

Costs of Community Services – Idaho Counties Redux

A COMPARISON STUDY FOR BONNEVILLE, CANYON, CASSIA, AND KOOTENAI COUNTIES

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Introduction

Costs of Community Services (COCS) studies were developed by the American Farmland Trust in the 1980s. Their initial purpose was to devise a simple, yet informative, approach to help local governments as they plan for future community growth. More specifically, they are case studies that attempt to identify the sources of tax revenues, by land classification, and the associated expenditures for services, also allocated by land type, for a specific city, community, or even county. The main result of a COCS study is the estimation of a ratio that compares the cost of local government services required for a given land classification to the taxes collected. Although their use as a tool to evaluate the net benefits of various forms of development has been questioned, they remain a valuable tool for determining how the net tax contributions of different land uses vary, in terms of both tax revenues received and local government services provided.

The American Farmland Trust (AFT) has documented over 150 COCS studies performed across 26 states (2016). Of particular interest for this study are COCS studies performed on 4 Idaho counties in 1997: Bonneville, Canyon, Cassia, and Kootenai (Hartmans and Meyer, 1997). Consistent with other COCS studies, Hartmans and Meyer concluded that residential property in these counties received more in taxpayer funded services than it contributed in tax dollars while commercial and agricultural lands were net contributors.

While the results of the earlier study are important, they are also over 20 years old. Much has changed in terms of population, economic development, property tax exemptions, school funding formulas, etc. The purposes of this study are to revisit and update these COCS case studies, assess how the changing conditions may have resulted in different tax burdens, perform sensitivity analysis on important determining factors, and offer guidance on potential changes to property tax code.

Background

Numerous COCS studies have been performed over the past 3 ½ decades. They have become a basic, yet important, mechanism that planners use to assess development in urban areas. As a planning tool, they face a number of criticisms, and when used for this purpose, should be accompanied by additional fiscal impact studies and benefit-cost analysis. However, as an instrument to evaluate the burden of property taxes by land classification compared to the service provided to these same land-types, they can be insightful. That is, such studies, may offer guidance to policymakers as they consider tax changes and the implications of changes in demographics and urbanization.

The AFT developed, and initially promoted, the use of COCS studies as a mechanism to guide urban planning and development. Clearly, communities need to evaluate the impact of growth on local budgets. An accepted method to perform such analyses is fiscal impact studies, detailed and expensive analyses that project public costs and revenues from different land development patterns. They generally show that residential development is a net fiscal loss for communities and recommend commercial and industrial development as a strategy to balance local budgets. Although these extensive studies are valuable, the AFT was concerned that rural towns and counties that would benefit from fiscal impact analysis may not have the expertise or resources to conduct such a study. They also argued that, fiscal impact analyses rarely consider the contribution of working and other open lands, which are important to rural economies. COCS studies provided an alternative with a straightforward and inexpensive way to measure the contribution of agricultural lands to the local tax base.

Following the development of COCS studies in the 1980s, they have been applied in numerous communities and counties across the United States. The AFT alone documents over 150 case studies across 26 states (2016). In each case, the studies compare total tax revenues, specifically identifying the property taxes from each major land classification (ex. residential, commercial, agricultural), to tax expenditures for services, also noting for which land classification the services are provided. These data are analyzed and used to calculate revenue-to-expenditure ratios for each land classification.

These ratios can then be used to compare how tax contributions compare to the services received, by land type. A ratio greater than 1.0 means that for every dollar of revenue collected from a given land classification, more than one dollar is spent on services for that land type. Similarly, a ratio below 1.0 means the amount spent on services is less than the tax revenues received.

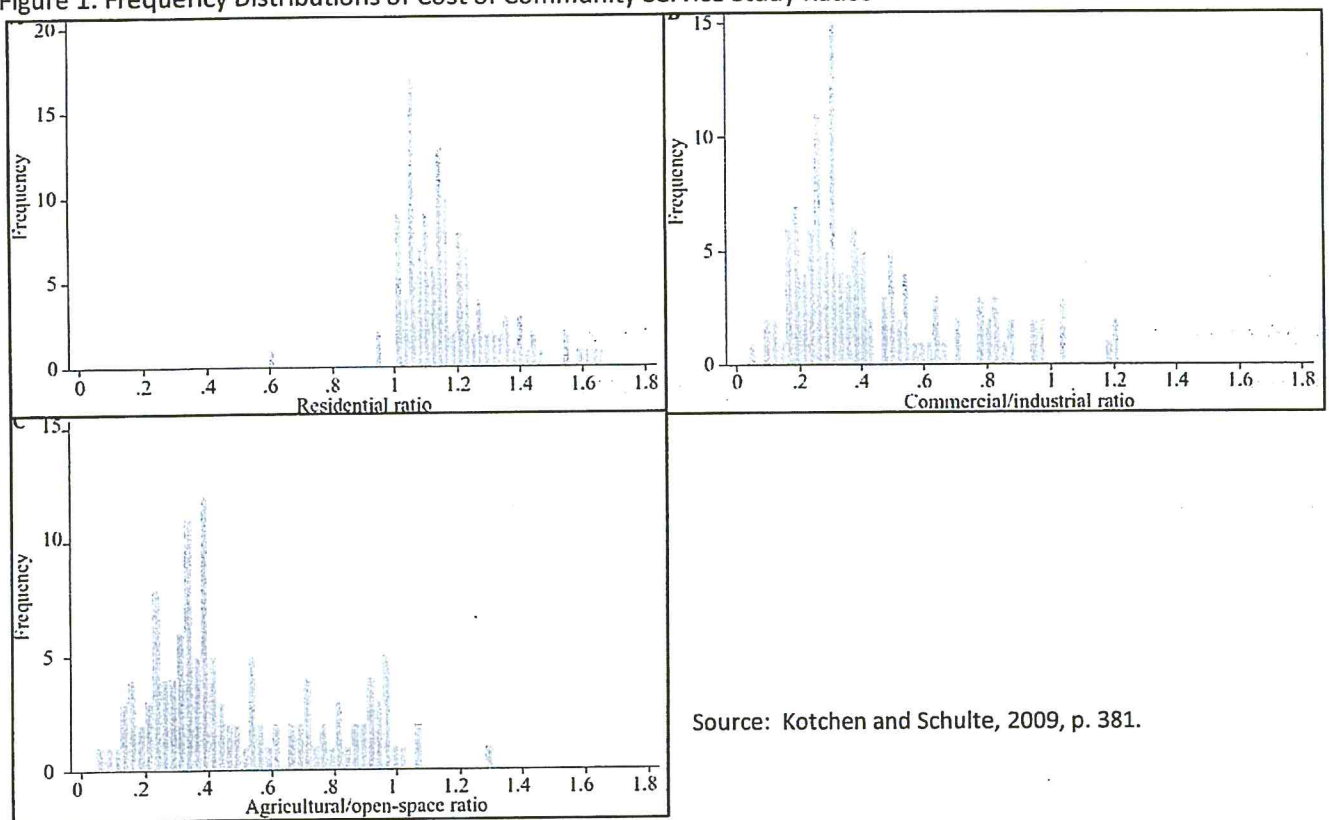
Consistently, these studies show that residential land uses receive more money in services than they generate in tax revenues while commercial, industrial, and agricultural lands generate more tax dollars than they receive in return through public services. For example, only one case study documented by AFT resulted in a ratio less than 1 for residential land.¹ For the remaining 150 studies, the ratio for residential land classification ranged from 1.02 to 2.27. The range for commercial and industrial properties was 0.04 to 1.02, with all but one below 1.0 and 85% below 0.50. And finally, 150 of 151

