

Who Pays?

Part One of Two

Intrastate Variation in Colorado's State and Local Public Revenues

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Research Brief 1: Who Pays? Intrastate Variation in Colorado's State and Local Public Revenues

To provide public services, state and local governments must raise revenue. State and local governments generate revenue in a variety of ways, but depend largely on taxes, fees, and intergovernmental aid (transfers from higher levels of government). State and local laws, as well as local norms and traditions, constrain revenue raising options, as do demographic and economic factors largely beyond any individual government's control. Revenue systems develop incrementally over time, creating a certain degree of path dependency where radical changes become increasingly more difficult to consider. In Colorado, public revenues must further comply with the Taxpayer's Bill of Rights (TABOR) Amendment approved at the ballot in 1992.

The fragmented system of local government in the United States results in overlapping revenue bases and service responsibilities, as well as stark differences in taxes and fees, which are often unclear to policymakers and residents. Determining the differences in taxes and fees across communities is surprisingly difficult, especially since public revenues raised in a specific area are not entirely paid by residents. This research provides a preliminary look at differences in taxes and fees across communities in Colorado by aggregating revenues generated locally by school districts, municipalities, and counties to the county level. As Colorado voters continue to be called upon to consider proposals to alter the income, property, and sales taxes and policymakers grapple with how to address an eroding sales tax base, rapidly rising property values, and optimal TABOR refund mechanisms, this research provides unique information and perspective on sub-state revenue portfolios for more informed decision making.

Overview of Public Revenue Sources¹

While the term "tax" refers to any financial payment required by a government, a range of taxes exist targeting an individual's, household's, or organization's earnings, consumption, or ownership. Income tax (earnings), sales tax (consumption), and property tax (ownership) comprise the three-legged stool of state and local government tax revenue. Dependence on each leg and other less prominent taxes varies across states, as well as level of government. In Colorado, the state government's major revenue sources (the individual income tax and the sales tax) have been in place since the 1930s.

Nationally, local governments depend on taxes for nearly two-thirds of own-source revenue. Own-source revenue refers to revenue raised internally as opposed to intergovernmental aid. During 2017, property taxes represent 72 cents of every dollar raised by local government taxes and are especially important to counties and school districts. 17.5 cents of each tax dollar come from sales taxes, while income taxes contribute 6 cents on average.²

¹ This section builds on material from the following book chapter: Ely, T. and Guy, M. "Understanding Legal Constraints and Internal Management Practices." In The Effective Local Government Manager, Fourth Edition (Robert E. Lee & Michael Abels, eds.). Washington, D.C.: International City/County Management Association, 2022.

² Author calculations based on "2017 Census of Governments: Finance," United States Census Bureau, last updated June 22, 2022, https://www2.census.gov/programs-surveys/gov-finances/tables/2017/summary-tables/17slsstabla.xlsx.

Property taxes are imposed on wealth or assets, most commonly real property like residential, commercial, or industrial buildings and land. Sales taxes, broadly speaking, tax consumption often at the point of sale, while income taxes tax earnings whether individual or corporate. Since most governments apply the sales tax only to the purchase of tangible goods, an ongoing challenge for local governments is the erosion of the sales tax base as the economy becomes more service oriented.

Fees primarily refer to user charges for specific government services, like solid-waste collection, sewerage, parking, permitting, or hospital care. Local governments frequently prefer fees when they are tightly linked to the amount of service consumed and act as an alternative to unpopular tax hikes. These fees, or charges, comprise an additional 28 cents of every dollar of own-source revenue for local governments³.

Local governments also receive substantial revenue from higher levels of government in the form of transfers or aid. This support is especially prominent for school districts and counties. In 2017, intergovernmental revenue contributed more than a third, 36 percent, of local governments' general revenue. Nearly 90 cents of every dollar of intergovernmental aid to local governments come from state governments, although often originating at the federal level. ⁴

The following section illustrates the overall public revenue structure in Colorado by level of government and over time, before turning to the broader public revenues raised locally across overlapping governments.

The Colorado Context

Using the most recently available data from the U.S. Census Bureau, the dependence on each public revenue source by level of government and overall can be determined for Colorado in 2019. As seen in Figure 1, both state and local governments in Colorado utilize some public revenue sources (like general sales tax, charges, and transfers) while others (like property tax and income taxes) are generally used by either local or state government. In the aggregate, the property tax represents the most important local tax, although the dependence differs dramatically across the different types of local government (counties, cities, towns, school districts, and special districts). Even though Colorado's state government does not directly utilize the property tax, the state relies on local property taxes as a key source of funding for K-12 education within the education finance system. Both Colorado's state and local governments depend on the general sales tax for between 10 and 15 percent of general revenue.

³ Ibid.

⁴ Ibid

⁵ These numbers focus on general revenues, but non-general revenues reflect a large and important share of the state's revenues (including cash and federal funds).

The state government receives meaningful revenue from selective sales taxes, such as those taxes applied to alcoholic beverages, tobacco products, and insurance premiums. While a small number of local governments in Colorado raise revenue from an employee head tax (referred to as an Occupational Privilege Tax in Denver), the income tax is the predominant source for the state government's general revenue. Corporate income taxes, on the other hand, contribute a relatively minor share of state government general revenue. State and local governments depend equally on transfers, or intergovernmental aid, while charges provide a slightly higher share of general revenues for local governments than the state government.

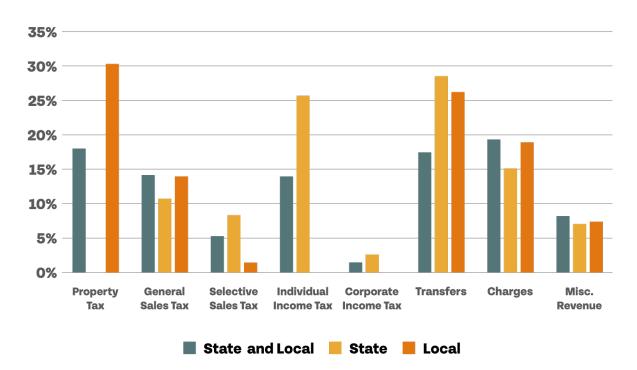


Figure 1: Share of General Revenues by Source in Colorado, 2019

Source: US Census Bureau Annual Survey of State and Local Government Finances, 1977-2020 (compiled by the Urban Institute via State and Local Finance Data: Exploring the Census of Governments; accessed 03-Jan-2023 07:44), https://state-local-finance-data.taxpolicycenter.org.

Compared to state and local general revenues across the United States, Colorado local governments depend nearly three times more heavily on the general sales tax, the individual income tax provides a greater share of Colorado's state general revenue by about 7 percentage points, Colorado local governments depend less on transfers, and charges represent a larger share of the State of Colorado's general revenues (as seen in Figure 2).

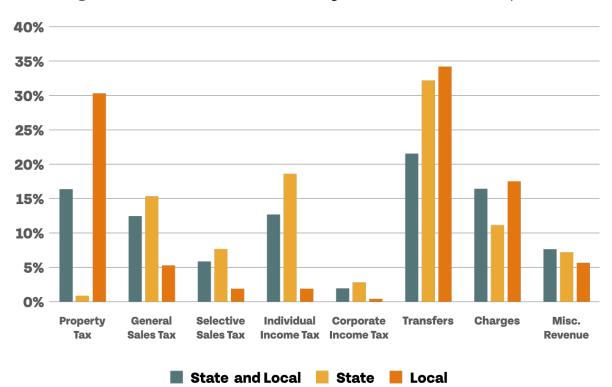
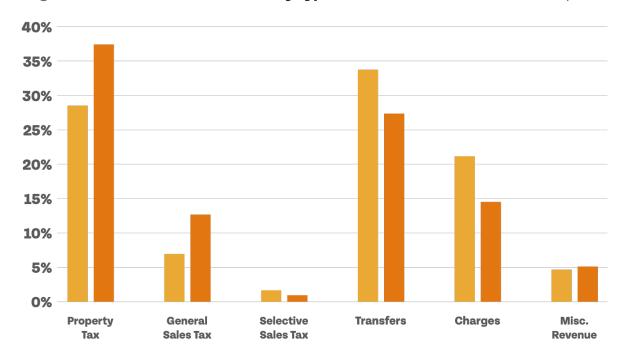


Figure 2: Share of General Revenues by Source in United States, 2019

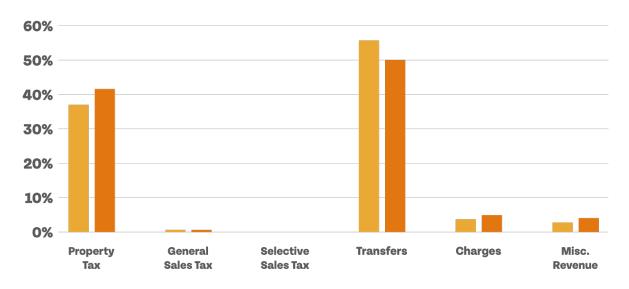
Source: US Census Bureau Annual Survey of State and Local Government Finances, 1977-2020 (compiled by the Urban Institute via State and Local Finance Data: Exploring the Census of Governments; accessed 03-Jan-2023 07:44), https://state-local-finance-data.taxpolicycenter.org.

Combining all local governments masks substantial variation in the use of specific public revenue sources. The following figure, Figure 3, presents the share of general revenue by type of local government and source for Colorado and the United States based on the 2017 Census of Governments. Colorado counties depend more heavily on the property tax and general sales tax than counties nationwide. Municipal governments in Colorado depend less on property taxes and transfers and more on general sales taxes than national counterparts. Colorado's school districts depend on typical general revenue sources of property taxes and transfers, with a somewhat higher property tax share than school districts across the country. Special districts in Colorado utilize the property tax and general sales tax more than in other states, but still receive a majority of general revenue from charges and transfers.



