7	0
Adams	64,485	8	101.6	(1,016)	63,469	4	4
Arapahoe	64,485	9	100.7	(448)	64,037	3	6
Denver	64,485	10	104.0	(2,480)	62,005	9	1
Douglas	64,485	11	104.1	(2,540)	61,945	10	1
Jefferson	64,485	12	101.7	(1,078)	63,407	5	7
Clear Creek	64,395	13	107.7	(4,604)	59,791	13	0
San Miguel	64,125	14	126.4	(13,393)	50,732	25	-11
Larimer	62,280	15	98.8	756	63,036	6	9
Teller	60,390	16	99.5	303	60,693	11	5
Park	60,345	17	107.2	(4,053)	56,292	16	1
State benchmark	**58,860**	**-**	**100.0**	**-**	**58,860**	**-**	**-**
Grand	58,590	18	111.3	(5,948)	52,642	22	-4
El Paso	57,060	19	96.0	2,378	59,438	14	5
Garfield	56,880	20	106.2	(3,321)	53,559	20	0
Gunnison	54,990	21	99.8	110	55,100	17	4
Ouray	53,550	22	107.7	(3,829)	49,721	27	-5
La Plata	53,460	23	103.5	(1,808)	51,652	23	0
Weld	52,425	24	95.9	2,241	54,666	18	6
Moffat	47,790	25	96.5	1,733	49,523	29	-4
Rio Blanco	47,385	26	93.4	3,348	50,733	24	2
Cheyenne	46,710	27	87.4	6,734	53,444	21	6
Archuleta	45,765	28	96.4	1,709	47,474	33	-5
Mesa	45,360	29	92.8	3,519	48,879	31	-2
Fremont	44,775	30	90.1	4,920	49,695	28	2
Logan	44,595	31	89.6	5,176	49,771	26	5
Chaffee	44,370	32	94.8	2,434	46,804	34	-2
Hinsdale	44,280	33	100.5	(220)	44,060	44	-11
Kit Carson	44,235	34	89.7	5,079	49,314	30	4
Lake	43,875	35	100.0	-	43,875	46	-11
Custer	43,425	36	99.6	174	43,599	48	-12
Mineral	43,335	37	97.5	1,111	44,446	42	-5
Montrose	43,200	38	95.2	2,178	45,378	38	0
Pueblo	42,390	39	95.2	2,137	44,527	41	-2
San Juan	42,390	40	106.1	(2,437)	39,953	58	-18
Lincoln	42,075	41	92.0	3,659	45,734	35	6
Yuma	42,075	42	86.4	6,623	48,698	32	10
Morgan	41,310	43	93.1	3,062	44,372	43	0

County	Median Family Income (MFI $)	Ranking by MFI	Com-posite COLI	Adjust-ment to MFI ($)	COLI-adjusted MFI ($)	New ranking by MFI	Change in MFI ranking
Alamosa	40,500	44	89.4	4,802	45,302	39	5
Montezuma	40,140	45	92.0	3,490	43,630	47	-2
Delta	40,005	46	94.7	2,239	42,244	54	-8
Phillips	39,960	47	88.0	5,449	45,409	37	10
Dolores	39,870	48	87.3	5,800	45,670	36	12
Jackson	39,330	49	95.3	1,940	41,270	56	-7
Washington	39,240	50	86.9	5,915	45,155	40	10
Rio Grande	38,880	51	90.6	4,034	42,914	52	-1
Prowers	38,340	52	88.7	4,884	43,224	50	2
Otero	37,755	53	85.9	6,197	43,952	45	8
Kiowa	37,215	54	85.5	6,311	43,526	49	5
Sedgwick	36,495	55	85.7	6,090	42,585	53	2
Las Animas	36,270	56	90.8	3,675	39,945	59	-3
Baca	35,640	57	82.9	7,352	42,992	51	6
Bent	35,190	58	84.7	6,357	41,547	55	3
Huerfano	34,290	59	91.8	3,063	37,353	60	-1
Crowley	34,110	60	84.8	6,114	40,224	57	3
Saguache	31,410	61	88.1	4,243	35,653	61	0
Conejos	30,780	62	86.7	4,722	35,502	62	0
Costilla	27,090	63	86.0	4,410	31,500	63	0

Implications

The assumptions underlying a cost-of-living analysis influence the inferences we can make from this study. First, we cannot reliably compare this analysis to other studies or to other years' data, since the COLI measures expenditures at a single point in time.

Second, the COLI is calculated using an average standard of living to purchase an average market basket of goods, giving us a representation of the cost of living for each county in Colorado. Therefore, when comparing areas in which the factors influencing the demand for goods and services may differ, interpretation of the COLI must be broadened.

