



## **2025 COLORADO SCHOOL DISTRICT COST OF LIVING ANALYSIS**

Colorado Legislative Council

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# 2025 COLORADO SCHOOL DISTRICT COST OF LIVING ANALYSIS

CONDUCTED FOR THE COLORADO LEGISLATIVE COUNCIL

## SECTION 1: OVERVIEW OF THE STUDY

Corona Insights is pleased to present the 2025 Colorado School District Cost of Living Analysis to the Colorado Legislative Council. The purpose of this study is to create a cost of living index for each of the 178 school districts in Colorado to be utilized in the per pupil funding formula for K-12 education, as mandated by the Public School Finance Act of 1994.

A cost of living index is a tool for comparing how expensive it is to live in one school district rather than another. We start by assuming that the same family buys the same items while living in different districts and then determine how much it would cost to buy those things in each district.

For the 2025 Colorado School District Cost of Living Study, our family (i.e., "benchmark household") is a family of three people with a total household income of \$74,131, which is the average salary of a Colorado teacher with a bachelor's degree and 10 or more years of experience.

The research process involves the following steps, which are described in greater detail in [Section 3](#):

1. We assume that the benchmark household purchases the same goods and services as a typical family of that size and income, according to the national Consumer Expenditure Survey (CES) conducted by the Bureau of Labor Statistics (BLS).
2. We select a variety of specific items to represent categories of spending. For example, we select a banana to represent purchases of fruits and vegetables. These items comprise our market basket.
3. Then we collect prices for the items in the market basket from businesses or service providers (such as a utility) in each district.
4. We then account for geographic patterns in where people shop for retail items in the market basket, which may be in their own district or in different districts.
5. Based on where people typically shop, and how much items cost in each place, we figure out how much residents of each district typically pay for the total market basket. This allows us to compare how expensive it would be for the benchmark family to live in each district.

[Section 2](#) of this report provides the results of this study, with maps and tables showing the relative cost of living in each school district in Colorado. [Section 3](#) of this report provides in-depth information on the methodology for the study. [Appendices A-E](#) provide additional results, raw data, research instruments and products, additional documentation on changes from the previous study, and statistical procedures used.

## SECTION 2: 2025 COLORADO SCHOOL DISTRICT COST OF LIVING RESULTS

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The table that extends across the following several pages provides the overall cost of living in each of Colorado's 178 school districts, as calculated in 2025. Figures are reported in order by District number (and alphabetically by County name), along with associated rankings, ratings, and comparisons.

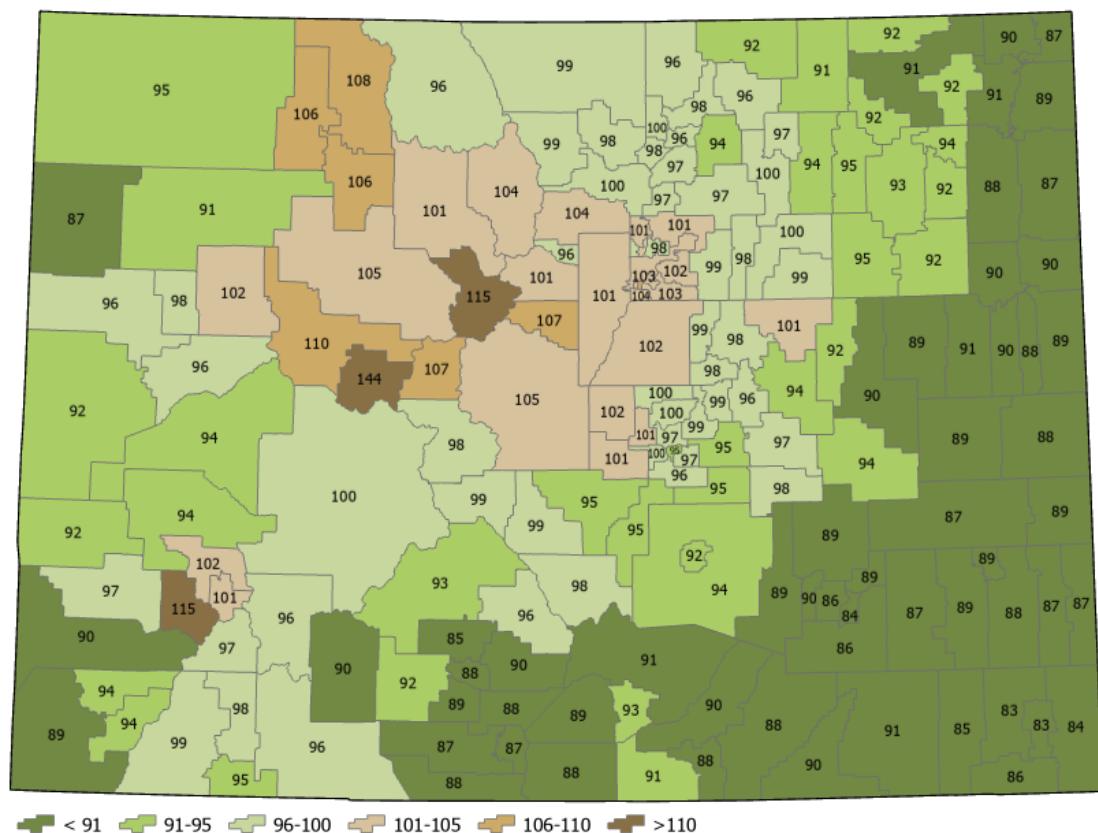
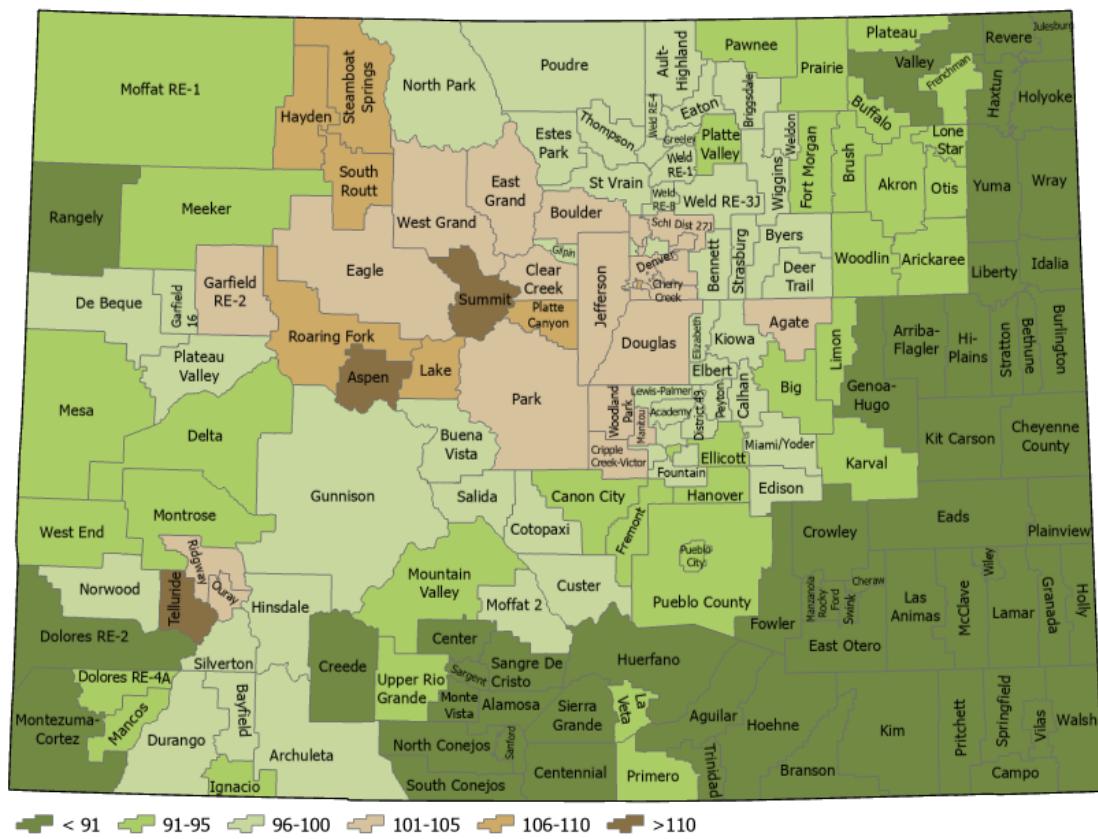
Cost of living figures relate to the cost of buying a market basket of goods and services that represents the spending patterns in the United States of the average 3-person household earning \$74,131. (See [Section 3.1](#) for more discussion of the archetypal household.) More detailed results by expense category may be seen in [Appendix A](#). Raw data for selected goods may be seen in [Appendix D](#).

The findings are largely consistent with previous years. Aspen continues to have the highest cost of living, however the disparity in cost of living is larger in 2025 than it was in 2023, particularly for Aspen, Telluride, and the Roaring Fork Valley primarily due to the continued inflation seen in housing costs. Other mountain resort districts make up the top of the list, including districts in Summit, Lake, Park, Eagle, and Routt Counties. Denver and Boulder districts remain above the statewide average, but are attenuated compared to 2023, with Denver falling from the 6<sup>th</sup> to the 17<sup>th</sup> most expensive and Boulder falling from the 8<sup>th</sup> to 13<sup>th</sup>, while Englewood has risen from the 11<sup>th</sup> to the 8<sup>th</sup> most expensive district. The districts with the lowest costs of living are primarily located in the Eastern Plains and the San Luis Valley.

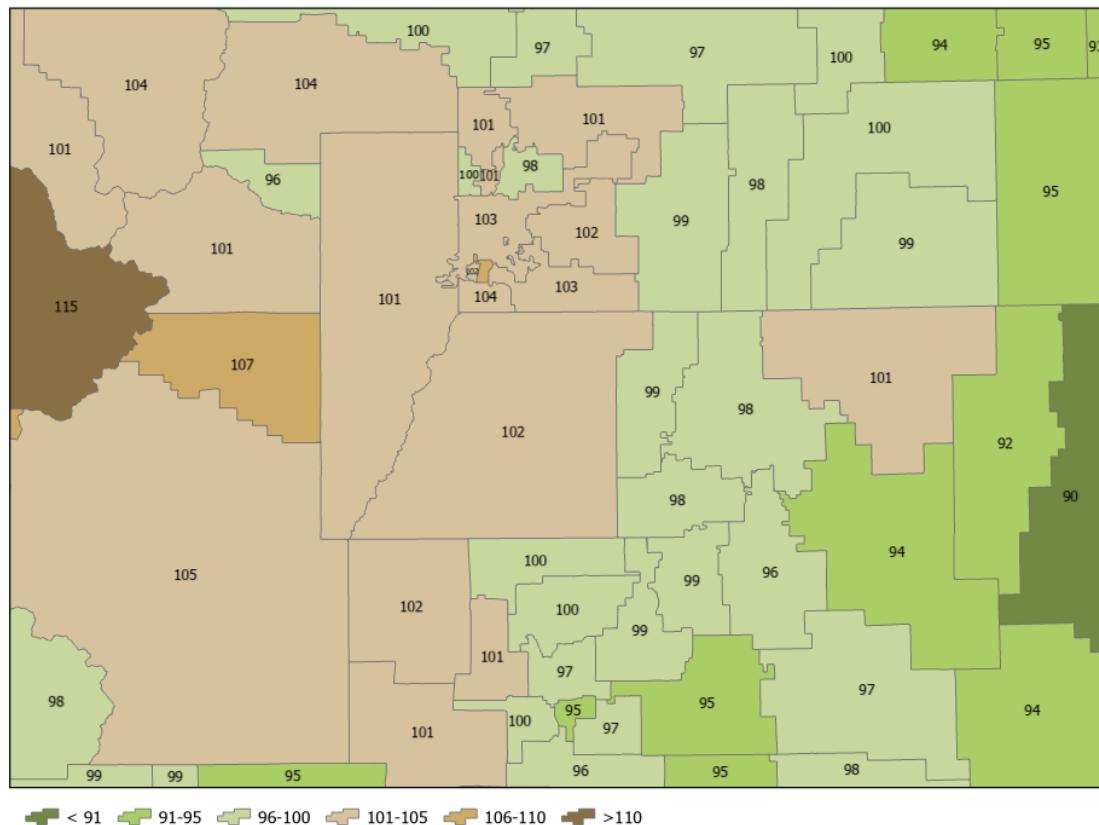
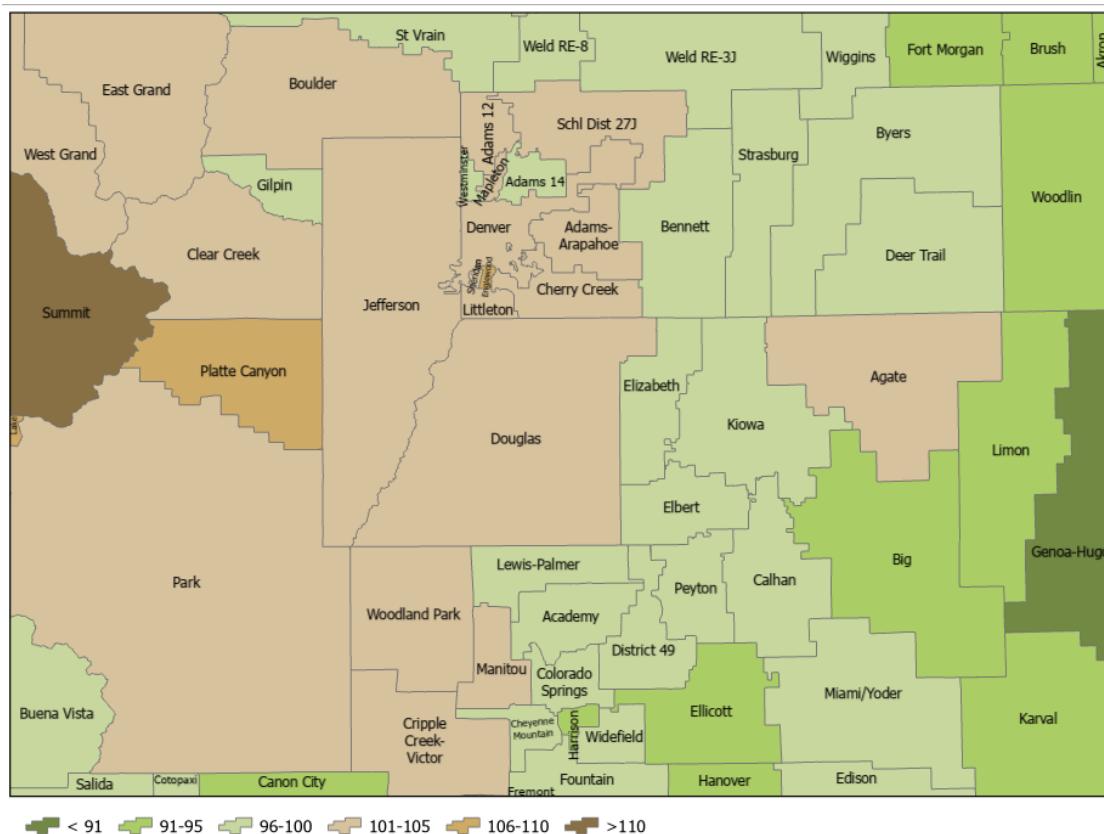
The next pages provide maps and a table of the results. Statewide maps for each major expenditure category are provided in [Appendix A](#).

The index value is the ratio of the cost of the market basket in each district to the statewide average cost of the market basket. An index value that is greater than 100 means that district is more expensive than average, while a value less than 100 means that district is less expensive than average.