¹ In that case, the local government expenditures were less than tax receipts (i.e. a local government surplus). The ratio for residential properties was 0.94 and the next closest ratio was only 0.27. If the government had not been running a surplus, the ratio for residential property would certainly have exceeded 1 while the non-residential properties would have remained less than one.

studies estimated the ratio for agricultural land below 1.0, with a range 0.02 to 2.04 and 69% below 0.50.

In a separate meta-analysis of 125 COCS studies (that includes some of the studies identified by the AFT and a number of others), Kotchen and Schulte provide frequency distributions that demonstrate that, although there is substantial variation across the ratios within each land classification, nearly all residential ratios exceed one and the vast majority of commercial/industrial and agricultural/open-space ratios are less than one. These figures are reproduced below for reference.

Figure 1. Frequency Distributions of Cost of Community Service Study Ratios



Source: Kotchen and Schulte, 2009, p. 381.

Although the interpretation of these values is straightforward, their simplicity can be a disguise for their limitations. To be clear, the use of COCS studies for considering planning and urban development questions, can provide initial insights but should be part of a more comprehensive analysis because alone COCS studies face a number of shortcomings. The main criticisms are that they partition land uses into only three classes, potentially obscuring important variation within a given class, fail to account for market responses to land use decisions, do not conform to the parameters of benefit-cost analysis, do not adequately address the distinction between private and public goods in allocating costs, measure

demand for services rather than benefits, and they rely on average instead of marginal costs to allocate costs of additional service levels (Estell and Means, 2018; Kotchen and Schulte, 2009).

But to be fair, “Despite a popular misconception about their purpose, COCS studies do not provide a measure of the costs of development. Instead, they compare the outlay and influx of money to and from several general types of already-developed (or undeveloped) land. Other approaches must be used to estimate development costs, and they must consider the specific development itself” (Kelsey, 1998). Therefore, when used to compare the outlay and influx of money to and from several general types of land classifications, COCS are valuable tools. Similarly, such studies can demonstrate how different types of land use affect local revenue and spending. In this context, they are quite appropriate for the purpose of determining tax contributions versus the cost of services provided. They can also be used to guide policy decisions regarding revisions to property tax assessments and to determine the resulting tax burdens and benefits. From their meta-analysis, Kotchen and Schulte conclude that COCS studies provide robust results that are not sensitive to differences in methodological assumptions. They recommend COCS researchers make their assumptions transparent and where possible provide sensitivity analysis. This study is consistent with the above noted caveats and recommendations.

Hartmans and Meyer performed COCS analyses for four counties in Idaho: Bonneville, Canyon, Cassia, and Kootenai (1997; 2000). They noted that many areas in Idaho had experienced rapid population growth in the preceding years, noting Canyon and Kootenai counties as prime examples where population growth from 1990 to 1998 had been 33 percent and 44 percent respectively. Bonneville and Cassia counties, with proportionately more rural populations, had experienced 11 percent and 9 percent, respectively, over the same time frame. Their purpose was to use COCS studies to study the growth impacts on local governments. These impacts include the increases in the market value and changes in tax assessments of all property that tend to arise as residential growth spreads into rural areas. In addition, as residential development increases, the demand for government services in the form of education, public safety, public works, etc. grows. While market values tend to increase with growth, tax collections are determined independently and do not necessarily grow in a proportional fashion. Although little understood by the general public, the reality is the tax rate or levy is a residual calculation. Local governments determine their budgets and then the levy or rate is obtained by dividing the budget by the assessed property values. Whenever the budgets increase faster than assessed values, the rate or levy must increase. This is often the case with residential growth and its growing demands for services. There is no reason to expect that the growing tax collections across land

classifications will be proportional to the expenditures across those same land types. In fact, evidence from both COCS studies and fiscal impact analyses show that services for residential land typically cost more than what property taxes provide back in revenues. Over time, with increasing development, these disparities could increase, providing justification for rebalancing.

The 1997 Idaho results, provided in Table 1, were consistent with other studies performed across the United States. The residential land ratios all exceeded 1.0 and the values for commercial properties and agricultural land were all at or below 0.87 and 0.54, respectively. These results demonstrate that residential land use received more than a dollar's worth of services for each dollar collected, whereas non-residential land uses contributed more tax than the cost of services provided to them. In essence, a portion of the tax revenues from agricultural and commercial properties were used to subsidize services received by the residential land classification.

Table 1. Idaho Study Results (1997): County Revenue, Expenditures & Ratios

County	Residential	Commercial	Agricultural
Bonneville			
Revenues	\$160,558,438	\$42,481,270	\$10,119,895
Expenditures	\$170,506,196	\$35,559,873	\$2,333,310
Ratio	1.06	0.84	0.23
Canyon			
Revenues	\$125,432,284	\$29,900,325	\$4,441,011
Expenditures	\$135,560,122	\$23,495,041	\$2,385,465
Ratio	1.08	0.79	0.54
Cassia			
Revenues	\$30,919,822	\$5,772,259	\$8,655,825
Expenditures	\$36,790,374	\$5,043,734	\$3,513,027
Ratio	1.19	0.87	0.41
Kootenai			
Revenues	\$160,034,958	\$26,542,704	\$2,924,250
Expenditures	\$175,087,870	\$22,760,699	\$827,767
Ratio	1.09	0.86	0.28

Source: Leighton and Meyer, 2000.

