



# Unconventional Oil and Natural Gas Production Tax Rates: How Does Oklahoma Compare to Peers?

#### Prepared by Headwater Economics in Conjunction with Oklahoma Policy Institute, August 2013

This report compares Oklahoma's oil and natural gas tax policies to other leading oil and natural gas producing states. Oil comparison states are Colorado, Montana, New Mexico, North Dakota, Texas, and Wyoming. Natural gas comparison states are Arkansas, Louisiana, New Mexico, Pennsylvania, Texas and Wyoming.

Our analysis applies state tax policies to average production data for typical unconventional oil and natural gas wells to determine comparable effective tax rates. Both unconventional oil and natural gas wells typically feature high initial rates of production that decline steeply and quickly, and eventually stabilize at relatively low levels. The respective production profiles for unconventional oil and natural gas wells are consistent enough across shale plays to offer a sound basis for comparing how states tax policies raise revenue from these new resources.

The findings are summarized here followed by a detailed discussion of methods, findings, and data sources.

#### **Major Findings:**

Oklahoma currently has a low effective tax rate compared to peer states.

- Oklahoma's effective tax rate on unconventional oil production is 3.3 percent, the lowest of seven peer oil-producing states (Figure 1).
- Oklahoma's effective tax rate on unconventional natural gas is 2.6 percent, ranking fifth lowest of seven peer natural gas-producing states (Figure 2).

Oklahoma's low effective tax rate results from a four-year production tax "holiday" that reduces the tax rate for newly completed horizontal wells from seven to one percent.

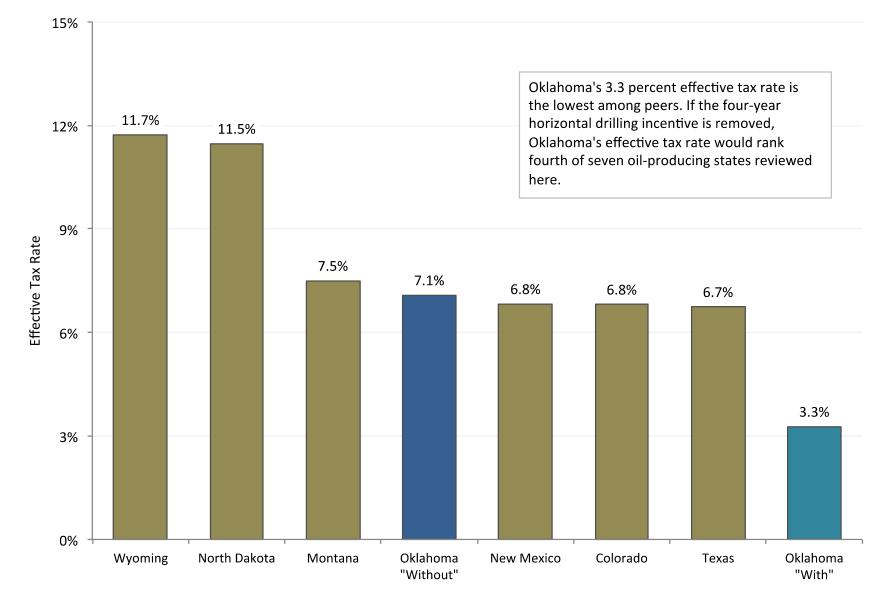
• The use of tax holiday incentives varies widely among states. Oklahoma is one of only two oil-producing states reviewed in this study with a tax holiday incentive for oil. Four of the seven natural gas producing states offer tax holiday incentives.

Removing the tax holiday incentive would increase Oklahoma's effective tax, but the state would retain a modest effective tax rate compared to peers.

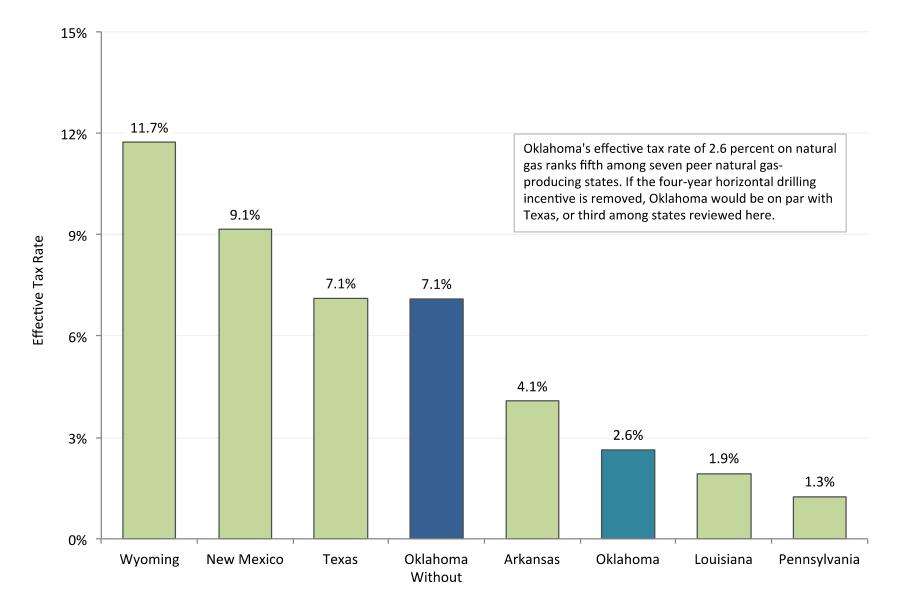
- Oklahoma's effective oil production tax rate would rank fourth among seven peer oil-producing states without the tax holiday.
- Oklahoma's effective natural gas production tax rate would rank third (along with Texas) among seven natural gas-producing states without the tax holiday incentive.

The combination of unconventional wells and tax breaks directly impact Oklahoma's fiscal situation.

- For a typical unconventional oil well, nearly two-thirds (64 percent) of cumulative production over the first ten years will come in the first 48 months after a well is completed (Figure 4).
- As a result, cumulative gross production tax revenue over ten years will be \$630,000, which is less than half of what the state would collect (\$1.4 million) without the tax break (Figure 7).