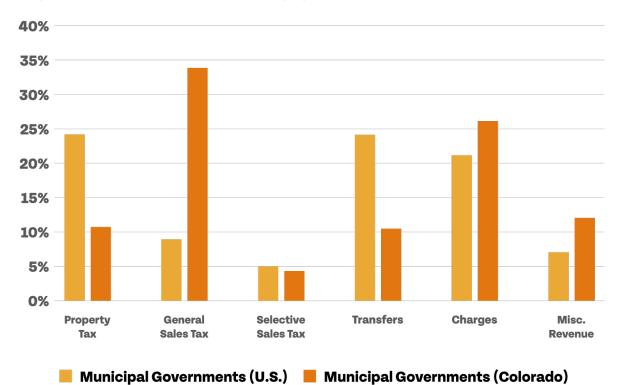


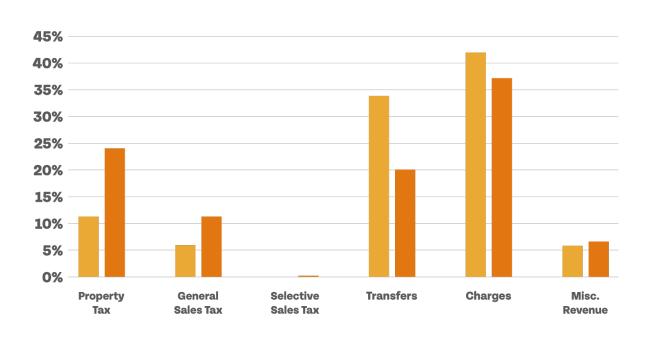
County Governments (U.S.) County Governments (Colorado)



■ School District Governments (U.S.) ■ School District Governments (Colorado)

Figure 3: Share of General Revenue by Type of Local Government and Source, 2017





Note: Income taxes (individual or corporate) are omitted, since they are not common revenue sources of local governments in Colorado and are only minor sources for municipalities nationally (municipalities nationally generate around 5% of general revenue from the individual income tax and less than 2% from the corporate income tax). Source: 2017 Census of Governments: Finance. http://www2.census.gov/govs/estimate/quality_issues_cog_finance.pdf

Special District Governments (U.S.) Special District Governments (Colorado)

Looking at broad categories of public revenue for Colorado's state and local governments (in Figure 4) suggests that some minor changes are evident since 1977 and following the 1992 passage of Colorado's TABOR. The share of general revenue from taxes declined from 59 percent to 53 percent since 1977, but only experienced a 2 percentage-point decline since 1992. General charges climbed 4.9 percentage points since 1977 (13.7 percent to 18.5 percent) and 2.4 percentage points since 1992. Intergovernmental revenue, or transfers, declined in the early 1980s until stabilizing at about 16 percent of general revenue before climbing in the years following 2007. Miscellaneous general revenue has been more erratic, representing less than 10 percent of general revenue in the period after 2007.

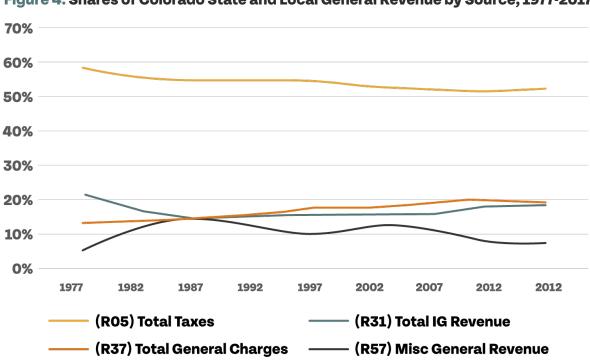


Figure 4: Shares of Colorado State and Local General Revenue by Source, 1977-2017

Source: US Census Bureau Annual Survey of State and Local Government Finances, 1977-2020 (compiled by the Urban Institute via State and Local Finance Data: Exploring the Census of Governments; accessed 03-Jan-2023 05:46), https://state-local-finance-data.taxpolicycenter.org.

Distributional Consequences of Colorado's Public Revenue Structure

Collectively, charts/tables in the section below show Colorado families with low and middle incomes pay a larger percentage of their income in taxes than high income families. Each chart/table evidences this reality in a slightly different way. A high-level overview of tax burden by income group is provided first, followed by: an examination of how Colorado tax burdens compare with other states; a breakdown of burden by income group and tax type; a further disaggregated breakdown of tax burden by income group; and finally, a comparison of expected vs paid taxes, broken down by income group.

Understanding who pays public revenue and how much remains surprisingly complicated due to the range and variation of public revenue sources and the delivery of services by an array of government types (counties, cities and towns, school districts, and special districts just at the local level). A major challenge is the fact that there are many different governments whose revenues are related. For example, a portion of each dollar paid in federal income taxes gets redistributed back to state and local governments, just like a portion of each dollar in state income and sales tax gets redistributed back to local governments, especially counties and school districts. Another barrier to understanding the overall distributional consequences of public revenue sources is the distinction between statutory and economic tax incidence.

Statutory tax incidence captures the legal obligation to pay a tax, but the burden of that tax (the economic incidence) may be different. Examples abound, like a landlord who is on the hook to pay property taxes on a rental unit but can pass along some portion of the cost to renters as part of the lease, or a retailer who passes along a share of the corporate income tax to customers in the form of higher prices. The shifting of taxes depends on the demand elasticity of the particular goods and services being taxed, but the important point is that determining who pays a tax is more complicated than just looking at the legal obligation to pay.

Discussing the distributional implications of public revenues requires measures of tax and fee equity. The most common characterizations of tax equity are measures comparing the relative tax share of income captured by those of differing levels of income or wealth (or the ability to pay). Most tax equity discussions focus on vertical equity, where the fairness of a tax is determined relative to the taxpayer's ability to pay. Taxes can be roughly classified as regressive (when the tax burden is higher relative to ability to pay for lower-income taxpayers) or progressive (when the tax burden is higher relative to ability to pay for higher-income taxpayers). Despite having the same tax rates for all consumers, the sales tax and gas tax are prominent examples of more regressive taxes, since they consume a larger share of a lower-income household's budget. A progressive tax, like the federal income tax, uses an increasing marginal tax rate to reflect an increasing ability to pay as income rises. Some taxes, like the residential property tax, are believed to act like user fees or benefit taxes — meaning that what is

paid approximates the benefits (services) received from the tax incurred. Altogether, the actual tax incidence and dependence on different taxes and fees determines the distributional consequences of a public revenue system.

Even with the challenges to determining who pays public revenues, estimates exist to capture who pays by state and the associated distributional consequences. Prominently, a study from the Institute on Taxation and Economic Policy (ITEP) uses microsimulation data to generate a Tax Inequality Index reflecting how a state's system impacts income inequality and documents the distributional consequences of a state's consumption, income, and property taxes. The ITEP study provides a helpful state-level perspective by aggregating all local taxes, but admittedly lacks the ability to look at specific local areas or at non-tax sources of public revenue.

Based on ITEP's index, Colorado ranks 35th among states for tax inequality (where a lower ranking indicates less tax inequality). Like most states, Colorado's state and local tax system worsens income inequality. The portfolio of taxes results in low and middle-income taxpayers paying more in taxes as a share of income than Colorado's top taxpayers. The tax systems of fifteen states and the District of Columbia receive higher index scores, meaning less income-based inequality, although only six of those actually receive positive index scores indicative of improving income inequality through the tax system. ITEP also calculates the effective tax rates for different income groups of non-elderly taxpayers. Effective tax rates reflect the percent of income paid in taxes. Looking at the relative effective tax rates provides one view of the distributional implications of the state and local tax systems. Table 1 presents the effective tax rates for three income-based groups in Colorado alongside the differences between those rates.

Table 1: Colorado Taxpayer State and Local Effective Tax Rates and Differences by Income Group

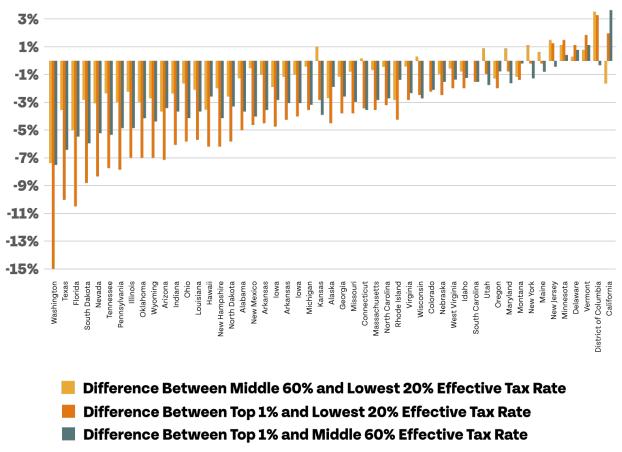
Effective	Tax Rates (per	centage)		etween Effecti ercentage poin	
Lowest 20%	Middle 60%	Top 1%	Middle 60% Rate minus Lowest 20% Rate	Top 1% Rate minus Lowest 20% Rate	Top 1% Rate minus Middle 60% Rate
8.7%	8.6%	6.5%	-0.1%	-2.2%	-2.1%

Source: Institute on Taxation and Economic Policy (ITEP). Who Pays? A Distributional Analysis of the Tax Systems in All 50 States. Sixth Edition, October 2018, Appendix B.

⁶ Institute on Taxation and Economic Policy (ITEP). Who Pays? A Distributional Analysis of the Tax Systems in All 50 States. Sixth Edition, October 2018. Importantly, the calculations in the ITEP report reflect state and local taxes in place as of September 10, 2018 as a percentage of non-elderly income in 2015.

To compare Colorado to other state and local tax systems, Figure 5 presents the distribution of effective tax rate differentials by state from ITEP's 2018 report. Negative percentages reflect that lower-income taxpayers pay relatively higher effective tax rates, while positive percentages mean that high-income taxpayers pay relatively higher effective tax rates. The jurisdictions are ordered based on the lowest-to-highest ITEP Tax Inequality Index, with Washington being considered most regressive (in the absence of an income tax) and California most progressive (with a progressive personal income tax system) from a tax perspective. Colorado's effective tax rate differentials, while negative, generally compare favorably to other states in magnitude of differentials.