The magnitude of the surplus revenues from agricultural property was larger in the more rural counties of Bonneville and Cassia, \$7.8 million and \$5.1 million (see Table 1). Nevertheless, the ratios do not support the conclusion that more urban counties result in lower agricultural land ratios. Given the different spending priorities and other uncontrolled factors across counties, a pattern in the ratios did not emerge. However, a comparison of the same county over time, as residential development grows,

may provide greater evidence to a correlation between development and the relative magnitude of the ratios, which is one of the objectives of this study.

Methods

The general methodological approach for conducting COCS studies is to first partition land uses into three classes: residential, commercial/industrial, and agricultural/open space. Expenditures and revenues from the municipal/city/county budget are then allocated to the three different land classifications. Although the specific methodology for fiscal allocations may differ among COCS studies, the key result is a ratio of expenditures over revenues for each of the three land classifications.

As part of the sensitivity analysis, two different definitions are used for the land classifications in this study. For the “Base Case,” the definitions of land classifications are determined according to the Idaho State Tax Commission guidelines. Specifically, residential property corresponds to all land and structures used for residential purposes located in a city, rural subdivision, or as part of a farm; this includes 4-plexes and smaller housing units. The commercial/industrial land exposure is defined as commercial business properties, apartment complexes larger than 4-plexes, public utilities, and farm buildings not associated with the place of residence.² And agricultural property consists only of that property used to produce crops and livestock.

Given that one of the purposes of this study is to compare the results to COCS research performed 22 years ago by Hartmans and Meyer, the specific methodology used in their analysis was also applied as closely as possible given our different data sources (and is called the “Comparison Case”). The Comparison Case calculated expenditure/revenue ratios with the farm buildings included in the agricultural exposure rather than commercial property.

In both the Base Case and the Comparison Case, the market or property assessment values were used to calculate the proportion of property tax revenue obtained from each land classification (note that the calculated values for each case differed due to the difference in land classification definitions explained above). When property taxes were identified as a source of revenue in the budgets, they were allocated to the three land use types according to these proportions. However, when a particular type of revenue was clearly obtained from a specific land exposure (i.e. revenues from building permits, business licenses, etc.), it was allocated accordingly. Expenditures were treated in a similar fashion. Where an

² The inclusion of farm buildings in the commercial land classification differs from the determination made by Hartmans and Meyer.

expenditure was clearly made for the benefit of a certain land classification (or its tenants), the expenditures were allocated in a straightforward manner to that classification. For example, some revenues and expenditures are directly attributable to households (primarily service/user fees and expenditures at cemeteries, libraries and schools). In these cases, the revenues and expenditures were allocated between the residential and commercial exposures proportionately, according the number of occupied units. Doing so correctly recognizes the apartment complexes located in the commercial land classification.³ Where uncertainty arose about a specific source of revenue or the primary beneficiary of expenditures, the revenues and expenditures were allocated according to the proportion of taxable value for each land use exposure. This proportion was used as a “fall-back” percentage in this study. The result of such a choice is that it will cause the expenditure/revenue ratios to “lean” toward unity when we lack information to make more specific allocations.

For intergovernmental transfers, or state apportionments in the case of school revenues, which often comprise a large component of county, city, and some independent taxing districts budgets, the two cases identified above apply different methods. In the Base Case, intergovernmental transfers were allocated based on the tax revenue proportions identified in the overall Idaho State budget. The specific calculations are explained in the Data section below. This approach is an attempt to recognize the relative importance of personal and business income taxes as the prevalent sources of revenue in the state funds. The Comparison Case, consistent with Hartmans and Meyer, allocated these transfers according to the fall-back proportions obtained from property assessments. Beyond state funds, the federal government provides Title I, School Lunch, and other funds directly to schools. For this analysis, these revenue sources and their corresponding expenditures were excluded (in both the Base and Comparison case).

Revenue and expenditure data were collected and allocated according to the methods identified above for the four counties in the study (Bonneville, Canyon, Cassia, and Kootenai), for each incorporated town within the counties, and for the independent taxing districts within each county, and then aggregated into a total for each county to obtain the “aggregated local government” revenue and expenditures.

Finally, the ratios of revenues to expenditures for each land classification across the study counties were calculated. The sensitivity of the results was assessed by comparing the results of the two cases.

³ The identification of apartment complexes, and thus this allocation to the commercial land classification, differs from the determination made by Hartmans and Meyer.

Data

Revenue and expenditure data for the fiscal year ending September 30, 2017, were obtained for Bonneville, Canyon, Cassia, and Kootenai counties, each incorporated town within the counties, and for school districts⁴ and other independent taxing districts within each county⁵ from the Audits Division of the Legislative Services Office (Idaho State LSO, 2019). The list of cities and independent tax districts are listed in Appendix A. The corresponding property assessment values used to calculate the proportion of property tax revenues obtained from each land classification were obtained from the Property Tax Division, Idaho State Tax Commission (2019a).

The assessed property values are after all 2017 exemptions are applied. Particularly important because of its cumulative magnitude, is the Idaho homeowner's exemption. Currently, it is equal to the lesser of 50% of the assessed value or \$100,000 for owner-occupied homes and manufactured homes that are primary dwellings (Idaho State Tax Commission, 2019b). The cap has varied over the years. For the period 1983-2005 (which corresponds to the Hartmans and Meyer COCS studies), the cap was set at \$50,000. Since then it has varied from a low of \$75,000 in 2006 to a high of \$104,471 in 2009. Following the Great Recession of 2008-09, the cap was reduced, only to return to its current level, beginning in 2017.

While other exemptions are applied for various reasons, the agricultural exemption (known as the speculative value exemption) also merits discussion in this context given its direct impact on property tax collections. The Idaho tax code implements a unique method of taxation for agricultural land. Rather than valuing agricultural land based upon its market value as farm land, Idaho values agricultural land at its development value, as if homes were being built upon it. The law then exempts the "speculative" portion of the development value down to its actual use value. This indirect methodology, although considered an exemption in the tax code, restores the taxable value of agricultural land to its actual use value.

The calculation of total county revenues, expenditures, and assessed property values is challenging because school districts and other independent tax districts often cross county boundaries. In these cases, the Idaho State Tax Commission provided the county-specific property assessment data for each

⁴ The fiscal year end for school districts was June 30, 2017.

⁵ Some of the independent districts receive all their revenue from charges for services and receive no intergovernmental transfers. Such were omitted since neither revenues nor expenditures were associated with tax dollars.

independent district so that only the assessment data that corresponded to the county of interest was included in calculating the proportion of property tax revenues obtained from each land classification. In terms of revenue and expenditure data for these boundary-crossing independent districts, these were apportioned to the county data at a rate equal to the ratio of property assessment values of the district within the county divided by the total revenues for the district. That is, if 10 percent of the assessed property values for an independent district were from property within the county, then 10 percent of the total district revenues and expenditures were attributed to the county. Figures 2-5 show the combined revenues and expenditures for each county in the study.