For example, in southeastern Colorado and the San Luis Valley, we know that the region's low COL index numbers result from very low median family incomes, relative to the state benchmark. In areas where median family incomes are higher, some counties' COL index numbers are still relatively low due to greater availability of lower priced goods and services (i.e., Larimer, Weld and El Paso counties, for example). Some of the mountain counties, such as Gunnison, Fremont, Chaffee, Lake, Mineral and Hinsdale have lower COL index numbers relative to the mountain resort communities of San Miguel, Grand, Routt, Eagle, Summit and Pitkin because the former have lower total populations with lower median family incomes who do not face the higher-priced goods and services found in the resort counties. Referring again to Table 2, the higher cost of living shown for counties along Colorado's Front Range, the most densely populated part of the state and its economic center, is driven by the high cost of housing, as the costs of other goods and services are lower than or about equivalent to the state average.

Lastly, those counties with lower than average median family incomes who face higher than average costs (see Figure 4) are of particular concern, and it is important to identify the drivers of demand in these areas. These counties, with the exception of Garfield whose economic growth is driven by the energy sector, have economies based primarily on tourism, where wages are typically lower. However, they are also growing in popularity as retirement communities and attracting residents with higher incomes who will pay higher prices for goods and services. Therefore, these counties will most likely migrate into a higher median income category in the future, but current COLI data indicate that, on average, households in Grand, La Plata, Ouray, Hinsdale and San Juan Counties have less purchasing power than those counties characterized by lower average incomes and lower average prices—an apparent disadvantage for residents of those counties.

Appendix I. School District Cost of Living Indices[6]

County	School district	2005 cost of living ($)	Index
Adams	Northglenn	43,235	102.3
	Westminster	43,022	101.8
	Strasburg	42,888	101.4
	Brighton	42,605	100.8
	Mapleton	42,354	100.2
	Bennett	42,330	100.1
	Commerce City	42,163	99.7
Alamosa	Alamosa	37,827	89.5
	Sangre de Cristo	37,613	89.0
Arapahoe	Sheridan	43,408	102.7
	Littleton	43,299	102.4
	Englewood	42,876	101.4
	Cherry Creek	42,620	100.8
	Byers	42,168	99.7
	Aurora	42,129	99.6
	Deer Trail	41,428	98.0
Archuleta	Archuleta	40,758	96.4
Baca	Walsh	35,628	84.3
	Springfield	34,958	82.7
	Vilas	34,528	81.7
	Campo	34,359	81.3
	Pritchett	34,158	80.8
Bent	McClave	36,042	85.2
	Las Animas	35,753	84.6
Boulder	Boulder	46,303	109.5
	St. Vrain	43,031	101.8
Chaffee	Buena Vista	40,452	95.7
	Salida	39,764	94.1
Cheyenne	Cheyenne R-5	37,224	88.0
	Kit Carson	36,240	85.7
Clear Creek	Clear Creek	45,523	107.7
Conejos	South Conejos	36,970	87.4
	North Conejos	36,621	86.6
	Sanford	36,255	85.8
Costilla	Sierra Grande	37,011	87.5
	Centennial	35,808	84.7
Crowley	Crowley	35,841	84.8
Custer	Westcliffe	42,117	99.6
Delta	Delta	40,032	94.7
Denver	Denver	43,961	104.0
Dolores	Dolores County RE-2	36,910	87.3
Douglas	Douglas	44,022	104.1
Eagle	Eagle	48,887	115.6
Elbert	Elizabeth	47,271	111.8
	Elbert	45,099	106.7
	Kiowa	44,814	106.0
	Agate	43,521	102.9
	Big Sandy	40,891	96.7

[6] School district level index composition is comparable to county-level indices: the cost of living excludes income taxes.

County	School district	2005 cost of living ($)	Index	County	School district	2005 cost of living ($)	Index
El Paso	Lewis-Palmer	43,826	103.7	Kit Carson	Burlington	38,322	90.6
	Manitou Springs	42,459	100.4		Arriba-Flagler	37,557	88.8
	Peyton	41,439	98.0		Stratton	37,349	88.3
	Cheyenne Mountain	41,382	97.9		Hi Plains	37,300	88.2
	Academy	41,260	97.6		Bethune	37,112	87.8
	Falcon	40,781	96.5				
	Colorado Springs	40,472	95.7	Lake	Lake	42,287	100.0
	Ellicott	39,872	94.3				
	Calhan	39,805	94.2		Durango	44,318	104.8
	Harrison	39,730	94.0	La Plata	Bayfield	43,091	101.9
	Edison	39,649	93.8		Ignacio	41,033	97.1
	Widefield	39,546	93.5				
	Fountain	39,512	93.5		Estes Park	46,426	109.8
	Hanover	39,496	93.4	Larimer	Poudre	41,655	98.5
	Miami-Yoder	38,967	92.2		Thompson	41,332	97.8
Fremont	Cotopaxi	39,032	92.3		Trinidad	38,678	91.5
	Canon City	38,324	90.6		Hoehne	38,458	91.0
	Florence	37,585	88.9		Primero	37,830	89.5
				Las Animas	Aguilar	37,203	88.0
Garfield	Roaring Fork RE-1	47,259	111.8		Branson	36,719	86.9
	Rifle	41,833	98.9		Kim	36,618	86.6
	Parachute	40,777	96.4				
					Limon	39,167	92.6
Gilpin	Gilpin	43,958	104.0	Lincoln	Genoa-Hugo	38,874	91.9
					Karval	36,429	86.2
Grand	East Grand	47,882	113.3				
	West Grand	44,387	105.0		Valley	37,975	89.8
				Logan	Buffalo	37,600	88.9
Gunnison	Gunnison	42,190	99.8		Frenchman	36,997	87.5
					Plateau	36,587	86.5
Hinsdale	Hinsdale	42,499	100.5				
					Mesa Valley	39,243	92.8
Huerfano	La Veta	41,713	98.7	Mesa	Plateau Valley	39,051	92.4
	Huerfano	38,185	90.3		DeBeque	38,990	92.2
Jackson	North Park	40,289	95.3	Mineral	Creede	41,234	97.5
Jefferson	Jefferson	42,986	101.7	Moffat	Moffat County RE-1	40,814	96.5
Kiowa	Eads	36,195	85.6				
	Plainview	36,017	85.2				