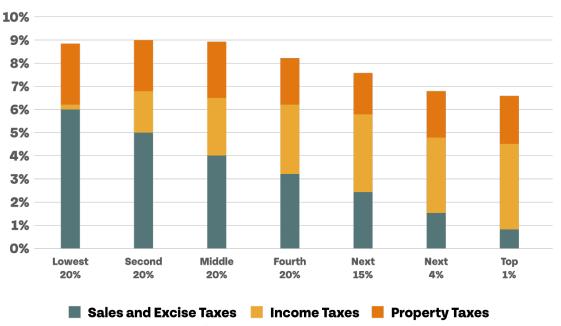




Source: Authors' calculations based on Institute on Taxation and Economic Policy (ITEP). Who Pays? A Distributional Analysis of the Tax Systems in All 50 States. Sixth Edition, October 2018, Appendix B.

As seen in Figure 6, a deeper look into the Colorado state and local taxes paid as a share of family income illustrates how the burden of sales and excise taxes on consumption falls more heavily on lower-income families. Alternatively, the income tax burden as a share of income becomes larger for families in the top fifth of income levels. Property tax burdens reflect a more even burden across income groups, but are larger as a share of income for the lowest 60 percent of income groups.

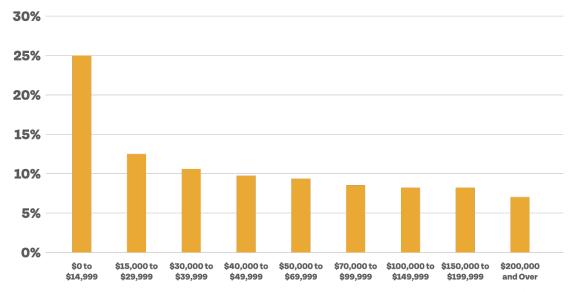
Figure 6: Estimated Colorado State and Local Taxes as a Share of Family Income by Type and Income Group



Source: ITEP, "Data for Download," 6th Edition, 2018.

The State of Colorado also provides a periodic glimpse into the distribution of state and local taxes paid and effective tax rates by different levels of family income. The most recent tax profile report uses 2019 data and demonstrates, similar to the ITEP findings, that effective state and local tax rates (that is, taxes relative to income) are regressive. The share of taxes relative to income is highest at the lower-income levels and lowest at the higher-income levels for Colorado's families (see Figure 7). Local taxes represent the primary contributor to the regressivity of the tax system.

Figure 7: Effective State and Local Tax Rates by Income Group, 2019



Source: Colorado Department of Revenue. 2022 Tax Profile & Expenditure Report. DR 4016 (12/20/22), "Exhibit 15. Effective State and Local Tax Rates Within Each Income Group, 2019."

Another perspective on the distribution of taxes allows us to see the shares of total family income and state and local taxes paid in Colorado by income group. Figure 8 illustrates that lower-income families with incomes below \$70,000 shoulder a larger relative burden of state and local taxes paid than higher-income families. The shares of income received and taxes paid prove to be roughly equal for families with incomes between \$70,000 and \$200,000. Alternatively, families with incomes over \$200,000 pay more than a third of state and local taxes (36%), but this share lags the group's share of family income (43%) in Colorado.

50%
45%
40%
35%
30%
25%
20%
15%
10%

Figure 8: Distribution of Family Income and Taxes Paid by Income Group, 2019

Source: Colorado Department of Revenue. 2022 Tax Profile & Expenditure Report. DR 4016 (12/20/22), "Exhibit 13. Distribution of Family Money Income and Taxes Paid Across Income Groups, 2019."

\$50.000 to

\$69,999

\$99,999

\$70,000 to \$100,000 to \$150,000 to

\$149,999

Share of Total Taxes Paid

\$199,999

The comparison of relative state and local tax shares based on family income provides a useful overview of the distributional consequences of the primary sources of public revenue, namely taxes. Yet we know that Colorado's complex system of local governments depend on more than just taxes to fund public services and approaches vary in different communities.

\$0 to

\$14,999

\$15.000 to

\$29,999

\$30,000 to

\$39,999

Share of Family Money Income

\$40,000 to

\$49,999

⁷Colorado Department of Revenue. 2022 Tax Profile & Expenditure Report. DR 4016 (12/20/22). Accessed at: https://drive.google.com/file/d/1ty9DL7ZC80AzSkAPRP8_VeeuoKWH5_y-/view

How do Colorado's Public Revenues of Overlapping Governments Differ Geographically?

Although a limited number of revenue sources are available to local governments, the fragmented system of government results in overlapping revenue bases and service responsibilities that are often unclear, especially to residents. In Adams County, Colorado, for example, two homeowners may experience different property tax levies (referred to as mill levies) depending on the combination of city/town, school district, and special districts where they reside. Table 2 provides details of the many overlapping taxing jurisdictions in Adams County. While information on taxes and fees is available, comparisons of the relative taxes and fees paid in a specific location are more difficult to find.

Table 2: Entities with Property Taxing Authority in Adams County, Colorado (2021)

	Number	Governments	Mill Levy Range
County	1	Adams County	27.069
Cities & Towns	10	Arvada; Aurora; Bennett; Brighton; Commerce City; Federal Heights; Lochbuie; Northglenn; Thornton; Westminster	0.680 (Federal Heights) to 11.950 (Bennett)
School Districts	12	School District 12; School District 14-Commerce City; School District 1-Mapleton; School District 26-Deer Trail; School District 27-Brighton; School District 28-Aurora; School District 29-Bennett; School District 31-Strasburg; School District 32-Byers; School District RE3-Keenesburg; School District RE50-Wiggins; Westminster Public Schools	19.063 (School District RE3-Keenesburg) to 78.918 (School District 28-Aurora)
Fire Districts	12	Adams County Fire Protection District; Fire District 10 Deer Trail; Fire District 11 Sable Altura; Fire District 11 Sable Altura Bond; Fire District 5 Southeast Weld; Fire District 6 Greater Brighton; Fire District 7 Bennett; Fire District 8 Strasburg; Fire District 9 Byers; North Metro Fire Bond (FKA FD1B); North Metro Fire Rescue FKA Fire District 1; South Adams County Fire Protection District	7.032 (Fire District 10 Deer Trail) to 16.686 (Adams County Fire Protection District) (dedicated bond mill levies excluded)
Special Districts	383 (253 with non-zero mill levies)	For a detailed list of the special districts in Adams County, see the 2021 Abstract of Assessment and Tax Levies.8	0.000 (multiple) to 107.255 (Riverdale Peaks II Metro District)

Source: Adams County, Colorado. 2021 Abstract of Assessment and Tax Levies. Accessed at: https://epermits.adcogov.org/sites/default/files/2021_Abstract_of_Assessment_And_Tax_Levies.pdf

⁸ https://epermits.adcogov.org/sites/default/files/2021_Abstract_of_Assessment_And_Tax_Levies.pdf

Aggregating Public Revenues by County

Colorado's 64 counties provide a baseline geography to assess the cumulative public revenues being generated within their boundaries. In order to better understand the overlapping public revenue portfolios across Colorado, we begin by aggregating the revenues of the state, municipalities (towns and cities), and school districts within each county along with the county's own revenues. For state revenues, we focus on sales and use taxes and individual income taxes. Based on Colorado's annual comprehensive financial reports (ACFR FY2018), sales and use taxes and individual income taxes represented 29 percent (\$3.40 billion) and 59 percent (\$7.00 billion) of general fund general purpose revenue inflows (\$11.85 billion), respectively.9 Special districts also play vital roles in providing government services in Colorado. Due to the large number of special districts, the more limited accessibility of financial information, the oftenconcentrated geographic focus even within a county, and the fact that taxes paid to special districts are often closely tied to specific benefits residents receive through localized services, special districts revenues are omitted from this analysis.¹⁰ In addition to special districts' contributions to delivering services in Colorado, local governments regularly use enterprise funds to deliver business-like services like airports, golf courses, water supply and delivery, and wastewater treatment. These enterprise activities, typically self-supporting funded through fees and charges, are also omitted from the analyses.

For local governments that overlap multiple counties, we allocate revenues of 21 such municipalities based on the share of the population that falls in each county. For 59 school districts, revenues are allocated to each county based on the share of a school district's assessed property values in each county. The financial data capture the 2017 fiscal year for counties and municipalities (ending December 31, 2017) and the 2018 fiscal year for the state and school districts (ending June 30, 2018). While not ideal, using financial data from 2017 and 2018 allows us to precede the pandemic disruptions and benefit from greater availability of county and municipal financial data. While public revenue systems are relatively stable over time, we later discuss prominent policy changes that have occurred since these revenues were collected. Revenue information comes from state reports on state income and state sales taxes by county and a separate report on school district finances from the Colorado Department of Education.¹¹ A state dataset of local government annual comprehensive financial reports (ACFRs) maintained by the Department of Local Affairs (DOLA) provides the remaining revenue data for municipalities and counties. Demographic data collected from the U.S. Census Bureau provides information on county population, median income, and race/ethnicity composition. For geographic comparisons across the state, the regional districts used by Colorado Counties, Inc. are adopted. The state is divided into five geographic areas including the Western, Mountain, Front Range, Southern, and Eastern regional districts (for a map of the districts, see Appendix A).

⁹ State of Colorado. 2018. State of Colorado Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018. Budgetary Comparison Schedule General Fund - General Purpose Revenue Component for the Year Ended June 30, 2018, p. 214. ¹⁰ The exclusion does not diminish the relevance of special districts in the state. In fact, Colorado ranks 4th among states in the number of special districts with 2,808 trailing only Illinois, California, and Texas. On a per capita basis, Colorado's use of special districts remains prominent ranking 9th among states with 50 special districts per 100,000 residents (for details, see data from the U.S. Census Bureau, 2017 Census of Governments. Accessed at: "Number of Local Governments by State." Governing. https://www.governing.com/archive/number-of-governments-by-state.html).