Figure 2. Bonneville County Aggregated Revenue and Expenditure Components

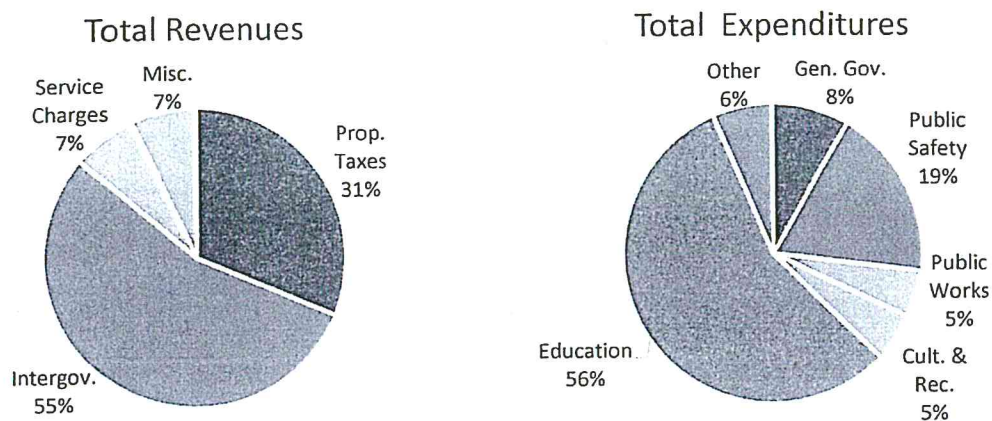


Figure 3. Canyon County Aggregated Revenue and Expenditure Components

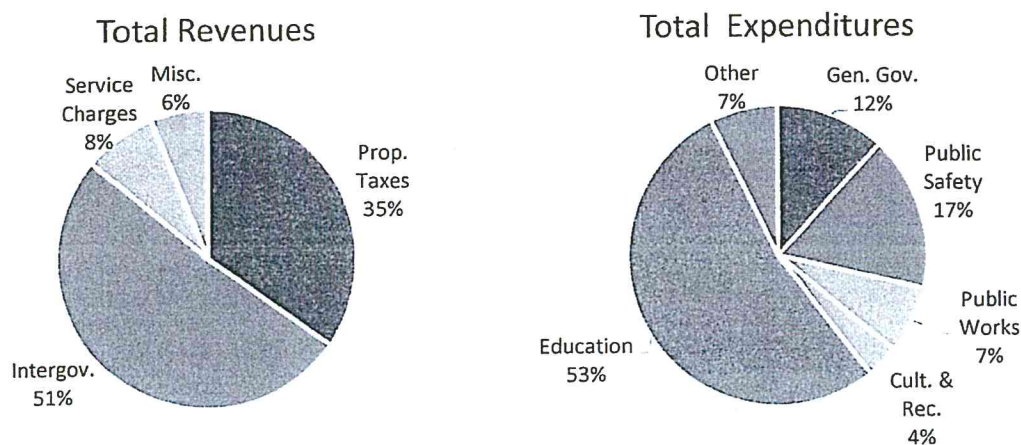


Figure 4. Cassia County Aggregated Revenue and Expenditure Components

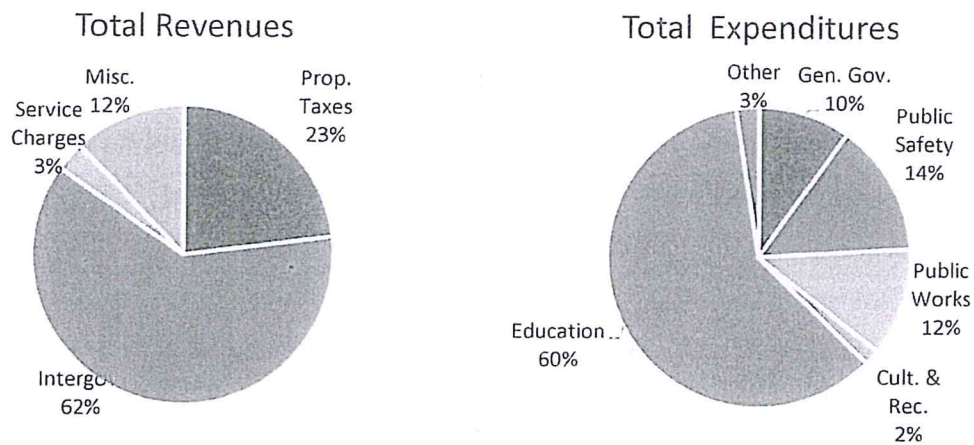
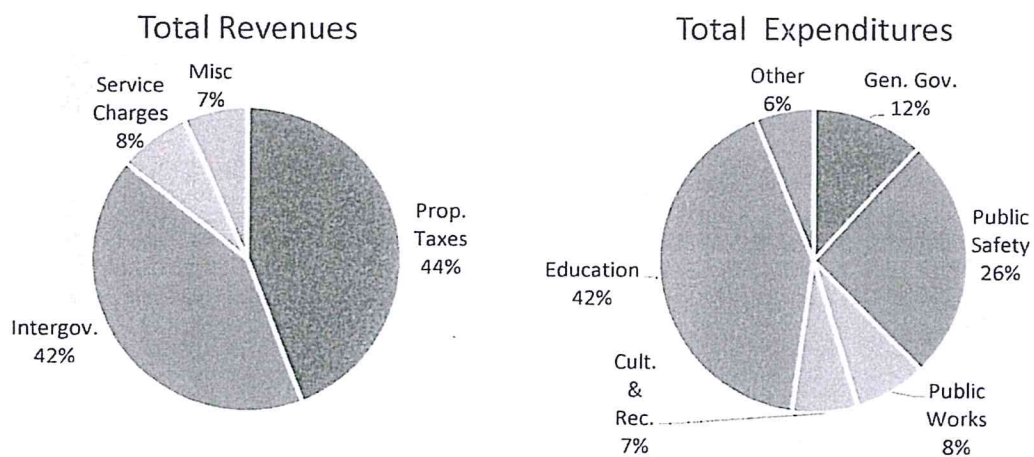


