Power and Powerlessness in the Shale Valley Schools: Fracking for Funding

Jacqueline Yahn

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POWER AND POWERLESSNESS IN THE SHALE VALLEY SCHOOLS: FRACKING FOR FUNDING

Jacqueline Yahn

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I. INTRODUCTION

In 2008, at the threshold of the Great Recession,1 superintendents and treasurers throughout Ohio’s Appalachian region did not anticipate the forthcoming tremors of the fracking boom. Two years later, the shale gas rush began in Appalachian Ohio as the region became of interest to oil and gas companies that wanted to invest in the Marcellus and Utica shale located beneath many of the state’s 32 Appalachian counties.2 By late 2010, public schools throughout Appalachian Ohio began to lease district-owned property to oil and gas companies for exploration and drilling in an effort to resolve long-term budget deficits.3 Superintendents and treasurers surmised that this revenue would provide schools with a stopgap as the uncertainty of Ohio’s biennium budget loomed and local citizens remained recalcitrant to approve tax increases.4

The two foci of this Article, public schooling5 and natural resource extraction, are what James Scott6 calls state-led schemes to improve the human condition.7 Scott characterizes state-led schemes as hegemonic efforts to enact wide-scale changes and improvements in society.8 These schemes are designed from the macro viewpoint of those in power.9 The planners for these schemes do not have nefarious intentions, but they often fail to consider how the scheme will

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3 Id. at 3.
4 Id. at 4.
6 James Scott is the Sterling Professor of Political Science, professor of anthropology, and Director of the Agrarian Studies Program at Yale University. James Scott, YALE UNIV. https://politicalscience.yale.edu/people/james-scott (last visited Mar. 29, 2018).
7 JAMES C. SCOTT, SEEING LIKE A STATE: HOW CERTAIN SCHEMES TO IMPROVE THE HUMAN CONDITION HAVE FAILED 1 passim (1998).
8 Id. at 4–5.
9 Id.
unfold in a specific locale. Notably, the purpose of state-led schemes is to reshape local landscapes, including their politics, environments, economies, and power structures. Therefore, the absence of the local perspective becomes a problem, often altering the scheme’s intended outcome and foiling its most important benefits.

This Article is part of a larger collection of essays on Appalachian justice that collectively probe at the region’s most pressing contemporary issues. The acquisition and loss of power that is associated with the shale gas rush occurring in Appalachia’s northernmost territory is one such issue. The shale gas rush is a contemporary state-led scheme, but similar to previous schemes carried out in the region it is focused on natural resource extraction and exploitation. This is cause for concern as regional historians collectively agree that development schemes based on Appalachia’s abundance of natural resources—coal, oil, timber, and natural gas—have permanently restructured local economies, surrendering vast sections of Appalachia to the unpredictability of boom-to-bust economic cycles.

At present, much of Appalachia remains vulnerable to long-term economic, environmental, social, and political issues that reflect the failing of these past development schemes. Therefore, it is critical to examine the burgeoning relationship between the oil and gas industry and a number of the Appalachia’s public schools. School-finance scholars point to academic attainment as a key predictor of community vitality. Without question, when public schools enter into leasing agreements or become dependent on other forms of revenue associated with fracking, they are engaging in circumstances that will reshape their organizational and financial structure. In Appalachian Ohio, the shale gas rush is influencing the long-term financial health of public school

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10 Id. at 5.
11 Id.
12 See, e.g., David E. Whisnant, Modernizing the Mountaineer: People, Power and Planning in Appalachia (1994).
districts and the manner in which they serve their students, communities, and, by extension, the greater-Appalachian region.17

Throughout this Article, I draw from data collected during my 2016 study of public schools that engaged in fracking-for-funding.18 The study took place across seven shale-rich counties in Appalachian Ohio: Belmont, Carroll, Columbiana, Guernsey, Harrison, Monroe, and Noble.19 The study’s design had a guiding question: How do superintendents and treasurers navigate the pressures and responsibilities of entering into legally-binding agreements with oil and gas companies?20 Data collection focused on the extent to which fracking-for-funding improved school districts’ financial and organizational capacities, while probing at how this new revenue influenced, if at all, short- and long-term planning.21