## 2025 COST OF LIVING INDEX (STATEWIDE)



## 2025 COST OF LIVING INDEX (FRONT RANGE)



2025 Cost of Living Index for Colorado School Districts					
School District ID	County	School District	Total	Index	Rank 2025
		State Average	\$74,131	100	
10	Adams	Mapleton 1	\$74,938	101.1	30
20	Adams	Adams 12 Five Star Schools	\$75,024	101.2	27
30	Adams	Adams County 14	\$72,855	98.3	55
40	Adams	School District 27J	\$75,487	101.8	22
50	Adams	Bennett 29J	\$74,075	99.9	40
60	Adams	Strasburg 31J	\$73,147	98.7	51
70	Adams	Westminster Public Schools	\$74,075	99.9	39
100	Alamosa	Alamosa RE-1J	\$65,333	88.1	152
110	Alamosa	Sangre De Cristo Re-22J	\$66,903	90.2	127
120	Arapahoe	Englewood 1	\$78,708	106.2	8
123	Arapahoe	Sheridan 2	\$75,532	101.9	21
130	Arapahoe	Cherry Creek 5	\$76,240	102.8	18
140	Arapahoe	Littleton 6	\$77,256	104.2	14
170	Arapahoe	Deer Trail 26J	\$73,682	99.4	46
180	Arapahoe	Adams-Arapahoe 28J	\$75,175	101.4	25
190	Arapahoe	Byers 32J	\$74,939	101.1	29
220	Archuleta	Archuleta County 50 Jt	\$71,286	96.2	76
230	Baca	Walsh RE-1	\$62,223	83.9	176
240	Baca	Pritchett RE-3	\$62,788	84.7	173
250	Baca	Springfield RE-4	\$61,561	83.0	177
260	Baca	Vilas RE-5	\$61,281	82.7	178
270	Baca	Campo RE-6	\$64,061	86.4	167
290	Bent	Las Animas RE-1	\$64,723	87.3	159
310	Bent	McClave Re-2	\$66,155	89.2	138
470	Boulder	St Vrain Valley RE1J	\$74,548	100.6	35
480	Boulder	Boulder Valley Re 2	\$77,333	104.3	13
490	Chaffee	Buena Vista R-31	\$72,300	97.5	65
500	Chaffee	Salida R-32	\$73,227	98.8	50
510	Cheyenne	Kit Carson R-1	\$65,560	88.4	149
520	Cheyenne	Cheyenne County Re-5	\$64,892	87.5	155
540	Clear Creek	Clear Creek RE-1	\$74,783	100.9	33
550	Conejos	North Conejos RE-1J	\$64,550	87.1	161
560	Conejos	Sanford 6J	\$64,416	86.9	163
580	Conejos	South Conejos RE-10	\$64,784	87.4	157
640	Costilla	Centennial R-1	\$65,591	88.5	148
740	Costilla	Sierra Grande R-30	\$65,724	88.7	147
770	Crowley	Crowley County RE-1J	\$66,105	89.2	140
860	Custer	Custer County School District C-1	\$72,404	97.7	64
870	Delta	Delta County 50(J)	\$69,202	93.4	104
880	Denver	Denver County 1	\$76,329	103.0	17
890	Dolores	Dolores County RE No.2	\$66,876	90.2	128
900	Douglas	Douglas County Re 1	\$76,096	102.7	19
910	Eagle	Eagle County RE 50	\$77,530	104.6	12
920	Elbert	Elizabeth School District	\$73,889	99.7	44
930	Elbert	Kiowa C-2	\$72,755	98.1	59
940	Elbert	Big Sandy 100J	\$69,701	94.0	99
950	Elbert	Elbert 200	\$72,541	97.9	61

2025 Cost of Living Index for Colorado School Districts					
School District ID	County	School District	Total	Index	Rank 2025
960	Elbert	Agate 300	\$74,622	100.7	34
970	El Paso	Calhan RJ-1	\$71,153	96.0	78
980	El Paso	Harrison 2	\$70,388	95.0	94
990	El Paso	Widefield 3	\$71,431	96.4	73
1000	El Paso	Fountain 8	\$71,209	96.1	77
1010	El Paso	Colorado Springs 11	\$71,556	96.5	72
1020	El Paso	Cheyenne Mountain 12	\$73,892	99.7	43
1030	El Paso	Manitou Springs 14	\$74,917	101.1	31
1040	El Paso	Academy 20	\$73,980	99.8	41
1050	El Paso	Ellicott 22	\$70,666	95.3	87
1060	El Paso	Peyton 23 Jt	\$73,557	99.2	48
1070	El Paso	Hanover 28	\$70,521	95.1	91
1080	El Paso	Lewis-Palmer 38	\$74,440	100.4	37
1110	El Paso	District 49	\$73,012	98.5	53
1120	El Paso	Edison 54 JT	\$72,853	98.3	56
1130	El Paso	Miami/Yoder 60 JT	\$72,055	97.2	69
1140	Fremont	Canon City RE-1	\$70,649	95.3	88
1150	Fremont	Fremont RE-2	\$70,668	95.3	86
1160	Fremont	Cotopaxi RE-3	\$72,897	98.3	54
1180	Garfield	Roaring Fork RE-1	\$81,201	109.5	4
1195	Garfield	Garfield Re-2	\$75,486	101.8	23
1220	Garfield	Garfield 16	\$72,575	97.9	60
1330	Gilpin	Gilpin County RE-1	\$71,589	96.6	71
1340	Grand	West Grand 1-JT	\$75,289	101.6	24
1350	Grand	East Grand 2	\$77,151	104.1	15
1360	Gunnison	Gunnison Watershed RE1J	\$74,441	100.4	36
1380	Hinsdale	Hinsdale County RE 1	\$71,377	96.3	75
1390	Huerfano	Huerfano Re-1	\$67,497	91.1	119
1400	Huerfano	La Veta Re-2	\$69,317	93.5	103
1410	Jackson	North Park R-1	\$71,095	95.9	80
1420	Jefferson	Jefferson County R-1	\$74,967	101.1	28
1430	Kiowa	Eads RE-1	\$64,620	87.2	160
1440	Kiowa	Plainview RE-2	\$66,279	89.4	136
1450	Kit Carson	Arriba-Flagler C-20	\$65,559	88.4	150
1460	Kit Carson	Hi-Plains R-23	\$67,203	90.7	124
1480	Kit Carson	Stratton R-4	\$66,479	89.7	134
1490	Kit Carson	Bethune R-5	\$65,388	88.2	151
1500	Kit Carson	Burlington RE-6J	\$65,766	88.7	146
1510	Lake	Lake County R-1	\$78,986	106.5	7
1520	La Plata	Durango 9-R	\$73,629	99.3	47
1530	La Plata	Bayfield 10 Jt-R	\$72,838	98.3	57
1540	La Plata	Ignacio 11 JT	\$70,626	95.3	89
1550	Larimer	Poudre R-1	\$73,797	99.5	45
1560	Larimer	Thompson R2-J	\$73,016	98.5	52
1570	Larimer	Estes Park R-3	\$73,489	99.1	49
1580	Las Animas	Trinidad 1	\$63,155	85.2	171
1590	Las Animas	Primero Reorganized 2	\$67,689	91.3	118
1600	Las Animas	Hoehne Reorganized 3	\$64,779	87.4	158

2025 Cost of Living Index for Colorado School Districts					
School District ID	County	School District	Total	Index	Rank 2025
1620	Las Animas	Aguilar Reorganized 6	\$66,659	89.9	131
1750	Las Animas	Branson Reorganized 82	\$67,081	90.5	125
1760	Las Animas	Kim Reorganized 88	\$67,422	91.0	120
1780	Lincoln	Genoa-Hugo C113	\$66,610	89.9	132
1790	Lincoln	Limon RE-4J	\$68,565	92.5	107
1810	Lincoln	Karval RE-23	\$69,847	94.2	97
1828	Logan	Valley RE-1	\$67,224	90.7	123
1850	Logan	Frenchman RE-3	\$67,038	90.4	126
1860	Logan	Buffalo RE-4J	\$68,144	91.9	112
1870	Logan	Plateau RE-5	\$67,775	91.4	117
1980	Mesa	De Beque 49JT	\$70,964	95.7	83
1990	Mesa	Plateau Valley 50	\$70,845	95.6	84
2000	Mesa	Mesa County Valley 51	\$68,440	92.3	111
2010	Mineral	Creede School District	\$66,834	90.2	129
2020	Moffat	Moffat County RE: No 1	\$70,602	95.2	90
2035	Montezuma	Montezuma-Cortez RE-1	\$66,139	89.2	139
2055	Montezuma	Dolores RE-4A	\$69,479	93.7	102
2070	Montezuma	Mancos Re-6	\$69,164	93.3	105
2180	Montrose	Montrose County RE-1J	\$69,621	93.9	101
2190	Montrose	West End RE-2	\$67,867	91.5	115
2395	Morgan	Brush RE-2(J)	\$70,484	95.1	93
2405	Morgan	Fort Morgan Re-3	\$70,488	95.1	92
2505	Morgan	Weldon Valley RE-20(J)	\$71,414	96.3	74
2515	Morgan	Wiggins RE-50(J)	\$74,270	100.2	38
2520	Otero	East Otero R-1	\$63,627	85.8	169
2530	Otero	Rocky Ford R-2	\$63,978	86.3	168
2535	Otero	Manzanola 3J	\$66,303	89.4	135
2540	Otero	Fowler R-4J	\$65,891	88.9	143
2560	Otero	Cheraw 31	\$65,953	89.0	141
2570	Otero	Swink 33	\$62,539	84.4	174
2580	Ouray	Ouray R-1	\$75,025	101.2	26
2590	Ouray	Ridgway R-2	\$75,688	102.1	20
2600	Park	Platte Canyon 1	\$79,693	107.5	6
2610	Park	Park County RE-2	\$78,085	105.3	11
2620	Phillips	Holyoke Re-1J	\$64,344	86.8	165
2630	Phillips	Haxtun RE-2J	\$65,896	88.9	142
2640	Pitkin	Aspen 1	\$106,510	143.7	1
2650	Prowers	Granada RE-1	\$63,125	85.2	172
2660	Prowers	Lamar Re-2	\$64,878	87.5	156
2670	Prowers	Holly RE-3	\$64,378	86.8	164
2680	Prowers	Wiley RE-13 Jt	\$65,868	88.9	144
2690	Pueblo	Pueblo City 60	\$67,875	91.6	114
2700	Pueblo	Pueblo County 70	\$69,861	94.2	96
2710	Rio Blanco	Meeker RE-1	\$67,250	90.7	122
2720	Rio Blanco	Rangely RE-4	\$64,309	86.8	166
2730	Rio Grande	Upper Rio Grande School District C-7	\$67,955	91.7	113
2740	Rio Grande	Monte Vista C-8	\$65,817	88.8	145
2750	Rio Grande	Sargent RE-33J	\$65,170	87.9	153

2025 Cost of Living Index for Colorado School Districts					
School District ID	County	School District	Total	Index	Rank 2025
2760	Routt	Hayden RE-1	\$78,142	105.4	10
2770	Routt	Steamboat Springs RE-2	\$80,099	108.1	5
2780	Routt	South Routt RE 3	\$78,286	105.6	9
2790	Saguache	Mountain Valley RE 1	\$68,621	92.6	106
2800	Saguache	Moffat 2	\$71,038	95.8	82
2810	Saguache	Center 26 JT	\$62,497	84.3	175
2820	San Juan	Silverton 1	\$72,078	97.2	68
2830	San Miguel	Telluride R-1	\$85,117	114.8	2
2840	San Miguel	Norwood R-2J	\$71,911	97.0	70
2862	Sedgwick	Julesburg Re-1	\$63,405	85.5	170
2865	Sedgwick	Revere School District	\$66,265	89.4	137
3000	Summit	Summit RE-1	\$85,098	114.8	3
3010	Teller	Cripple Creek-Victor RE-1	\$74,833	100.9	32
3020	Teller	Woodland Park Re-2	\$76,361	103.0	16
3030	Washington	Akron R-1	\$68,565	92.5	108
3040	Washington	Arickaree R-2	\$68,484	92.4	109
3050	Washington	Otis R-3	\$68,476	92.4	110
3060	Washington	Lone Star 101	\$69,667	94.0	100
3070	Washington	Woodlin R-104	\$70,278	94.8	95
3080	Weld	Weld County RE-1	\$72,251	97.5	66
3085	Weld	Eaton RE-2	\$72,819	98.2	58
3090	Weld	Weld County School District RE-3J	\$72,483	97.8	63
3100	Weld	Weld RE-4	\$73,972	99.8	42
3110	Weld	Johnstown-Milliken RE-5J	\$72,220	97.4	67
3120	Weld	Greeley 6	\$70,792	95.5	85
3130	Weld	Platte Valley RE-7	\$69,734	94.1	98
3140	Weld	Weld Re-8 Schools	\$72,499	97.8	62
3145	Weld	Ault-Highland RE-9	\$71,131	96.0	79
3146	Weld	Briggsdale RE-10	\$71,071	95.9	81
3147	Weld	Prairie RE-11	\$67,414	90.9	121
3148	Weld	Pawnee RE-12	\$67,842	91.5	116
3200	Yuma	Yuma 1	\$65,133	87.9	154
3210	Yuma	Wray RD-2	\$64,418	86.9	162
3220	Yuma	Idalia RJ-3	\$66,833	90.2	130
3230	Yuma	Liberty J-4	\$66,589	89.8	133

## SECTION 3: METHODOLOGY

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### 3.1 IDENTIFYING THE BENCHMARK HOUSEHOLD

The first step in a cost of living study is to determine whose cost of living the index will reflect. This entity is referred to as the “benchmark household”. The 2025 benchmark household was defined by the Colorado Legislative Council to be a three-person household with a total annual household income of \$74,131, which is the average salary in 2024 of a Colorado teacher with a bachelor’s degree and 10 or more years of experience. A three-person household is the average household size in Colorado (US Census Bureau, 2019-2023). This benchmark household was defined in the same way as in prior studies since 2015. (Prior to 2015, the benchmark household was defined using the average teacher salary, overall, without specifying a level of education and experience.)

Over the past studies, the household size has remained constant, and the household income has increased at a moderate rate. The table below summarizes the history of benchmark household income values used for the study.

Household Income Definition for 3-Person Benchmark Household		
Year	Household Income	Percent Change
2025	74,131	16.2%
2023	63,822	6.7%
2021	59,834	5.8%
2019	56,547	6.5%
2017	53,115	2.3%
2015 <sup>a</sup>	51,930	5.3%
2013 <sup>b</sup>	49,300	0.2%
2011	49,200	3.6%
2009	47,500	6.7%
2007	44,500	3.5%
2005	43,000	7.5%
2003	40,000	5.3%
2001	38,000	

<sup>a</sup> Since 2015, the household income definition has specified the average salary of a Colorado teacher with a bachelor's degree and 10 or more years of experience. <sup>b</sup> The 2013 salary was revised to be consistent with the 2015 household income definition. The 2013 study originally used a salary of \$49,100.

### 3.2 IDENTIFYING THE MARKET BASKET OF GOODS AND SERVICES

The next step in a cost of living study is to determine what the benchmark household will buy. The goal of this step is to develop a list of goods and services that, in combination, can represent the full range of typical annual purchases for the benchmark household. To begin, we obtain a list of spending categories from the Consumer Expenditure Survey (CES), which is conducted by the Bureau of Labor Statistics (BLS). The CES gathers information on the buying

habits of American consumer households and then provides summary data about what households spend their money on and how much of their spending goes to each category. In particular, the CES provides data on the spending habits of 3-person households at different income levels that we use to calculate typical expenditures for our benchmark family earning \$74,131. The table below shows the proportion of spending in major expenditure categories over the past two study periods, sorted from largest to smallest expenditures.

