Ohio’s Paradox of Plenty

Lack of a conventional severance tax in Ohio squanders share of natural resource value historically owed to community and state

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New technology drives Ohio’s oil and gas industry

- Prior to commercialization of hydraulic fracturing technology, Ohio’s oil and gas industry was mature.
- Oil industry peaked in the 1890’s.
- Natural gas industry peaked in the 1980s.
- Like other states, Ohio placed a severance tax on oil and gas in the 1970s.
- Unlike other states, it has not been changed nor updated.
- Today, as production grows rapidly, Ohio is still taxing oil and gas like it was a depleted old industry, instead of the new, robust sector it is.
Natural gas production remains strong

Source: Policy Matters Ohio, based on data from ODNR
### Shifting employment patterns in Ohio oil and gas extraction industries

<table>
<thead>
<tr>
<th>NAICS</th>
<th>Title</th>
<th>2011 Q1</th>
<th>2017 Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2111**</td>
<td>Oil and gas extraction</td>
<td>197</td>
<td>131</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,775</td>
<td>1,074</td>
</tr>
<tr>
<td>213111</td>
<td>Drilling oil and gas wells</td>
<td>78</td>
<td>116</td>
</tr>
<tr>
<td></td>
<td></td>
<td>516</td>
<td>1,150</td>
</tr>
<tr>
<td>213112</td>
<td>Support activities for oil and</td>
<td>179</td>
<td>327</td>
</tr>
<tr>
<td></td>
<td>gas operations</td>
<td></td>
<td>1,165</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3,501</td>
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<tr>
<td>237120</td>
<td>Oil and gas pipeline construction</td>
<td>94</td>
<td>191</td>
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<tr>
<td></td>
<td></td>
<td>1,498</td>
<td>4,753</td>
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<tr>
<td>486210</td>
<td>Pipeline transportation of</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td></td>
<td>natural gas</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>309</td>
<td>536</td>
</tr>
</tbody>
</table>

**Core Industry Totals**

<table>
<thead>
<tr>
<th>2011 Q1</th>
<th>2017 Q1</th>
</tr>
</thead>
<tbody>
<tr>
<td>585</td>
<td>812</td>
</tr>
<tr>
<td>6,263</td>
<td>11,014</td>
</tr>
</tbody>
</table>

Factors bearing on employment, production

- Prices fell sharply in oil and gas
- Wells are more productive
- Contracts with transmission and processing facilities
- New markets open up as pipeline infrastructure matures
- Sunk costs: land, wells
- Long term outlook for fossil fuels remains good
Ohio has become one of the top 10 producing states in the nation

<table>
<thead>
<tr>
<th>Rank</th>
<th>State</th>
<th>Natural Gas Marketed Production (million cu ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Texas</td>
<td>7,203,012</td>
</tr>
<tr>
<td>2</td>
<td>Pennsylvania</td>
<td>5,313,258</td>
</tr>
<tr>
<td>3</td>
<td>Oklahoma</td>
<td>2,468,312</td>
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<tr>
<td>4</td>
<td>Louisiana</td>
<td>1,743,259</td>
</tr>
<tr>
<td>5</td>
<td>Colorado</td>
<td>1,701,735</td>
</tr>
<tr>
<td>6</td>
<td>Wyoming</td>
<td>1,664,604</td>
</tr>
<tr>
<td>7</td>
<td>Ohio</td>
<td>1,439,905</td>
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<tr>
<td>8</td>
<td>West Virginia</td>
<td>1,375,108</td>
</tr>
<tr>
<td>9</td>
<td>New Mexico</td>
<td>1,251,013</td>
</tr>
<tr>
<td>10</td>
<td>Arkansas</td>
<td>823,223</td>
</tr>
</tbody>
</table>

Source: Policy Matters Ohio based on Energy Information Administration (2016 data)
https://www.eia.gov/state/rankings/
The oil and gas industry have statewide impact

- The industry is concentrated in eastern Ohio, but the entire state is affected.
- Remember the core industries defined by the Ohio Department of Job and Family Services: it included services, transmission and transportation as well as drilling, oil and gas extraction
- Workforce is regional: construction, geological, transportation, transmission, processing and so forth

Waste disposal, injection, treatment and brine processing

Existing and planned transmission lines (from Fracktracker)
VALUE OF OIL & GAS EXTRACTED FROM OHIO COMPARED TO SEVERANCE TAX COLLECTIONS

• In 2015, oil and gas extracted in Ohio had an estimated market value of $3.9 billion.