#### Figure 1: Effective Tax Rate on a Typical Unconventional Oil Well After 10 Years of Production.



#### Figure 2: Effective Tax Rate on a Typical Unconventional Natural Gas Well After 10 Years of Production.

#### Methods

This brief is part of Headwaters Economics ongoing efforts to understand the community costs and benefits from unconventional oil and natural gas development across the West. Tax policy is important to communities seeking to manage boomtown impacts of unconventional oil and natural gas development and to generate long-term benefits as a result of natural resource extraction.<sup>1</sup>

From the perspective of community impacts and benefits, key features of fiscal policy are the timing, amount, and volatility of tax collections, and how they are distributed.<sup>2</sup> Many existing comparative state oil and natural gas tax rate studies fail to adequately capture these factors. Often they do not include all production taxes, fail to consider incentives, and do not attempt to consider timing and distribution of revenue to communities.

We use declines curves as a way to compare production taxes across states in amount, timing, and volatility. The method allows for easy assessment of all production taxes, drilling incentives, and the timing of revenue collections.

We also illustrate how revenue derived from a typical oil well is allocated in each state between local governments, the state government, investments in permanent trust funds, and in the form of tax expenditures (as direct production incentives or through dedicated tax relief). State distribution polices have significant bearing on the benefits of tax policy to communities where drilling and related industrial and population growth impacts occur.

The analysis focuses on production taxes, including severance, gross production, property taxes, and other assessments and fees on the value or volume of oil and natural gas production. We exclude corporate income taxes and general revenue on drilling and support activities, including sales taxes, property taxes on land and production equipment, and charges for services.

Appendix A and B illustrate state tax and distribution policy related to new horizontally completed oil wells. Appendix C illustrates state tax policy related to new horizontally completed natural gas wells.

#### **Selection of States**

We selected states based on current production volumes from unconventional resources using data from the U.S. Energy Information Administration. The states with significant production from unconventional oil are Colorado, Montana, New Mexico, North Dakota, Oklahoma, Texas, and Wyoming. Alaska and California have significant oil production from conventional oil fields, but little unconventional production to date so they are excluded from this analysis. The states with significant production from unconventional natural gas are Arkansas, Louisiana, New Mexico, Oklahoma, Pennsylvania, Texas, and Wyoming.

<sup>&</sup>lt;sup>1</sup> Headwaters Economics. 2012. Benefiting from Unconventional Oil: State Fiscal Policy is Unprepared for the Heightened Community Impacts of Unconventional Oil Plays. Bozeman, MT. With the Bill Lane Center for the American West, Stanford University. http://headwaterseconomics.org/wphw/wp-content/uploads/ND Unconventional Oil Communities.pdf.

<sup>&</sup>lt;sup>2</sup> Headwaters Economics. 2012. Oil and Gas Fiscal Best Practices: Lessons for State and Local Governments. Bozeman, MT. http://headwaterseconomics.org/energy/energy-fiscal-best-practices/.

#### **Decline Curve Analysis**

The analysis is based on a typical decline curve for a horizontally completed shale or "tight" oil well. We provide the analysis for the typical oil well to illustrate the analysis.

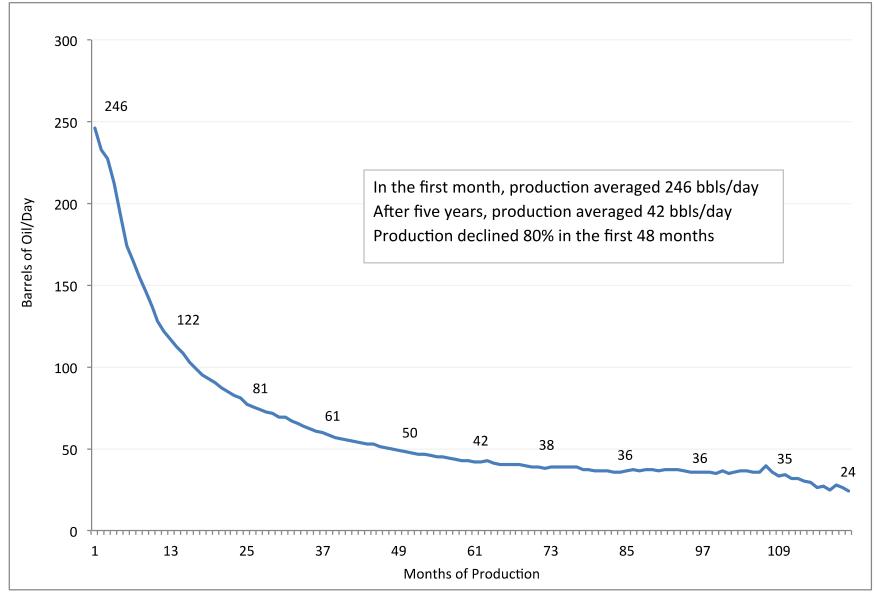
The typical oil well is based on a production decline curve for the average horizontal well completed in Montana's Elm Coulee field, part of the Bakken Formation. These data are available to the public at no cost from the Montana Department of Natural Resources, Board of Oil and Gas.<sup>3</sup>

Similarly, tax projections for a typical unconventional natural gas well is based on a production decline curve for the average horizontal well completed in the greater Haynesville shale play in East Texas and Louisiana. Data is from the Energy Information Administration that annually reports statistics on the performance of shale plays across the U.S.<sup>4</sup>

Figures 3 to 5 illustrate the characteristics of the typical horizontally completed oil well, in terms of monthly production, cumulative production, and gross production value using a fixed price of \$85 per barrel, respectively. Figure 6 illustrates the natural gas decline curve used to compare tax policies across natural gas producing states.