In the Article that follows, I explain how oil and gas companies became unlikely bedfellows with the Valley’s public schools. I elaborate on my initial findings by analyzing how fracking-for-funding led superintendents and treasurers to both acquire and lose power on behalf of their respective districts. Part II of the Article begins with a background of the tensions associated with public-school funding across the United States, giving special emphasis to Ohio’s school-funding issues. Part III reviews my study of Appalachian Ohio schools that engaged in fracking-for-funding, while Part IV considers the extent to which said engagement in the fracking boom provided opportunities for school districts to plan for both the short- and long-term needs of their students and communities. Part V discusses how the findings of the study might inform policies related to school funding and natural resource extraction in Appalachia. The Article concludes with a reflection upon why land persists as a unique form of capital in the rural industrial hinterlands.

II. BACKGROUND: SCHOOL FUNDING

Schools in the Shale Valley do not operate in a vacuum that isolates them from the region’s history or contemporary stressors. In fact, participants in my study of fracking-for-funding lamented that their respective district’s financial position prior to the boom substantially limited their ability to invest revenue accrued in association with the shale gas rush. Shale Valley administrators pointed to the tensions surrounding school funding norms across the nation and specifically within the state of Ohio as giving shape to their respective district’s financial circumstances at the onset of the fracking boom. In forthcoming

17 See id.
18 See Yahn, supra note 2, at 158–71.
19 Id. at 3.
20 Id.
21 Id. at 157.
sections, I provide a brief overview of the tensions surrounding school-funding norms in the U.S. and address issues specific to the state of Ohio.

A. Public Schools and the Search for Equity

Throughout the 20th century, education matters that were once locally controlled gradually came under the supervision of the state and federal government. When a Nation at Risk—the government report that forewarned U.S. students were academically trailing their international peers—was released during the latter decades of the century, it led to sweeping education reforms, most notably the No Child Left Behind Act of 2001 (NCLB). Directives like NCLB consistently fail to include allocations for the funding public schools need in order to execute changes designated in the mandate. Yet, if schools fail to meet requirements outlined in a mandate, they are at risk for losing state and federal funding, which serves to exacerbate conflicts between the states and the federal government, as well as between states and their public schools. Frustrations are further agitated by the overreliance on local property taxes for a sizeable portion of public-school funding. This reliance is the ire of property-poor districts in rural and urban areas. Experts on school finance explain that overreliance on local property tax creates issues of wealth disparity not just amongst socioeconomic groups within states but also across state boundaries.

B. Children in America’s Schools

In 1996, Bill Moyers spotlighted school-finance experts’ points by documenting the types of inequities that derive from overreliance on the local

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24 Id. at 93–112.
property tax in the documentary entitled *Children in America’s Schools*. This documentary framed school-funding issues as being overly harmful to schools in urban and rural locales. Ohio was the focal point for the documentary, as Moyers took viewers to the inadequate school facilities that dotted much of Ohio’s rural and urban landscapes. Appalachian Ohio was featured prominently in the film, including a high school in Vinton County that was still heated by coal furnaces and an elementary school in Belmont County where students had to put on winter coats to access restroom facilities located in an adjacent building.

The overarching point of *Children in America’s Schools* was that school funding formulas that are based primarily on local property taxes geographically ostracize a disproportionate number of public school students. At the time the documentary was released, it was estimated that Ohio rural and urban districts with the lowest property valuations were able to spend only $3,000 per student in contrast to the approximately $12,000 per student spent in affluent regions of the state. At the time, Ohio came to serve as an example of the way local wealth disparities threaten the nation’s most disadvantaged children. The documentary seemed to suggest that in denying these students a “thorough and efficient” education, the state was making children vulnerable to lifelong poverty.