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Consumer Expenditures for a  
3-Person Household Earning \$74,131

Expenditure Category	% of Income 2023	% of Income 2025	Change
Housing	33.4%	33.3%	-0.1%
Transportation	18.5%	19.1%	+0.6%
Food	12.7%	14.1%	+1.4%
Healthcare	9.3%	8.4%	-1.0%
Entertainment	3.6%	3.7%	+0.1%
Personal taxes	4.7%	3.5%	-1.1%
Apparel and services	2.3%	2.3%	+0.0%
Personal care products and services	1.1%	1.2%	+0.1%
Tobacco	0.9%	0.7%	-0.2%
Alcoholic beverages	0.5%	0.5%	-0.1%
Other	13.1%	13.3%	+0.2%
<i>Total</i>	<i>100%</i>	<i>100%</i>	

Spending patterns for the benchmark household in 2025 were largely similar to spending patterns in 2023. The largest changes were a 1.4% increase in spending on food and a 1.1% decrease in personal taxes.

Starting from the detailed expenditure categories (provided in the table below), Corona Insights and the Colorado Legislative Council developed a list of specific goods and services to represent the expenditures of our benchmark household. This list of goods and services comprise the “market basket” for the cost of living study. An effort was made to retain market basket items from the previous study, while selecting items that: a) are representative of the expenditure category, b) are widely available statewide in a substantially similar form, and c) represent a minimum proportion of spending (e.g., at least 0.5%). More information on the selection criteria for 2025 can be found in [Appendix B](#).

**Consumer Expenditure Survey Categories and Specific Weights Utilized in Cost of Living Index**  
*(weight as a percentage of income)*

Expenditure Category	% of Income	Representative Market Basket Items 2025
<b>Food</b>	<b>14.09%</b>	
Food at home	9.52%	
Cereals and bakery products	1.21%	Cheerios
Meats, poultry, fish, and eggs	2.15%	Ground Beef
Dairy products	0.90%	Milk
Fruits and vegetables	1.64%	Bananas
Other food at home	3.61%	Coke
Food away from home	4.58%	Pizza
<b>Housing</b>	<b>33.30%</b>	
Owned Dwellings	10.34%	
Mortgage interest and charges	4.51%	Mortgage Payment
Property taxes	2.91%	Property Taxes
Maintenance, repairs, insurance, other expenses	2.92%	Homeowner's Insurance
Rented Dwellings	8.77%	Rent & Renter's Insurance Payment
Utilities, fuels, and public services	7.36%	
Natural gas	0.81%	Natural Gas
Electricity	2.97%	Electric
Telephone services	2.44%	Telephone
Water and other public services	1.14%	Water & Sewer
Household operations	2.59%	Day Care Services, Internet
Household furnishings and equipment & Housekeeping supplies	4.24%	Smoke Detector
<b>Transportation</b>	<b>19.13%</b>	
Vehicle purchases (net outlay) & vehicle finance charges	8.81%	Car Payment (Interest rate, bank financing fees, taxes, title, registration)
Gasoline and motor oil	5.12%	Gasoline: 85 Unleaded
Other vehicle expenses	5.21%	
Maintenance and repairs	1.79%	Oil and Filter Change, Front-End Alignment
Vehicle insurance	3.42%	Insurance Premiums
<b>Healthcare</b>	<b>8.37%</b>	Health Insurance Premium
<b>Entertainment</b>	<b>3.71%</b>	Pet Food
<b>Personal care products and services</b>	<b>1.17%</b>	Woman's Haircut, Man's Haircut
<b>Personal taxes (not including stimulus)</b>	<b>3.52%</b>	Income Tax with Itemized Deductions for Mortgage Interest
<b>Other [assumed not to vary between districts]</b>	<b>16.71%</b>	
Alcoholic beverages	0.46%	
Apparel and services	2.27%	
Reading	0.13%	
Education	1.10%	
Tobacco products and smoking supplies	0.68%	
Miscellaneous	1.37%	
Cash contributions	1.44%	
Personal insurance and pensions	9.26%	
<i>Total</i>	<i>100.00%</i>	

### 3.3 DETERMINING WHERE, WHEN, AND HOW TO COLLECT COSTS OF MARKET BASKET ITEMS

Market basket items can be divided into two main categories for data collection. In the first category are retail goods and services that can be purchased from many shopping locations throughout the state. These items include groceries, restaurant meals, household items, auto services, and haircuts. In the second category are items most people think of as bills: mortgage and rent payments, car payments, insurance, utilities, and taxes. In 2025, prices for most of the retail goods and services were obtained by making telephone calls to individual businesses as well as visits to select websites of retailers. In contrast, prices for most of the bills were calculated from information provided in government publications, other publicly available data, and through municipal authorities (either via telephone calls or online, where published).

#### RETAIL ITEMS

The table below provides the data source and data collection method for each of the retail items.

	CES Category	Market Basket Item	Data Source	Collection Method
Food	Cereals and bakery products	Cheerios		
	Fruits and vegetables	Bananas		
	Meats, poultry, fish, and eggs	Ground beef	Sample from commercial list provider for Grocery, General Stores, and Convenience Stores	
	Dairy	Milk		
	Other food at home	Coke		
Housing	Food away from home	Pizza	Sample from commercial list provider for Pizza Restaurants	
	Housekeeping supplies, furnishings, & equipment	Smoke detector	Sample from commercial list provider for Hardware, Department Stores, Grocery, General Stores, Drugstores	Phone calls to businesses
Entertainment	Entertainment	Pet food		
	Personal care	Man's haircut	Sample from commercial list provider for Beauty & Barber Shops	
		Woman's haircut		
Transportation	Maintenance and repairs	Oil and filter change	Sample from commercial list provider for Auto Repair Shops	
	Maintenance and repairs	Front-end alignment		

For each of the retail items, we identified a set of Standard Industrial Classification (SIC) codes that correspond to businesses that are likely to sell the item. We then purchased a list of all businesses associated with those SIC codes

from a commercial list vendor. To select a sample of businesses to collect prices from, we first used ArcGIS software to map the latitude and longitude coordinates for each business to the school district for each business using school district shape files available from the Census Bureau. As in the previous study, we determined that a sample of 10 businesses per item per school district was the minimum target. Because not all businesses would answer their phones or provide pricing information, we determined to start with a sample of 15 businesses per item per district in order to obtain 10 prices. In many districts, there were fewer than 15 businesses available for some items. In those cases, all known businesses in those districts were included in the sample. In districts with more than 15 businesses available, a weighted random sample of businesses was selected where weights were used to ensure that the sample of businesses reflects the market share of businesses in the community.

From a statistical perspective, if all stores selling a given product have an equal market share, meaning people are just as likely to buy the product at any store as any other store, then taking a simple random sample of stores would be appropriate, and calculating simple averages of the prices available at those stores would give a reasonably accurate measure of what people pay and how confident we are in that estimate as a function of the sample size within the universe of stores. However, because people tend to shop more at some stores than others (or more people shop at some stores than others), the average amount paid isn't a simple average of the prices available across stores but is a weighted average of prices available by how many people buy at each location (i.e., the market share of the location). Rather than weighting the prices obtained on the back end, we instead sampled businesses according to market share in order to account for this complexity. However, this methodology was most flawed in small districts where we were likely to gather prices from all businesses selling a product and weight them equally in calculating a district price, even though there may be one particular business in that district that is responsible for a disproportionate percentage of sales of that item in that district.

To gather data from the sample of businesses selected, we primarily made phone calls to the individual businesses. We also gathered some pricing online, where pricing for individual business locations was available. In addition, we used online sources to verify business addresses, search for missing or alternate phone numbers, verify business closures, and search for additional businesses in districts where no businesses existed in the sample. We also used online sources if businesses in the district did not provide pricing.

To execute the phone survey, we recruited temporary contractors. A Corona Insights Principal who has been involved in past data collection for this project served as the phone research manager in charge of training and overseeing the staff. All hires were screened, interviewed, and background checked by our staffing agency prior to employment. Data collectors were paid hourly. Phone calls and online searches were made from Corona's office.

We developed an overview and training guide for data collectors. We then conducted training with all data collectors. Training focused on the importance of collecting data in the exact same manner from all businesses contacted and included how to record prices and how to enter data. Data collectors focused on one product at a time, and prior to starting data collection for a specific item, a thorough review of that market basket item, including relevant details, common questions and allowed substitutions, was provided. The research manager and other Corona staff were available for questions during the entire data collection period. The research manager also made periodic check-ins with the data collectors to answer questions and monitor progress. Data was entered directly into an Excel spreadsheet. Most of the phone data collection was completed in a two-week period to minimize variability in pricing due to timing. The research manager conducted random data checks to ensure the correct prices were collected.

## NON-RETAIL ITEMS ("BILLS")

The table below provides the data source and data collection method for each of the non-retail items.

CES Category	Market Basket Item	Data Source	Collection Method
Shelter	Mortgage Interest Payment	Housing values from outside consultant; interest rate from Zillow	Secondary Data & Online Source
	Property Taxes	Colorado Dept of Local Affairs - Annual Report & Assessors' Reference Library, Property Classification Guidelines and Assessment Percentages	Online sources
	Homeowners' Insurance	Colorado Dept of Regulatory Agencies, Division of Insurance (HO-3 policy)	Online source
	Rent Payment & Renter's Insurance	American Community Survey (ACS) Colorado Dept of Regulatory Agencies, Division of Insurance (HO-4 policy)	Online sources
Housing Utilities	Electric	Colorado Association of Municipal Utilities, U.S. Dept of Homeland Security, National Oceanic and Atmospheric Administration, Colorado Public Utilities Commission	Online sources Phone calls to providers
	Natural gas	Colorado Public Utilities Commission National Oceanic and Atmospheric Administration U.S. Energy Information Administration	Online sources Phone calls to providers
	Telephone	Colorado Public Utilities Commission The Tax Foundation	Online sources
	Water and Wastewater	Water and wastewater utilities across the state. Homeguide.com and Homeadvisor.com.	Online sources Phone calls to providers
Household Operations	Day Care Services	The Self-Sufficiency Standard for Colorado US Office of Child Care	Online sources
	Internet Service	BroadbandNow Research and the Federal Communication Commission	Online source
	Vehicle purchases & vehicle finance charges	Sample from commercial list provider for banks and credit unions; Kelley Blue Book; Colorado Dept of Revenue; Colorado Legislative Council	Online sources Phone calls to providers
Transportation	Gasoline and motor oil	Oil Price Information Service American Community Survey (ACS)	Purchase database
	Vehicle insurance	Colorado Dept of Regulatory Agencies, Division of Insurance (Plan 2, Driver C)	Online source
	Healthcare	Colorado Dept of Regulatory Agencies, Division of Insurance (Individual Min/Max Premiums for Silver and Bronze Tiers)	DORA request

Data collection for non-retail items was tailored to each item, but in most cases involved locating some publicly available information and supplementing with phone calls to specific providers or municipal authorities to fill in

missing information. Corona staff executed the data collection for these items, with the exception of bank rates and fees for the vehicle payment calculation, which were collected by phone calls to banks and credit unions by the temporary staff, as described in the previous section on phone calls for retail items. More information about the data collection for each of these items is provided in the next section of the report.

### 3.4 DATA COLLECTION DETAILS

#### PROCESS OVERVIEW



For the retail items identified above, the data collection process followed the same steps, so we describe those as a group, below. For each of the non-retail items, we describe their data collection process individually.

#### RETAIL ITEMS SUMMARY

Retail item prices were collected by telephone for every district. The sample for telephone calls was prepared following the protocol described in the previous section of the report. Detailed item descriptions for each of these items and the number of prices obtained for each item are provided in the table below.

	CES Category	Market Basket Item	Description	N Obs 2025
Food	Cereals and bakery products	Cheerios	Price of General Mills Cheerios Toasted Whole Grain Oat Cereal plain, 8.9 oz. If size not available, note difference in size and record price.	383
	Fruits and vegetables	Bananas	Price per pound. If bananas are priced by the bag or by the banana, note that in the file. Do not price organic.	321
	Meats, poultry, fish and eggs	Ground beef	Price per pound of prepackaged, regular ground beef, 80% lean or most comparable, from a 1 to 2-pound package of loose ground beef. Note if different percent lean. Do not price family pack, pre-formed patties, or tube packaging.	380
	Dairy	Milk	Price for one gallon (128 Fl. oz.) 2% milk, collect cheapest price. If no 2%, then price (in order of preference) 1%, skim, whole. Note if not 2%. Do not price organic, soy, or flavored milks (e.g. chocolate, etc.). Do not price half gallon.	491
	Other food at home	Coke	Price for a 2L bottle of regular Coca-Cola. Do not price diet, caffeine free, cherry, or other varieties.	455
	Food away from home	Pizza	Price for a cheese pizza, regular or thin crust, 14" diameter (note size if other).	332

Housing	Housekeeping supplies, furnishings, & equipment	Smoke detector	Price of most basic smoke detector offered. Preferably no carbon monoxide, dual sensor, 10 year, or similar. Note any premium features on model priced.	276
	Entertainment	Pet food	Price of Friskies Cat Food, 5.5 oz. single can, not multi-pack.	
	Personal care	Man's haircut Woman's haircut	Price of man's wash, cut, and dry. Price of woman's wash, cut, and dry without styling.	
Transportation	Maintenance and repairs	Oil and filter change	Price of an oil and filter change for a 2021 Ford F-150 pickup with a 3.3 liter, V6 engine. Price includes new filter, 6 qts of 5w-30 full synthetic oil, and disposal of old oil. Do not price with tax.	275
	Maintenance and repairs	Front-end alignment	Price of front-end alignment for a 2021 Ford F-150 pickup with rear wheel drive.	

After all data was collected, we validated and cleaned the data. Data collectors included notes next to any price where the item diverged from the market basket description. We reviewed those notes and adjusted any prices accordingly (typically scaling prices for differently sized items or multi-packs) and scanned for any obvious data entry errors. In districts where multiple prices were collected, we removed prices for any items collected in a different size or type than specified. Next, outliers were identified and removed, using the same rule as the previous study. Specifically, we used box and whisker plots and truncated extreme values to the boxplot whisker (i.e., the 25th or 75th percentile plus 1.5 times the inter-quartile range).

Finally, appropriate taxes for each item in each location were added to each price, and an average price was calculated for each district. For food at home items, appropriate grocery taxes were applied; for food away from home items, appropriate dining out taxes were applied; and normal sales taxes were applied to the smoke detector and pet food as well as 40% of the oil change price (which reflects the portion of the cost covering materials as opposed to labor). No tax was applied to haircut prices or front-end alignment prices as they are not considered taxable goods.

## NON-RETAIL ITEMS SUMMARY

Detailed item descriptions for each of the non-retail items and the number of prices obtained for each item are provided in the table below.

