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Memorandum

January 31, 2020

TO: Interested Persons

FROM: Larson Silbaugh, Principal Economist, (303) 866-4720

SUBJECT: Property Taxes on Oil and Natural Gas Property

Summary

This memo uses a unique dataset to estimate property taxes levied on the production of oil and gas to answer the following questions:

- How do mills on oil and gas production vary across the state;
- What types of local governments receive property tax revenue from oil and gas production; and
- How have the level of mills on oil and gas production changed over time?

Contents

Based on individual property tax records, an estimated $442.1 million in property taxes were levied on oil and gas production in 2018. Production in Weld County has higher mills than other oil and natural gas producing counties and generated most of this property tax revenue. In 2018, the average statewide effective mill levy on oil and gas production totaled 62.73 mills.

Compared with 2008, the average effective mill on oil and gas production has increased as production is increasingly concentrated in Weld County where individual taxing districts have raised mills. Assessed value from oil and gas production increased from $6.2 billion in 2008 to $7.0 billion in 2018, while property taxes from oil and gas production increased from $253.6 million in 2008 to $442.1 million in 2018. In 2008, the average effective mill levy on oil and gas production totaled 40.96 mills.

The effective property tax rates contribute to changes in the severance taxes paid to the state by oil and gas producers over time and the amount generated based on where the production occurs. Property taxes levied by local governments on oil and gas production can be used to offset state severance taxes via the ad valorem credit. In 2018, oil and gas production in Weld County generated a 28.3 percent larger ad valorem credit than oil and gas production in Garfield County. The ad

valorem credit offset 53.2 percent more severance tax revenue for each dollar of production in 2018 than in 2008 because of higher effective mills on the value of oil and natural gas production.

Property Taxes on Oil and Gas Property

Property tax calculation. In Colorado, property taxes are levied on the production of oil and gas and the property used in that production. Property taxes are based on the value the property, the assessment rate, and local mills levied on the property as shown in Figure 1.

Figure 1
Calculating Colorado Property Taxes

Property Tax Owed = Actual Value × Assessment Rate × Mills ÷ 1,000

For oil and natural gas property, the property value is equal to the value of oil and gas production in the prior year and any equipment used in that production. For classification purposes, the oil and gas production is classified as real property, and the equipment is classified as personal property. Oil and natural gas production is assessed at 87.5 percent of its value,[1] while personal property is assessed at the nonresidential assessment rate of 29.0 percent.[2] Oil and gas property made up about 7.4 percent of the total statewide property tax base in 2018, and most of that, 78.2 percent, is the value from oil and gas production.[3]

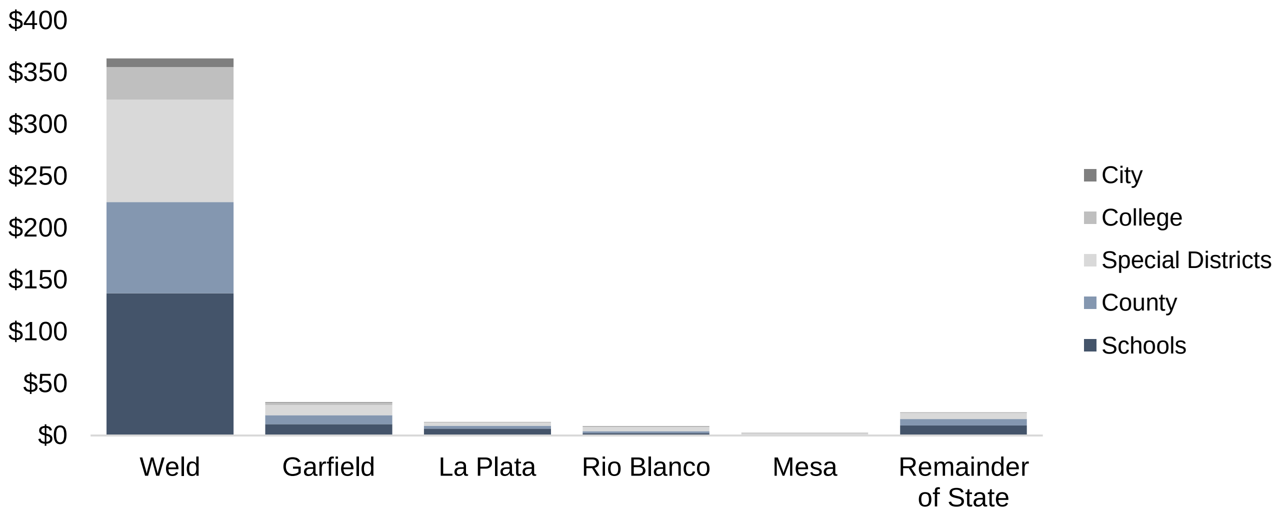
Ad valorem credit. While property taxes are local taxes, they interact with the state severance tax. Colorado oil and gas producers are allowed a tax credit equal to 87.5 percent of the property taxes paid on the prior year's oil or natural gas production as an offset to their current year's severance tax liability.[4] The credit is only allowed for property taxes paid on the value of oil and natural gas produced and is not allowed for property taxes levied against personal property, like flow lines and pump jacks. This property tax credit is often referred to as the "ad valorem credit," and is available on all oil and gas wells that are not classified as stripper wells. Stripper wells are wells with low production volumes and are exempt from severance taxes.