C. *Foundation Formulas: The Great Equalizer?*

State lawmakers across the nation have worked to counter some of the inequities that overrelaxence on local property taxes creates by using a foundation model of funding. Foundation formulas ensure that each student attending a public school (regardless of geographic locale) will be allocated a minimum amount of funding each year. States that use foundation formulas pay a higher

29 Id.
30 Id.
31 Id.
32 Id.
33 Id.
34 See id.
35 Id.
37 For example, in the state of Ohio, the per-pupil funding baseline was $5,900 for fiscal year 2016 and $6,000 for fiscal year 2016. OHIO OFF. OF BUDGET & MGMT., PRIMARY AND SECONDARY EDUCATION: FY2016–17 OHIO SCHOOL FOUNDATION FUNDING FORMULA SIMULATION FACT SHEET 1, https://obm.ohio.gov/Budget/operating/doc/fy-16-17/SchoolEstimates/FY2016-17_Ohio_School_Foundation_Funding_Formula_Simulation_Factsheet.pdf.
portion of the foundation amount for students in property-poor districts, as opposed to the share they pay to districts in more affluent locales.\textsuperscript{38} To determine these payments, state lawmakers agree on the formula that will be used to calculate the respective need of each district in the state, and this funding formula is then applied systematically to all schools in the state.\textsuperscript{39} Under a foundation model of funding, respective locales within a state also retain the autonomy to pass levies that tax higher than the state-sanctioned minimum.\textsuperscript{40}

**D. Appalachia’s Public Schools Struggle with Their Histories**

Foundation formulas are inarguably a significant means of countering wealth disparities within a state. Still, scholars find that school-funding norms in the U.S. frequently place public schools throughout sub regions of Appalachia, which stretch into 13 different states, at a distinct disadvantage.\textsuperscript{41} One of the most significant drawbacks of foundation formulas for Appalachia’s schools is that said formulas temper, but do not discontinue, a respective district’s reliance on local property taxes.\textsuperscript{42} This complicates matters for Appalachian schools in parts of the region where large-scale natural-resource extraction of coal, timber, and oil and gas has destabilized property values.\textsuperscript{43}

A second issue for Appalachian schools is that their communities are home to rural industries such as coal mining, steel mills, manufacturing, and farming that are prone to boom-to-bust cycles.\textsuperscript{44} The economic downturns that are ushered in with industrial decline weaken the local tax base by leading to unemployment, outmigration, and the shuttering of local businesses.\textsuperscript{45} There is also the issue of the foundation formula itself, which emphasizes per-pupil funding.\textsuperscript{46} Therefore, if a school’s enrollment declines (a persistent issue in

\textsuperscript{38} See Walter & Sweetland, supra note 36, at 145–47.


\textsuperscript{40} See Robert G. Stabile, Ohio School Finance Blue Book 9 (Powerhouse Press 2015).


\textsuperscript{42} See Stabile, supra note 40, at 5–21.

\textsuperscript{43} Id.

\textsuperscript{44} Eller, supra note 13, at 170–220; see also Craig B. Howley, The Impact of Rural Industries on the Outcomes of Schooling in Rural America 1–7 (1989) (providing a definition of rural industries and discussing their impact on schools and communities).


\textsuperscript{46} Walter & Sweetland, supra note 36.
Appalachia’s economically distressed communities\textsuperscript{47}, so does a school’s yearly funding. Still, fewer students rarely alter yearly operating costs, causing a budget deficit.\textsuperscript{48} Similarly, in sections of Appalachia where long-term economic decline is associated with wide-scale poverty, schools struggle with the cost of additional services such as transportation for long commutes in now-consolidated districts.\textsuperscript{49} A final point worth visiting is the assertion by scholars that public schooling in the 21st century is a state-led scheme:\textsuperscript{50} one presently designed to disregard the needs of rural schools and best interests of their pupils\textsuperscript{51} by promoting free-market ideals and villainizing rural-life worlds as backwards and antithetical to current efforts for the nation’s economic prosperity.\textsuperscript{52}

\textbf{E. Appalachian Ohio Schools and the Struggle for Equity}

Ohio schools earn 46.2\% of their revenue from their local tax base, making them dependent on the health of their local economy.\textsuperscript{53} The state funds an additional 47.8\%, revising its funding formula each biennium budget cycle.\textsuperscript{54} Public school and higher education funding is the second biggest line-item in the state’s budget. Therefore, during times of state and nationwide economic hardship (such as the Great Recession), school funding is subject to extensive scrutiny.\textsuperscript{55} In Ohio, the passing of House Bill 920 on the heels of the 1980s, a time when deindustrialization began to set in across sections of the state, provides a relevant example of how public schools in Appalachia endure long-term disadvantages.\textsuperscript{56}