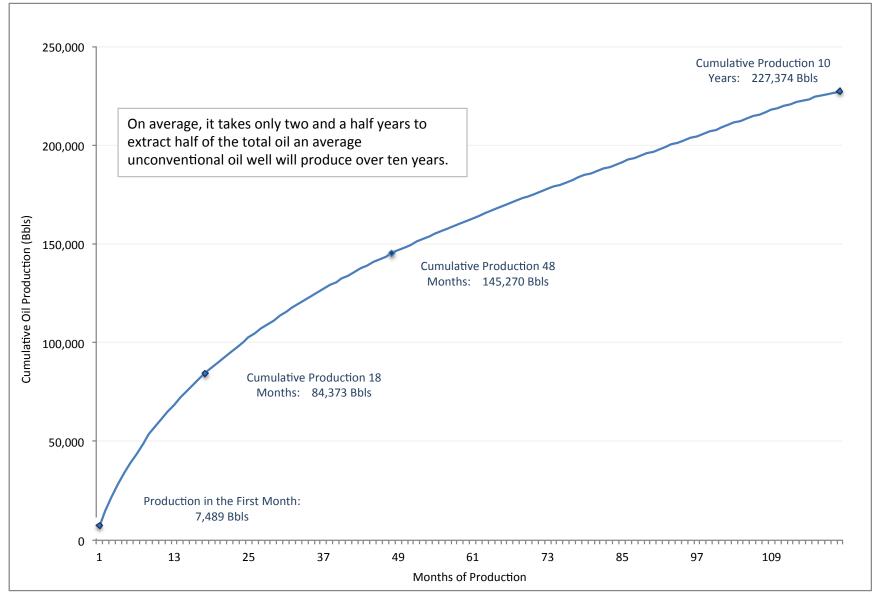
<sup>&</sup>lt;sup>3</sup> Montana Department of Natural Resources and Conservation. Board of Oil and Gas. <u>http://bogc.dnrc.mt.gov/</u>.

<sup>&</sup>lt;sup>4</sup> U.S. Energy Information Administration. July 2011. Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays. http://www.eia.gov/analysis/studies/usshalegas/pdf/usshaleplays.pdf





# Figure 4: Cumulative Production from an Average Unconventional Oil Well Based on MT Production from 2000 to 2012.



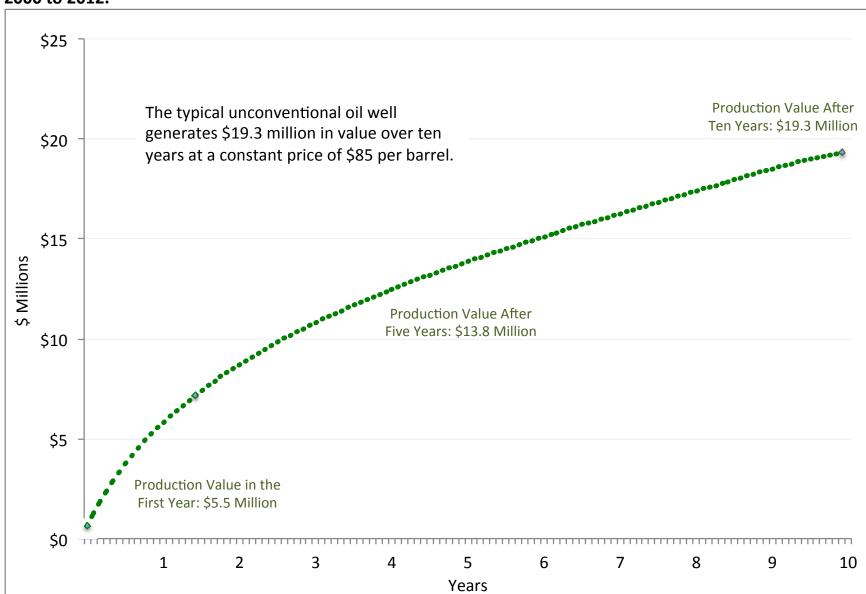
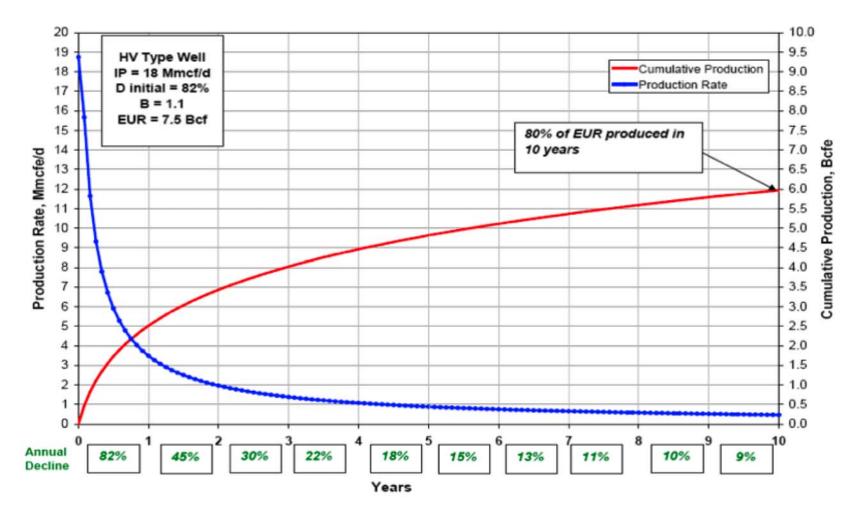


Figure 5: Cumulative Production Value from an Average Unconventional Oil Well Based on MT Production from 2000 to 2012.



## Figure 6: Haynesville Natural Gas Well Type Curve<sup>5</sup>

<sup>&</sup>lt;sup>5</sup> U.S. Energy Information Administration. July 2011. Review of Emerging Resources: U.S. Shale Gas and Shale Oil Plays. Page 28. <u>http://www.eia.gov/analysis/studies/usshalegas/pdf/usshaleplays.pdf</u>.

#### **Applying State Tax Policies to the Gross Production Value Curve**

The following section describes the methods used to estimate the effective tax rate on oil production in Oklahoma compared to the state's peers. The same methods are applied to natural gas production.

Oklahoma levies a single gross production tax at the state level of seven percent when the statewide average price equals or exceeds \$17 per barrel (the tax rate falls to 4% under \$17/barrel and to 1% under \$14/barrel).<sup>6</sup> There are no reduced rates for stripper wells, but Oklahoma offers a host of incentives for different kinds of production, including a significant incentive for new horizontally completed wells that lowers the tax rate to one percent on the first four years of production or until cost recovery.

Oklahoma also levies a petroleum excise tax of 0.095 percent that funds oil and gas regulation.<sup>7</sup>

Figure 7 and Table 1 shows Oklahoma's tax policy as it applies to the typical unconventional oil well both with and without the 48-month tax "holiday" incentive. Figure 8 compares the existing Oklahoma tax policy to six peer oil-producing states.