The remainder of this memo refers specifically to property taxes on oil and gas production that generates the ad valorem credit.

Property taxes paid. An estimated $442.1 million in property taxes were collected from oil and gas production in 2018. Weld County is the epicenter of the Colorado oil and gas industry, accounting for 82.3 percent of property taxes paid on the production of oil and natural gas. Figure 2 shows the property taxes collected in the five counties with the highest oil and gas assessed values and the remainder of the state.

[1]Section 39-7-102 (1), C.R.S.
[2]Section 39-1-104 (1), C.R.S.
[3]More information on statewide assessed values can be found here: https://www.colorado.gov/pacific/dola/annual-reports
[4]Section 39-29-105, (2)(a), C.R.S.

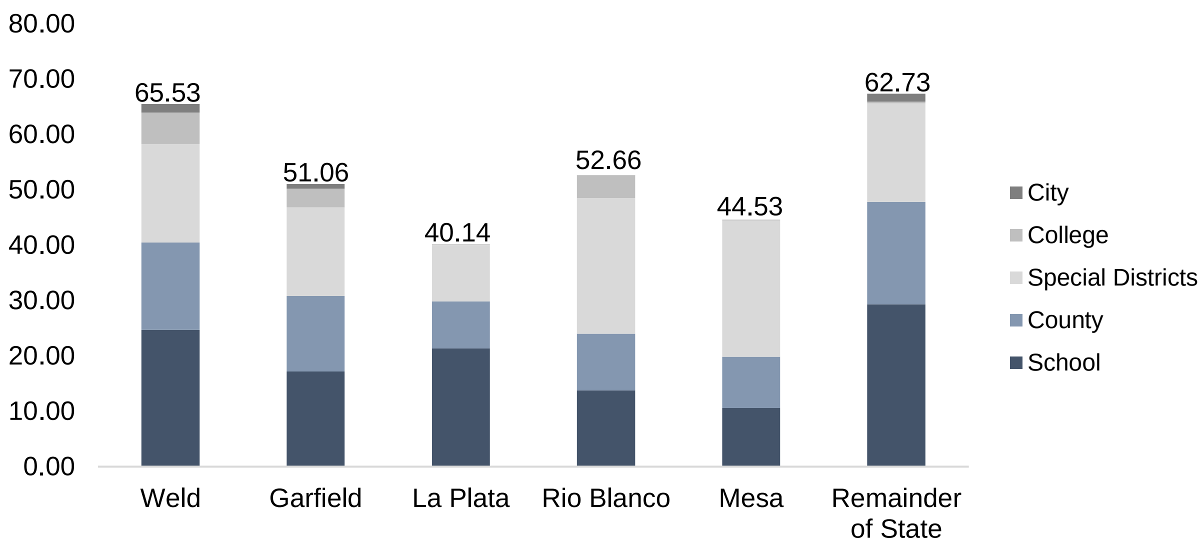
Figure 2
Estimated Property Taxes on Oil and Gas Production, 2018 Tax Year
Dollars in millions



Source: Colorado Legislative Council Staff calculations using data compiled by Wildrose Appraisal, Incorporated.

Mills. Using the assessed value for each county and the property taxes paid, the average mill was calculated for each county by type of taxing entity. Figure 3 compares the mills by county.

Figure 3
Estimated Average Mill on Oil and Gas Production by County, 2018 Tax Year



Source: Colorado Legislative Council Staff calculations using data compiled by Wildrose Appraisal, Incorporated.

On average, there are 65.53 mills levied on oil and gas property in Weld County, higher than the other counties with significant oil and gas production. Mills in Weld County are higher because of higher county mills, school mills, and special district mills. The school mills include both program mills and mill levy overrides.

Local governments in Weld County levy more mills than Garfield County, the second largest source of oil and natural gas production in Colorado. Using the mills of 65.53 and 51.06, respectively, local property taxes are 28.3 percent higher on oil and gas produced in Weld County than in Garfield County. The higher mill levy increases the value of the ad valorem credit claimed against severance taxes by a proportional amount.