CES Category	Market Basket Item	Description	N Obs 2025
Housing	Mortgage Interest Payment	Mortgage interest payment interest, based on housing values provided by outside consultant. Mortgage payment interest rate for 30-year fixed, 20% down, credit score over 720 (as of November 2025)	1 per district
	Property Taxes	Property taxes based on district home value, residential assessment rate, and mill levies	1 per district, 1 per county
	Homeowners' Insurance	Insurance premium for HO-3 policy with limits of \$500,000 dwelling replacement, \$350,000 contents replacement (frame structure type), \$100,000 personal liability, \$1,000 medical expense, \$1,000 deductible	37 cities from 13 providers

			Rent estimates for 178 districts
	Rent Payment & Renter's Insurance	Median gross rent paid for a three-bedroom home Insurance premium for HO-4 policy for frame structure type with limits of \$40,000 contents replacement, \$100,000 personal liability, \$1,000 medical expense, \$500 deductible	Insurance estimates for 36 cities from 10 providers
Utilities	Electric	Price for 700 kWh per month, adjusted for use by climate, plus utility sales tax	54 electric utilities
	Natural gas	Price for 62.5 therm per month, adjusted for use by climate, plus utility sales tax	13 utilities across 88 service areas
	Telephone	Taxes, surcharges, and fees associated with monthly mobile phone service	N/A
	Water and Wastewater	Annual average bill for water service using 11,000 gallons per month and wastewater service using 5,000 gallons per month. Well and septic systems were priced based on item cost and installation, operation, and maintenance divided by the life expectancy of a system.	304 utilities
Household Operations	Day Care Services	Weekly cost of child day care	3 per county
	Internet Service	Monthly cost of the lowest regular priced terrestrial (wired + fixed wireless) residential standalone-internet broadband plan with a minimum speed of 25 mbps download and 3 mbps upload and the average cost for comparable satellite internet from three provider.	Estimates for 376 ZIP codes
	Vehicle Payment	Payment calculated using Blue Book purchase value and interest rate on loan for full purchase price and bank charges, taxes and registration fees for 2023 Honda Civic for four years. (2023 Honda Civic LX Sedan, 4-door. Engine: 4-cyl. 2.0L. Trans: Automatic/CVT. Mileage: 24,000. Amenities: air conditioning, pwr. steering, cruise control, air bags - front & side, stability control/traction control).	493 banks/ credit unions
Transportation	Gasoline and motor oil	Gasoline: 85 unleaded Price per gallon of self-serve, 85 Octane, unleaded gasoline.	1,854 gas stations
	Vehicle insurance	Auto Insurance Premium Insurance premiums for 2019 Toyota Camry LE Automatic with liability policy limits of \$50,000/\$100,000 for bodily injury, \$25,000 property damage, \$50,000/\$100,000 for uninsured motorist coverage, \$5,000 for medical payments, and a \$500 deductible. For a 45-yr old male driver, married, principal operator, drives less than 15 miles to work each way, no accidents or traffic convictions in three years.	37 cities from 17 providers
Healthcare	Health Insurance Premium	Prices of health care insurance premiums for a 40-year old. Average price of "Bronze" and "Silver" health insurance premiums.	9 regions from up to 6 providers/ region

## HOUSING – SHELTER – MORTGAGE INTEREST PAYMENT

Home values were provided to Corona Insights by the Colorado Legislative Council via a study by an outside consultant, and they were based on a specified home size of 1,500 square feet. This is the same approach used in previous years. We calculated an annual mortgage interest payment based on a 30-year fixed rate mortgage for 80 percent of the home value.

As in 2023, the mortgage interest payment calculation applied different interest rates across districts, as a function of the average credit score in each county. Colorado has 16 counties in the highest credit score range (740+), 45 counties in the next tier (680-740), and 3 counties in the lowest tier (less than 680). We utilized the average credit score category for each county in Colorado to determine the mortgage interest rate available at that credit score level as of November 26, 2025 using data from myFICO.com. This has a modest impact on mortgage interest payments but does better capture the cost of living for those living in areas with poorer credit. The three counties with the lowest average credit scores are Adams, Morgan, and Pueblo. Taking their slightly higher interest rates into account slightly increases their cost of living. In contrast, Pitkin, Summit, and Boulder counties are among those with the highest average credit scores, which provides a slight buffer to their very high housing values.

Final average interest rates were reapportioned from the county level to the school district level by calculating the proportion of households within each district and county combination, then weighting the average interest rate by those proportions. For example, in the Adams-Arapahoe 28J District, 80% of households are located in Arapahoe County while 20% of households are located in Adams County. The mortgage interest rate estimate for the Adams-Arapahoe District is the sum of 80% of the Arapahoe County interest rate average and 20% of the Adams County average.

## HOUSING – SHELTER – PROPERTY TAXES

Owners of residential homes are subject to property tax on their dwelling. The entire value of the home is not taxed; only the assessed value of the home can be taxed. The assessed value of a home is the actual home value multiplied by an assessment percentage. Colorado has two assessment rates for residential property beginning in 2025: one for local government assessed values and one for school district assessed values. Property taxes are calculated by summing the local government taxes and the school district taxes due. The local government taxes due are calculated by multiplying the assessed value of the home by the local government assessment rate and then by the decimal equivalent of the local government mill levy. The local government mill levy is the sum of the mill levies from the county, municipal, and special district levies an area may have. The school district taxes due are calculated by multiplying the assessed value of the home by the school district assessment rate and then by the decimal equivalent of the school district mill levy. To get the decimal equivalent of a mill levy, the levy is multiplied by .001.

Mill levies were obtained from the 2024 annual report for the Department of Local Affairs. This report was the most recent report available from the Division of Property Taxation. The report included mill levies for every county, municipality, special district, and school district. The local government mill levies and school district mill levies were calculated for each school district. Mill levies were then multiplied by the applicable assessment rates and the assessed home value to calculate the property tax for each school district.

## HOUSING – SHELTER – HOMEOWNER'S INSURANCE

Homeowner insurance rates were collected from the most recent Homeowner's Insurance Premiums Report provided by the Colorado Department of Regulatory Agencies, Division of Insurance. Rates in this report were drawn from a survey of insurance providers that the Division of Insurance conducts annually; data in the report was current as of July 2024. Premiums were for a coverage period of one year and were based on full replacement cost coverage. Premiums were calculated based on a HO-3 policy, which is the most commonly written policy for a homeowner. The HO-3 policy assumed the home was a 2,000 square foot frame structure, 10 years old, with a composite shingle roof, equipped with dead-bolt locks and smoke detectors, was within 5 miles of a fire station, and was within 1,000 feet of a fire hydrant. The policy limits were based on a dwelling replacement cost of \$500,000, a contents replacement of \$350,000, personal liability of \$100,000, medical expense of \$1,000 and a \$1,000 deductible. The dwelling replacement, content replacement, and deductible costs all remained consistent with the 2023 study.

The Homeowner's Insurance Premiums Report included premiums from 73 insurance companies for 37 cities across Colorado. To better represent "typical" homeowner insurance rates, insurance companies that made up one percent or less of the Direct Written Premium market share in Colorado were excluded. Thus, our analysis included premiums from the 13 largest homeowner insurance providers, which in aggregate, made up 64 percent of the Colorado homeowner insurance market. We calculated the median premium from these 13 insurance providers for each of the 37 Colorado cities in the report. The median was used, rather than a mean, to reduce the influence of price outliers in some markets. Lastly, to derive homeowner insurance premiums for each school district, premium rates at each district's weighted population center were predicted, based on spatial insurance cost patterns for the 37 cities from which we did have insurance data. This equal interval interpolation method was also employed to predict homeowner insurance rates in prior studies.

These homeowner insurance rates—which specify the rates for a home valued at \$500,000 in each district—are then scaled to the actual home values for the cost of a 1,500 square foot home in each district.

## HOUSING – SHELTER – RENT

Home rental costs were primarily based on median gross rent estimates, for the universe of renter-occupied housing units paying cash rent, which were collected from the U.S. Census Bureau's 2019–2023 American Community Survey (ACS) 5-year estimates (e.g., table B25031). This dataset was chosen because it provided rent cost estimates by number of bedrooms in each housing unit (e.g., studio, 1 bedroom, 2 bedrooms, etc.), which allows for more consistent comparison of the 3-bedroom model household across school districts. However, rent estimates were not available for all housing unit types across all districts, and further, the margin of error of the estimate was very high in some cases. Estimates associated with high margins of error may not be reliable.

We therefore used a multi-step process to refine and increase the reliability of rental estimates. First, we classified school districts into one of five regions: Eastern Plains, Front Range, Mountain Resort, Non-resort Mountains, or the San Luis Valley. We collected median rent estimates for 3-bedroom housing units within each school district, then we calculated the interquartile range (i.e., the 75th percentile minus the 25th percentile) of these estimates within each region. Separately, we calculated the average percentage increase from 2-bedroom to 3-bedroom estimates within each region. For example, on average, a typical 3-bedroom home rents for 14% more than a typical 2-bedroom home in Eastern Plains school districts, whereas it rents for 25% more in Front Range districts. We calculated a second estimate to rent a 3-bedroom home by inflating the 2-bedroom estimate by the average percentage increase within its region. For example, rental estimates for 2-bedroom homes in Eastern Plains districts were inflated by 14% while 2-bedroom homes in Front Range districts were inflated by 25%. Thus, we obtained two estimates for a 3-bedroom

home in each district—one direct and one derived. When the direct 3-bedroom estimate fell within 1.5 times the interquartile range for all 3-bedroom estimates within its region, and, when the 2-bedroom inflated estimate fell within 1.5 times the interquartile range for all 2-bedroom inflated estimates within its region, the final estimate was the average of the two estimates. When estimates fell below or above 1.5 times the interquartile range for its region, a region-specific low cap or high cap, based on the 25th and 75th quartiles, was used as a proxy estimate.

The above approach worked well for most districts in the Front Range. However, the median rental estimates in some regions varied notably by district, and this variation may have been the result of lower reliability in the ACS estimates for very small and rural school districts. Therefore, for 124 school districts primarily located outside of the Front Range, the countywide 3-bedroom estimate was additionally used in the average rent estimate, along with the direct and indirect measures mentioned above. Many districts are completely contained in their county; for districts that span county boundaries, their rent estimate was calculated as the proportion of the households within the district and each county (akin to how daycare costs were calculated). This approach increased the reliability of small district rental estimates and decreased district to district variability in non-urban regions, and it allowed us to use direct estimates rather than interpolation techniques for all districts.

Finally, monthly rental insurance costs were added to rent estimates to produce a final rent estimate for each district. Renter insurance rates were collected from the 2024 Homeowners Insurance Premiums Report provided by the Colorado Department of Regulatory Agencies, Division of Insurance. Premiums were calculated based on a HO-4 policy, which is commonly referred to as “renter’s insurance” or “renter’s coverage.” The HO-4 policy covers the insured’s personal property but does not cover the property belonging to the owner of the rental unit (i.e., the house or apartment). Premiums were for a coverage period of one year and were based on full replacement cost coverage.

The Homeowner’s Insurance Premiums Report included premiums from 73 insurance companies for 36 cities across Colorado. To better represent “typical” renter insurance rates, insurance companies with less than two percent of the Direct Written Premium market share in Colorado were excluded. Thus, our analysis included premiums from the 10 largest insurance providers, which in aggregate, made up 49 percent of the Colorado homeowner insurance market. We calculated the median premium from these 10 insurance providers for each of the 36 Colorado cities in the report. The median was calculated, rather than a mean, to reduce the influence of price outliers in some markets. Lastly, to derive homeowner insurance premiums for each school district, we predicted (i.e., interpolated) premium rates at each district’s weighted population center based on spatial insurance cost patterns of the 36 cities from which we did have insurance data.

## HOUSING – UTILITIES – ELECTRIC

To estimate an average monthly electric bill within each school district, we calculated standardized electric rates by provider, allocated those rates to census blocks in each provider’s service area, adjusted electric use based on local climate, applied location specific utility taxes, and then calculated an average electric bill within each school district. Electric utility rates were collected from electric utility providers. Billing rates were based on 700-kilowatt usage for 200 amp single phase service (less than 50 kW of capacity and 10 or less horsepower), which is the most typical service in Colorado single family homes.

Electric utility rates were collected online or by phone from 54 electric utility providers (municipal, cooperative, and investor). Online prices were collected from providers’ websites, tariff sheets, or rate books. Most electric utilities offer two rate structures: standard and time-of-day (ToD). To achieve a representative assessment of electric utility costs,

we collected and averaged together those two rates for each utility. For standard rates, we assumed each house used 700 kWh, and for time-of-date rates, we assumed 20% of 700 kWh were charged the higher rate and 80% of 700 kWh were charged the lower rate. A few utilities also included a demand charge, which we applied and assumed was based on 7.5 kW. We excluded rates for some uncommon customer types: households with electric only heat, households with an electric car, accounts of deed restricted housing units, three phase service, and net metering. Finally, we added the base cost, when applicable, to the service cost to estimate a total average electricity bill for each utility.

Next, using the Electric Retail Service Territories global information system (GIS) shapefile from the United States Department of Homeland Security, Homeland Infrastructure Foundation – Level Data (HIFLD), we appended the CAMU electric rates to each electric provider service area.

Electricity usage in Colorado varies across geographies based on climate. For example, households in Southeast Colorado, where average summer temperatures are higher than elsewhere in the state, use more electricity for home cooling. We accounted for this disproportionate use by applying an upward adjustment factor for households in counties where the average June to September temperature was higher than the average statewide June to September temperature, as reported by the National Oceanic and Atmospheric Administration, National Centers for Environmental Information. For example, we applied a 1.16 use adjustment factor for households in Pueblo County, where the average summer temperature was warmer than the statewide average.

Leveraging GIS, we then overlaid the electric utility provider and rate map with the climate map and a map including every census block (with number of household counts), town/city, county, and school district in Colorado. We then calculated aggregate electric bills within each block based on utility rates, use adjustments for four summer months, and local utility sales taxes. Lastly, we calculated average electric bills for each school district based on the aggregate electric bills and number of households within each district.

## HOUSING – UTILITIES – NATURAL GAS

To calculate the average monthly natural gas bill within each district, we used a methodology foundationally similar to that described above for electric utilities. We calculated standardized natural gas cost rates by utility provider, calculated propane equivalent rate, allocated the appropriate gas or propane rate to every census block in Colorado, adjusted natural gas use based on local climate, applied location specific utility taxes, and then calculated an average natural gas bill within each school district. Specific details are described below.

Natural gas costs were collected from the most recent annual reports that utilities had filed with the Colorado Public Utility Commission (FERC Form 2) or with the U.S. Energy Information Administration (Form 176). These reports contain annual residential revenues, the number of residential customers for each of the providers' service areas, and the amount of natural gas delivered to residential customers. We used the revenue data and the amount of gas delivered data to calculate the amount of dollars paid per therm of natural gas delivered. Then we calculated the cost to receive 62.5 therms per month, which is a typical amount of natural gas for a single-family home. By standardizing the rate to dollars per therm, rather than dollars per customer, we were able to accurately calculate and compare the cost for equivalent service.

After calculating natural gas rates by provider service area, we acquired and used the natural gas utility provider territory log from the Colorado Department of Regulatory Agencies, Public Utilities Commission to assign natural gas utility service areas and rates to 329 census designated places (e.g., cities, towns, and other housing developments)

throughout Colorado. In a few cases, two natural gas providers were assigned to one census designated place, in which case we averaged the rates of the two providers.

Many households in Colorado, especially in rural areas, do not have access to natural gas services, and these households typically rely on propane (a type of liquid petroleum) for home heating. In this study, we assumed that households within a census designated place received natural gas service and households outside a census designated place used propane. We used data from the Energy Information Administration to calculate the cost for propane relative to the cost of natural gas, based on the average residential prices for natural gas and propane in Colorado, the total amount of natural gas and propane consumed in Colorado, and the actual energy output for each fuel type in British Thermal Units (BTU). The relative conversion factor was 2.22 (an increase from 2.01 in 2023), meaning for each dollar spent for natural gas would require \$2.22 for an equivalent amount of propane. The final cost of propane service was calculated by county as the average natural gas rate within each county multiplied by the statewide conversion factor. Each census block outside a census designated place was assigned a local propane rate.