Production	Gross Production		Revenue from Gross	Revenue from	Total Tax	Effective Tax
Year	Tax Rate	Excise Tax Rate	Producton Tax	Excise Tax	Revenue	Rate
1	1.0%	0.95%	\$55,276	\$5,251	\$60,527	1.1%
2	1.0%	0.95%	\$85,138	\$8,088	\$93,226	1.1%
3	1.0%	0.95%	\$106,623	\$10,129	\$116,752	1.1%
4	1.0%	0.95%	\$123,531	\$11,735	\$135,267	1.1%
5	7.0%	0.95%	\$222,346	\$13,077	\$235,422	1.7%
6	7.0%	0.95%	\$309,759	\$14,263	\$324,022	2.2%
7	7.0%	0.95%	\$391,018	\$15,366	\$406,384	2.5%
8	7.0%	0.95%	\$470,468	\$16,444	\$486,912	2.8%
9	7.0%	0.95%	\$548,832	\$17,507	\$566,340	3.1%
10	7.0%	0.95%	\$611,632	\$18,360	\$629,992	3.3%

#### Table 1: Oklahoma Tax Policy Applied to a Typical Unconventional Oil Well.

The tax incentive is the most generous to industry of the seven states we profile, giving Oklahoma the lowest effective tax rate on oil. (Montana has a less generous production tax "holiday" incentive, and allocates a significant share of revenue to property tax relief, but the latter is not a benefit directly to industry).

#### Applying State Distribution Policies to the Revenue Generated by a Typical Oil Well

Distribution of the oil gross production tax revenue is based on fixed allocations that do not change as revenues increase, so understanding how revenue is allocated is relatively straightforward. However, the allocation of oil revenue is different for oil and natural gas revenues, and varies depending on the tax rate imposed.

<sup>&</sup>lt;sup>6</sup> Oklahoma Tax Commission. Gross Production Monthly Rate. <u>http://www.tax.ok.gov/gp2.html</u>.

<sup>&</sup>lt;sup>7</sup> Oklahoma Tax Commission. <u>http://www.tax.ok.gov/gp2.html</u>.

For oil at the full seven percent tax rate, the distributions are split between several state and local government purposes:<sup>8</sup>

- 25.72 percent each to the Common Education Technology Fund, the Higher Education Capital Fund, and the Oklahoma Tuition Scholarship Fund;
- 4.28 percent is allocated to three state infrastructure funds, the Oklahoma Tourism and Recreation Capital Expenditure Revolving Fund, the Oklahoma Conservation Commission Infrastructure Revolving Fund and the Community Water Infrastructure Development Revolving Fund—at one-third each through FY 2015);
- 0.535 percent to the Statewide Circuit Engineering District Revolving Fund;
- 7.14 percent to counties where oil is produced, for roads;
- 7.14 percent to local school districts statewide; and
- 3.745 percent to the county road and bridge improvement fund.

Revenue from oil wells paying the one percent "holiday" tax rate is distributed equally between counties where oil is produced for roads, and local schools districts statewide.

To simplify the comparisons between Oklahoma and peer states, the distribution of production tax revenues are presented in three basic categories: state share, local share, and permanent savings. Figure 9 illustrates the allocations of revenue between these three main spending categories, and the size of tax expenditures in each state.

Oklahoma's tax expenditure is the value of the horizontal drilling tax incentive in terms of forgone revenue from the base tax rate, in this case the difference between tax collections from a typical horizontal well in the first 48 months at one percent (the incentive rate) versus seven percent (the base rate).

The local share in Oklahoma is comprised of distributions to counties where production occurs, for roads; allocations made to local school districts; and to the county road and bridge improvement fund.

The balance of distributions makes up the state share, largely accruing to the three state education funds.

<sup>&</sup>lt;sup>8</sup> Oklahoma State Senate. Oklahoma Senate Overview of State Issues. Apportionment of Gross Production Taxes (page 42).