Figure 5. Kootenai County Aggregated Revenue and Expenditure Components



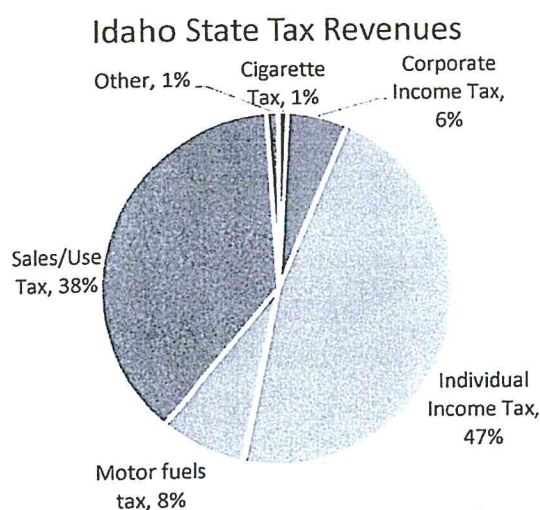
Aggregated local government revenues come from intergovernmental transfers, property taxes, service charges, licenses, fees, permits, and other miscellaneous sources. With the exception of Kootenai County, the largest component of tax revenues for the counties is intergovernmental transfers (from 42 to 62 percent) followed by property taxes (from 23 to 44 percent). The more rural counties, Cassia and to some degree Bonneville, receive a larger relative portion of revenues from intergovernmental transfers while the more urban counties, Canyon and Kootenai, receive a higher proportion of their revenues from property taxes.

County and other local government expenditures are directed toward education, general government services, public safety (i.e. police and fire protection), public works, culture and recreation (i.e. parks,

pools, libraries), health and welfare services, capital outlays, debt servicing, and other services. Without exception, the largest category of tax expenditures is education (ranging from 42 to 60 percent of local budgets). Public safety is the second largest category in all counties (between 14 and 26 percent).

Since intergovernmental transfers are such a large component of aggregated local government revenues, it is important to consider the sources of Idaho State tax revenues by category (see Figure 6). The largest component of state revenues is individual income tax (47 percent) followed by sales taxes (38 percent) and fuel taxes (8 percent).⁶ These taxes derive heavily from residents and commercial enterprises. As indicated in the methods section, one approach to allocate these funds to land classification is to simply use the property assessment fall-back proportions (as in the Comparison Case). Alternatively, these could be allocated, where possible, according to the overall state revenue sources, which were estimated to be approximately 85 percent residential, 14 percent commercial and less than 1 percent agricultural (for the Base Case).

Figure 6. Idaho State Tax Revenues by Source



Source: Idaho State Tax Commission, 2017.

Where revenues and expenditures are directly attributable to households, they were allocated between the residential and commercial exposures proportionately, according the number of occupied units as obtained from the US Census Bureau (2019). This data was specific to each county, city and independent tax district. The aggregated county proportions are provided in Table 2.

⁶ Agricultural production is exempted from paying sales/use taxes, and as a result, sales taxes are attributable primarily to households, and to a lesser degree, some commercial entities.

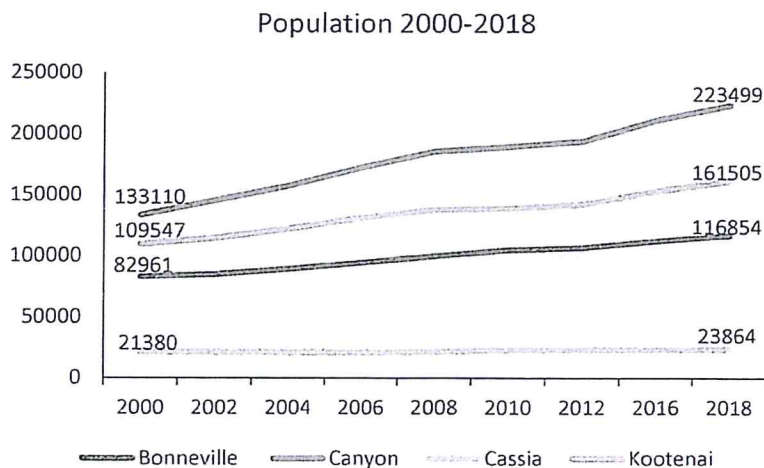
Table 2. Percent of Occupied Housing Units in Residential & Commercial Land Classifications

County	Residential	Commercial
Bonneville	92.18%	7.82%
Canyon	95.35%	4.65%
Cassia	95.45%	4.55%
Kootenai	91.17%	8.83%

Source: U.S. Census Bureau, 2013-2017.

Finally, since population growth can increase the taxable value of all property in a county and is a factor affecting the COCS expenditure/revenue ratios (Kotchen and Schulte), population data by county was obtained for the years 2000-2018. Leighton and Meyer noted the more urban counties of Canyon and Kootenai had experienced 33 percent and 44 percent population growth, respectively, in just under a decade leading up to their study, while the counties of Bonneville and Cassia had experienced only 11 percent and 9 percent, respectively. Since the time of their study, all these counties have continued to experience population growth (see Figure 7). Canyon and Kootenai counties continued to experience the fastest growth at 46 and 37 percent, respectively, since 2000. Bonneville County also saw substantial growth over that period, 31 percent. Cassia grew at a much slower rate, 11 percent.

Figure 7. County Populations, 2000-2018.



Source: U.S. Census Bureau, 2011 and 2019.

Results

The results for all four counties in this study (Bonneville, Canyon, Cassia, and Kootenai) are consistent with other studies across the nation, including the 1997 studies by Hartmans and Meyer. In the Base Case analysis, where agricultural buildings were included in the commercial land classification and intergovernmental transfers were attributed to land classifications according to overall state taxation proportions, all counties in the study exhibited residential ratios above 1.00 and all commercial land values were below 1.00. Three of the four agricultural ratios were also below 1.00 (see Table 3). That is, residential land received more in services than it paid in tax revenues, while commercial and, for the most part, agricultural land classifications received less in services than they paid in taxes.

More specifically, the results show that for every dollar received in revenue from residential property, between \$1.10 (Kootenai) and \$1.33 (Cassia) was received in services. Agricultural land is a net contributor to total county budgets as evidenced by the value of services received for every dollar in revenues, with the exception of Cassia County. These ranged between \$0.42 (Kootenai) and \$1.14 (Cassia). Commercial property received between \$0.60 (Canyon) and \$0.82 (Bonneville) for each dollar contributed in revenue.