Across the state, city or municipal mills are low in general for oil and gas property because drilling activity occurs in unincorporated areas of the county. Table 2 provides more detail than Figure 3 and reports the estimated mills by county by type of taxing entity.

Special districts. About 27.9 percent of property tax revenue from oil and gas property is collected by special districts. Fire protection districts receive the largest share of special district revenue, followed by metropolitan districts. Table 1 shows the estimated special district property taxes paid on oil and gas production.

Table 1
Estimated Property Taxes from Oil and Natural Gas Production by Type of Special District, 2018 Tax Year

Special District Type	Property Taxes
Fire	$45,823,691
Metro District	$25,074,903
Library	$19,714,829
Conservation	$10,503,789
Health	$9,997,196
Other	$6,751,205
Recreation	$5,504,024
Total	**$123,369,637**

Source: Colorado Legislative Council Staff calculations using data compiled by Wildrose Appraisal, Incorporated.

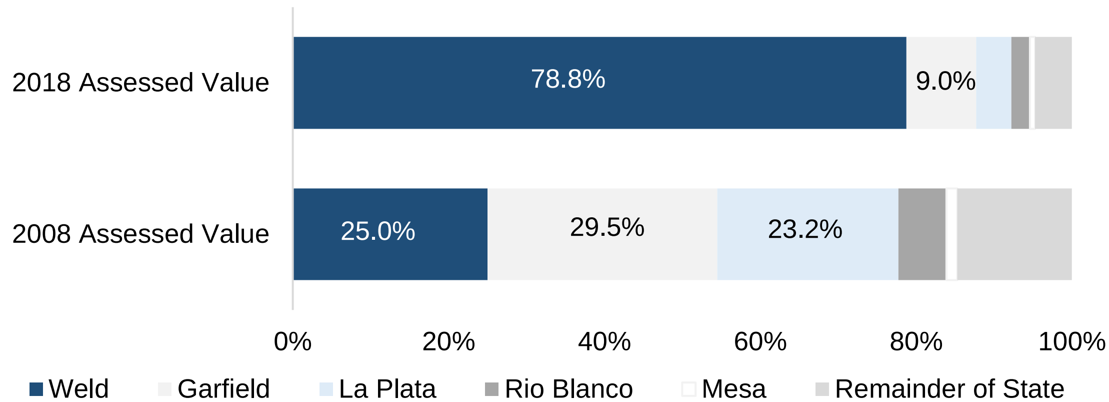
Comparison Between 2018 and 2008

Legislative Council Staff have detailed property tax data going back to 2008, when an estimated $253.6 million in property taxes were levied on oil and gas production. Comparing the property taxes paid on oil and gas production in 2018 to 2008 shows that the ad valorem credit offset 53.2 percent more in severance tax revenue in 2018 than in 2008 for each dollar in assessed value because the effective statewide mill levy on oil and gas production was 62.73 mills in 2018 and 40.96 mills in 2008. The effective mill levy has increased for the following two reasons:

- increasing production in Weld County with higher mills; and
- mill levy increases in most counties.

Shifts in production. Oil and gas production was more evenly distributed across the state in 2008 than in 2018. Garfield County, Weld County, and La Plata County accounted for 29.5 percent, 25.0 percent, and 23.2 percent, respectively, of statewide assessed value on oil and gas production. In 2018, Weld County accounted for 78.8 percent of statewide assessed value from oil and gas production, and Garfield County accounted for 9.0 percent. Figure 4 compares the share of assessed values from oil and gas production in 2008 and 2018 for the same counties shown in Figure 2.