\begin{itemize}
  \item \textsuperscript{47} DeYoung, supra note 41.
  \item \textsuperscript{48} See, e.g., Stabile, supra note 40, at 68–77.
  \item \textsuperscript{49} See, e.g., Caitlin Howley, Purpose and Place: Schooling and Appalachian Residence, 12 J. APPALACHIAN STUD. 58, 74 (2006).
  \item \textsuperscript{50} See, e.g., Paul Theobald, Education Now: How Rethinking America’s Past Can Change Its Future (2008).
  \item \textsuperscript{51} See, e.g., Caitlin Howley & Craig Howley, Farming the Poor: Cultivating Profit at the Schoolhouse Door, in NEOLIBERALIZING EDUCATION REFORM: AMERICA’S QUEST FOR PROFITABLE MARKET-COLONIES AND THE UNDOING OF PUBLIC GOOD 23 (Keith M. Sturges ed., 2015).
  \item \textsuperscript{52} See, e.g., Paul Theobald & Craig Campbell, The Fate of Rural Communities and Schools in a Corporation-Dominated Political Economy: A Historical Interpretation, in DYNAMICS OF SOCIAL CLASS, RACE, AND PLACE IN RURAL Education 97 (Craig B. Howley, Aimee Howley, & Jerry D. Johnson eds., 2014).
  \item \textsuperscript{53} Stabile, supra note 40, at 3, 22–31.
  \item \textsuperscript{54} Id. at 3, 38–52.
  \item \textsuperscript{55} See Ohio LEGIS. SERV. COMM’N, OHIO FACTS 2016 EDITION: A BROAD OVERVIEW OF OHIO’S ECONOMY, PUBLIC FINANCES, AND MAJOR GOVERNMENT PROGRAMS 52–60 (2016).
  \item \textsuperscript{56} See Krissy Dietrich Gallagher, Understanding School Funding: House Bill 920, HEIGHTS OBSERVER (July 1, 2016, 9:20 AM), http://www.heightsobserver.org/read/2016/07/01/understanding-school-funding-house-bill-920.
1. House Bill 920

Prior to deindustrialization, Ohio property owners experienced substantial property tax increases. To counter this, the Ohio Legislature passed House Bill 920 into law.\(^{57}\) Designed to temper the impact on taxpayers when residential property values increased, House Bill 920 prohibits a district’s levy from accounting for inflation without receiving voter approval.\(^{58}\) While this is advantageous for homeowners, it can be troublesome to school districts for a couple of reasons. First, House Bill 920 limits a district’s ability to reap new tax dollars without voter approval.\(^{59}\) Therefore, levies passed decades ago may no longer position the district to collect enough tax dollars at the local level to keep pace with the cost of unfunded mandates; cost of living raises for their faculty and staff; and academic and capital outlay costs.\(^{60}\) Several public school districts participating in the fracking-for-funding study from which this Article draws had not passed a new operating levy since the early 1990s.\(^{61}\) A second, but equally important, dilemma in regards to House Bill 920 is that in some regions of Ohio, property valuation decreases because of economic factors at the state and local level, meaning the tax bills of local residents actually decrease.\(^{62}\) As a result, counties in Ohio that have seen long-term economic stagnation, coupled with the environmental degradation associated with industrialization and resource extraction, are now home to school districts that earn substantially less revenue at the local level than those districts in property-rich areas of the state.

2. *DeRolph v. State*\(^{63}\)

Appalachian Ohio is home to a disproportionate amount of public school districts that have experienced local property valuation decreases or stagnations associated with deindustrialization, outmigration, and environmental degradation. Since the 1980s, the cost of unfunded mandates has continued to increase.\(^{64}\) One of the most contentious legal battles over school funding, *DeRolph v. State*, began in Appalachian Ohio in 1991 when five school districts filed a lawsuit in the Perry County Common Pleas Court against the state for

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58 Id.
59 Yahn, *supra* note 2, at 17.
60 Id.
61 Id.
62 Id.
63 78 Ohio St. 3d 193 (1997).
failing to meet its obligation to fund its schools in a “thorough and efficient manner.”