Table 3. Total County Revenue, Expenditures & Ratios – Base Case

County	Residential	Commercial	Agricultural
Bonneville			
Revenues	\$218,573,186	\$73,961,337	\$1,317,860
Expenditures	\$259,338,937	\$60,517,842	\$642,880
Ratio	1.19	0.82	0.49
1997 ratio	1.06	0.84	0.23
Canyon			
Revenues	\$367,869,039	\$117,935,668	\$6,045,955
Expenditures	\$441,787,749	\$71,237,612	\$3,914,611
Ratio	1.20	0.60	0.65
1997 ratio	1.08	0.79	0.54
Cassia			
Revenues	\$51,060,421	\$18,655,112	\$2,969,293
Expenditures	\$67,722,250	\$13,628,900	\$3,386,795
Ratio	1.33	0.73	1.14
1997 ratio	1.19	0.87	0.41
Kootenai			
Revenues	\$302,446,554	\$77,663,911	\$1,096,006
Expenditures	\$331,379,676	\$49,324,146	\$463,206
Ratio	1.10	0.64	0.42
1997 ratio	1.09	0.86	0.28

In the Comparison Case, where the methods most closely align with those of Hartmans and Meyer, the residential ratios are even larger (see Table 4). For every dollar received in revenue from residential property, between \$1.16 (Kootenai) and \$2.24 (Cassia) was received in services. For agricultural land the values ranged between \$0.27 (Bonneville) and \$0.41 (Cassia). Commercial property received between \$0.40 (Cassia) and \$0.53 (Kootenai) for each dollar contributed in revenue.

Compared to the 1997 study, all residential ratios have increased, all commercial ratios have decreased, and the agricultural ratios have experienced mixed impacts. That is, the disparity of the tax burden by land type has increased over the years from 1997 to 2017. Factors that have contributed to this growing disparity include increases in school budgets, changes to the school funding formula and to the homeowners' exemption, and growing demand for residential services that accompany the population growth experienced by the counties.

Table 4. Total County Revenue, Expenditures & Ratios – Comparison Case

County	Residential	Commercial	Agricultural
Bonneville			
Revenues	\$173,895,459	\$115,235,175	\$4,843,604
Expenditures	\$259,338,937	\$59,829,996	\$1,330,725
Ratio	1.49	0.52	0.27
1997 ratio	1.06	0.84	0.23
Canyon			
Revenues	\$316,115,670	\$158,214,025	\$17,722,575
Expenditures	\$441,787,749	\$70,077,384	\$5,074,840
Ratio	1.40	0.44	0.29
1997 ratio	1.08	0.79	0.54
Cassia			
Revenues	\$30,285,560	\$28,775,188	\$13,659,056
Expenditures	\$67,722,250	\$11,388,029	\$5,627,666
Ratio	2.24	0.40	0.41
1997 ratio	1.19	0.87	0.41
Kootenai			
Revenues	\$285,896,401	\$92,424,199	\$2,125,793
Expenditures	\$331,397,909	\$48,944,962	\$824,157
Ratio	1.16	0.53	0.39
1997 ratio	1.09	0.86	0.28

One important factor potentially driving these changes is school funding. In this regard, much has changed, more than can presented here. But in short, state transfers to education, on a student basis,

remained fairly stable from 1997 to 2000, increased gradually through 2009, but then declined significantly following the Great Recession, bottoming in 2015. These funds have increased over the past 4 years, and although they have yet to return to the 2008-2010 per student levels in real terms, they are higher than in 1997 (Idaho State Dept. of Education, 2019). Despite this increase, school budgets have grown at higher rates, requiring additional funding from other sources.

While state transfers were variable over the 20-year period from 1997, funding from regular property taxes initially experienced reductions, largely due to pressures to reduce property taxes beginning in 2006. Prior to that point, revenues from property assessments remained steady. Post 2006, these revenues dropped for two reasons: 1. In 2006, the State of Idaho changed the school funding formula, swapping an increase in sales tax for a roughly equivalent reduction in property taxes, and 2. There was pressure to reduce budgets as economic conditions and land values deteriorated following the Great Recession, until about 2011 when they began to improve again. With the lack of stability in state funding accompanied by a decline in regular property taxes, school districts increased their use of supplemental override levies on property. Large increases began in 2007 (just after the school funding formula change) and reached their highest level in real terms in 2017 (Idaho Center for Fiscal Policy, 2018; Idaho State Department of Education, 2018).

The changes to the maximum homeowner's exemption have also resulted in shifts of the tax burden. The increase from \$50,000 to \$100,000 has reduced the burden on residential properties at the expense of commercial and agricultural land classifications.

Another contributing factor over this time frame has been population growth, which also can cause increases in residential and other property values. Because of the Great Recession, the impact of population growth on property values is masked until about 2011, 4 years after supplemental override levies initially increased. As Idaho emerged from the Great Recession and as population growth increased the demand for residential properties, land values throughout the counties in this study began to increase at varying degrees (refer again to Figure 7).

The degree to which the expenditures, revenues, and the associated ratios have changed over 20 years is closely related to these factors. Yet each county has been uniquely impacted by these factors and merits individual discussion.

Bonneville County has experienced a 31 percent increase in population over the 22-year period since 1997. School expenditures have increased from 32 percent of aggregated county budgets to now 56

percent. The second largest expenditure category in 2017 was public safety (increasing from 12 to 19 percent of the aggregated budget) in which expenditures are distributed across the land classifications according the property values, resulting in increased ratios for agricultural and commercial properties. The increased funding for local budgets came from both property taxes (increasing from 21 to 31 percent of revenues) and intergovernmental transfers (increasing from 44 to 55 percent). Both revenue sources experienced similar percentage increases. The Base Case (Table 3) applies overall state funding proportions by source to estimate the property classification from which the government transfers originated whereas the Comparison Case scenario (Table 4) places more weight on the importance of property tax collections by land type as an estimate for the origin of intergovernmental transfers (see Methods sections). Given both property taxes and intergovernmental transfers have increased in roughly equal percentage amounts, it is hard to argue which case might better represent the evolution of this county. The safest in this case would be to simply state that the county falls somewhere in the respective ranges: residential properties received between \$1.19 and \$1.49, commercial property received between \$0.52 and \$0.82, and agricultural properties received between \$0.27 and \$0.49. Compared to 1997, both scenarios show substantial increases for residential property, small to moderate decreases for commercial properties, and modest to moderate increases for agricultural land.