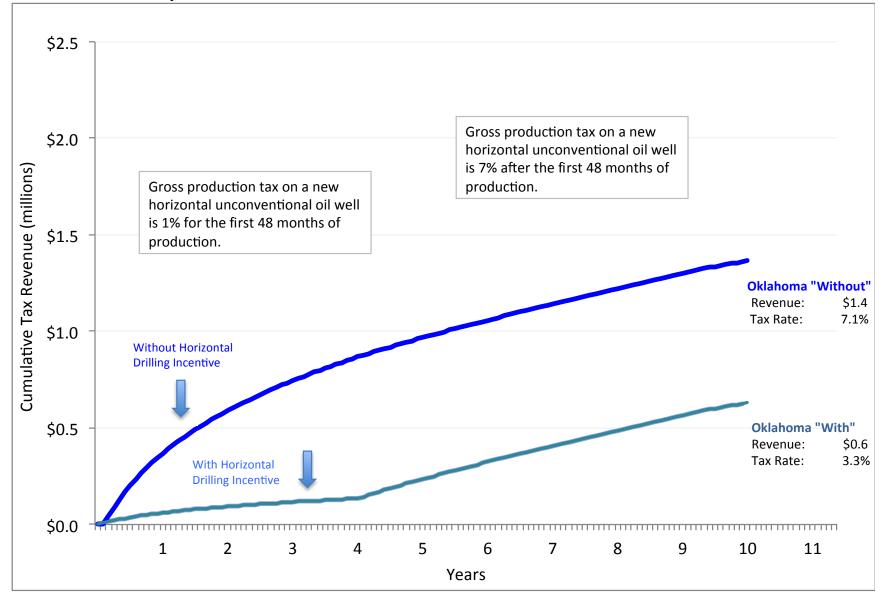
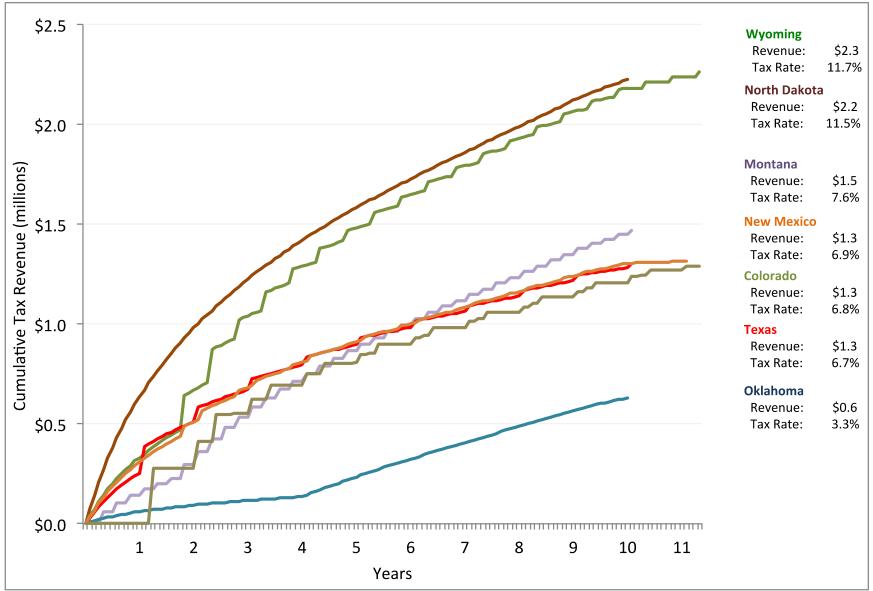
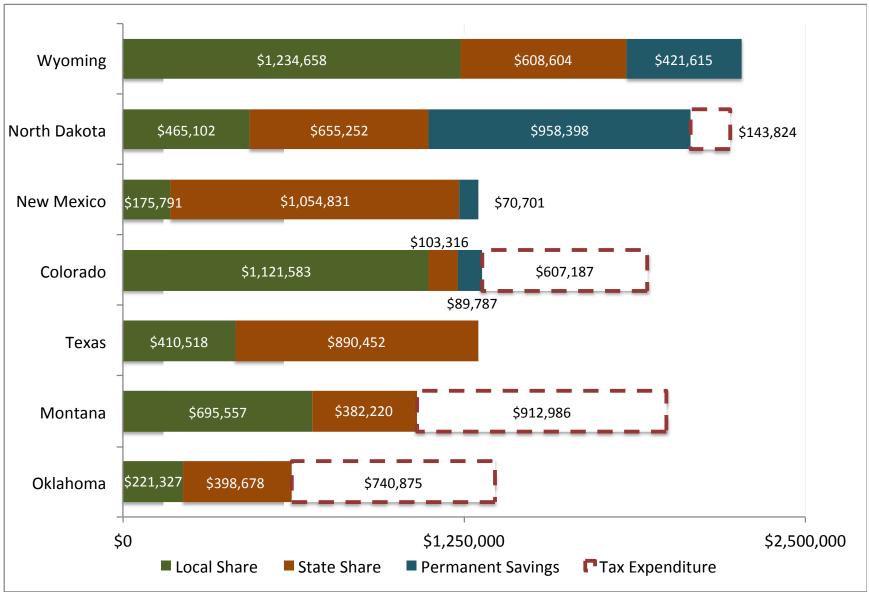


Figure 7: Comparison of Oklahoma Production Tax Revenue from an Average Unconventional Oil Well With and Without the "Holiday" Incentive.



#### Figure 8: Comparison of Energy Tax Policy Across Seven States Applied to an Average Unconventional Oil Well.

Figure 9: Comparison of Energy Distribution Policy Across Seven States Applied to an Average Unconventional Oil Well.



#### Discussion

State tax policy is responsive to changes in well productivity, price, and the shape of the decline curve. Using a typical well decline curve to compare state tax policies does not allow for a comparison of how these other key variables change the effective tax rate for each state. We offer the following brief observations on the potential impacts of these variables here.

#### Production decline curves:

Tax holiday incentives provide a reduced rate or a total exemption from production taxes for a defined period of time. Because of the steep production profiles characteristic of unconventional wells, the incentive comes at a time when wells are producing the highest rates. If the well profile were flatter—meaning if production declined more slowly with a larger share of cumulative production coming after the first several years, tax holiday incentives would be relatively less valuable. They also significantly delay tax collections to the state that could otherwise be used to help mitigate impacts associated with industrial and population growth-related impacts to communities where extraction occurs.

In general, horizontally completed wells in oil and natural gas shale plays perform very similarly with high initial production, steep annual declines, and a flattening production curve after the first several years. Comparing state tax policies based on the different productivity of wells across fields does not change the effective tax rate or state comparison in a significant way.

#### Price thresholds:

Several states base production tax rates on the annual average price of oil and natural gas. Others offer incentives or deductions that are only available when prices fall below legislated thresholds. In this analysis we used fixed prices for oil of \$85/barrel and for natural gas of \$3.58/mcf. These prices are well above thresholds defined in state tax policy for specific incentives and deductions. For example, North Dakota has a "holiday" incentive that lowers the extraction tax rate from 6.5 percent to two percent when prices fall below a statutory limit. The trigger price for 2013 is \$52.20,<sup>9</sup> well below current and projected oil prices.

Louisiana's and Pennsylvania's natural gas production tax and impact fee respectively generate effective tax rates that are volatile relative to price. Louisiana charges a severance tax on natural gas with a fixed rate per mcf of natural gas extracted that is adjusted annually. For FY 2012 (covering the period from July 2012 to January 2013) the rate is 14.8 cents/mcf.<sup>10</sup> Based on the average natural gas spot price at the Henry Hub for the first 8 months (July 2012 to February 2013) of \$3.14<sup>11</sup>, the rate works out to be about 4.6 percent. Table 2 shows historic effective tax rates for the Louisiana natural gas severance tax have varied from a low of 2.5 percent in 2002 to a high of 7.8 percent in 2009.

<sup>&</sup>lt;sup>9</sup> State of North Dakota, Office of the State Tax Commissioner. Annual Oil Trigger Price Adjustment. December, 31, 2012. <u>http://www.nd.gov/tax/oilgas/pubs/trigger.pdf?20130405155048</u>.

