

Economic Impact of Retail Trade Activity on the Economies of Colorado and its Twelve Major Metro Counties

Prepared for



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Economic Impact Key Findings

This analysis summarizes the economic impact of the Retail Trade Sector on Colorado and its 12 major metro counties. At the state level, it has a direct impact of \$21.2 billion and supports \$38.3 billion in economic activity. There are 309,924 direct workers in the industry and it supports a total of 439,315 jobs across all industries.

Economic Impact of the Retail Trade Sector on Colorado

<u>Direct Jobs</u>	<u>Direct Retail Jobs as % of State Employment</u>	<u>Direct Retail Output as % of State Output</u>	<u>Direct Output</u>
309,924	9.6%	7.2%	\$21.2 billion
<u>Total Direct Wages as % of Total State Wages</u>	<u>Average Annual Wages</u>	<u>Top 3 Counties Direct Retail GRP</u>	<u>Direct Output per Worker</u>
5.6%	Direct Retail \$32,853 All Industries \$56,126	Arapahoe, El Paso, Denver	Direct Retail \$68,404 All Industries \$90,658

Why the Retail Trade Sector is Important to Colorado and its Major Metro Counties

- The Retail Trade Sector is a major employer in Colorado.
- The Bureau of Labor Statistics reports that Colorado has 175,355 establishments; 17,035, or 9.7%, are in the Retail Trade Sector.
- Average wages and output are below the average for other industries.
- Smaller geographic areas may create competencies in retail trade. That is not the case for most states. In other words they have location quotients near 1.0. That is the case in Colorado. The Colorado Retail Trade Sector has a location quotient slightly less than 1.0.

Project Overview

The project overview provides a brief outline of the information covered in this report.

Economic Impact of Retail Trade Activity on the Economies of Colorado and its Twelve Major Metro Counties

- Purpose
- Assumptions/methodological notes
- The impact of retail trade in Colorado
- The direct impact of retail trade on the twelve major metro counties in Colorado
- The total impact (direct, indirect, induced) of the retail trade industry on the twelve major metro counties in Colorado
- Key findings

Appendix

- Measurement of economic activity
 - Other definitions
 - About the EDCC economic impact analysis program
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Economic Impact of Retail Trade Activity on the Economies of Colorado and its Twelve Major Metro Counties

Purpose of Project

The purpose of this study is to provide an unbiased third-party assessment of the economic impact of the retail trade industry on the economies of Colorado and its twelve major metro counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, and Weld.

Assumptions/Methodological Notes

This analysis uses the IMPLAN 2012 model data as the basis for the report. The primary sources for the key IMPLAN data are the Bureau of Economic Analysis (BEA) and the U.S. Census Bureau.

There is always a significant lag in the publication of data and the calculation and release of a new set of multipliers. This lag does not create a reasonable concern because multipliers do not change significantly. In other words, slight revisions to multipliers do not significantly alter the magnitude of impact in this study.

The sources of employment, output, and impact for the study was the IMPLAN model. Those accustomed to using wage and salary data prepared by the Bureau of Labor Statistics will notice slight differences because the IMPLAN data includes proprietors and partnerships.

County output is measured using input-output analysis. This is necessary because Gross Regional Products (GRP) is not formally calculated by the BEA at the county level.

Retail Trade is classified in the NAICS 44-45 category. The Retail Trade categories used in this report and their IMPLAN sector numbers are listed below.

- 320 Retail Stores - Motor vehicle and parts
- 321 Retail Stores - Furniture and home furnishings
- 322 Retail Stores - Electronics and appliances
- 323 Retail Stores - Building material and garden supply
- 324 Retail Stores - Food and beverage
- 325 Retail Stores - Health and personal care
- 326 Retail Stores - Gasoline stations
- 327 Retail Stores - Clothing and clothing accessories
- 328 Retail Stores - Sporting goods, hobby, book and music
- 329 Retail Stores - General merchandise
- 330 Retail Stores - Miscellaneous
- 331 Retail Nonstores - Direct and electronic sales

The use of data provided the IMPLAN database and methodology for completing the report follow acceptable and recommended guidelines for measuring economic activity within a state and county.

The Impact of Retail Trade on Colorado

The retail trade sector contributes about \$21.2 billion, or 7.2%, to the Direct Colorado Gross Regional Product, \$293 billion. There are 309,924 direct employees in the industry, with total direct wages of \$10.1 billion. The total impact (direct, indirect, induced) of the retail industry on the state is 439,315 workers, \$16.5 billion in wages and \$38.2 billion in output.