As an illustration of the public revenue aggregation approach, we consider Adams County's overlapping governments. First, the state personal income and sales and use taxes paid by Adams County residents are allocated to the county. Second, the county revenues are documented by type. Third, municipal revenues are allocated to Adams County based on the share of population in the county (in parentheses if less than 100 percent for Arvada (2 percent), Aurora (12 percent), Bennett (85 percent), Brighton (99 percent), Commerce City, Federal Heights, Northglenn, Thornton, and Westminster (61 percent). Fourth, revenues for nine school districts are allocated to Adams County based on the county share of assessed property values (see Table 3 for school district details). ¹²

Table 3: Example of School District Revenue Allocations Based on Relative Assessed
Property Value Shares

School District	County	Assessed Value	Percent Share
Adams 12 Five Star Schools	Adams	\$2,709,204,410	81.2%
Adams 12 Five Star Schools	Broomfield	\$625,948,040	18.8%
Adams-Arapahoe 28J School	Adams	\$1,506,282,490	40.2%
District	Arapahoe	\$2,240,379,196	59.8%
Bennett 29 School District	Adams	\$125,423,580	51.5%
Bennett 29J School District	Arapahoe	\$118,352,838	48.5%
	Adams	\$1,927,985,140	95.7%
Brighton 27J School District	Broomfield	\$7,560	0.0%
	Weld	\$86,324,626	4.3%
Divaria 701 Cabaal Diatriat	Adams	\$29,180,340	42.6%
Byers 32J School District	Arapahoe	\$39,381,503	57.4%
Door Trail 261 Sahaal Diatriat	Adams	\$4,614,620	8.6%
Deer Trail 26J School District	Arapahoe	\$48,963,915	91.4%
Keenesburg RE-3J School District	Adams	\$7,236,560	0.6%
Reenesburg RE-3) School District	Weld	\$1,283,018,310	99.4%
Ctrackura 711 Cabaal Diatriat	Adams	\$86,170,960	73.0%
Strasburg 31J School District	Arapahoe	\$31,857,969	27.0%
	Adams	\$6,418,160	2.8%
Wiggins RE-50(J) School District	Morgan	\$65,958,830	28.6%
	Weld	\$157,906,040	68.6%

Note: Overlapping school district information comes from DOLA's Colorado Property Tax Entities list (https://dola.colorado.gov/lgis/taxEntityAlpha.jsf). Adams County assessed value shares and percentages are presented in bold.

Once revenues are tied to a specific county, comparisons can be made on an absolute or per capita basis and a more holistic view of public revenues being raised from the county is available. In Adams County, we see that 72 percent of property taxes are raised for school districts, 85 percent of sales and use taxes are collected for municipalities, school districts benefit from 68 percent of specific ownership taxes, and municipalities receive 56 percent of charges. The following sections use the aggregated data to present different views of public revenues in Colorado.

¹¹ For state income tax data, see: Colorado Department of Revenue, 2018 Individual Statistics of Income, Table 22. Income and Tax Data by County. For state sales tax data, see: Office of Research and Analysis, Colorado Department of Revenue, State Sales Tax Return Data by County, January 2016 to Date (based on State Sales Tax Return (DR 0100), December 2022.

¹² Using relative shares of property assessed values is imperfect, since mill levy rates may differ across counties even for the same school district and we use recent assessed values as a proxy for those applicable during the 2017 fiscal year. Regardless, the manageable approach provides an approximation of the revenue attributed to different counties in school districts that overlap multiple counties.

Local Revenue Shares of Property and Sales and Use Taxes

Unlike the state government's use of income taxes, local governments in Colorado depend more heavily on property taxes and sales and use taxes. Yet, within counties across Colorado the combined dependence on these revenue sources differs widely due to local circumstances including the nature of the existing tax base. Property tax revenue averages 28 percent of the total revenues received by local governments in Colorado counties (the total includes intergovernmental revenue, but excludes special districts, the latter of which would likely make the property tax even more prominent). As seen in Figure 9, the least property-tax dependent county is Otero County with a 12 percent share.

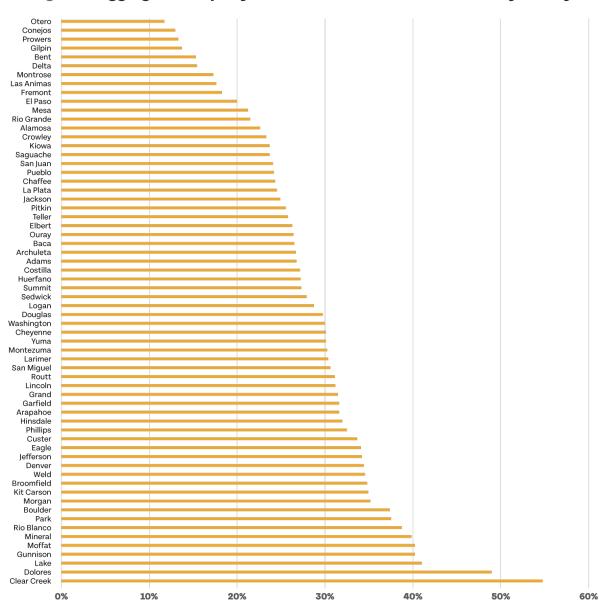


Figure 9: Aggregated Property Tax Share of Total Public Revenues by County

Source: Author calculations based on aggregated county, municipality, and school district financial data. We do not include specific ownership tax (SOT) on vehicles as property taxes, although SOT is considered by the state to be a substitute for property taxes. ¹³

The county with the greatest dependence on property tax revenues across its local governments is Clear Creek County at nearly 55% of total aggregated revenues. Importantly, these revenue shares do not indicate the county government's use of a revenue source but rather the aggregated use by the overlapping local governments.

Whereas property tax revenues depend on the assessed value of various classes of property (e.g. vacant land, residential, commercial, industrial, agricultural, personal property, and exempt properties) and the tax rate (mill rate), sales and use tax revenues depend on the level of retail activity through the purchases of goods combined with a government's sales and use tax rates and any exemptions.

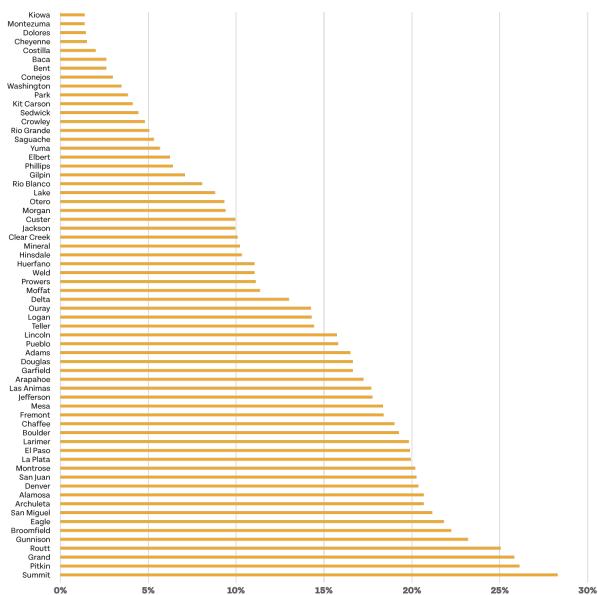


Figure 10: Aggregated Sales and Use Tax Share of Total Public Revenues by County

Source: Author calculations based on aggregated county, municipality, and school district financial data.

¹³ Ruedebusch, Katie. (January 2020). The Specific Ownership Tax. Legislative Council Staff, Issue Brief Number 20-01. Accessed at: https://leg.colorado.gov/sites/default/files/r19-1383_update_sot_issue_brief.pdf

Sales and use tax revenue averages 13% of the total revenues received by local governments in Colorado counties. Figure 10 shows the least sales and use tax dependent county is Kiowa County with a 1.3% share. The county with the greatest dependence on sales and use tax revenues across its local governments is Summit County at just over 28% of total aggregated revenues. Neither of these examples are surprising, as Kiowa County is lightly populated and Summit County benefits from a robust tourist economy.

We compare the dependence on different revenue sources across counties by looking at regional variations. Colorado's regions vary considerably in population, median income, and property assessed values (see Table 4). The vast majority of the state's population resides in Front Range counties. Front Range and Mountain county residents earn the highest median incomes in the state, while residents of the Southern counties have the lowest median income. While the Front Range counties hold much of the state's property based on assessed valuation, the Eastern and Southern counties hold much larger assessed valuation on a per capita basis (due to both smaller populations and larger shares of agricultural land). From a public revenue perspective, property and sales tax shares are statistically significantly smaller and intergovernmental revenue (IGR) share is bigger for Colorado's lowest-income region (Southern). Like the Southern counties, Eastern counties are also much less dependent on sales and use taxes than other Colorado counties. Alternatively, higher-income Front Range and Mountain counties are statistically significantly more dependent on sales tax and less dependent on intergovernmental revenue. Mountain counties are more dependent on other revenues. These region-level observations provide evidence that, as expected, local government revenue portfolios reflect the economic circumstances of counties and that intergovernmental revenue provides more relative support for counties with less economic activity and fewer resources.

Table 4: County-Aggregated Public Revenue Shares by Region

			Reg	jion		
	All Counties	Western	Mountain	Front Range	Eastern	Southern
Median Income	\$66,973	\$54,592	\$64,869	\$70,308	\$57,902	\$40,141
Property Assessed Valuation (000)	\$7,220,041	\$939,382	\$410,631	\$4,183,966	\$743,038	\$943,023
Total Population	5,436,519	446,468	250,484	4,350,494	111,656	277,417
Assessed Valuation Per Capita	\$1,328	\$2,104	\$1,639	\$962	\$6,655	\$3,399
Property Tax Share	28%	30%	30%	31%	31%	22%
Sales/Use Tax Share	13%	15%	16%	18%	7%	8%
Specific Ownership Tax Share	3%	3%	3%	3%	3%	3%
Other Revenue Share	16%	15%	20%	16%	14%	13%
IGR Share	42%	38%	32%	33%	44%	56%

Notes: Based on a two-sample t-test, the bolded and shaded cells reflect statistically significant differences in means between the regional district and all other counties at the 0.05 level. Shaded cells without bolding reflect statistically significant differences in means between the regional district and all other counties at the 0.10 level. Red shading indicates a statistically significantly lower mean value than for other counties. Green shading indicates a statistically significantly higher mean value than for counties in other regions. As a note of caution, IGR revenue shares are challenging to determine due to the risks of double-counting transfers that pass through multiple levels of government.