The lawsuit originated when Nathan DeRolph brought to light the subpar conditions of Sheridan High School in Perry County. At Sheridan, DeRolph and his fellow classmates attended class in rooms where the roof leaked into trash cans and the encyclopedias dated back to 1957. Occasionally, a student was left standing because of a shortage of desks. By the time the case went to court in 1993, the Ohio Coalition for Equity and Adequacy of School Funding had joined in the fight, identifying over 500 additional districts to serve as plaintiffs in the case.

The DeRolph litigation was waged for a decade and heard before Ohio’s Supreme Court, which ultimately ruled the formula unconstitutional four separate times. The Legislature, charged with overhauling the system, found it difficult to devise a formula that would diminish the inequities created by variations in property valuation that disadvantage regions of the state prone to economic decline. Districts where the property value and median incomes remain low struggle not just to fund basic operating costs, but also to keep pace with school districts in affluent communities, where taxpayers’ wealth bolsters the amount of revenue levied at the local level. Part III of this Article examines what happened when Appalachian Ohio schools that had struggled with school funding encountered the option to lease school properties at the onset of the shale gas rush.

III. FRACKING-FOR-FUNDING

In the Sections that follow, I review my study of Appalachian Ohio schools that engaged in fracking-for-funding. The study was conducted across seven Appalachian Ohio counties—Belmont, Carroll, Columbiana, Guernsey, Harrison, Monroe, and Noble—that are experiencing an unprecedented amount

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67 Harden, Oct. 2009, supra note 65, at 14, 16.
68 Id. at 14–15.
70 STABILE, supra note 40, at 83–85.
71 See e.g., Scott R. Sweetland, An Exploratory Analysis of the Equity of Ohio School Funding, 40 J. EDUC. FIN. 80 (2014).
of unconventional natural gas exploration and extraction. Data collection included semi-structured interviews with 20 superintendents, treasurers, and educational service center administrators, and it was conducted along with document analysis of 52 financial documents: 24 independent audits from fiscal years 2010 and 2015; 23 five-year forecast assumptions from fiscal years 2010 and 2016; and five performance audits conducted between 2004 and 2015. Data analysis focused on the extent to which the projected financial possibilities are being realized by rural school districts, while calling into question the limitations of relying on agreements based on natural resource exploitation as a means of financial stability.

I begin this Section with an introduction to the participants in the study, before describing the study’s context. I then review what fracking-for-funding meant for Shale Valley schools by discussing the revenue districts earned, along with the major findings that emerged from my data collection.

A. Social Historical Actors

C. Wright Mills suggested that men and women are social and historical actors “who must be understood, if at all, in close and intricate interplay with social and historical structures.” In my study of fracking-for-funding, I spoke with 20 social-historical actors representing 12 school districts and two educational service centers located within the Shale Valley. Beginning in 2010, these public school officials were approached by landmen representing companies such as Chesapeake and Rice Energy. These corporate representatives offered schools the option to lease their properties for exploration of the Marcellus and Utica shale that rests beneath their school buildings and sport facilities.

The superintendents and treasurers I spoke with across the Shale Valley took issue with popular romantic notions that their home place was “the other America.” It is a part of, not apart from, a larger global economy that for nearly two centuries has promoted the widespread use of natural resource and labor exploitation as an efficient means for fueling economic growth. In fact, the

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73 See Yahn, supra note 2, at 81–84.
74 Id. at 73–94.
76 Yahn, supra note 2, at 82.
77 Id. at 33.
78 Id.
79 WHISNANT, supra note 12.
moniker "the Shale Valley" was assigned to their region by local politicians and businesspeople in an effort to frame the promise they believe this section of Appalachia holds not only for unconventional drilling, but also for the construction of an ethylene cracker plant and accompanying industries.  

The participants in the study pointed to the zeal of local, state, and federal stakeholders as proof that nonparticipation on the part of their districts was unlikely to stop the infiltration of the fracking industry. As one superintendent explained, the Shale Valley was at what Mills called the intersection of history and biography, and this had significant influence on local leaders:

Here is what I would tell you: In our Rust Belt area, jobs supersede the environment. I think there is a direct correlation. It was just last week a report came out and Jefferson County was like second out of 88 counties in unemployment; Belmont County was fifth, and Harrison County was like seventh. And I am talking worst, second worst! What I am saying to you right now jobs supersede the environmental impact at this point. Plus[.] we have been positioned with coal, and steel, and, pottery.  