The following demographics illustrate that the 12 counties represent about 18% of the state's geographic area. Between 85% and 90% of the state's population, households, employment, compensation, and GRP are in these counties.

Impact of Retail Trade Industry on Colorado		
Metric	Direct	Total
Employment	309,924	439,315
Labor/Income	\$10,181.8	\$16,555.9
Total Value Added	\$14,435.9	\$25,213.4
GRP	\$21,200.0	\$38,284.1

Source: IMPLAN Model Output
Dollars in millions

Area	Population	Households	Average Household Income	Total Employment	Total Compensation Proprietor Income (millions)	Total GRP (millions)	Land Area Sq Miles
Colorado	5,187,582	2,174,724	\$107,665	3,235,493	\$181,594.2	\$293,324.4	103,729
Adams	459,598	168,316	\$90,926	219,932	\$10,781.0	\$17,459.9	1,176
Arapahoe	595,546	245,690	\$123,125	436,939	\$28,143.2	\$45,261.6	803
Boulder	305,318	133,336	\$123,766	239,991	\$13,804.0	\$21,728.8	742
Broomfield	58,298	23,403	\$109,201	47,230	\$3,218.2	\$5,533.7	27
Denver	634,265	298,202	\$120,059	569,937	\$41,496.0	\$62,987.1	153
Douglas	298,215	111,562	\$192,208	132,627	\$8,120.5	\$12,192.2	840
El Paso	644,964	262,959	\$100,639	367,191	\$19,406.4	\$34,188.0	2,126
Jefferson	545,358	235,212	\$106,125	268,415	\$15,763.3	\$24,495.5	286
Larimer	310,487	133,912	\$93,388	192,906	\$8,611.9	\$14,721.1	2,601
Mesa	147,848	62,730	\$83,661	83,988	\$3,502.6	\$6,070.7	3,328
Pueblo	160,852	68,247	\$75,775	73,189	\$3,230.5	\$5,453.7	2,389
Weld	263,691	99,719	\$80,137	123,080	\$5,771.8	\$9,178.5	3,992
Total County	4,424,440	1,843,288		2,755,425	\$161,849.5	\$259,270.9	18,463
% of State	85.3%	84.8%		85.2%	89.1%	88.4%	17.8%

Note: Dollars in millions, except AHI.

The Direct Impact of Retail Trade on the Twelve Major Metro Counties in Colorado

This section discusses the direct impacts of retail trade on the twelve major metro counties.

Key points from the data are:

- The economic activity, or Direct Retail GRP, for the 12 counties is almost \$18.2 billion or 86% of the state total.
- The largest numbers of retail employees are in El Paso, Arapahoe, and Denver counties.
- Direct GRP ranges from \$405.5 million in Broomfield to \$3,022.9 million for Arapahoe.
- Direct Retail GRP per employee ranges from \$64,119 in Larimer to \$72,705 in Arapahoe.
- Average compensation/income ranges from a low of \$27,923 in Broomfield to \$36,387 in Arapahoe. Average retail wages are significantly less than average wages for all industries.
- Direct Retail GRP as a percent of Total GRP ranges from 3.8% in Denver to 10% in Mesa and Pueblo counties.

Area	Direct Retail Employment	Total Direct Compensation -Income	Total Direct Value Added	Total Direct GRP	Direct GRP as Percent of Total GRP	Direct GRP/Direct Employees	Average Compensation Income (All Industries)	Compensation -Income per Direct Employee
Colorado	309,925	\$10,182.8	\$14,435.9	\$21,200.0	7.2%	\$ 68,404	\$56,126	\$32,853
Adams	24,648	\$795.2	\$1,143.6	\$1,682.6	9.6%	\$ 68,267	\$49,020	\$32,264
Arapahoe	41,578	\$ 1,512.9	\$2,099.0	\$3,022.9	6.7%	\$ 72,705	\$64,410	\$36,387
Boulder	19,933	\$671.4	\$941.4	\$1,371.6	6.3%	\$ 68,811	\$57,519	\$33,681
Broomfield	6,209	\$173.4	\$262.9	\$405.4	7.3%	\$ 65,295	\$68,140	\$27,923
Denver	32,149	\$ 1,281.6	\$1,703.5	\$2,406.5	3.8%	\$ 74,853	\$72,808	\$39,864
Douglas	17,806	\$559.5	\$801.8	\$1,201.5	9.9%	\$ 67,477	\$61,228	\$31,422
El Paso	41,680	\$ 1,186.8	\$1,811.6	\$2,741.2	8.0%	\$ 65,768	\$52,851	\$28,473
Jefferson	30,769	\$ 1,051.2	\$1,444.8	\$2,091.2	8.5%	\$ 67,965	\$58,727	\$34,164
Larimer	20,219	\$594.1	\$859.8	\$1,296.4	8.8%	\$ 64,119	\$44,643	\$29,383
Mesa	9,142	\$288.0	\$409.4	\$609.0	10.0%	\$ 66,613	\$41,704	\$31,502
Pueblo	8,275	\$265.0	\$374.7	\$547.9	10.0%	\$ 66,210	\$44,139	\$32,022
Weld	11,968	\$346.9	\$521.2	\$788.4	8.6%	\$ 65,873	\$46,895	\$28,982
Total County	264,376	\$ 8,725.9	\$12,373.8	\$18,164.6				
% of State	85.3%	85.7%	85.7%	85.7%				