<sup>&</sup>lt;sup>10</sup> Louisiana Department of Revenue. Policy Documents: Severance Tax.

www.revenue.louisiana.gov/sections/lawspolicies/pd.aspx?category=SEV.

<sup>&</sup>lt;sup>11</sup> U.S. Energy Information Administration. Henry Hub Gulf Coast Natural Gas Spot Price (Dollars/Mil. BTUs). www.eia.gov/dnav/ng/hist/rngwhhdM.htm.

	price/mcf				
Fiscal year	(Henry Hub	Severance	Effective tax		
(July-June)	spot price)	tax/mcf	rate		
2000	\$2.82	0.097	3.4%		
2001	\$2.77	0.199	7.2%		
2002	\$4.88	0.122	2.5%		
2003	\$5.42	0.171	3.2%		
2004	\$6.30	0.208	3.3%		
2005	\$9.03	0.252	2.8%		
2006	\$6.87	0.373	5.4%		
2007	\$8.30	0.269	3.2%		
2008	\$5.93	0.288	4.9%		
2009	\$4.25	0.331	7.8%		
2010	\$4.16	0.164	3.9%		
2011	\$3.04	0.164	5.4%		
2012*	\$3.19	0.148	4.6%		
Average	\$5.15	\$0.21	4.4%		

 Table 2: Louisiana Natural Gas Severance Tax Effective Rate, FY 2000-2012.

\*For the period July 2012 to February 2013

Pennsylvania does not levy a production tax, but imposes an impact fee for all wells drilled in the state. The impact fee schedule charges a fixed fee annual for 15 years. Because the fee schedule is fixed (it rises with price but is relatively flat), the effective rate when compared to total production value from a typical natural gas well tends to fall as prices rise. This means the fee is a larger share of production value at low prices, and a smaller share at high prices.

#### Average daily production:

Most states have deductions for low-producing "stripper" wells. The definition of a stripper well tends to fall well below initial rates of production, and by the time an unconventional well qualifies for stripper well status, most of the well's cumulative production, at least over the first 10 year period, has already occurred.

For example, North Dakota has a relatively generous deduction that defines a stripper well as any well producing less than 30 barrels per day. Based on our typical well, North Dakota's stripper well deduction becomes active in the 113<sup>th</sup> month of production after the typical well in our analysis has produced more than 95 percent of the total oil it will produce over the first ten years.

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Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions in the West.

Oklahoma Policy Institute promotes adequate, fair, and fiscally responsible funding of public services and expanded opportunity for all Oklahomans by providing timely and credible information, analysis, and ideas.

			Incentives Specific for		
State	Тах Туре	Base Tax Rate	Unconventional Production	Stripper Well Exemptions	Timing of Collections
Colorado	Severance tax	Graduated tax rate based on gross income of producer: 2% under \$25,000; \$500 + 3% for \$25,000 to \$100,000; \$2,750 + 4% for \$100,000 to \$300,000; \$10,750 + 5% for production over \$300,000. Net production value is gross production value less transportation and processing costs.		Oil produced from any well that produces fifteen (15) barrels per day or less of oil, for the average of all producing days for such oil production during the taxable year, shall be exempt from the severance tax.	Annual. Payment is due on the 15th day of the fourth month after the close of the taxable year (April 15 following the tax year beginning January 1).
	Ad valorem production tax	Oil is assessed at 87.5% of net production value (gross production value less transportation costs). Average levy in 2011 was 73.218 (7.3218 percent).	None	None	Annual. Assessments are reported on January 1, and taxes may be paid in one payment by April 30 or in two equal payments by February 28 and by June 15.
	Colorado Oil and Gas Conservation Commission Tax	0.007% to fund the expenses of the agency.	None	None	Quarterly
Montana	Gross production tax	Working interest 9.0%; Royalty interest 14.8%. Total gross value is computed as the product of the total number of barrels produced each month and the average well head value per barrel. Producers are allowed to deduct any oil produced that is used in the operation of the well.	0.5% for first 18 months from new horizontal wells and 12 months on new vertical wells on working interest only.	5.76% below 10 bbls/day when price is below \$30/bbl.	Quarterly. Tax payments are due within 60 days following the close of each calendar quarter.
	fee	0.09% of gross production value.			Quarterly
	Natural resources account	0.17% of gross production value.			Quarterly

#### Appendix A. State Tax Policy Related to Unconventional Oil

			Incentives Specific for		
State	Тах Туре	Base Tax Rate	Unconventional Production	Stripper Well Exemptions	Timing of Collections
New Mexico	Ad valorem production tax	Assessed value is 50 percent of net production value, defined as gross production value less royalties paid to federal, state, or tribal governments, and transportation costs. Local levies vary between 8 and 11 percent on taxable value. The effective tax rate on production			Annual. Oil production is assessed based on the prior-year's production. Assessments are certified by June of the following year, and taxes are due in two installments in December, and April.
	Oil severance tax	for FY 2011 and 2012 is about 1.2%. 3.75% of net production value, defined as gross production value less royalties paid to federal, state, or tribal governments, and transportation costs.		Stripper wells (less than 10 barrels of production/day) pay reduced rates based on price thresholds, below which the incentive rate applies: below \$15 per barrel the tax rate is 1.875%; below \$18 per barrel the tax rate is 2.8125%.	Monthly
	Oil and gas emergency school tax	3.15 percent of net production value, defined as gross production value less royalties paid to federal, state, or tribal governments, and transportation costs.		Stripper wells (less than 10 barrels of production/day) pay reduced rates based on price thresholds, below which the incentive rate applies: below \$15 per barrel the tax rate is 1.58%; below \$18 per barrel the tax rate is 2.36%.	Monthly
	Oil and gas conservation tax	0.19% of gross production value, rising to 0.24% when the price of oil is over \$70 per barrel.			Monthly
North Dakota	Oil extraction tax Gross production tax	6.5% of gross production value. A 5% rate is applied to the gross value at the well of all oil produced, except royalty interest in oil produced from a state, federal or municipal holding and from an American Indian holding within the boundary of a reservation.		0% below 30 bbls/day.	Monthly Monthly