Natural gas usage varies across geographies based on climate. For example, households in mountains or valleys, where winter temperatures are typically much lower than elsewhere in the state, likely use more natural gas for home heating. In this study, we accounted for this disproportionate use by applying an upward adjustment factor for households based on their county's average November to February temperature relative to the average statewide November to February temperature, as reported by the National Oceanic and Atmospheric Administration, National Centers for Environmental Information. For example, we applied a 1.37 use adjustment factor for households in Gunnison County, where the average winter temperature was cooler than the statewide average.

Leveraging GIS, we then overlaid the natural gas utility provider and rate map with the climate map and a map including every census block (with number of household counts), town/city, county, and school district in Colorado. We then calculated aggregate natural gas bills within each block based on the dollar per therm rates, use adjustments for climate, and local utility sales taxes. Lastly, we calculated average natural gas/propane bills for each school district based on the aggregate electric natural gas/propane bills and number of households within each district.

## HOUSING – UTILITIES – TELEPHONE

Consistent with previous cost of living studies, telephone service pricing was assumed to be essentially constant across the state and the variance between districts comes from the taxes and fees. As such, we began with a constant cost of \$151 per month, which was the typical spending amount from the CES data. As with other taxable services, applicable taxes were applied for each census block in Colorado. First, we applied state and county normal sales taxes, and city sales taxes where applicable. Next, we applied county/local 911 surcharges (obtained from the Public Utilities Commission). Then we applied flat state and federal Universal Service Fund taxes, a flat state 911 charge, a flat state 988 charge, and a flat TDD tax (obtained from the Tax Foundation).

Leveraging GIS, we applied the appropriate total phone tax to the flat bill of \$151 for every census block (with number of household counts) in Colorado. We then calculated aggregate phone bills within each block, and from that calculated an average household phone bill within each district.

## HOUSING – UTILITIES – WATER/WASTEWATER

To estimate an average monthly water and wastewater bill within each school district, we calculated standardized water and wastewater cost rates by utility provider, calculated well and septic equivalent rates, allocated those rates to

every census block throughout Colorado, applied location specific utility taxes, and then calculated an average water and wastewater bill within each school district. Specific details follow.

Water and wastewater rates were gathered by calling water and wastewater utilities or by searching for their rates online. Where applicable, rates were for three-quarter inch pipe size, and we used one single family equivalent (SFE) when rates were determined by house size. We collected rate information from 304 utilities throughout the state, providing water or wastewater to 292 of Colorado's Census designated places (e.g., cities, towns, and other housing developments). Most water utilities are municipal, but some are water and sanitation districts. For places that did not appear to have a water or sanitation service provider we used well and septic estimates (described below).

After rates were collected, a monthly water and wastewater bill was calculated for each utility based on a home that uses 11,000 gallons of water per month and produces 5,000 gallons of wastewater for processing per month. The usage level for water was based on data for Colorado domestic per capita water use, reported by the USGS (Estimated Use of Water in the United States, 2015—This was the most current data available as of 2025). The usage level for wastewater was based on data reported by Denver Water. We then assigned utilities and their average bill to census designated places. In a few cases, more than one water or wastewater provider was assigned to one census designated place, in which case we averaged the rates of the providers.

Many households in Colorado, especially in rural areas, do not have access to utility water or wastewater services, and these households typically rely on private well water and septic systems. In this study, we assumed that households within a census designated place received utility water and wastewater service and households outside a census designated place relied on wells and septic systems. Additionally, when no contact information could be found or we received no response from a utility, or when municipal officials told us households in their area used only wells and septic systems, we applied a well and septic rate. Well water costs were calculated based on well installation, operation, and maintenance costs described online (<https://homeguide.com/costs/well-pump-cost#repair>). We assumed a pump and installation (not including drilling) would cost \$2,000 and last 15 years, resulting in an annual cost of \$133. Additionally, we calculated operation, maintenance, and testing costs of \$166 per year, for an annual total of \$300 and a \$25 monthly cost. Septic system costs were calculated based on installation, operation, and maintenance costs described online (<https://www.homeadvisor.com/cost/plumbing/install-a-septic-tank/>). We assumed a tank would last 20 years and would cost \$4,000 to install and \$2,000 to maintain during that time span, resulting in a \$300 annual cost, or \$25 monthly cost.

Leveraging GIS, we overlaid a map of census designated places, and each place's appropriate water and wastewater bill, with a map including every census block (with number of household counts), county, and school district in Colorado. We then calculated aggregate water and wastewater bills within each block based on the average utility rate for blocks within census designated places or by the well and septic estimates for the remaining blocks. We applied local utility sales taxes as applicable. Lastly, we calculated average water and wastewater bills for each school district based on the aggregate district bill and number of households within each district.

## HOUSING – HOUSEHOLD OPERATIONS – CHILDCARE

Childcare costs incorporated in this study were based on information provided in The Self-Sufficiency Standard for Colorado 2022. This was the most recent data available as of 2025. This study was prepared by the Center for Women's Welfare at the University of Washington School of Social Work. Specific childcare costs for an infant (ages 0 to <3), a preschooler (ages 3 to <6), and a school-aged child (ages 6 to <13) were collected for each county in

Colorado and then weighted by the proportion of children in care for each grouping, as reported by the Department of Health and Human Services data on children participating in Child Care and Development Fund (CCDF)-funded programs (Table 9 in their Fiscal Year 2022 publication, published January 10, 2025).

Final average daycare costs were reapportioned from the county level to the school district level by calculating the proportion of households within each district and county combination, then weighting the average daycare costs by those proportions. For example, in the Adams-Arapahoe 28J District, 80% of households are located in Arapahoe County while 20% of households are located in Adams County. The daycare estimate for the Adams-Arapahoe District is the sum of 80% of the Arapahoe County daycare average and 20% of the Adams County average.

#### HOUSING – HOUSEHOLD OPERATIONS – INTERNET SERVICE

Internet service cost was incorporated into the cost-of-living assessment for the first time in 2023 and this item was retained in 2025. Because internet service is not regulated by the Colorado Public Utilities Commission, provider service areas and the price for internet is primarily proprietary and not readily available. However, the Governor's Office of Information Technology Colorado Broadband Office referred us to several relevant data sources, including broadband service mapping conducted by the Federal Communication Commission (FCC) as well as publicly available information from BroadbandNow Research. After confirming with the OIT in 2025, we decided to continue using the Zip Code Competition & Pricing Data from BroadbandNow Research, which included their "proprietary plans and pricing data of over 4000 terrestrial broadband providers and the FCC's latest Form 477 data." This dataset was selected primarily because it included reliable price and coverage estimates for standardized internet service at high geographic resolution. The data included two key elements. First, it included the lowest priced terrestrial broadband plan by ZIP code. Specifically, this was the lowest regular monthly priced terrestrial (wired + fixed wireless) residential standalone-internet broadband plan with a minimum speed of 25 mbps download and 3 mbps upload. Prices were available in 376 out of the 433 Colorado ZIP codes with population. Second, the data contained estimates of access to terrestrial broadband; specifically, the percentage of the ZIP code's population that had access to terrestrial (wired + fixed wireless) broadband with minimum speeds of 25 mbps download and 3 mbps upload.

Among the 433 ZIP codes with any population, 123 ZIP codes contained 100% of households with access to terrestrial broadband, 297 Zip codes contained between 1% and 99% of households with access to terrestrial broadband, and 13 ZIP codes contained zero households with access to terrestrial broadband. We assumed that households with no access to terrestrial broadband may purchase satellite internet service. Since the cost of satellite service does not differ by location, we averaged the monthly cost of satellite internet from three providers: HughesNet, ViaSat, and Starlink. The average satellite internet cost was estimated at \$91.00 per month in 2025.

To estimate the average cost of internet within each ZIP code, we multiplied the cost for terrestrial broadband by the percentage of households with access to terrestrial broadband and then added to it the product of the cost for satellite internet and the percentage of households without access to terrestrial broadband. In some ZIP codes, there was no direct estimate for the cost of terrestrial broadband or the coverage of terrestrial broadband available. In these cases, we assigned the average cost and/or coverage for terrestrial broadband in the ZIP code's primary county. For ZIP codes in Gilpin, San Juan, and Dolores counties, we had no reliable countywide estimates for cost and coverage, so we used the statewide estimates as proxies.

Finally, to estimate the average cost of internet within each school district, we leveraged GIS to overlap census blocks by ZIP codes by school districts. Each block received the estimated internet cost of its overlapping ZIP code. Then we

calculated the average internet cost among all blocks within each school district weighted by the proportion of households within each block.

## TRANSPORTATION – VEHICLE PAYMENTS

Vehicle pricing was gathered for a 2023 Honda Civic LX Sedan. The purchase price of the 2023 Honda Civic was \$21,721 (per Kelley Blue Book information on the fair purchase price from a dealer in October 2025, assuming the vehicle had 24,000 miles at the time of purchase). This was the base price used to determine annual car payments for a four-year loan. This price was assumed to be constant throughout the state, which ensures that the identical vehicle is being purchased in each district. With a used car purchase, not only is availability of a specific model limited across districts, but the specific condition and features on each available vehicle can vary widely making it impossible to compare available pricing for a specific vehicle. Instead, the vehicle value is held constant at the KBB value, and the variance between districts comes from the sales and registration taxes and fees, as well as the financing rates and fees available. Ownership taxes, registration & licensing fees, other fees (title) are obtained from the "Colorado Motor Vehicle Law Resource Book" from the Colorado Legislative Council. The vehicle weight is also required for calculating taxes; this was obtained from the vehicle manufacturer's website. Sales taxes were calculated for each taxing jurisdiction and averaged for each district, weighted to the proportion of households within each taxing jurisdiction.

Financing rates for vehicle loans were obtained from telephone surveys of 493 banking institutions and credit unions throughout the state. The list of banking institutions to survey was obtained from a commercial list vendor and a sample was drawn as described in the previous section of the report. Banking institutions were mapped to the bank's physical location, and each bank's finance rate was appended to that location. Then, we used a spatial interpolation technique to predict financing rates for every school district based on spatial patterns across the 493 institutions. Average monthly car payments were then calculated for each district, given the total amount financed (including the purchase price, any applicable sales tax, specific ownership tax, title, and registration fees) and the interest rate charged by the bank or credit union.

## TRANSPORTATION – GASOLINE

Gasoline costs were calculated as a factor of the price of gasoline in each district and an estimated amount of driving for commuting and shopping in each district. Gasoline prices from 1,854 gas stations across Colorado were purchased from the Oil Price Information Service, which gathers and compiles daily data on gas prices from individual locations. Prices were collected on September 10, 2025. The minimum price was \$2.599, and the maximum price was \$4.889. Prices were collected for 147 districts, and shopping patterns were applied to calculate a final gas price for each district. However, annual total spending on gasoline depends on both the price of gas and the amount of gas used; the latter we estimated from secondary sources. First, we accessed commute time data from the U.S Census Bureau, American Community Survey (table B08012) 2023 5-year dataset, and we calculated an average commute time for each school district, which ranged from 7.3-minutes to 59.5-minutes. We then converted commute minutes into commute miles per year by assuming an average driving speed of 40 miles per hour. Next, we calculated average distance for grocery shopping by calculating the miles from each block in every district to the nearest grocery or department store with at least two employees. Then we calculate annual miles driven by someone who commutes to work five days per week, 50 weeks each year, and makes two shopping trips per week, 52 weeks each year. We then calculate the gallons of gasoline needed for that amount of driving, based on the fuel efficiency for the benchmark household's primary vehicle, which is a 2023 Honda Civic that gets 35 miles per gallon. Finally, we multiplied the gallons needed by the average price per gallon of gasoline for that district.

## TRANSPORTATION – VEHICLE INSURANCE

Vehicle insurance rates were collected from the most recent Auto Insurance Premiums Report from the Colorado Department of Regulatory Agencies, Division of Insurance. Rates in this report were drawn from a survey of insurance providers that the Division of Insurance conducts annually; data in the report was current as of July 2024. Premiums were for a coverage period of six months (which we adjusted to represent monthly costs) and were based on a basic model vehicle 2019 Toyota Camry LE Automatic. Premiums were based on a hypothetical driver (i.e., Driver C) who was a 45-year-old male, married, principal operator, driving less than 15 miles to work each way, who had no accidents or traffic convictions in the past three years, and drove 15,000 miles annually. The policy (i.e., Plan 2) included coverage for property damage of \$25,000, bodily injury of \$50,000 per person or \$100,000 per occurrence, uninsured or underinsured motorist coverage of \$50,000 per person or \$100,000 per occurrence, \$5,000 for medical payments, and a \$500 deductible. All policy specifications, including car make and model, were pre-determined by the Division of Insurance. The vehicle year, make, and model; the driver; and the program definitions were also used in the 2023 cost of living study.

The Auto Insurance Premiums Report included premiums in 37 cities spread throughout Colorado from 56 insurance companies. To better represent “typical” vehicle insurance rates, insurance companies that made up less than one percent of the market share in Colorado were excluded. Thus, our analysis included premiums from the 17 largest vehicle insurance providers, which in aggregate, made up 58 percent of the Colorado vehicle insurance market. We averaged the premiums from these 17 insurance providers for each of the 37 Colorado cities in the report. Lastly, to derive vehicle insurance premiums for each school district, we used a spatial interpolation technique to predict premium rates at the districts’ mean population centers, based on spatial vehicle insurance rate patterns of premium rates among the 37 cities in the report. This interpolation method was similarly employed to predict vehicle insurance rates in prior cost of living studies.

## HEALTHCARE

Healthcare insurance premiums for 2025 were provided by the Colorado Department of Regulatory Agencies, Division of Insurance. All premiums were based on a 40-year-old person. Low and high premiums were provided by six insurance companies for each of nine geographic “rating” areas they served. We first calculated the midpoint between the low and high costs for each company in each rating area. Then we averaged these mid-points for all “Silver” and “Bronze” plans, both on-exchange and off-exchange. Averages by rating area were then assigned to appropriate counties, without overlap. This approach was consistent with previous years.

Final average health insurance premiums were reapportioned from the county level to the school district level by calculating the proportion of population within each district and county combination, then weighting the average premium by those proportions.

## PERSONAL (INCOME) TAXES

Personal income taxes were calculated for the benchmark family in each district using the IRS Form 1040 for 2024 for federal income tax and adding state income tax and occupational/head taxes for relevant local jurisdictions. For federal income taxes, the standard deduction was compared to the itemized deduction calculated using mortgage interest (recognizing allowable limits), as well as specific ownership taxes from the vehicles, state income taxes, and cash contributions based on the CES, and the higher of the two deductions was used for each district. IRS Publication

936 was used to calculate the allowable limits on home mortgage interest deductions for high home value districts (e.g., Aspen). Specific ownership taxes were calculated from the original Manufacturer's Suggested Retail Price (MSRP) value for each vehicle, and the tax formula from the Colorado Motor Vehicle Law Resource Book. Colorado state income taxes were calculated from the formulas in publication, DR 1098 "Colorado Income Tax Withholding Tables for Employers".