• Total severance tax paid on oil and gas in calendar year 2015 was about $29 million.

• The effective tax rate was less than 0.75%.

Source: Testimony by Budget Director Tim Keen to the House Finance Committee of the 132nd General Assembly, Feb. 22, 2017
Ohio’s severance tax

- 2.5 cents per thousand cubic feet (MCF) plus a .5 cent reclamation fee
- Ten cents per barrel of oil, plus another dime for conservation purposes.
- Most states assess a severance tax on value, not quantity.
- Ohio’s severance tax is old, dating back to the 1970s, when the industry was not just mature, but depleted-under older technology.
Ohio collects fewer dollars per MMCF of gas than other states

- Tax Collections on oil and gas in Ohio are lower than comparable volume taxed in other states.
- The oil and gas industry protest they will shift production to other states if Ohio imposes a more conventional severance tax.
- Oil and gas has certain sensitivities to price, but geology, potential, and quality of the natural resource matter a lot.

Sources: Keystone Institute, e-mailed data of 11/8/2017
Pennsylvania is under the same pressures as Ohio to have a conventional severance tax. The Keystone Institute estimated "effective tax rates" of producing states.

Base rate or statutory rate of severance tax is often undercut by tax breaks, loopholes and holidays, making the effective rate much lower than the stated rate.

Ohio's the lowest – collecting even less on the extraction of this precious natural resource than PA – which doesn't have a severance tax.

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*Source. PA legislature Independent Fiscal Office, Analysis of Revenue Proposals, FY 2017-18 Executive Budget," April 2014, Table 1.5, p. 11; http://www.ifo.state.pa.us/download.cfm?file=Resources/Documents/Revenue_Proposal_Analysis_

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Governor Kasich’s most recent proposal

Figure 2. Ohio’s recent severance tax collections compared with Kasich’s proposal

Source: Policy Matters Ohio based on Ohio Department of Taxation and Ohio Office of Budget & Management data.
Policy Matters Ohio Position on state severance tax

- Ohio should levy a 5 percent severance tax on oil, natural gas and natural gas liquids at the wellhead.

- No tax breaks, holidays or loopholes.

- Ohio and Pennsylvania and West Virginia should have the same level of severance tax to establish a level playing field so the industry cannot “play” our states off against each other.

- The Governors of our three states have agreed to work cooperatively on regional economic development; tax policy should be an integral part of this.

- Additional fee for a permanent fund, to build for future economic growth after the boom goes bust.
Why is severance tax needed?

• External costs of production
• Install new infrastructure related to spin-off development (grocery stores, etc.)
• Maintain enhanced infrastructure to support the industry
• Build for a sustainable and diversified economy for the future
External costs of fracking

• Air and water pollution on-site
• Wear and tear on public infrastructure
• Impacts of migrant workforce
• Earthquakes
• Spills, environmental crime, emergencies
Cost of new infrastructure

- Infrastructure needed for expanded commerce
  - Roads and turn lanes
  - Water treatment, sewerage
- Housing
- Traffic controls
- Emergency services and equipment
- Statewide impacts
Cost of maintaining enhanced infrastructure

• Widened roads
• Traffic controls
• Public safety/capital investment
• Emergency services/capital investment
• Environmental oversight
• Statewide – oversight of pipelines, injection wells, watersheds, transportation
Building a sustainable tomorrow

- Overcoming the boom-and-bust history of Appalachian counties in Ohio
- Providing for future needs
  - Regional
  - Statewide
- Ensuring sustainability in public finance
Visions from the region

• Economic development strategies based on Minnesota Iron Range strategies
• Leveraging current industries to serve broader markets: statewide, regional and national.
• Ensure educational benefits for future generations
• Protect the environment from degradation we’ve seen before in the region.
Acknowledgements

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