Comparisons of Local Public Revenues Per Capita by County

Given the geographic, social, and economic diversity of Colorado's counties, it is helpful to standardize own-source public revenue numbers on a per capita basis. Doing so allows for direct comparison without regard to county size, but should not be construed as an accurate representation of public revenue effort or burden in a county. For example, population as a denominator fails to capture the ability of a county's governments to export taxes and fees to commuters, visitors, and second-home owners. As another example, the amount of property taxes is not clearly connected to population and could be better standardized relative to property values of various classifications. Despite these limitations, the county-level variation in per capita public revenues overall and by revenue source is striking.

The variation in per capita public revenues originating from each county is apparent in Figure 11, where both per capita public revenues generated within counties are presented with and without the primary state revenue sources. Crowley County in southeast Colorado, with a population under 6,000 and home to the 1,824-inmate capacity Crowley County Correctional Facility, has the lowest per capita state and local own-source public revenues of \$1,281. This low-level of per capita revenue likely reflects the large share of the population consisting of inmates. At the other end of the range with per capita public revenues of \$17,074 is Pitkin County, which is home to Aspen and boasts the second highest personal income per capita (\$198,939) in the country in 2021. The median county-level per capita state and local own-source public revenues is \$3,730, which falls close to those of Adams County.

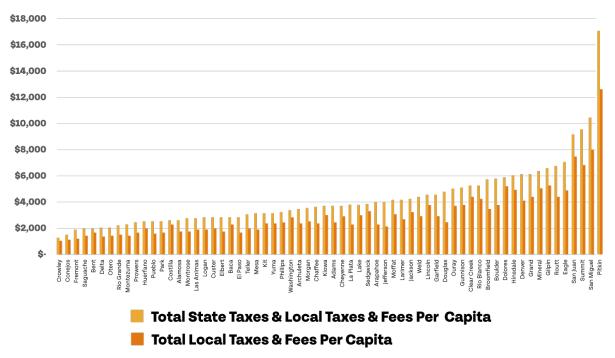


Figure 11: County-Level State Taxes and Local Own-Source Public Revenues Per Capita

Note: Counties are ordered from lowest to highest state and local own-source revenue per capita. State revenue includes only state income taxes and sales and use taxes originating from each county.

¹⁴ Bureau of Economic Analysis. "CAINC1 County and MSA personal income summary," November 16, 2022.

Aggregating public revenues across overlapping governments in a county was a primary purpose of this analysis, but we can also see how per capita revenues differ across different levels of government. The full rankings of per capita public revenues by government type are available in appendix B. The difference in a county's ranking with and without state taxes reveals whether the county's local governments generate above or below average revenues per capita outside the state tax system. Four counties experience relatively large drops in rankings, between 12 and 17 places, when state income and sales and use tax revenues generated within the county are removed from per capita totals (see Table 5). Two of these four counties, Arapahoe County and Jefferson County, have recently received attention for increasing fiscal stress in the absence of voter-approved easing of TABOR revenue limits. 15 Voters in a third, El Paso County, have approved notable public revenue increases in some local governments since the 2017 fiscal year, including a \$42 million annual property tax increase for Colorado Springs School District 11 (the "first tax increase in 17 years for Colorado Springs' largest school district")16 and a five-year extension beginning in 2021 of a sales tax dedicated to transportation improvements in Colorado Springs.¹⁷ The fourth county, Douglas County, is one of Colorado's fastest growing counties over the past decade. Douglas County also prominently uses special districts (not captured in these revenue figures) to provide services including water and sanitation, libraries, fire protection, parks and recreation, and those delivered by metro districts, including the large Highlands Ranch Metro District. These outlier counties provide limited anecdotal evidence that the continuing presence of TABOR limits at the county level and the use of special districts meaningfully influence the aggregated local revenues reviewed here.

Table 5: Counties with Large Ranking Differences Between State and Local and Local Per Capita

County	Total State & Local Revenue Per Capita	Rank (out of 64 counties)	Total Local Revenue Per Capita	Rank (out of 64 counties)	Difference in Ranks	County "De- Bruced" 18
Arapahoe	\$4,033	27	\$2,328	39	-12	No
Douglas	\$4,827	19	\$2,455	32	-13	Yes
El Paso	\$2,880	43	\$1,669	55	-12	No
Jefferson	\$4,046	26	\$2,173	42	-16	No

Note: Just because a county has or has not overridden TABOR limits does not mean that the overlapping governments (municipalities and school districts) have acted similarly.

¹⁵ Aguilar, John. (June 12, 2023). "For two Colorado counties that haven't 'de-Bruced,' the fiscal alarm is growing louder," The Denver Post. Accessed at: https://www.denverpost.com/2023/06/12/arapahoe-county-budget-taxes-tabor-debruce/

¹⁶ Kelley, Debbie. (November 7, 2017). "Voters pass tax increase for Colorado Springs's largest school district – finally," The Gazette. Accessed at: https://gazette.com/news/education/voters-pass-tax-increase-for-colorado-springss-larges-school-district---finally/article_bfccaedf-e988-5856-8501-e9d1f240cd46.html

Toty of Colorado Springs. (n.d.). "What is 2C." Accessed at: https://coloradosprings.gov/public-works/page/what-2c

¹⁸ Colorado Counties, Inc. (December 2019). "De-Bruced Counties." Accessed at: https://ccionline.org/download/tax_finance/tabor/Debruced-Counties-12-26-19.pdf

Rather than looking at per capita revenues, the county-level look at public revenue generation can also illustrate where the state's general fund revenues come from geographically. Since people working and buying goods generates income and sales and use tax, respectively, it is no surprise that nine large counties (Denver, Arapahoe, Jefferson, El Paso, Douglas, Boulder, Adams, Larimer, and Weld) generate 83 percent of the state's resident personal income and sales and use tax revenues as seen in Figure 12.

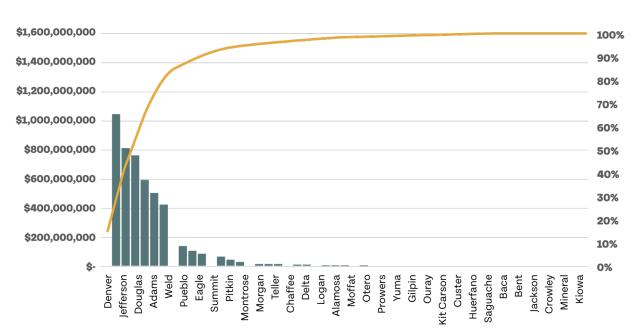


Figure 12: State Resident Net Income Tax and Sales and Use Tax Amounts and Cumulative Share by County

After seeing the variation across counties, we consider whether the differences in county-level public revenues per capita relate to the characteristics of a county's population. Specifically, bivariate regression analysis helps to understand the relationship between a county's median household income and different revenue sources. The estimated coefficient, or slope, reflects the strength of correlation between a given public revenue source or sources and the county's median household income, while the p-value indicates whether the correlation is statistically significant. Federal income taxes are included as a benchmark for a known progressive tax where higher incomes generate higher tax revenues due to increasing marginal income tax rates. Although intergovernmental revenues (transfers) are generally omitted in the analyses, school district intergovernmental support is included to help illustrate how state and federal transfers for education intend to help equalize differences in local wealth.

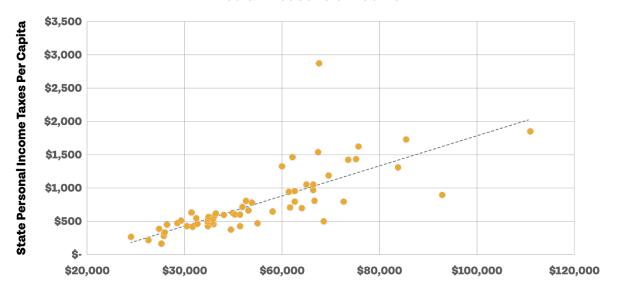
Table 6 details the results of the analyses and includes the estimated revenue per capita change associated with a one standard deviation increase in county median income (approximately \$16,000). As expected, the progressive nature of the federal income tax is reflected in the positive and statistically significant correlation with a county's median income. The same is true for the state's income tax, although the size of the association is smaller due to the flat nature of the state income tax (albeit with tax credits at lower income levels) and a lower rate than at the federal level (see the scatterplot in Figure 13 for visual evidence of the relationship). The state sales tax revenues per capita are positively associated with a county's median income, but the magnitude of the relationship is relatively small as purchases and consumption are less directly tied to income.

Table 6: Correlation of Per Capita County-Level Revenues with County Median Income, 2018

Revenue Source(s) Per Capita	Correlation Coefficient	Estimated Revenue Change Associated with a 1 Standard Deviation Increase in Median Income
Federal income tax	0.147	\$2,343.61
State income tax	0.022	\$359.15
State sales tax	0.008	\$128.38
County own-source revenues	0.007	-
City own-source revenues	0.021	\$333.33
School district local revenue	0.010	\$132.63
School district state revenue	-0.012	\$(202.87)
School district federal revenue	-0.002	\$(31.40)
County-level aggregated own-source (plus state)	0.069	\$1,064.27
County-level aggregated own-source (no state)	0.038	\$576.75

Note: Bolded correlation coefficients are statistically significant at the 95% or level or higher.

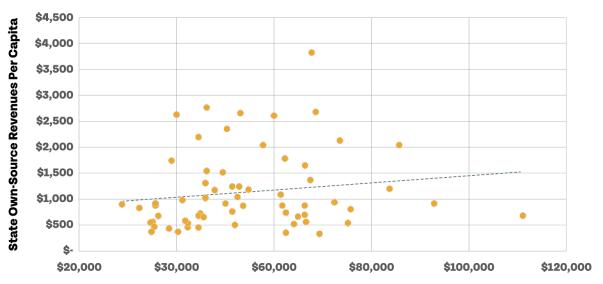
Figure 13: Scatterplot of County-Level State Personal Income Taxes per Capita and Median Household Income



County Median Household Income

Note: Author calculations based on county median household income (U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates), county population (U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates), and county-level state personal income taxes (Colorado Department of Revenue, 2018 Individual Statistics of Income, Table 22. Income and Tax Data by County).