County	School district	2005 cost of living ($)	Index
Montezuma	Mancos	40,038	94.7
	Dolores RE-4A	39,770	94.1
	Montezuma	38,535	91.1
Montrose	Montrose	40,324	95.4
	West End	39,263	92.9
Morgan	Wiggins	41,044	97.1
	Fort Morgan	39,595	93.7
	Brush	38,585	91.3
	Weldon	37,957	89.8
Otero	Fowler	36,804	87.1
	Swink	36,592	86.6
	Rocky Ford	36,457	86.2
	East Otero	36,202	85.6
	Cheraw	35,615	84.2
	Manzanola	35,534	84.0
Ouray	Ridgway	45,918	108.6
	Ouray	45,019	106.5
Park	Platte Canyon	46,517	110.0
	Park County	43,249	102.3
Phillips	Haxtun	37,467	88.6
	Holyoke	37,045	87.6
Pitkin	Aspen	68,627	162.3
Prowers	Lamar	38,045	90.0
	Wiley	37,099	87.7
	Granada	36,295	85.8
	Holly	35,251	83.4
Pueblo	Pueblo Rural	40,811	96.5
	Pueblo City	40,042	94.7
Rio Blanco	Meeker	40,292	95.3
	Rangely	38,396	90.8
Rio Grande	Del Norte	38,606	91.3
	Monte Vista	38,235	90.4
	Sargent	37,748	89.3
Routt	Steamboat Springs	47,274	111.8
	South Routt	43,603	103.1
	Hayden	43,142	102.0
Saguache	Moffat 2	39,055	92.4
	Center	36,822	87.1
	Mountain Valley	36,802	87.0
San Juan	Silverton	44,857	106.1
San Miguel	Telluride	57,264	135.4
	Norwood	41,735	98.7
Sedgwick	Julesburg	36,399	86.1
	Platte Valley RE-3	35,871	84.8
Summit	Summit	50,304	119.0
Teller	Woodland Park	42,553	100.6
	Cripple Creek	40,028	94.7
Washington	Woodlin	36,915	87.3
	Arickaree	36,891	87.3
	Akron	36,829	87.1
	Lone Star	36,558	86.5
	Otis	36,438	86.2
Weld	Fort Lupton	41,990	99.3
	Windsor	41,756	98.8
	Keenesburg	40,972	96.9
	Johnstown	40,931	96.8
	Eaton	40,587	96.0
	Platte Valley RE-7	40,433	95.6
	Greeley	40,278	95.3
	Gilcrest	40,230	95.2
	Ault-Highland	39,731	94.0
	Briggsdale	37,846	89.5
	Grover	36,741	86.9
	Prairie	36,318	85.9
Yuma	West Yuma	36,859	0.872
	East Yuma	36,490	0.863
	Liberty	36,099	0.854
	Idalia	35,016	0.828

References

Colorado Legislative Council Staff. 2006. 2005 School District Cost-of-Living Study. Memorandum to members of the General Assembly, Feburary 16, 2006.

Department of Housing and Urban Development. 2007. Policy Development and Research Information Service. Median family income limits for 2005. Accessed June, 2007 online at: http://www.huduser.org/datasets/il.html

Pacey Economics Group. 2005. 2005 Colorado School District Cost of Living Study: Final Report Methodology and Results by District, December 20, 2005. Boulder, Colorado.

State Demography Office, Colorado Department of Local Affairs.Population Estimates program. Accessed June 2007 online at: http://www.dola.state.co.us/dlg/demog/pop_cnty_estimates.html

U.S. Census Bureau, Small Area Income and Poverty Estimates for 2004. Accessed April 2007 online at: http://www.census.gov/hhes/www/saipe/