Note: Dollars in millions for Total Compensation, Total Value Added, Total GRP, columns 2-4.

The Total Impact (Direct, Indirect, Induced) of the Retail Trade Industry on the Twelve Major Metro Counties in Colorado

- Total economic activity, or Retail GRP for the 12 counties, is about \$27.2 billion, or 71% of the state total.
- The largest number of total employees is in Arapahoe, El Paso, and Denver counties.
- The Total Retail GRP ranges from \$507.5 million in Broomfield to \$4,689.7 million for Arapahoe.
- The Total Retail GRP per employee is greatest in Denver, Arapahoe, and Boulder counties
- Total Retail GRP per employee ranges from \$71,474 in Broomfield to \$91,966 in Denver.

Area	Total Employment	Total Compensation		Total Value Added	Total GRP	Total GRP per Total Employees
		- Income				
Colorado	439,315	\$ 16,555.9		\$25,213.4	\$38,284.1	\$ 87,145
Adams	31,612	\$1,068.0		\$1,616.3	\$ 2,442.5	\$ 77,263
Arapahoe	53,976	\$2,188.8		\$3,203.2	\$ 4,689.7	\$ 86,886
Boulder	25,737	\$ 929.5		\$1,407.4	\$ 2,095.9	\$ 81,437
Broomfield	7,100	\$ 209.6		\$328.9	\$507.5	\$ 71,474
Denver	42,035	\$1,906.1		\$2,685.0	\$ 3,865.8	\$ 91,966
Douglas	21,234	\$ 717.6		\$1,076.2	\$ 1,630.0	\$ 76,764
El Paso	53,512	\$1,650.3		\$2,701.1	\$ 4,147.3	\$ 77,502
Jefferson	38,495	\$1,397.5		\$2,038.3	\$ 2,987.7	\$ 77,614
Larimer	27,206	\$ 844.1		\$1,327.8	\$ 2,053.2	\$ 75,469
Mesa	12,503	\$ 406.3		\$638.3	\$980.1	\$ 78,391
Pueblo	10,397	\$ 344.5		\$512.2	\$770.0	\$ 74,059
Weld	14,556	\$ 438.5		\$682.1	\$ 1,056.7	\$ 72,592
Total County	338,362	\$ 12,100.7		\$18,216.7	\$27,226.3	\$ 80,465
% of State	77.0%	73.1%		72.3%	71.1%	

Note: Dollars in millions for Total Compensation, Total Value Added, Total GRP, columns 2-4.

Key Findings

This study provides an unbiased third-party assessment of the economic impact of the retail trade industry on the economies of Colorado and its twelve major metro counties: Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo, and Weld.

Impact of Retail Trade Industry on Colorado		
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Source: IMPLAN Model Output		
Dollars in millions		

The key **employment** findings of the report are:

- There are 309,924 direct employees in the industry. This is 9.6% of total state employment.
- Overall, there are 439,315 total (direct, indirect, and induced) employees supported by the Colorado Retail Trade Industry.
- The counties with the greatest number of Direct Retail Trade employees are El Paso, Arapahoe, Denver, and Jefferson.

The key **output** findings of the report are:

- Average GRP per employee for Colorado is \$90,658. Average Retail Direct GRP per employee is \$68,404.

- The Retail Trade Sector contributes about \$21.2 billion, or 7.2%, to the Direct Colorado GRP, \$293 billion.
- Overall, the Retail Trade Sector supports \$38.3 billion in GRP, or economic activity.
- The counties with the greatest Direct Retail Output are Arapahoe, El Paso, and Denver.
- The counties with the greatest Direct GRP per Direct Employee are Denver, Arapahoe, Boulder.

The key **wage** findings of the report are:

- The total direct wages are \$10.1 billion, or 5.6% of total wages. Average Direct Retail Wages are lower than the average for all industries.
- Overall, the retail trade industry supports total wages of \$16.6 billion.
- The counties with the highest average annual wages for Direct Retail are Denver, Arapahoe, and Jefferson.