Figure 14: Scatterplot of County Government Own-Source Revenues per Capita and Median Household Income



County Median Household Income

Note: Author calculations based on county median household income (U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates), county population (U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates), and county own-source revenues (Colorado Department of Local Affairs, The Dataset of Municipal General Government Financial Information, 2017).

County own-source revenues represent the only public revenue category reviewed without a statistically significant relationship to median income. This absence of a relationship to own-source revenues might reflect the prominence of property taxes (which, again, are loosely tied to household income) and charges (which are typically not tied to income levels) for counties. The lack of a statistically or practically significant relationship between income and county own-source revenue per capita is apparent from Figure 14.

Alternatively, city own-source revenues, with a stronger dependence on sales and use taxes reflect a positive and statistically significant association with median income. City own-source revenues per capita are generally higher by \$333 for a one standard deviation increase in county median income. School district funding is a shared responsibility with school finance systems typically supplementing locally-generated revenue with state and, to a much lesser extent, federal funds. Indeed, school districts in counties with higher median income residents generate significantly more local revenue and receive less state and federal revenue as intended by the school finance system.

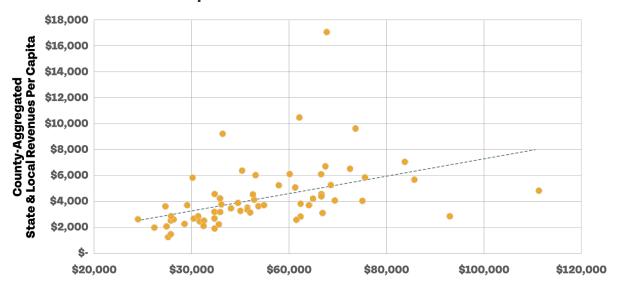
The county-level aggregated public revenues per capita, whether including state taxes or not, show a positive and statistically significant relationship with median income. While this does not provide insight into the generation of these public revenues across a county's population, the analysis finds that a \$16,000 increase in median income is associated with an increase in the average per capita revenues generated at the county level increasing by \$1,064.27 and \$576.75, with the former including state taxes (see Figure 15). Some of the difference in public revenue raised may likely be attributed to progressive elements in the revenue system, but per capita public revenues will also reflect resident preferences for public services, local costs of providing such services, and the 'ability to pay' of higher income and wealthier populations.

Median income is an admittedly blunt measure of a county's income distribution, but provides a simple heuristic for this exploratory analysis. We also considered whether the racial and ethnic composition of a county's population is related to the level of per capita public revenues generated, but found no statistically significant relationships. While unreported, we also find using bivariate regression analysis that the share of total local public revenues in a county comprised of property taxes, sales and use taxes, and other revenue are all positively correlated with median income. Like the regional analysis, intergovernmental revenue as a share of total revenue climbs as median income falls.

The previous look at county-level public revenue portfolios uses data from the 2017 and 2018 fiscal years due to limitations on the availability of more recent data. Yet, much has changed over the subsequent years including state and local public revenue sources that were tested by the COVID-19 pandemic and supplemented by federal support. The next section considers some meaningful changes to state public revenues since the period of our financial data.

¹⁹ Like median household income, the share of a county's population that is nonwhite is a convenient but admittedly imperfect measure of resident characteristics.

Figure 14: Scatterplot of County-Level (All Governments) Own-Source Revenues per Capita and Median Household Income



County Median Household Income

Note: Author calculations based on county median household income (U.S. Census Bureau, 2017 American Community Survey 1-Year Estimates), county population (U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates), state individual income taxes (Colorado Department of Revenue, 2018 Individual Statistics of Income, Table 22. Income and Tax Data by County), state sales and use taxes (Office of Research and Analysis, Colorado Department of Revenue, State Sales Tax Return Data by County, January 2016 to Date, December 2022), county tax and fee revenues (Colorado Department of Local Affairs, The Dataset of Municipal General Government Financial Information, 2017), municipal tax and fee revenues (Colorado Department of Local Affairs, The Dataset of Municipal General Government Financial Information, 2017), and school district local revenues (Colorado Department of Education, Fiscal Year 2017-2018 District Revenues and Expenditures, Comparison of Revenues and Other Sources).

Prominent Changes to the State-Level Public Revenue System

Formal changes to public revenue sources, including the associated refunds of those revenues to comply with TABOR in Colorado, are generally determined at the state level by the decisions of the legislature and governor or directly by voters through initiatives and referenda. Although not exhaustive, the following table, Table 7, presents a number of changes to Colorado's public revenues over the past five years broken into two categories: 1) legislative action and 2) initiatives and referenda. These changes, when coupled with adjustments to local government taxes and fees, continue to alter the distribution of who pays Colorado's public revenues.

Classifying each change as more impactful to higher or lower income taxpayers is a worthwhile exercise, although not always obvious from a public revenue burden perspective.²⁰ An important change to Colorado's public revenues that primarily benefits the state's higher income taxpayers resulted from the passage of two separate ballot initiatives reducing the state's flat income tax rate from 4.63 percent in 2018 to 4.4 percent for the 2022 tax year.

²⁰ The focus here on the distributional consequences of changes to public revenues generally ignores the distribution of benefits from programs and services tied to the revenue change, like supports for affordable housing and school meals.

The flat nature of Colorado's income tax rate means that all taxpayers receive the same percent reduction in income taxes due to the initiatives, but the magnitude of the reduction in dollar terms is larger for higher-income tax filers. Proposition 121's reduction of the income tax rate from 4.55 percent to 4.4 percent results in an annual reduction of the total taxes owed of \$188.3 million for the 29,109 taxpayers with taxable income of \$1 million or greater. This compares to total income tax savings of \$194 million annually for Colorado's other 3.19 million taxpayers with taxable incomes lower than \$1 million. The distributional consequences are clear that, while the rate reduction is equal, the savings skew to higher earners due to the flat income tax rate system. In addition to lowering the income tax rate for taxpayers, Proposition 121 also made one of the three existing mechanisms for providing TABOR refunds obsolete since the newly-lowered income tax rate of 4.4 percent falls below the prescribed temporary rate reduction of 4.5 percent to be enacted when sufficient TABOR surplus exists.

Alternatively, a number of changes relatively benefited lower-income Colorado taxpayers or added to the tax burden of higher-income taxpayers. For example, the legislative decision to provide uniform one-time TABOR refunds of \$750 to each qualified individual (and \$1,500 for individuals who filed jointly) for 2021-22 reduced refund amounts for taxpayers with adjusted gross incomes above \$95,000, while increasing the refund for those making less relative to the existing six-tier sales tax refund mechanism. Another example is the citizen-initiated Proposition FF limits personal income tax deductions for high earners (over \$300,000 in federal adjusted gross income) to fund school meals. An illustrative example based on a joint tax filer demonstrates that a couple with an Adjusted Gross Income of \$375,000 will see a \$450 increase in state income taxes from \$15,884 to \$16,335. Based on 2019 tax returns, the reduced deductions will impact approximately 4.4 percent of taxpayers (113,988 out of 2,573,198 taxpayers).²² The total change in tax burden due to the change is estimated to be \$100.7 million annually based on the 2019 data.

The net distributional impact of recent changes to state-level public revenues is unclear without detailed analysis, but the magnitude and persistence of the two income tax cuts appears to be a larger gain for higher-income taxpayers than the collection of changes benefitting lower-income taxpayers (although, importantly, these same changes are often funded by increased taxes for higher-income taxpayers) including the single-year change to a uniform TABOR refund mechanism (despite representing \$2.7 billion in refunds),23 the reduced income tax deductions associated with Amendment FF supporting school meals, and the expansion of earned income and child tax credits via HB23-1112 for an estimated 311,039 and 148,463 taxpayers, respectively (decreasing state revenue by an estimated \$74.8 million in FY24), and the changes to Earned Income Tax Credit and Child Tax Credit from HB 21-1311 (decreasing state revenue by approximately \$100 million in FY23).²⁴ While the repeal of the Gallagher Amendment has complicated long-term distributional implications, the other changes presented in Table 7 are relatively minor from an overall public revenue perspective.

²¹ Legislative Council of the Colorado General Assembly. (September 7, 2022). 2022 State Ballot Information Booklet, Research Publication No. 775-1A.

²² Ibid.

²³ Andrew Kenney. (Sep. 22, 2022). "You might get another TABOR refund next spring. Here's how much you can expect to get," CPR News. Accessed at: https://www.cpr.org/2022/09/22/tabor-refunds-spring-2023/

Table 7: Selected State-Level Public Revenue-Related Actions since 2017-2018

		Legi	islative Action
Year	Change	Public Revenues Impacted	Who Impacted?
2023	House Bill 23-1112: Earned Income And Child Tax Credits	Income tax	Increased income tax credits for low- and middle-income individuals and families and expanded access to the child tax credit. Primarily benefits lower-income taxpayers by increasing after-tax income for those eligible for the credits.
	Senate Bill 22-233: TABOR Refund Mechanism For FY 2021-22 Only	TABOR Refunds	Authorized a one-time refund of \$750 to each qualified individual (\$1,500 for individuals who filed jointly) between August 2022 and January 2023 (for 2021-22 only) rather than the use of the existing six-tier sales tax refund mechanism. Primarily benefits lower-income taxpayers as the uniform refund amount was more progressive than the existing sixtier sales tax refund mechanism.
2022	House Bill 22-1055: Sales Tax Exemption Essential Hygiene Products	Sales tax	Sales of diapers and menstrual products exempt from the state sales tax. Primarily benefits lower-income taxpayers as the sales tax on essential products is more burdensome at lower-income levels as a share of income.
	Senate Bill 22-124: SALT Parity Act	Income tax	Pass-through entities can elect to pay state income tax at the entity level, which allows the entity to claim an unlimited deduction at the federal level for state and local taxes paid. Primarily benefits higher-income taxpayers who previously itemized federal income tax deductions. Of note, the change does not impact state income tax revenues since such deductions never applied at the state level.
2021	Senate Bill 21-260: Sustainability Of The Transportation System	Fees	Authorizes new fees (including a retail delivery fee, per-ride fees on passenger rides provided by transportation network companies, and road usage fees on gasoline and diesel purchases), indexes some existing fees to inflation, and creates new state enterprises. The distributional impacts are indeterminate according to Legislative Council Staff. ²⁵ While the gasoline fees relatively disadvantage lower income and rural populations, other new and inflation-indexed fees (like the residential delivery and electric motor vehicle registration fees) imposed may be primarily borne by higher-income populations. Other impacts, like the diesel fuel user fee, are unclear and depend on difficult to predict business responses.