			Incentives Specific for		
State	Тах Туре	Base Tax Rate	Unconventional Production	Stripper Well Exemptions	Timing of Collections
Oklahoma	Gross production tax	7% (4% if price drops below \$17/bbl, and 1% if price drops	Horizontal wells pay 1% for first 48 months or until costs recovery.		
		below \$14/bbl).			Monthly
		0.095% of gross production value			Monthly
Texas	Production tax	7.5% of gross production value, including royalty and other interests.		Wells that produce less than 15 bbls/day or if five percent recoverable oil per barrel of produced water averaged over a 90 day period. Credit is 25% when price is \$25 to \$30 per barrel, 50% when price is \$22 to \$25 per barrel, and 100% if price is below \$22 per barrel (adjusted to 2005 dollars).	Monthly
	Local ad valorem tax	Market value of oil and gas property is defined as real property, and assessment is based on the income approach. The assessed value of the property (oil and gas production) is based on expected effective rate of 2.12% of gross production value for all property statewide.			Annually
	Texas oilfield cleanup regulatory fee	\$0.0625 per barrel when the oilfield cleanup fund balance falls below \$10 million and until it exceeds \$20 million.			Monthly
Wyoming	Severance tax	6% of gross production value.		4% below 10 bbls/day if average price is over \$20/bbl, 15 bbls/day if average price is under \$20/bbl.	Monthly
	Local ad valorem tax	Effective rate is 5.7% of gross production value in FY 2011.			Annually. Oil production is assessed based on the prior-year's production. Assessments are determined by June of the following year, and taxes are due and payable in two installments: 50% of the taxes are due by November 10 and the remaining 50% by May 10 of the succeeding calendar year.

## Appendix B: State Distribution Policy Related to Unconventional Oil

State		Stat	e Share			Local Share		Permanent Investments	Tax Expenditures
	General Fund	Infrastructure Spending	Natural Resources Management	Other State Priorities	Local Production Taxes	Direct Distributions	Impact Grants	Natural Resources Permanent Fund	Incentives for Unconventional Oil
Colorado			50% of severance tax is distributed to the Department of Natural Resources Severance Tax Trust Fund. Half of DNR funds (25% of total) go to operational spending for programs related to mineral extraction, clean energy development, low- income energy assistance, and species conservation.0.07% tax to the Board of Oil and Gas Conservation		Local governments levy property taxes directly against the gross production value of oil extracted in each taxing jurisdiction.	50% of severance taxes are deposited into the Local Impact Fund managed by Department of Local Affairs (DOLA). 30% of these (15% of total) are distributed directly back to local governments based on a formula.	of Local Affairs (DOLA). 70% these (25% of total) are distributed to local	50% of severance tax is distributed to the Department of Natural Resources Severance Tax Trust Fund. 50% of DNR funds (25% of total) go to the perpetual base account used for loans for state water projects.	87.5% of property taxes paid to local governments are deductible from the state severance tax liability.
Montana	About 40% of the state's share of the Gross Production Tax is directed to the General Fund (20.6 percent of total gross production tax revenue).		The Board of Oil and Gas Conservation levies a 0.09% privilege and license fee. 2.16% state' share of the Gross Production Tax is distributed to the Natural Resource Projects fund and 2.02% to the Natural Resource Operations funds.	2.95% of the state's share of the Gross Production Tax is directed to the Orphan Fund, and 2.65% to the state university system.		Counties and schools are each assigned a share of Gross Production Tax revenue generated locally based on historic mill levies. The local share ranges from al low of 39% to a high of 63%. In addition, the Natural Resources Account receives 0.17% of gross production value for local impact grants and distributions to cities.			18 month Gross Production Tax incentive rate of 0.5% for newly completed horizontal wells.50% of the state's share of the production tax is used to reduce local school district property tax levies across the state (25.6% of total gross production taxes).
New Mexico	· · ·	About 87.5% of severance tax revenues first pay the required debt service on severance tax bonds issued by the state, and the remaining (approximately 12.5%) severance tax receipts are then transferred to the Severance Tax Permanent Fund.	19% of the Oi and Gas Conservation Tax is deposited in the Reclamation Fund.		Local governments levy property taxes directly against the net production value of oil extracted in each taxing jurisdiction.			About 87.5% of severance tax revenues first pay the required debt service on severance tax bonds issued by the state, and the remaining (approximately 12.5%) severance tax receipts are then transferred to the Severance Tax Permanent Fund.	

State		Stat	e Share			Local Share		Permanent Investments	Tax Expenditures
			Natural Resources					Natural Resources Permanent	Incentives for
	General Fund	Infrastructure Spending	Management	Other State Priorities	Local Production Taxes	Direct Distributions	Impact Grants	Fund	Unconventional Oil
North Dakota		The Strategic Investment	The Resources Trust Fund receives 20% of oil extraction tax and is used for water projects. The Oil and Gas Research Fund is capped at \$10 million.	The Disaster Relief Fund receives up to \$22		A formula directs Gross Production Tax distributions to local governments. The formula changes as revenue increases with the initial \$5 million in revenue going 100% to local governments, but shifting to a 25-75% split between local governments and the state government respectively thereafter.	Oil and Gas Impact Fund	30% of oil extraction tax and gross production tax is distributed to the Legacy Fund. 10% of the oil extraction tax to the Common Schools Trust Fund. Interest goes to K-12 funding. Fund revenue sources are the oil extraction tax, tobacco settlement funds, and revenue from state lands. 10% of the oil extraction tax to the Foundation Aid Stabilization Fund. The principle can only be spent on K-12 shortfalls by the	Property Tax Relief Fund receives a portion of the state share up to \$342 million.
Oklahoma		3.75% divided equally between the Oklahoma Tourism and Recreation Department Capital Expenditure Revolving Fund, the Oklahoma Conservation Commission Infrastructure Revolving Fund, and the Community Water Infrastructure Development Revolving Fund.		77.695% of total distributions as follows: 25.72% to each of the Common Education Technology Revolving Fund, the Higher Education Capital Revolving Fund, and the Oklahoma Student Aid Revolving Fund; and 0.535% to the Statewide Circuit Engineering District Revolving Fund.		7.14% to County Highway Funds based on the share of oil extraction from each county. (If levied at the one percent tax rate, 50% is distributed as above).			Four year incentive rate of one percent for horizontally completed wells.