Of the four counties in this study, Canyon County has experienced the largest increase in population, 46 percent, over the 22-year period since 1997. School expenditures have increased from 48 percent of aggregated local budgets to now 53 percent. The second largest expenditure category in 2017 was public safety (increasing from 11 to 17 percent of the budget). The increased funding in the aggregated local budget over this period came from property taxes (increasing from 28 to 35 percent of revenues), and to a lesser degree, intergovernmental transfers (increasing from 49 to 51 percent). Clearly these percentage increases are smaller than those experienced by Bonneville County. This is likely because, Canyon County is more urban and experienced larger population growth earlier, as noted in the 1997 study. Still, based on these values, the larger proportionate increase came from property taxes. The Comparison Case scenario (Table 4) places more weight on the importance of property taxes as representing the source of local income and beneficiary of benefits for intergovernmental transfers and might better fit the evolution of this county given the shift toward property taxes as a funding source. If that assumption is correct, we could argue that residential properties received between \$1.20 and \$1.40, but closer to the \$1.40 in services per dollar contributed. Commercial received between \$0.44 and \$0.60, but likely closer to \$0.44. And agricultural properties received between \$0.29 and \$0.65,

likely closer to \$0.29. Compared to 1997, the Comparison Case shows a substantial increase for residential land and a decrease for commercial and agricultural land.

Cassia County is the most rural and agriculturally-based county in the study. It has also experienced the smallest increase in population, 11 percent over the 22-year period since 1997. School expenditures have increased from 40 percent of aggregated local budgets to now 60 percent, the largest increase in budget percentage experienced by the 4 counties. The second largest expenditure category in 2017 was public safety (increasing only marginally from 12 to 14 percent of the budget). This increase is small compared to other counties. For this county, the increased funding came primarily from intergovernmental transfers (increasing from 41 to 62 percent of local revenue). Property taxes contributed 23 percent of revenues both in the 1997 study and in this study (using 2017 budgets). The rural nature, along with low population growth, have likely contributed to lower growth in property values and thus lower property tax revenue growth. These factors suggest the Base Case scenario (Table 3), which applies state funding proportions to government transfers, might better represent the evolving nature of aggregate local government income for this county because of its shift toward intergovernmental transfers as the primary funding source. If that assumption is correct, we could argue that residential properties received between \$1.33 and \$2.24, but closer to the \$1.33 in services per dollar contributed. Commercial properties received between \$0.40 and \$0.73, but likely closer to \$0.73. And agricultural properties received between \$0.41 and \$1.14, likely closer to \$1.14. Compared to 1997, this marks an increase for residential property, a decrease for commercial property, and an increase for agricultural land. Alternatively, if the Comparison Case is more appropriate, then the residential ratio (2.24) increased purely at the expense of commercial properties (0.44), and the agricultural ratio remained unchanged (0.41) relative to 1997 results.

Kootenai County, like Canyon County, is considered more urban, but it is also unique in the limited scope of agricultural activity. Also, like Canyon County, it has experienced large increases in population, 37 percent, over the 22-year period since 1997. It also has experienced large population growth for some time, as mentioned in the 1997 study. Unlike all other counties in the study, school expenditures, as a proportion of aggregated local budgets have increased only slightly, from 41 to 42 percent. On the other hand, public safety now represents 26 percent of the budget, as compared to only 10 percent 22 years earlier. Although educational spending as a proportion has gone up very little, overall spending in the county has increased; the increased funding came more proportionately from property taxes (increasing from 32 to 44 percent of revenues). Intergovernmental transfers only increased from 40 to

42 percent of local budgets. Kootenai County, in some ways, the mirror image of Cassia County in regards to the proportion of educational spending and the predominant source of increased funding. Given that the larger proportionate increase in revenue came from property taxes, school expenditures comprise only a slightly larger increase in proportion of spending, and public safety saw the largest proportionate increase in spending, the Comparison Case may better represent the evolving nature of Kootenai County. As with the above counties, if we accept this assumption, the result is that residential properties received between \$1.10 and \$1.16 per dollar contributed, likely closer to \$1.16. Commercial property received between \$0.53 and \$0.64, likely closer to \$0.53. And agricultural properties received between \$0.39 and \$0.42, likely closer to \$0.39. Compared to 1997, this marks a small increase for residential property and a decrease for commercial land classifications. The increased ratio for agriculture, compared to the 1997 study, suggests the ratio of expenditures-to-revenue increased.

These specific results are insightful and could be used to guide policy decisions. Policymakers can have confidence in the results for all four counties in this study (Bonneville, Canyon, Cassia, and Kootenai) as they are consistent with other studies across the nation, including the 1997 studies by Hartmans and Meyer. Both the Base Case and the Comparison Case analyses found all counties in the study exhibited residential ratios above 1.00, all commercial ratios below 1.00, and all but one agricultural ratio below 1.00. As a result, residential land received more in services than it paid in revenues, while all commercial and most agricultural land classifications received less in services than they paid. That being said, the greater importance of the analysis is found in the details, summarized in the conclusion.

Conclusion

Costs of Community Services (COCS) studies were performed on four Idaho counties: Bonneville, Canyon, Cassia, and Kootenai. These counties were selected in order to compare the results with those from a 1997 study by Hartmans and Meyer. Specifically, the purposes of this study were to revisit and update these COCS case studies, to assess how the changing conditions (population, economic development, property tax exemptions, school funding formula etc.) have resulted in different tax burdens, perform sensitivity analysis on important determining factors, and offer guidance on potential changes to property tax code.

Consistent with the 1997 study, all counties exhibited residential ratios above 1.00 and commercial ratios below 1.00. Seven of the eight estimates for agricultural land ratios were also below 1.00. For every dollar received in revenue from residential property, between \$1.10 and \$2.24 was received in services. For agricultural land the range was between \$0.27 and \$1.14. Commercial property received

between \$0.40 and \$0.82 for each tax dollar contributed. Compared to the earlier study, all residential ratios have increased, all commercial ratios have decreased, and the agricultural ratios have experienced mixed impacts. The result is that the disparity of the tax burden by land type has increased over the years from 1997 to 2017.

More specific results provide evidence of evolving patterns in tax burdens and the recipients of services. First, where school expenditures increased as a proportion of local budgets compared to the 1997 study (which is true for all counties), residential ratios increased. Kootenai County, which experienced only a small increase in school budget, as a proportion of the total county budget, saw the smallest increase in the residential ratio as compared to 1997. Second, where funding sources over the period shifted toward property taxes as a way to compensate for increases in education and other expenditures (i.e. Canyon County), residential ratios increased while commercial and agricultural ratios decreased (using the Comparison Case).⁷ Third, where both intergovernmental and property tax collections increased at roughly similar rates, commercial and agricultural ratios changed little (i.e. Bonneville County). Fourth, when funding sources shifted toward intergovernmental transfers (i.e. Cassia and Kootenai counties), agricultural ratios either increased or remained stable.

Observations about the impacts of population growth on the ratios were mixed. In all cases, increases in population were correlated with decreases in commercial ratios. And in general, population growth coincided with increased residential ratios. This is consistent with the view that increased services are required for the residential growth that accompanies a growing population. However, the actual impact by county depended on the predominant source of the revenues. If population growth resulted in increased budgets and thus property tax collections, then residential ratios increased, and commercial and agricultural ratios decreased. The impact on the commercial and agricultural ratios is likely due to increasing tax burdens from growing local budgets (to accommodate the growing demand for residential services) while receiving little increase in services.