²⁴ For details on the expanded earned income and child tax credits, see the Fiscal and Demographic Notes produced by Legislative Council: Ramey, Elizabeth. Demographic Note (HB 23-1112: Earned Income and Child Tax Credits). Legislative Council Staff, May 1, 2023. Ramey, Elizabeth. Revised Fiscal Note (HB 23-1112: Earned Income and Child Tax Credits). Legislative Council Staff, May 5, 2023.

²⁵ Legislative Council Staff. (July 28, 2021). SB 21-260 Final Demographic Note.

	House Bill 21-1162: Management Of Plastic Products	Fees	Beginning in 2023, imposes a customer fee for receipt of a store-provided carryout bag at the point of sale. Primarily harms lower-income taxpayers due to the additional fee representing a larger proportional share of income. While the fee is avoidable, the impact on lower-income individuals is reduced by exempting participants in a federal or state food assistance program.
2021			Established a number of changes to the calculation of taxable income by, in part, limiting certain deductions and removing a cap on the social security income deduction. Among other actions, the law increased the earned income tax credit and funded the child tax credit.
	House Bill 21-1311: Income Tax	Individual income tax	Primarily benefits lower-income taxpayers, aside from the change in expanded social security deductions which benefits relatively high-income retirees. The Itemized Deduction Limit, Capital Gains Deduction, 529 Contribution Deduction Limit, Business Meals Deduction Add-Back, and Qualified Business Income Add-Back changes to the income tax primarily harm higher-income taxpayers. 26

		Initiat	ives & Referenda
Year	Change	Public Revenues Impacted	Who Impacted?
	Proposition 121: State Income Tax Rate Reduction	Income tax (individual and corporate)	Reduced income tax rate from 4.55 percent to 4.40 percent. Primarily benefits higher-income taxpayers.
	Proposition 123: Dedicate Revenue	Individual	Directs 0.1 percent of income tax revenue to housing programs, while removing those funds from TABOR refund requirements.
2022	for Affordable Housing Programs	income tax	Primarily harms higher-income taxpayers , assuming that reduced future TABOR refunds would have followed the existing six-tier sales tax refund mechanism providing higher refunds to higher-income taxpayers.
	Amendment E: Extend Homestead Exemption to Gold	Property tax	Reduce property taxes for surviving spouses of Armed Forces service members and veterans who died in the line of duty or as a result of a service-related injury or disease.
	Star Spouses		Primarily benefits lower-income taxpayers, assuming surviving spouses have lower-than-average incomes.
	Amendment FF: Healthy School Meals for All	Individual income tax	Reduced personal income tax deductions for high earners (over \$300,000 in federal adjusted gross income).
	IVICAIS IOI AII		Primarily harms higher-income taxpayers.

²⁶ For details, see: Ramey, Elizabeth. Demographic Note (HB 21-1311: Income Tax). Legislative Council Staff, July 28, 2021; Stupak, Jeff. Final Fiscal Note (HB 21-1311: Income Tax). Legislative Council Staff, August 31, 2021.

	Proposition 116: State Income Tax Rate Reduction	Income tax (individual and corporate)	Reduced income tax rate from 4.63 percent to 4.55 percent. Primarily benefits higher-income taxpayers.
	Proposition 118: Paid Family and Medical Leave Insurance Program	Premiums	Creation of an insurance program to provide paid family and medical leave benefits funded by premiums paid by employers and employees. The distributional impacts are indeterminate. A flat premium rate is used regardless of income level, but this means higher premium amounts paid by higher-income employees. Any impact on wages and employment opportunities by income level are unknown. The family and medical leave benefits replace a larger share of income for lower-income individuals.
2022	Amendment B: Repeal Gallagher Amendment	Property tax	Repeals the Gallagher Amendment so that the general assembly will no longer be required to establish the residential assessment rate based on the formula expressed in the Gallagher Amendment. The distributional impacts are indeterminate. While residential property owners tend to be wealthier than renters, increasing property tax obligations (due to holding the residential assessment rate constant in the presence of increasing property values) are especially challenging for individuals with lower or fixed incomes.
	Proposition EE: Taxes on Nicotine Products	Excise tax	Increased cigarette taxes and imposed nicotine tax. Revenue is distributed to K-12 education, housing, rural schools, and tobacco prevention programs. Primarily harms lower-income taxpayers.
2019	Proposition DD: Legalization and Taxation of Sports Betting to Fund Water Projects and Obligations	Excise tax	Sports betting made legal and taxed in the state, with revenue being used to fund water projects and water-related obligations (Water Plan Implementation Cash Fund) and pay for the regulation of sports betting, a hold harmless fund, and gambling addiction services. Distributional consequences are indeterminate with regards to taxpayers of different income levels, since the tax is applied to casino proceeds.

Sources: Legislative Council Fiscal and Demographic Notes for respective legislation; Online Database of Statewide Ballot Measures Dating Back to 1880 (https://www.leg.state.co.us/lcs/ballothistory.nsf/)

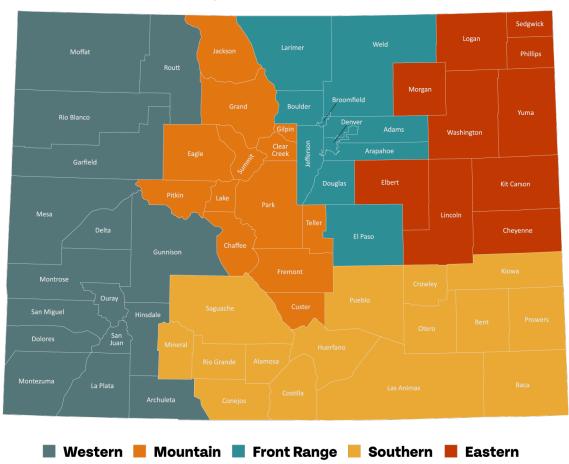
The visibility of these state-level policy changes that influence public revenues is relatively high compared to the many local decisions made to alter public revenues. State and local decisions by elected officials and voters ultimately determine the distributional consequences of how funds are raised for public services. At the local level, changes to public revenue systems continue to reshape the balance of benefits and costs for different residents. For example, in Denver new fees and earmarked taxes have recently been approved or enacted ranging from direct billing for garbage pickup, fees to fund sidewalk construction and repair, and new property taxes to support local libraries. These incremental and often disconnected policy changes across governments combine over time to alter who pays public revenues and how much in Colorado.

Takeaways

What does all of this information tell us about who pays Colorado's public revenues and how much? The research effort highlights the complexity of our public revenue systems and the challenges to capturing the distributional consequences. Colorado's state and local governments generally follow national revenue-raising practices and existing research documents Colorado's state and local tax burdens relative to income. Despite some meaningful data limitations, we confirm the expectation that local government dependence on specific own-source and intergovernmental revenues vary dramatically by county and region. As designed, intergovernmental revenues play a more prominent role in providing revenue to counties and regions with less economic activity.

While not an appropriate measure of public revenue burden or effort, variation in own-source per capita public revenues aggregated at the county level reinforce the influence of local revenue decisions and economic base characteristics on revenues raised. Compared to other counties' revenues, a small number of counties raise substantially less local revenue per capita than their residents contribute to the state's primary tax sources. Continuing TABOR limits, rapid population growth, and the use of special districts appear to be likely contributing factors. Public revenues per capita correlate positively and statistically significantly with county median incomes across different sources and types of government, with the exception of county own-source revenues.

These analyses depend on data from before the COVID-19 pandemic and meaningful changes to Colorado's public revenues (taxes, fees, and TABOR refund mechanisms) have taken place since then with important distributional consequences. Some of the more prominent policy changes are documented along with high-level consideration of the distributional consequences. A more thorough examination of the net impact of recent policy changes on different segments of Colorado's population is warranted. Continued efforts at better understanding who pays Colorado's public revenues are required as Colorado voters continue to be called upon to consider piecemeal proposals to alter the income, property, and sales taxes and policymakers grapple with how to address an eroding sales tax base, rising property values, and existing TABOR refund mechanisms.



Appendix A: Colorado Regional District Map (Colorado Counties, Inc.)

Source: http://ccionline.org/about/regional-districts/

Appendix B: County-Level Per Capita Taxes and Fees and Relative Ranking by Source