Major federal tax reform was enacted for 2018, which included lowering tax rates, increasing the standard deduction, suspending personal exemptions, increasing the child tax credit, and limiting or discontinuing certain deductions. As a result, for 126 districts, our calculation found the standard deduction to be greater than itemized deductions, which reduces variability in the index due to income taxes. In the remaining 52 districts, mortgage interest expenses are sufficiently high that even with the limits on mortgage interest deductions, the itemized deduction is greater than the standard deduction. Of note this year (though it does not impact variability between districts), the Colorado state income tax withholding rate was reduced to 4.25% for tax year 2024 per the TABOR refund mechanism in SB24-228.

#### ALCOHOL, TOBACCO, APPAREL, READING, EDUCATION, MISCELLANEOUS EXPENSES, CASH CONTRIBUTIONS, AND PERSONAL INSURANCE AND PENSIONS

Mirroring previous cost of living studies, the major expenditure categories for Alcohol, Tobacco, Apparel, Reading, Education, Miscellaneous Expenses, Cash Contributions, and Personal Insurance and Pensions were not sampled in this 2025 Cost of Living study. Similar to the previous studies, these expenditure categories were expected to be constant for the relevant benchmark family and were thus held constant for all districts. No significant geographic variation or trends were expected to be seen for these goods, and the final costs for each district came directly from the benchmark family's spending level calculated for each category from the Consumer Expenditure Survey.

### 3.5 DEVELOPING FINAL COST OF LIVING MEASURES

After the collection of all price data, two major steps were taken to develop the final cost of living measures. First, the price data for the market basket items were weighted by the shopping patterns model in order to develop prices for each district that reflect where people in the district purchase their items. Second, annual expenditures were calculated by determining the ratio of the district average price to the statewide average price for each good and then multiplying that average by the typical expenditure on that item according to the Consumer Expenditure Survey. This second step scales up costs so that the limited numbers of (for example) grocery items for which data were collected represent the full annual expenditures for food for the benchmark household. Each of these steps is described in further detail below.

#### INTEGRATE PRICE DATA WITH SHOPPING PATTERNS SURVEY DATA

People do not make all their purchases in the school district in which they live. A shopping patterns survey, conducted in 2019, gathered data on where people shop for 15 categories of items and services: produce, perishable groceries, non-perishable groceries, alcoholic beverages, household products, clothing and shoes, gas, car maintenance and repair, small appliances, tobacco, TVs, and where they go for movie theaters, haircuts, pizza restaurants and other restaurant meals. For each of these items, the shopping patterns matrix specifies where people living in each district shop for each item, based on the proportional location of surveyed shoppers' most recent purchases. For example, people who live in the Denver County school district may buy gasoline in not only Denver but also neighboring school districts such as Adams-Arapahoe, Boulder Valley, Brighton, Cherry Creek, Jefferson County, and others. By

multiplying the shopping patterns matrices that link “home district” with “shopping districts”, regional variations in costs and shopping preferences are reflected.

In any instances where people reported shopping in a district where a price was not gathered, the proportion of shopping attributed to that district was redistributed proportionally among the other districts where people reported shopping and where prices were gathered.

## CALCULATE ANNUAL EXPENDITURES

Calculating the annual expenditures for each district involved determining the district average price for each item, weighting that price by the proportion of teachers in the district to calculate a state average price, calculating the ratio of the district average price to the state average price, and then multiplying that ratio by the typical expenditures in a category according to the Consumer Expenditure Survey. These steps are elaborated below.

Mirroring the methodology used since the 2007 cost of living study, most market basket items were sampled by school district in 2025. This helped to ensure that all final cost of living data were specific to an exact school district. In a few cases, the data were only available at a county or regional level and needed to be applied to districts based on location. Utilities prices, childcare prices, and insurance prices are a few of the cases where data were available at the county or regional level and had to be applied to districts. In these cases, the county (or other) price was assigned to each district located in that county in order to arrive at a price for each district.

Statewide average prices were then calculated by weighting the average price in each district by the proportion of the state’s teachers in that district and then adding together the weighted prices for all districts. District average prices were then compared to state average prices by calculating the ratio of the district average price to the state average price. These ratios were then multiplied by the typical expenditure for the category according to the Consumer Expenditure Survey to determine a final annual expenditure on that item for each district.

This process was repeated for each market basket item, and then all expenditures on items in a common category were summed to determine annual expenditures for that category (i.e., categories include food at home, food away from home, housing, transportation, etc.). Finally, annual expenditures in each category were combined to provide total annual expenditures for each district.

## CALCULATE CONFIDENCE INTERVALS

Confidence intervals were also calculated for most expenditure categories to estimate the uncertainty in the prices available to consumers in each district. For each district sampled, the variance of the mean (i.e., standard error), was calculated for the prices obtained from that district. These variances were weighted by the shopping patterns for each district and the teacher populations to calculate a state average variance. Then ratio variances were calculated by comparing the variance for a district to the state average variance. Ratio variances were aggregated over items in a category and a confidence interval was calculated for the category as a whole.

Essentially, large confidence intervals reflect a large variance of the mean, which means there is a large variability in the prices collected and relatively few prices collected. In some cases, variability in the error may be reduced by additional sampling in those districts; however, this is only likely to be true in large districts where the universe of stores available to sample from is large. In, for example, a small, rural district with only one substantial grocery store, where a convenience store has also been sampled, the variance of the mean will be large, but sampling additional

convenience stores (if any are available) is likely to only artificially inflate the mean price for the district, because convenience stores tend to charge higher prices than grocery stores. In cases like this there is a tradeoff between reducing error variability and accurately estimating the cost of living in a district. Whether additional sampling is needed should be evaluated on a case-by-case basis. It should be noted that other factors in addition to the variability of the mean district price will affect uncertainty in the cost of living indices, but currently no additional factors are incorporated in the confidence interval estimates. See [Appendix C](#) for a more detailed discussion of statistical measures used in this study.

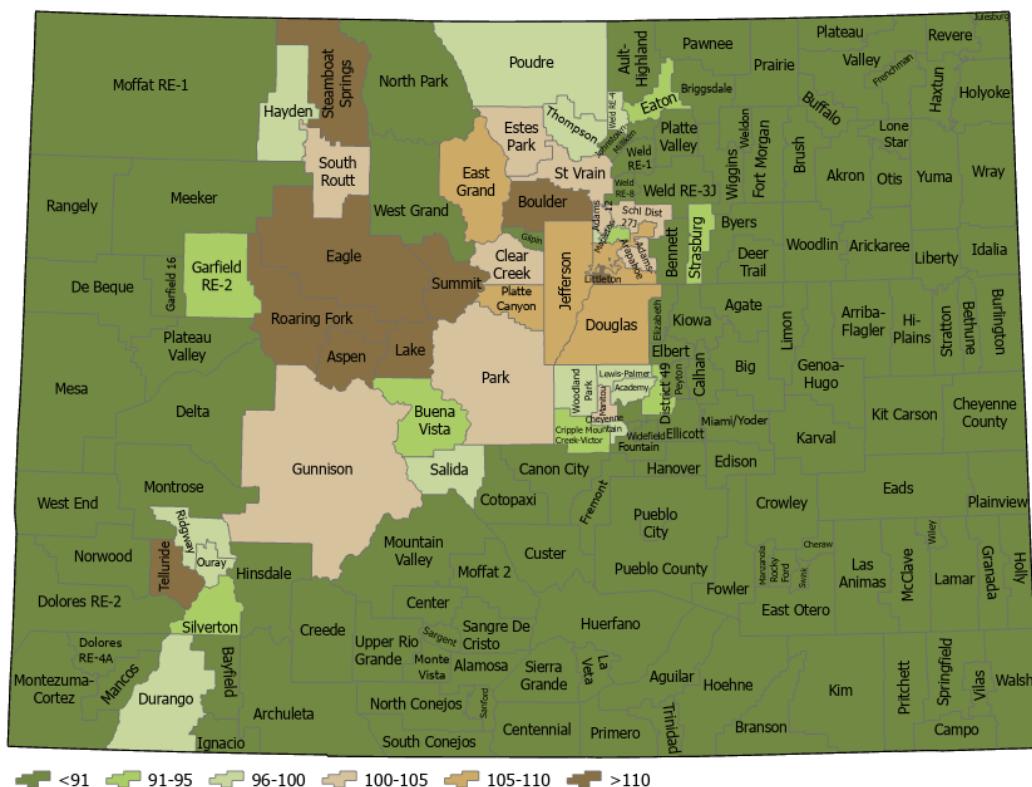
## APPENDIX A: DETAILED RESULTS

This appendix provides an additional level of detail about the results of the study, breaking out costs of living in each district by major expenditure category. Results are provided both in visual form, through maps provided in this section, and in tabular form in an accompanying spreadsheet. Readers receiving this report electronically will need to review an accompanying spreadsheet file, due to the volume of data.

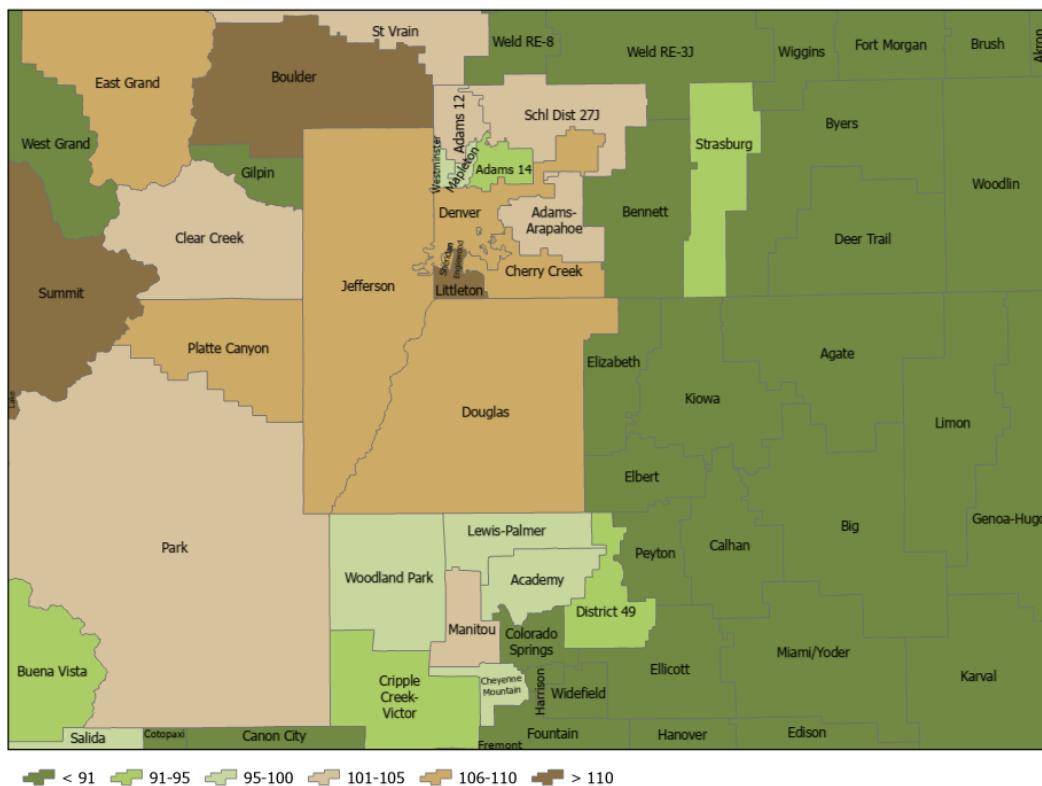
Maps are provided for the four largest expenditure categories: A) housing, B) transportation, C) food at home, and D) healthcare. The index value is the ratio of the cost of the housing market basket in each district to the statewide average cost of the housing market basket. In the following maps, shades of green depict less expensive districts while shades of brown depict more expensive districts.