State		Sta	te Share			Local Share		Permanent Investments	Tax Expenditures
			Natural Resources					Natural Resources Permanent	Incentives for
		Infrastructure Spending	Management		Local Production Taxes	Direct Distributions	Impact Grants	Fund	Unconventional Oil
Texas	75% of the remaining gross production tax (after 0.5% is retained for tax administration and enforcement) is deposited in the General Revenue collected from any incremental production from a qualifying lease, and deposited to the general revenue fund may only be spent to fund the Texas tuition assistance grant program.		Oilfield cleanup regulatory fee of \$0.00625 per barrel that is imposed when the Texas Oil Field Cleanup Fund balance falls below \$10 million, and until the balance exceeds \$20 million.	production tax is retained in the state treasury for the use of the comptroller for tax	Local governments levy property taxes directly against the net production value of oil extracted in each taxing jurisdiction.				
	distributions, General Fund receives 62.5% of Severance Tax Distribution Account	The Highway Fund and Water I, II, and III funds receive 18.93% of Severance Tax Distribution Account allocations.			Local governments levy property taxes directly against the net production value of oil extracted in each taxing jurisdiction.	Cities and towns and counties receive 13.13% of Severance Tax Distribution Account allocations.	Cities, Towns, Counties and Special Dist. Capital Construction Fund and State Aid to County Roads Fund receive 5.23% of Severance Tax Distribution Account allocations.	2.5% of taxable value, or 41.67% of total severance tax collections are deposited in the Permanent Wyoming Mineral Trust Fund (PWYMTF). The state also makes occational discretionary deposits. The Budget Reserve Act receives 66.7% of excess revenue after PWYMTF distributions and the Severance Tax Distribuiton Account reaches \$155 million.	

State	Тах Туре	Base Tax Rate	Incentives for Unconventional Production	Stripper Well Deductions	Timing of Collections
Arkansas	Property Tax	Gross production value is estimated using assessment tables with oil and natural gas prices that are adjusted annually. The natural gas price for FY 2012 is \$3.77. Net production value is gross production value reduced by 13% for transportation costs, and the assessment rate is 20% of net production value. Assessed value is subject to local tax levy which averages 4.4 percent for counties and school districts.			Annually. Paid on or before October 15 the following year.
	Severance Tax	5% on natural gas.	1.5% on high-cost gas wells for 36 months. If cost recovery is not achieved by 36 months, the incentive is extended an additional 12 months or until cost recovery.	1.25% for marginal high cost gas wells defined as high cost gas wells which are incapable of producing more than 100 Mcf per day.	Monthly
Louisiana	Severance Tax	\$0.148/Mcf for the period 7/1/12 to 6/30/13. Works out to a 4.1% tax rate when the price is \$3.58/Mcf.	No tax for two years or until the well cost is paid, whichever comes first on wells drilled to a true vertical depth of more than fifteen thousand feet.		Monthly
	Oilfield site restoration fee	\$.003/Mcf			Quarterly

#### Appendix C: State Tax Policy Related to Natural Gas

New Mexico	Ad Valorem Production Tax	Assessed value is 1/3 of production value of natural gas extracted. Taxable value equals 150 percent of the value of the products after deducting: (1) royalties paid to the U.S. government, the State of New Mexico, and/or Indian tribes; and (2) trucking expenses (i.e. allowable transportation and processing expenses). Local levies vary between 8 and 11 percent on taxable value. The effective tax rate on production for FY 2011 and 2012 is about 1.2%.			Annual. Assessed value is based on the prior-year's production. Assessments are certified by June of the following year, and taxes are due in two installments in December and April.
	Oil and Gas Severance Tax	3.75% of net production value, defined as gross production value less royalties paid to federal, state, or tribal governments, and transportation processing costs.		Stripper wells (less than 60 Mcf/day) pay reduced rates based on price thresholds, below which the incentive rate applies: below \$1.15 per Mcf the tax rate is 1.875%; below \$1.35 per Mcf the tax rate is 2.8125%.	Monthly
	Oil and Gas Emergency School Tax	3.15 percent of net production value, defined as gross production value less royalties paid to federal, state, or tribal governments, and transportation and processing costs.		Stripper wells (less than 60 Mcf/day) pay reduced rates based on price thresholds, below which the incentive rate applies: below \$1.15 per Mcf the tax rate is 1.875%; below \$1.35 per Mcf the tax rate is 2.8125%.	Monthly
	Oil and Gas Conservation Tax	0.19% of net production value, defined as gross production value less royalties paid to federal, state, or tribal governments, and transportation and processing costs.			Monthly
Oklahoma	Gross Production Tax	7% (4% if price drops below \$2.10/mcf, and 1% if price drops below \$1.75/Mcf).	1% for first 48 months or until cost recovery for horizontal wells.		Monthly
	Petroleum excise tax	0.095%			Monthly

Pennsylvania	Natural Gas Impact Fee	Annual fee schedule set by the Public Utility Commission. Fees are based on the price of natural gas.		Wells producing less than 90,000 Mcf/day are exempt from the impact fee.	Annually, due in April following the calendar year for which the fee is assessed.
Texas	Production Tax	7.50%	0% to 7.4% for high cost gas wells for 120 months or until the value of the incentive exceeds 50 % of well completion costs. The incentive tax rate is calculated as the relationship between wells costs and the average of all high costs wells from the previous year. The median cost well pays exactly half the base tax rate (or 3.75 percent).		Monthly
	Local ad valorem tax	Market value of oil and gas property is defined as real property, and assessment is based on the income approach. The assessed value of the property (oil and gas production) is based on expected effective rate of 2.12% of gross production value for all property statewide.			Annually
	Texas oilfield cleanup regulatory fee	0.00066 per Mcf			Monthly
	Regulatory tax	0.19%			Monthly
Wyoming	Severance Tax	6%			Monthly
	Property Tax	Effective rate is 5.7% in FY 2011.			Annually. Natural gas production is assessed based on the prior-year's production. Assessments are determined by June of the following year, and taxes are due and payable in two installments: 50% of the taxes are due by November 10 and the remaining 50% by May 10 of the succeeding calendar year.