	Income Tax Per Capita	Rank	State Sales Tax Per Capita	Rank	County Taxes & Fees Per Capita	Rank	City/Town Taxes & Fees Per Capita	Rank	School District Local Revenue Per Capita	Rank	Total State & Local Taxes and Fees Per Capita	Rank	Total Local Taxes and Fees Per Capita	Rank
Crowley \$	\$162.50	64	\$72.72	64	\$569.27	50	\$190.83	56	\$285.57	64	\$1,281	64	\$1,045.67	64
Conejos \$	\$274.09	61	\$138.95	59	\$457.56	57	\$203.66	55	\$441.74	63	\$1,516	63	\$1,102.97	63
Fremont \$	\$430.78	50	\$229.09	50	\$446.62	59	\$321.40	48	\$469.59	61	\$1,897	62	\$1,237.62	62
Saguache \$	\$384.03	57	\$125.59	61	\$532.36	54	\$181.45	57	\$735.34	51	\$1,959	61	\$1,449.14	59
Bent \$	\$212.71	63	\$80.95	63	\$825.64	37	\$264.82	53	\$601.38	54	\$1,986	60	\$1,691.85	53
Delta \$	\$462.49	47	\$246.88	47	\$451.95	58	\$371.64	44	\$531.38	57	\$2,064	59	\$1,354.98	61
Otero \$	\$384.39	56	\$236.78	49	\$355.41	62	\$564.73	30	\$523.29	58	\$2,065	58	\$1,443.43	60
Rio Grande \$	\$471.57	46	\$250.22	45	\$429.97	60	\$258.50	54	\$847.13	43	\$2,257	57	\$1,535.59	57
Montezuma \$	\$474.74	44	\$355.49	38	\$654.42	47	\$69.28	62	\$725.49	52	\$2,279	56	\$1,449.18	58
Prowers \$	\$406.24	55	\$320.92	42	\$589.06	49	\$651.15	22	\$451.40	62	\$2,419	55	\$1,691.61	54
Huerfano \$	\$345.80	59	\$204.52	53	\$857.29	36	\$344.65	46	\$764.62	45	\$2,517	54	\$1,966.56	45
Pueblo \$	\$546.15	39	\$368.55	37	\$545.04	52	\$572.85	27	\$493.92	59	\$2,527	53	\$1,611.81	56
Park \$	\$710.53	25	\$153.67	58	\$859.32	35	\$108.61	61	\$738.42	50	\$2,571	52	\$1,706.35	52
Costilla \$	\$261.03	62	\$114.39	62	\$895.42	32	\$132.13	60	\$1,238.53	22	\$2,641	51	\$2,266.09	41
Alamosa \$	\$449.80	48	\$452.86	25	\$680.17	45	\$502.75	36	\$557.63	56	\$2,643	50	\$1,740.55	51
Montrose \$	\$568.91	37	\$408.38	29	\$701.65	42	\$568.27	29	\$484.38	60	\$2,732	49	\$1,754.30	50
Las Animas \$	\$415.17	54	\$377.92	35	\$360.50	61	\$989.01	13	\$590.43	55	\$2,733	48	\$1,939.95	48
Logan \$	\$536.39	40	\$352.39	39	\$717.62	41	\$499.10	38	\$724.29	53	\$2,830	47	\$1,941.02	46
Custer \$	\$627.30	30	\$203.55	54	\$966.59	27	\$165.62	58	\$878.64	41	\$2,842	46	\$2,010.85	44
Elbert \$	\$891.26	18	\$183.73	56	\$901.48	31	\$140.07	59	\$743.25	49	\$2,860	45	\$1,784.81	49
Baca \$	\$326.17	60	\$206.65	52	\$904.72	29	\$310.08	49	\$1,113.10	31	\$2,861	44	\$2,327.91	40
El Paso \$	\$788.68	22	\$422.06	28	\$346.68	63	\$569.97	28	\$752.62	46	\$2,880	43	\$1,669.27	55
Teller \$	\$800.54	20	\$296.65	44	\$562.42	51	\$700.30	20	\$750.34	47	\$3,110	42	\$2,013.07	43
Mesa \$	\$712.01	24	\$483.51	23	\$499.72	56	\$650.39	23	\$790.02	44	\$3,136	41	\$1,940.13	47
Kit \$	\$442.26	49	\$334.57	41	\$1,022.55	26	\$420.03	41	\$946.70	39	\$3,166	40	\$2,389.28	35
Yuma \$	\$484.12	43	\$314.97	43	\$680.76	44	\$561.64	31	\$1,141.61	29	\$3,183	39	\$2,384.01	36
Phillips \$	\$619.60	31	\$224.40	51	\$903.38	30	\$442.23	40	\$1,089.60	33	\$3,279	38	\$2,435.21	33
Washington \$	\$428.36	51	\$129.34	60	\$1,243.40	19	\$298.53	52	\$1,307.00	17	\$3,407	37	\$2,848.93	28
Archuleta \$	\$600.14	33	\$465.37	24	\$1,162.80	23	\$502.49	37	\$748.15	48	\$3,479	36	\$2,413.45	34
Morgan \$	\$598.98	34	\$385.73	33	\$748.82	39	\$624.04	24	\$1,160.18	28	\$3,518	35	\$2,533.04	30
-	\$778.19	23	\$514.93	18	\$862.20	34	\$532.55	34	\$953.68	38	\$3,642	34	\$2,348.44	37
Kiowa \$	\$508.77	41	\$183.48	57	\$1,731.87	13	\$303.50	51	\$997.05	36	\$3,725	33	\$3,032.41	23
	\$698.25	26	\$541.08	12	\$507.02	55	\$890.79	17	\$1,097.86	32	\$3,735	32	\$2,495.68	31
	\$472.97	45	\$378.47	34	\$1,189.54	22	\$399.66	42	\$1,302.56	18	\$3,743	31	\$2,891.76	27
-	\$948.52	16	\$517.95	17	\$733.97	40	\$734.45	18	\$868.09	42	\$3,803	30	\$2,336.52	38
	\$578.27	36	\$240.48	48	\$1,551.92	15	\$305.97	50	\$1,131.09	30	\$3,808	29	\$2,988.98	24
	\$369.11	58	\$190.50	55	\$1,516.71	16	\$487.55	39	\$1,334.74	15	\$3,899	28	\$3,339.01	20
	\$1,184.06	11	\$520.26	16	\$330.86	64	\$939.49	14	\$1,057.94	34	\$4,033	27	\$2,328.28	39
-	\$1,427.55	7	\$445.00	26	\$542.79	53	\$708.25	19	\$922.00	40	\$4,046	26	\$2,173.04	42
	\$663.37	27	\$407.55	30	\$1,240.51	20	\$669.23	21	\$1,182.52	25	\$4,163	25	\$3,092.26	22
	\$1,053.14	12	\$499.25	20	\$641.77	48	\$1,060.88	12	\$956.90	37	\$4,212	24	\$2,659.55	29
	\$550.29	38	\$442.42	27	\$1,311.30	18	\$357.70	45	\$1,565.63	8	\$4,227	23	\$3,234.63	21

Weld	\$966.77	15	\$538.06	14	\$698.72	43	\$910.35	15	\$1,308.62	16	\$4,423	22	\$2,917.69	26
Lincoln	\$427.36	52	\$401.45	32	\$2,198.15	8	\$549.07	32	\$1,022.25	35	\$4,598	21	\$3,769.47	16
Garfield	\$1,049.91	13	\$616.83	10	\$876.30	33	\$895.00	16	\$1,162.79	26	\$4,601	20	\$2,934.09	25
Douglas	\$1,846.38	2	\$525.60	15	\$673.98	46	\$619.83	25	\$1,161.02	27	\$4,827	19	\$2,454.83	32
Ouray	\$942.83	17	\$402.97	31	\$1,091.23	24	\$1,342.06	11	\$1,289.65	19	\$5,069	18	\$3,722.94	18
Gunnison	\$804.32	19	\$552.94	11	\$1,036.15	25	\$1,416.26	10	\$1,342.99	14	\$5,153	17	\$3,795.40	15
Clear Creek	\$497.79	42	\$344.82	40	\$2,677.51	3	\$541.85	33	\$1,212.23	24	\$5,274	16	\$4,431.60	12
Rio Blanco	\$640.08	29	\$368.61	36	\$2,032.74	11	\$389.27	43	\$1,866.72	4	\$5,297	15	\$4,288.73	13
Broomfield	\$1,725.65	3	\$540.72	13	\$2,040.76	10	N/A	-	\$1,417.56	13	\$5,725	14	\$3,458.31	19
Boulder	\$1,611.88	4	\$484.54	22	\$807.17	38	\$1,446.52	9	\$1,496.38	10	\$5,846	13	\$3,750.06	17
Dolores	\$426.84	53	\$248.85	46	\$2,628.84	5	\$325.88	47	\$2,270.33	2	\$5,901	12	\$5,225.05	6
Hinsdale	\$651.22	28	\$491.46	21	\$2,662.86	4	\$618.54	26	\$1,646.75	6	\$6,071	11	\$4,928.15	8
Denver	\$1,325.40	9	\$697.19	9	\$2,606.99	6	N/A	-	\$1,475.10	12	\$6,105	10	\$4,082.09	14
Grand	\$978.03	14	\$712.70	8	\$1,652.64	14	\$1,507.10	8	\$1,285.11	20	\$6,136	9	\$4,444.85	10
Mineral	\$593.53	35	\$753.00	7	\$2,357.60	7	\$517.68	35	\$2,151.66	3	\$6,373	8	\$5,026.94	7
Gilpin	\$789.75	21	\$508.89	19	\$927.03	28	\$3,086.49	5	\$1,267.49	21	\$6,580	7	\$5,281.02	5
Routt	\$1,532.04	5	\$758.45	6	\$1,365.49	17	\$1,578.68	7	\$1,494.47	11	\$6,729	6	\$4,438.64	11
Eagle	\$1,310.56	10	\$910.01	5	\$1,192.27	21	\$1,872.31	6	\$1,811.27	5	\$7,096	5	\$4,875.85	9
San Juan	\$615.11	32	\$1,061.51	3	\$2,763.96	2	\$3,132.32	4	\$1,590.36	7	\$9,163	4	\$7,486.64	3
Summit	\$1,416.29	8	\$1,296.38	2	\$2,131.34	9	\$3,186.36	3	\$1,559.13	9	\$9,589	3	\$6,876.82	4
San Miguel	\$1,456.30	6	\$954.00	4	\$1,782.71	12	\$5,021.18	2	\$1,227.56	23	\$10,442	2	\$8,031.45	2
Pitkin	\$2,872.60	1	\$1,541.11	1	\$3,829.46	1	\$6,018.69	1	\$2,811.91	1	\$17,074	1	\$12,660.05	1

Note: Broomfield and Denver are consolidated city-county governments with revenues per capita reported as county rather than city revenues. Counties are ordered based on the last column's ranking (Total Local Taxes and Fees Per Capita).

Source: Author calculations based on county population (U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates), state individual income taxes (Colorado Department of Revenue, 2018 Individual Statistics of Income, Table 22. Income and Tax Data by County), state sales and use taxes (Office of Research and Analysis, Colorado Department of Revenue, State Sales Tax Return Data by County, January 2016 to Date, December 2022), county tax and fee revenues (Colorado Department of Local Affairs, The Dataset of Municipal General Government Financial Information, 2017), municipal tax and fee revenues (Colorado Department of Local Affairs, The Dataset of Municipal General Government Financial Information, 2017), and school district local revenues (Colorado Department of Education, Fiscal Year 2017-2018 District Revenues and Expenditures, Comparison of Revenues and Other Sources).