### EXHIBIT A: MAPS OF THE HOUSING INDEX, 2025

STATEWIDE

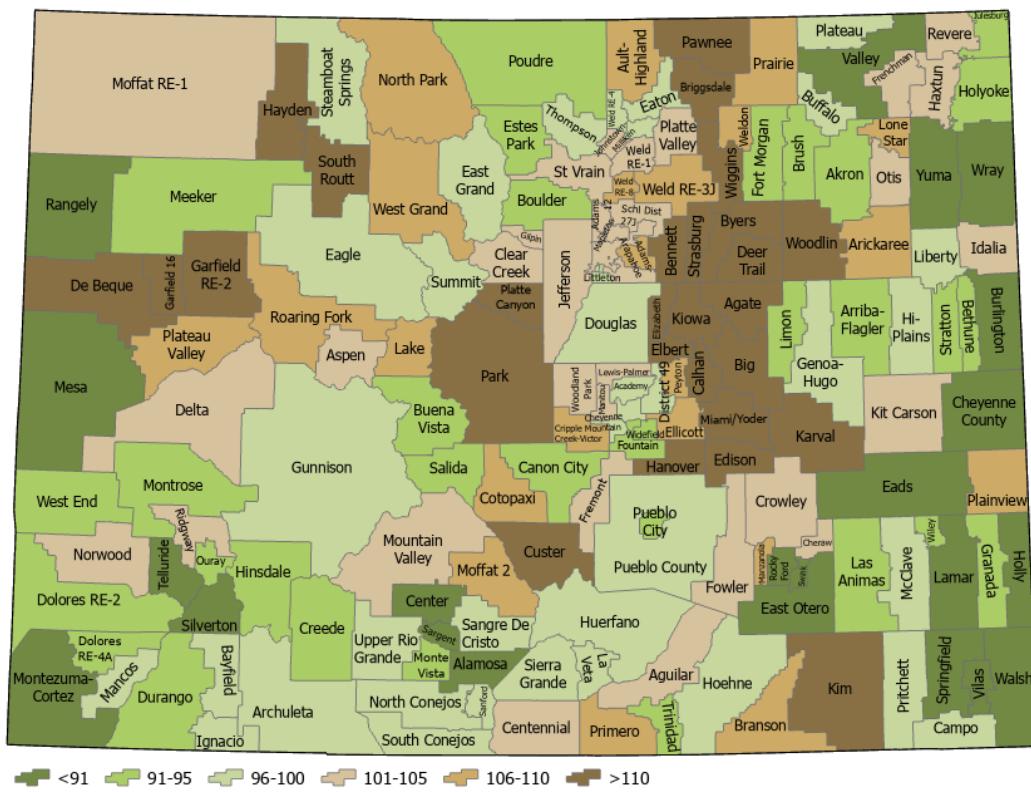


## FRONT RANGE

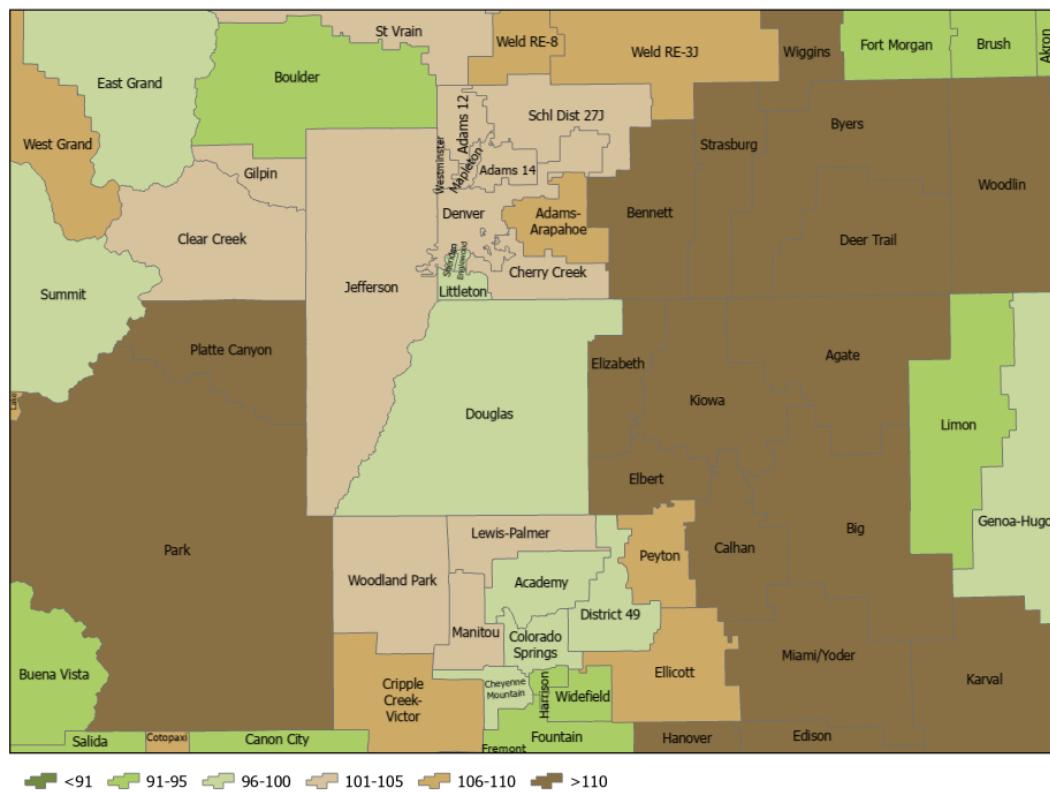


## EXHIBIT B: MAPS OF THE TRANSPORTATION INDEX, 2025

## STATEWIDE

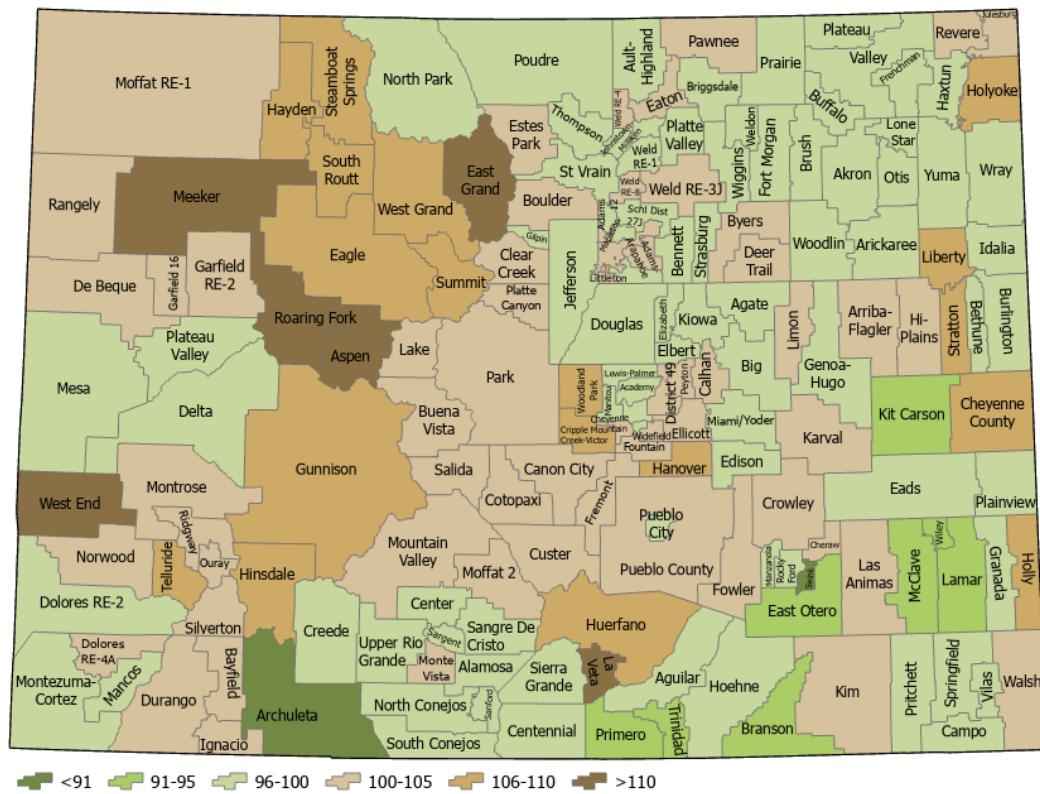


## FRONT RANGE

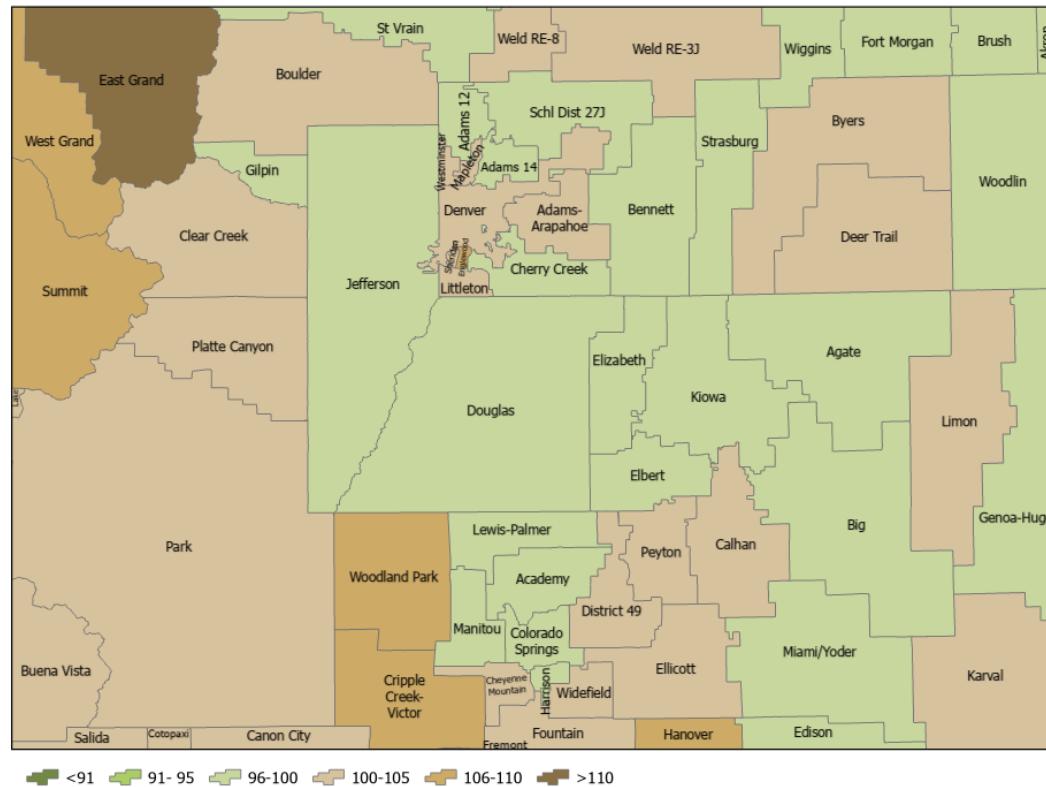


## EXHIBIT C: MAPS OF THE FOOD AT HOME INDEX, 2025

## STATEWIDE

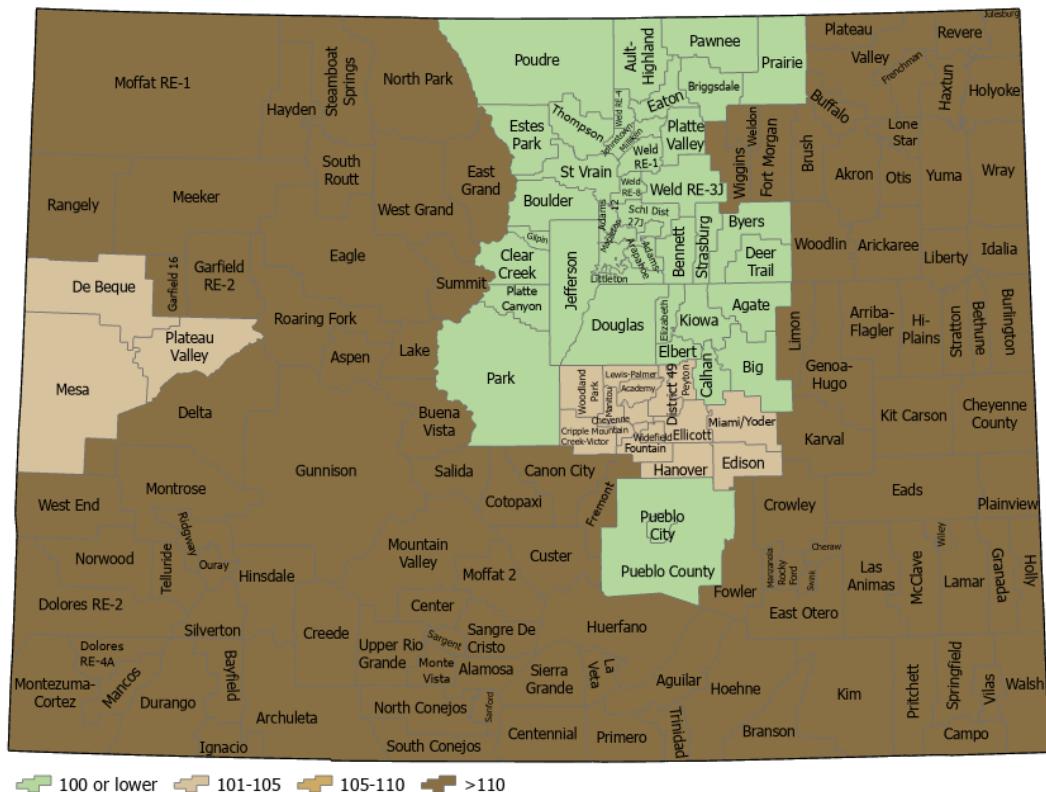


## FRONT RANGE

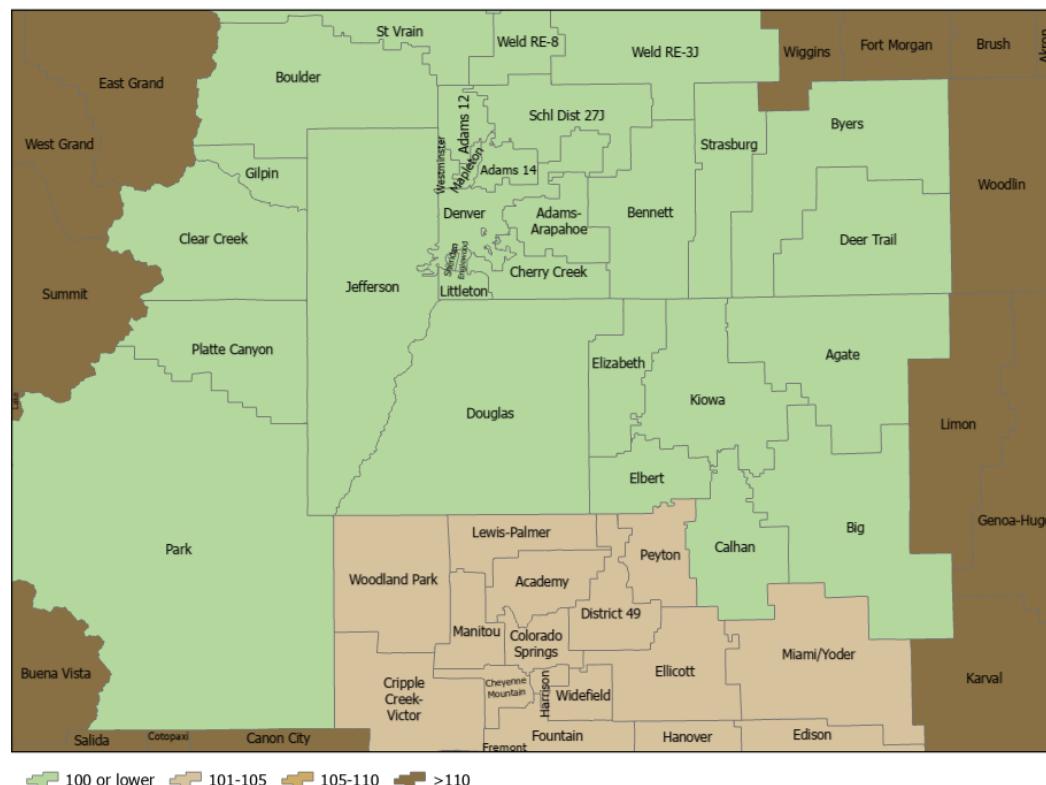


## **EXHIBIT D: MAPS OF THE **HEALTHCARE** INDEX, 2025**

## STATEWIDE



## FRONT RANGE



## APPENDIX B: CHANGES FROM THE 2023 STUDY AND IMPLICATIONS

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### MARKET BASKET CHANGES

In 2025, we continued with the optimized market basket used in the three prior iterations of the study, with minimal updates. The optimized market basket focuses data collection on a smaller number of reliable indicators that are more proportionally representative of expenditure categories. The only updates this year were to the vehicle descriptions used to gather prices for auto maintenance and financing.

- As in previous iterations of the study, the vehicles used in collecting oil change prices and vehicle financing information were updated. For the oil change, the F-150 XL truck was updated from a 2019 to a 2021 model year, and for financing, the Honda Civic LX 4-door sedan was updated from a 2021 to a 2023 model year.

### METHODOLOGICAL CHANGES

Methodological changes in 2025 included a test of approach to support data collection, responses to changes in data sources or formulas, and minor analytical rule updates. Differences from 2023 are described below.

- For data collection from retailers, Corona performed a test in 2025 to augment phone calls with mail announcements and invites. Whereas the phone method contacts a business with no prior announcement and typically contacts a business for pricing on one product at a time, the mail approach sent a letter or postcard to businesses announcing the upcoming research and giving them an option to proactively respond, either online or by calling us. We conducted this experiment to see if (a) it would increase participation by allowing businesses to participate on their own time; (b) if it would increase overall participation as retailers may already know why we were calling based on the information received in the letter; and (c) if it could improve efficiency in data collection as each self-reporting business could significantly reduce the number of phone calls made. Only small businesses were contacted this way. Larger big-box stores (e.g., Walmart, Home Depot) and larger grocers (e.g., Safeway, King Soopers) were not sent letters, based on the assumption that the person who would receive the mail would not be in a position to respond, nor would they likely be the person we would reach when calling. Five hundred seventy five (575) invites were mailed yielding 11 direct responses. Additionally, based on feedback from our phone data collectors, most businesses on the phone were not familiar with our prior letter that had been emailed to them. Based on these findings, the impact on the current year data is minimal and we would not recommend continuing with this approach in the future.
- The approach to gathering retail prices was very similar to last time, however we continue to see more data able to be collected online as more stores have built websites for online shopping from specific store locations. As in previous years, we did some initial in-person validation shopping to compare prices available in-store to those published online.
- In cleaning retail prices, when districts had multiple prices for an item, including prices for the exact item, we decided to eliminate prices collected for any items that did not match the market basket description in size or type. Where the only price collected in a district was for an item that did not exactly match the market basket description, we continued to adjust the price to reflect changes in size, and then if the adjusted price qualified as an outlier, to truncate the price as usual.
- This year, we changed slightly the way itemized deductions were calculated for income taxes. Previously, the itemized deduction formula used the CES-weighted mortgage interest for districts. This reduced the number of districts where the mortgage interest exceeded the deduction limits for that item. Because the income tax values are themselves weighted to the CES, there is no clear need to scale the inputs, and indeed property tax inputs have never been scaled first. This modification results in 52 districts where itemized deductions exceed the standard deduction—some by only a few hundred dollars, up to nearly double the standard

deduction of \$29,200 in Aspen. In four districts this year the amount of mortgage interest claimed was subject to mortgage interest deduction limits: Aspen 1, Steamboat Springs RE-2, Telluride R-1, and Summit RE-1. Overall, this change increases variability in the income tax values.