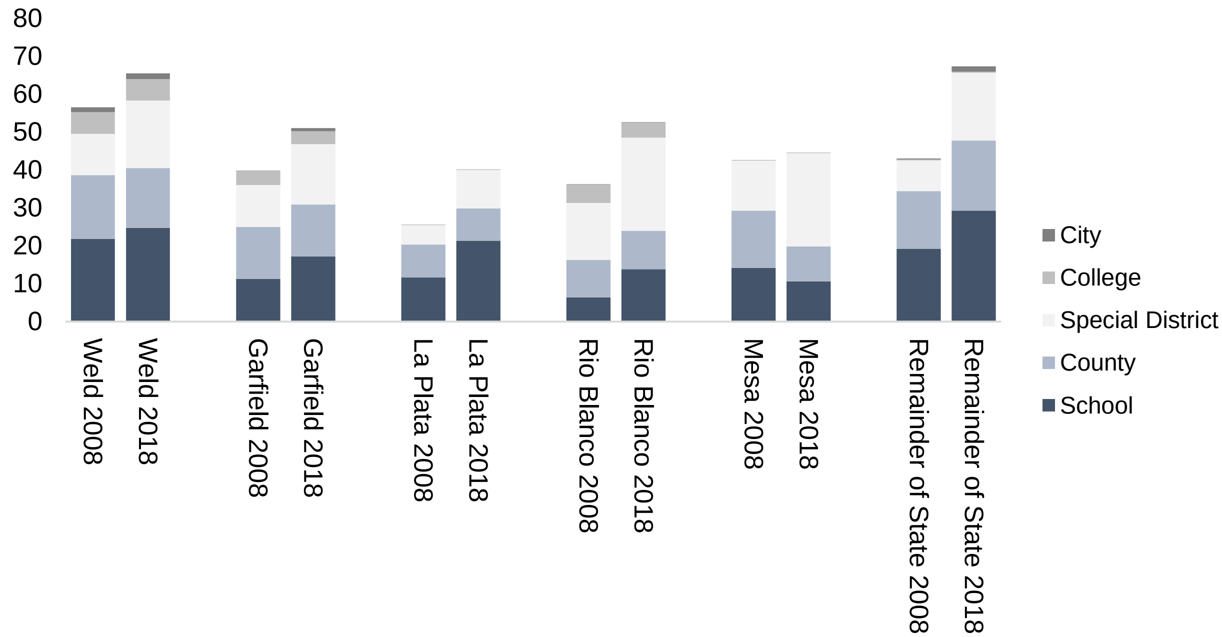
Figure 4
Share of Statewide Assessed Values on Oil and Gas Production



Source: Colorado Legislative Council Staff calculations using data compiled by Wildrose Appraisal, Incorporated.

Mill levy increases. In addition to shifts in production to Weld County, the five most productive oil and gas counties also experienced mill levy increases between 2008 and 2018. Figure 5 shows the average mills on oil and gas production by county in 2008 and 2018.

Figure 5
Estimated Average Mills on Oil and Gas Production by County
Comparison between 2018 and 2008



Source: Colorado Legislative Council Staff calculations using data compiled by Wildrose Appraisal, Incorporated.

Table 2 presents these same data in numeric form. Most of the increase in mills is due to increased school district mills and increased special district mills. The mills in Mesa County are nearly constant, with increased special district mills offset by decreased school district mills and county mills.

Table 2
Estimated Average Mill on Oil and Gas Production by County
Comparison between 2018 and 2008

County		City	College	County	School	Special District	Grand Total	Percent Change
Weld								
	2008	1.20	5.76	16.80	21.82	10.94	56.53	
	2018	1.55	5.66	15.80	24.72	17.80	65.53	15.9%
Garfield								
	2008	0.01	3.73	13.65	11.30	11.12	39.81	
	2018	0.84	3.38	13.65	17.21	15.98	51.06	28.3%
La Plata								
	2008	0.03	0.00	8.69	11.64	5.15	25.51	
	2018	0.05	0.00	8.49	21.38	10.23	40.14	57.4%
Rio Blanco								
	2008	0.07	4.97	9.88	6.42	14.97	36.31	
	2018	0.06	4.08	10.21	13.80	24.52	52.66	45.0%
Mesa								
	2008	0.06	0.00	15.11	14.16	13.26	42.58	
	2018	0.01	0.00	9.26	10.61	24.66	44.53	4.6%
Remainder of State								
	2008	0.23	0.21	15.19	19.25	8.13	43.01	
	2018	1.47	0.28	18.49	29.33	17.83	67.40	56.7%
State Total								
	2008	**0.35**	**2.88**	**13.30**	**14.92**	**9.51**	**40.96**	
	2018	**1.37**	**4.87**	**15.23**	**23.76**	**17.50**	**62.73**	**53.1%**

Source: Colorado Legislative Council Staff calculations using data compiled by Wildrose Appraisal, Incorporated.

Property Tax Data Used in Analysis

Each year, Legislative Council Staff receive property tax data collected by the contractor that conducts the constitutionally required property tax audit.[5] The data includes a dataset with individual property tax records and a dataset with individual mill levies for taxing entities. Using both datasets, it is possible to estimate the property taxes an individual property pays to individual taxing jurisdictions.

The estimates in this memo rely on estimates of property taxes based on individual property tax records. Other estimates rely on countywide average mills for all property in a county. For example, the average 2018 mill on all property for municipal governments in Weld County is 13.04 mills.[6] Using this analysis, the weighted average municipal mill on oil and gas property is 1.55 mills in 2018 because most of the production in Weld County occurs in unincorporated areas of the county.

While the data produce more precise estimates, only county assessors and/or county treasurers can report actual tax collections from oil and gas production.

[5]Colo. Const. art X, § 3 (2)a.
[6]Estimated in the 2018 Division of Property Taxation Annual Report here: https://www.colorado.gov/pacific/dola/annual-reports