Other key points follow:

- The Retail Trade Sector is a major employer in Colorado.
- The Bureau of Labor Statistics reports that Colorado has 175,355 establishments. There are 17,035 establishments in the Retail Trade Sector. This is 9.7% of total employment.
- Average wages and output are below the average for other industries.
- It is difficult for states to develop a competency in the Retail Trade sector even though many states and municipalities rely on retail sales taxes to fund their operations. The Colorado Retail Trade Sector has a location quotient slightly less than 1.0.

Appendix

Measurement of Economic Activity

Economic impact analyses illustrate how industries or companies contribute to the economy in different ways. While an impact analysis may focus on one industry or company, it does not suggest that industry or company is more important than others.

The simplistic model used for this economic impact analysis looks at the number of employees at a facility, their wages, and their initial, direct, indirect and induced impacts on the economy of the local community. These impacts are derived by using multipliers, numbers calculated to define the input-output relationship between industries within a study area. Multipliers will be used to calculate the following:

- The *direct effect* measures the impact of the existing workers on the economy.
- The *indirect effect* measures the impact that changes in the number of workers in the industry have on related industries, such as businesses within the supply chain.
- The *induced effect* measures the change in household expenditures, resulting from changes in the company.
- The *total effect* or impact is the sum of the direct, indirect, and induced impacts.

For simplicity sake, only the direct impact and the total impact are presented.

It should be noted that there may be a slight distortion between the data for sparsely populated geographic areas and "reality". A slight change caused by a change in one data set may have a disproportionate change in other data.

It is also important to note that the input-output relationship for a small geographic area is typically not as strong as for a larger area. This happens because the supply chain for a company or industry is often larger than the local area. In other words, a multiplier will be greater when more of the supply chain is located within the boundaries of the area being studied.

The purpose of the EDCC impact Analysis program is to provide studies that offer an economic overview of the impact of an industry or company. Additional research may be appropriate if more in-depth information is desired. A more comprehensive analysis could look at the impact of major capital expenditures, intangible contributions, or policy changes. As well, a more in-depth analysis may be appropriate to gauge the fiscal benefits or net benefits of the industry or changes in the industry. For example, the former would look at the changes in tax receipts) while the latter might look at the net benefits of the industry (public revenues less public costs).

Other Definitions

The following are definitions that may be used in this or other economic impact analyses.

Direct Employment - Direct employment refers to employment prior to the application of indirect and induced multipliers.

Total Employment - The sum of direct, indirect, and induced employment.

Direct Output - Direct output refers to output prior to the application of indirect and induced multipliers.

Total Output - The sum of direct, indirect, and induced output.

IMPLAN Employment - IMPLAN Employment is a combination of data from the Quarterly Census of Employment and Wages (QCEW by BLS) and County Business Patterns (CBP by Census). As well, the Regional Economic (REA) data from BEA is used for control totals (to incorporate proprietors and non-covered sectors.). Additional information about IMPLAN can be found at <http://implan.com/>

EMSI - Economic Modeling Specialists International is a private company that uses data compiled by federal agencies to produce a user friendly tool for analyzing various labor, workforce, and education data.

IMPLAN - IMPLAN is a private company that uses data produced by federal agencies to produce an economic impact modelling data set and tool). Additional information about IMPLAN can be found at <http://implan.com/>

Location Quotient (Concentration) - The LQ is the ratio that compares the concentration or percentage of a region to the concentration of a larger reference region. Quite often the larger region is the U.S. If the LQ= 1.0, then the concentrations are the same. If the LQ is < 1.0, then the local region has a lower concentration of that industry. When the LQ is > 1.0, then the local region has a higher concentration of that industry. For example, assume 12% of the local industry is employed in brewing and the average for the reference region is 8%. Then the LQ = 12%/8% or 1.5. This means the local region has a higher concentration of the brewing industry.

About the EDCC Economic Impact Analysis Program

About Economic Development Council of Colorado

EDCC is a trade association of economic development organizations committed to cooperative promotion of the state's economy. They have been fulfilling this mission since 1975. For further information go to www.edcconline.

EDCC sponsors the Economic Impact Analysis Program as a way of helping public and private business leaders better understand the importance of our companies and industries in Colorado.

About Gary Horvath - Gary Horvath is a Broomfield-based economist who has conducted business, economic, and market research in Colorado for over 25 years. A portion of his research has focused on the Colorado economy and economic development. He also has worked in the manufacturing, hospitality, higher education, and sports industries. For additional information go to <http://cber.co/about-cber-co/>.