- Beginning in 2025, Colorado has two assessment rates for residential property: one for local government assessed values and one for school district assessed values. Property taxes are calculated by summing the local government taxes and the school district taxes due. Previously there was one assessment rate for both values. We have updated the property tax calculation to reflect the new rates.
- We made two changes in estimating gross rent this year. First, as the growth and influence of Front Range communities and economies continues to expand, we decided to reassign seven districts to the Front Range. Three districts that had been assigned to the Eastern Plains region (Eaton, Kiowa, and Peyton) and four districts that had been assigned to the Non-Resort Mountains (Gilpin, Clear Creek, Platte Canyon, and Woodland Park) were reassigned to the Front Range region. Regions are used in the analysis to determine an accurate 2-bedroom to 3-bedroom inflation factor and to determine the interquartile range of rent estimates. The second change we made was to more frequently include county-based estimates as a second or third data point in rural districts. Previously, we only included county-based measurements (adjusted by the % of households in sub-regions when district boundaries split across county boundaries) for districts in the Eastern Plains. This year, we included county-based measurements (adjusted by the % of households when district boundaries split across county boundaries) for districts in all non-Front Range regions. The median difference in rent estimates between including versus not including the county-based measurements outside the Eastern Plains districts was +/- \$34, and the average difference was +/- \$55. The maximum single district increase due to county-based measurement inclusion among non-Eastern Plains districts was \$167 and the maximum decrease was -\$215.

One result of these changes was eliminating the need to interpolate or otherwise estimate rent based on spatial patterns of nearby districts. With this new approach, every district received a direct, indirect, and/or county-based measurement, whereas in 2023, we used spatial patterns to estimate rent in eight districts. Also, this updated methodology reduced the number of instances that we had to apply a high rent or low rent cap because the estimate was outside 1.5 times the interquartile range (the old regions would have resulted in five districts getting capped whereas the new regions resulted in 3 regions receiving capped estimates).

- The approach to estimating home electricity costs changed slightly in 2025. In prior years we relied on electric utility rate data from the Colorado Association for Municipal Electric Utilities (CAMU); however, CAMU discontinued collecting rates from all utilities in 2024. Therefore, our team gathered electric utility rates from provider websites or by phone in a few cases (gathering electric rates online and phone is similar to how we gather water/sewer pricing). Many electric utilities offer multiple rate structures, the two most common are Standard and Time-of-Day (ToD). A Standard structure typically applies on one cost per kilowatt hour (kWh) rate plus a base fee. A ToD structure typically applies two cost per kilowatt hour (kWh) rates (a lower rate charged during a non-peak hour timeframe and a higher rate charged during peak hours) plus a base fee. We chose to average the two rates for each utility (or use a single rate if only one was offered). Once rates were determined per utility, the remainder of the estimation process remained the same.

## APPENDIX C: STATISTICAL MEASURES & TECHNIQUES USED IN THIS REPORT

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This appendix is reproduced from previous cost of living reports to ensure that this information on the development of confidence intervals is available to readers each year. Confidence intervals reflect the uncertainty arising from the fact that every store in the state is not visited. The general concept employed in this methodology is the propagation of uncertainty. Uncertainty propagation examines how the uncertainty in a calculated result depends on the uncertainty in the measured values that are entered into the formula. The generalized equation for error propagation for a function  $f(x, y, z \dots)$  where variables x, y and z are uncorrelated is:

$$\sigma_f^2 = \left( \frac{\partial f}{\partial x} \right)^2 \sigma_x^2 + \left( \frac{\partial f}{\partial y} \right)^2 \sigma_y^2 + \left( \frac{\partial f}{\partial z} \right)^2 \sigma_z^2 + \dots \quad [1]$$

where  $\sigma_i^2$  is the variance of variable  $i$ . For this project, we are interested in determining the variances (the 95% confidence interval of  $f$  is approximately  $1.96\sigma_f$ ) of the cost of living index  $COL = f(\mu_D, S, p, w)$  where  $\mu_D$  are the mean prices of consumer products in the district,  $S$  are the shopping patterns,  $p$  are the decimal population fractions in each district, and  $w$  are weights that determine the contributions of individual consumer products to the overall cost of living. All four of these variable types are estimated from surveys of one type or another, and hence have error associated with them. However, only the errors in the district consumer prices  $\mu_D$  are considered in the Bengtsson treatment.

The Bengtsson derivations for the propagation of  $\mu_D$  errors are approximate in that equation [1] is not applied directly to the  $COL$  function. Rather, for simplicity, equation [1] is applied successively to components of the  $COL$  function in order to build up the final expression for  $\sigma_f^2$ . This simplification is probably necessary given the complexity of the  $COL$  function. An amplification of the derivation of the variances of interest is provided later. The conceptual part of this appendix will address some key questions.

*Does a large variance in the item cost data automatically translate to a large confidence interval?* Consider that you wanted to get a haircut in Aspen. It is likely that you could find haircuts ranging from around \$20 to well over \$100, leading to a large variance in the price of haircuts in Aspen. Does this necessarily mean that the cost of living index will have a large confidence error? No, because the confidence interval depends on the *variance of the estimate of the mean price* as opposed to the variance of the sample. But districts with large price variances do require more intensive sampling. Consider a simplified example where there are 20 places to get a haircut in Aspen, and at half of them you can get a \$20 haircut and at the other half haircuts cost \$100. Let's also assume that by chance whenever we sample haircut prices that we sample equally between the two haircut prices. Table 1 illustrates what happens to the variance and 95% confidence interval of the estimate of the mean price as a function of number of prices sampled.

## Variance and Confidence Interval of Mean Price Estimate as a Function of Sample Size

N	Estimate of Mean Price	Variance of Sample	Variance of Estimate of Mean Price	95% Confidence Interval of Estimate of Mean Price
2	\$60	3200	1516	\$76
4	\$60	2133	449	\$42
8	\$60	1829	144	\$24
16	\$60	1797	24	\$10

While this example is somewhat extreme, it does illustrate that large variances in the district prices can be overcome by more intensive sampling. However, a question arises; are the higher priced haircuts even pertinent to the middle-income population targeted by the study, given the availability of lower priced haircuts? Seemingly, much of this problem would go away with a combination of strict item criteria and careful outlier detection process. If additional sampling of certain districts is indicated by large CI, more detailed outlier removal for that shopping district may be indicated.

*Does a large CI always signal a need for additional price sampling?* The primary motivation of determining confidence intervals of COL indices is to determine if additional sampling is needed. The question arises, is additional sampling always indicated when the CI is large? Probably not. Consider a rural area where there may be one grocery store in which the majority of people shop, but also several small convenience stores with somewhat higher prices. Provided the initial price sampling included the grocery store, additional sampling of convenience stores will likely artificially inflate the mean price. The uncertainty in the size of the shopping universe also complicates this situation (see first paragraph of the appendix). As the number of stores sampled (n) approaches the number of stores in the universe of stores (U), the uncertainty in the mean price estimate approaches zero. So, in a small district with large price variances, the strategy for reducing the CI would be to sample every store. However, in some cases the number of stores sampled to date exceeded the supposed value of U. This uncertainty of U makes it difficult to be certain that every store has been sampled. The need to increase sampling of high CI districts needs to be evaluated on a case by case basis. Most of the challenges described so far could be eliminated with store-specific shopping patterns for the target income group. However, reliable collection of such data is probably impossible.

*What are the limitations of the method used to calculate the confidence intervals of the COL indices?* One of the major limitations of the method of calculating CI is that only uncertainty in mean district prices is taken into account. There is also likely to be uncertainty in the shopping patterns, which also propagates through the calculation and would affect the uncertainty in the COL indices. There may also be smaller errors associated with the weighting and population factors, depending on what these measures are designed to represent. Mathematically, the derivation of an analytical expression to propagate uncertainty in the district prices, shopping patterns, and other sources of uncertainty may be difficult. A Monte Carlo method may be more practical. However, given the expected size of the uncertainty in the shopping patterns, the overall uncertainty in the COL indices, if additional factors are included, may appear to be unacceptably large without prior education.

Alternatively, a separate CI interval could be calculated using uncertainty of the shopping pattern alone, without consideration of the uncertainty in shopping patterns. The purpose of this CI would be to determine if additional surveying of shopping patterns is needed.

*What does the confidence interval actually tell us?* The confidence interval as calculated by the Bengtsson method indicates the level of uncertainty in the COL indices as affected by uncertainty in the prices available to consumers. It does not reflect the overall uncertainty in the mean COL estimates. It can be used as a screening tool to identify districts that may potentially benefit from additional price sampling. However, once identified, some additional consideration needs to be given to whether additional price sampling would actually be beneficial or whether tools such as outlier detection may be more appropriate. In general, shopping areas that have a large number of consumer choices and large price variances may benefit from additional sampling. If the shopping district has relatively few choices, additional sampling could help provided 1) the new stores sampled actually capture a significant market share and 2) the total universe of stores in the district is known with certainty.

#### *Statistical Appendix*

To illustrate the application of equation 1 to the COL function and to aid in decoding the vector notation in the Bengtsson methodology, we will consider a simple case in which there are two school districts and three shopping districts in the state. For each consumer item that contributes to the COL index, we estimate the mean price within the district  $\mu_D$  by a shopping survey of a subset  $n$  of the stores. We also calculate the variance of the sample  $\sigma_D$  from the sample data. The variance of the estimate of  $\mu_D$  is given by  $\sigma_\mu^2 = \sigma_D^2/n$ , which is also the square of the standard error of the sample. As  $n$  approaches the total number of stores that have that item ( $U$ ), the accuracy of our estimate of  $\mu_D$  increases. We account for this effect on  $\sigma_\mu^2$  by multiplying by the factor  $(U-n)/(U-1)$ . So, for our example we have:  $\mu_D = (\mu_{D1}, \mu_{D2}, \mu_{D3})'$  and  $\sigma_\mu = (\sigma_{\mu1}^2, \sigma_{\mu2}^2, \sigma_{\mu3}^2)'$ . We also have the shopping pattern matrix (note that the shopping matrix assembled by Corona Insights is actually  $\mathbf{S}'$  as shown below):

$$\mathbf{S}' = \begin{pmatrix} S_{11} & S_{12} & S_{13} \\ S_{21} & S_{22} & S_{23} \end{pmatrix} \quad [2]$$

The actual prices paid by consumer in the district is the shopping-pattern-weighted costs  $\mu_{SD} = \mathbf{S}'\mu_D$ . If we expand this for school district 1 we get:

$$\mu_{SD1} = S_{11}\mu_{D1} + S_{12}\mu_{D2} + S_{13}\mu_{D3} \quad [3]$$

If we now apply equation [1] to find  $\sigma_{S\mu1}^2$  (the variance of  $\mu_{SD1}$ ):

$$\sigma_{S\mu1}^2 = \left( \frac{\partial \mu_{SD1}}{\partial \mu_{D1}} \right)^2 \sigma_{\mu1}^2 + \left( \frac{\partial \mu_{SD1}}{\partial \mu_{D2}} \right)^2 \sigma_{\mu2}^2 + \left( \frac{\partial \mu_{SD1}}{\partial \mu_{D3}} \right)^2 \sigma_{\mu3}^2 = S_{11}^2 \sigma_{\mu1}^2 + S_{12}^2 \sigma_{\mu2}^2 + S_{13}^2 \sigma_{\mu3}^2$$

This corresponds to the vector notation:

$$\sigma_{S\mu}^2 = S' \sigma_\mu^2 S$$

where  $\sigma_\mu^2$  and  $\sigma_{S\mu}^2$  are square matrices with the elements of interest on the diagonals.

The state-average price is given by:

$$\begin{aligned}\mu_{ss} &= p_1(S_{11}\mu_{D1} + S_{12}\mu_{D2} + S_{13}\mu_{D3}) + p_2(S_{21}\mu_{D1} + S_{22}\mu_{D2} + S_{23}\mu_{D3}) \\ &= (p_1 S_{11} + p_2 S_{21})\mu_{D1} + (p_1 S_{12} + p_2 S_{22})\mu_{D2} + (p_1 S_{13} + p_2 S_{23})\mu_{D3}\end{aligned}$$

To find the variance of the state-average price we again apply equation [1]:

$$\begin{aligned}\sigma_{ss}^2 &= \left( \frac{\partial \mu_{ss}}{\partial \mu_{D1}} \right)^2 \sigma_{\mu1}^2 + \left( \frac{\partial \mu_{ss}}{\partial \mu_{D2}} \right)^2 \sigma_{\mu2}^2 + \left( \frac{\partial \mu_{ss}}{\partial \mu_{D3}} \right)^2 \sigma_{\mu3}^2 \\ &= (p_1 S_{11} + p_2 S_{21})^2 \sigma_{\mu1}^2 + (p_1 S_{12} + p_2 S_{22})^2 \sigma_{\mu2}^2 + (p_1 S_{13} + p_2 S_{23})^2 \sigma_{\mu3}^2\end{aligned}$$

This corresponds to the vector notation:

$$\sigma_{ss}^2 = p' S' \sigma_\mu^2 S p \leftarrow \text{imagine this in bold}$$

The *COL* is a weighted function of the ratios  $r_D = \mu_{SD}/\mu_{ss}$ . Now for district 1 we calculate the variance  $\sigma_{r1}^2$  of the ratio  $r_{D1} = \mu_{SD1}/\mu_{ss}$  by application of equation [1] again, remembering that the variances of  $\mu_{SD1}$  and  $\mu_{ss}$  are  $\sigma_{S\mu1}^2$  and  $\sigma_{ss}^2$ , respectively:

$$\begin{aligned}\sigma_{r1}^2 &= \left( \frac{\partial r_D}{\partial \mu_{SD1}} \right)^2 \sigma_{S\mu1}^2 + \left( \frac{\partial r_D}{\partial \mu_{ss}} \right)^2 \sigma_{ss}^2 \\ &= \frac{1}{\mu_{ss}^2} \sigma_{S\mu1}^2 + \frac{\mu_{SD1}^2}{\mu_{ss}^4} \sigma_{ss}^2 = \frac{1}{\mu_{ss}^2} (\sigma_{S\mu1}^2 + r_{D1}^2 \sigma_{ss}^2)\end{aligned}$$

where we assume  $r_{D1}$  can be approximated by 1. Finally, the cost of living index over  $i$  items is given by:

$$COL = \sum w_i r_{Di}$$

and its variance is given by:

$$\sigma_{COL}^2 = \sum w_i^2 \sigma_{ri}^2$$

## APPENDIX D: RAW PRICING DATA FOR SELECTED PURCHASE CATEGORIES

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This appendix provides the raw pricing data that underpins the analysis. Readers receiving this report electronically will need to review an accompanying spreadsheet file, due to the volume of data.

## APPENDIX E: SHOPPING PATTERNS MATRICES

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This appendix provides the geographic shopping patterns matrix used in this analysis. The matrix is based on a survey of Colorado residents conducted in the fall of 2019. Data from this survey, in conjunction with mathematical modeling methods, were used to construct a geographic shopping matrix describing where the residents of each school district typically purchase products (i.e., what proportion of purchases are made in the home district, in each neighboring district, online, etc.). Readers of this report will need to review an accompanying spreadsheet file due to the volume of data.