One other factor is important to note. While the residential property exemption varied over the 20-year period following 1997, by the 2017 fiscal year used in this study, it was at 50 percent of the value of the property to a maximum of \$100,000, up from a cap of \$50,000 in 1997. Regardless of the justification for increasing the maximum value of the exemption, it clearly shifts budget revenues away from

⁷ Kootenai County also saw a proportionate shift toward property taxes as a local funding source, but because educational expenditures did not increase much as a proportion of total expenditures, and likely because of the small contribution of agricultural property to the tax base, the agricultural ratio increased.

residential properties toward commercial and agricultural land classifications. This change arguably contributed, at least to some degree, in the increases observed in the residential ratio and the decreases in the commercial ratio for all counties in the study. Although, the impacts on the agricultural ratio were mixed, other concomitant factors might explain those results. Three of the four counties experienced large increases in the residential ratio, compared to 1997. Kootenai, the only county to experience a small increase in the residential ratio, was also the only county for which education represented less than 50 percent of expenditures, with the proportion of the budget only increasing from 41 to 42 percent. Despite this fact, it still experienced a small increase the residential ratio and a decrease in the commercial ratio. Perhaps this result provides the strongest evidence for the impact of the residential property tax exemption because even though education did *not* represent a growing proportion of expenditures, the residential ratio still increased. In Cassia County, the only county to shift to a heavier reliance on intergovernmental transfers, the residential ratio increased as well. This outcome occurred, in spite of the fact that the increased intergovernmental transfers should have reduced the residential ratio. These results provide some evidence of a shifting tax burden resulting from changes in the residential property tax exemption.

Although the specifics of the four counties differ, all four have experienced increases in the residential ratios and decreases in the commercial ratios from 1997 to 2017. The agricultural ratios have experienced mixed impacts. The over-riding result is that the disparity of the tax burden by land type has increased over the past two decades.

Clearly, population growth and decisions related to the school funding formula, property tax exemptions, and the magnitude of intergovernmental transfers have a direct impact on aggregated local revenues and expenditures and the degree to which the burden and benefits are shared among the land classifications and the associated taxpayers. As Idaho continues to experience population and economic growth, policymakers should consider how this growth affects both tax revenues and expenditures at the local or county level.

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Appendix A: Cities, School Districts, and other Independent Tax Districts in each County

Bonneville County

Cities: Ammon, Idaho Falls, Iona, Irwin, Ririe,¹ Swan Valley, Ucon,

School Districts: Bonneville Joint, Idaho Falls, Ririe Joint, Shelley Joint, Soda Springs Joint, and Swan Valley

Other Districts: Ammon Cemetery, Central Cemetery, Freedom Cemetery, Iona Cemetery, Lincoln Cemetery, Milo Cemetery, New Sweden Cemetery, Shelton Cemetery, Swan Valley Cemetery, Taylor Cemetery, Ucon Cemetery, Woodville Cemetery, Bonneville Co Fire, Bonneville-Alpine Fire, Central Fire, Greater Swan Valley Fire, Bonneville Co. Library, Bonneville Co. Ambulance, Food Control #1, Jefferson Mosquito Abatement, Iona-Bonneville Sewer, and Taylor Mtn. Water & Sewer

Canyon County

Cities: Caldwell, Greenleaf, Melba, Middleton, Nampa, Notus, Parma, Star, and Wilder

School Districts: Caldwell, Homedale Joint, Kuna, Marsing, Melba Joint, Meridian Joint, Middleton, Nampa, Notus, Parma, Valliview, and Wilder #133

Other Districts: Fairview Cemetery, Greenleaf Cemetery, Kuna Cemetery, Lower Boise Cemetery, Melba Cemetery, Middleton Cemetery, Parma Cemetery, Pleasant Ridge Cemetery, Roswell Cemetery, Wilder Cemetery, Caldwell Fire, Homedale Fire, Kuna Fire, Marsing Fire, Melba Fire, Middleton Fire, Nampa Fire, Parma Fire, Star Fire, Upper Deer Flat Fire, Wilder Fire, Kuna Library, Lizard Butte Library, Wilder Library, Boise River Flood Control #10, Flood Control #11, Canyon Hwy #4, Golden Gate Hwy #3, Nampa Hwy #1, Notus-Parma Hwy #2, Canyon Co. Ambulance, Canyon Co. Mosquito Abatement, Pest Control, Melba Gopher, Greater Middleton Recreation, Ten Davis Recreation, College of Western Idaho, and Star Sewer and Water

Cassia County

Cities: Albion, Burley, Declo, Malta, Oakley

School Districts: American Falls, Cassia Joint, Minidoka Joint, Murtaugh

Other Districts: Albion Cemetery, Delco Cemetery, Oakley Valley Cemetery, Pella Cemetery, Sublett Cemetery, Valley View Cemetery, View Cemetery, Albion Fire, Minidoka Fire, North Cassia Fire, Oakley Fire, Raft River Fire, Rock Creek Fire, Oakley Free Library, Raft River Flood #15, Goose Creek Flood #16, Albion Hwy, Burley Hwy, Elba-Almo (County) Road & Bridge, Murtaugh Hwy, Oakley Hwy, Raft River Hwy, Almo Recreation, Oakley Recreation, and Oregon Trail Recreation

Kootenai County

Cities: Athol, Coeur d'Alene, Dalton Gardens, Fernan Lake, Harrison, Hauser, Hayden, Hayden Lake, Huetter, Post Falls, Rathdrum, Spirit Lake, State Line, Worley

School Districts: Coeur d'Alene, Kellogg Joint, Kootenai Jt., Lakeland Jt., Post Falls, Plummer-Worley Jt.

Other Districts: Eastside Fire, Hauser Lake Fire, Kootenai Fire, Mica-Kidd Island Fire, Northern Lakes Fire, Shoshone Fire, Spirit Lake Fire, St. Maries Fire, Timberlake Fire, Worley Fire, Community Library (Kootenai), Flood Control #17, Eastside Hwy, Post Falls Hwy, Lakes Hwy, Worley Hwy, Kootenai Co. EMS, Kootenai Water #1, Carlin Bay Sewer, Cleland Sewer, Hayden Sewer, Kidd Island Sewer, Kingston Cataldo Sewer, North Rockford Bay Sewer, Cataldo Water

¹ Only a small portion of the City of Ririe lies in Bonneville County.