B. The Shale Valley: At the Intersection of History and Biography

Situated within the greater Appalachian region, the counties in the Valley are unified by their proximity to the Ohio River and cities of Pittsburgh, Steubenville, and Wheeling. Beneath their foothills, ridges, and river valleys is a geologic savings account that converted to the raw materials needed to create the steel mills, coal mines, oil and gas wells, manufacturing, and pottery industries. In their prime, these rural industries employed the local masses, creating a rural industrial hinterland whose populace was subsequently disadvantaged as the 1980s and 1990s ushered in globalization that altered trade policies and led to the outsourcing of domestic steel, manufacturing, and energy production. By the dawn of the 21st century, the Shale Valley’s riverbanks were littered with the industrial detritus, and in the years that followed, its coal industry began its slow decline.

80 The Shale Valley: Part I (WTRF 7 television broadcast July 25, 2016).
81 MILLS, supra note 75, at 143–65.
82 Yahn, supra note 2, at 117.
85 Id.
1. The Shale Gas Rush Comes to Northern Appalachia

In 2008, a new chapter in the region’s biography began when Terry Englender, the now retired Penn State geoscientist, became the prognosticator of Northern Appalachia’s shale gas rush. Englender calculated that the Marcellus Shale, which rests beneath much of Appalachia’s northernmost territory, had upwards to 500 trillion cubic feet of recoverable natural gas. This number crunching is credited for precipitating the fracking boom that is now widespread throughout sections of Ohio, Pennsylvania, and West Virginia.

While Englender’s calculations bolstered support amongst the backers of companies such as Chesapeake Energy, it is technological advances in unconventional drilling that made it economically feasible for the oil and gas industry to begin exploration and drilling in the Shale Valley and other sections of the Marcellus Shale. This form of drilling requires the implementation of “fracking” (short for hydraulic fracturing). According to the U.S. Department of Energy, a horizontal well is drilled and pipeline is placed into the ground so that the well will actually extract gas from a radius surrounding the well rather than just the ground immediately beneath the well site. After the well is drilled, explosives are used to perforate the pipe so that high volume pressure can be used to extract the gas from the shale. Fracking is used to create this high-volume pressure by allowing water to be pushed down into the well to shatter the rock and release the gas. Both the gas and the fracturing fluid (which is now waste water) will emerge from the well.

The sudden public and private interest in natural gas in Northern Appalachia and other shale-rich regions is geopolitical. Cheap energy is not merely a convenience, but also a factor in national security and global superiority. Unconventional wells provide an economically feasible way for

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86 Tom Wilber, Under the Surface: Fracking, Fortunes, and the Fate of the Marcellus Shale 217 (2012).
87 Id. at 97.
89 Id.
90 Wilber, supra note 86; see also Yahn, supra note 88.
92 Id. at ES-3.
95 Id.; see also Prud’homme, supra note 93, at 31–39.
96 Yahn, supra note 88.
domestic companies to retrieve natural gas trapped in shale fields throughout the United States. Moreover, the extraction of natural gas lessens the nation’s dependence on foreign energy reserves, providing time for an exploration of renewable energy resources and strengthening the national economy that has been in peril since the 2008 financial collapse. 97

2. Schoolhouses Above the Rock

The economic prospects of the Marcellus and Utica shale led to options for landowners to lease property to oil and gas companies. These leases came with the anticipation of earning a substantial stream of revenue for years afterward. External reports suggested public schools might earn as much as $5,000 per acre in initial signing bonuses. 98 Public school representatives in the Shale Valley with whom I spoke reported that leasing deals netted their district’s signing bonuses that ranged from $132,000 to $1,000,000. 99 "The agreements also gave districts the right to earn a percentage of royalties—ranging from [15% to 20%]—on any oil or gas extracted from the property." 100

C. The Shale Valley Public Schools Frack for Funding

The phenomenon of public schools fracking-for-funding was occurring as part of a widespread land-grab in Appalachian Ohio. By 2013, five years into the Great Recession, it was clear the Shale Valley was going into the boom years of the shale gas rush. 101 Reports show that 412 wells were completed across the 3,244.7 square miles of land that encompass the counties I studied, 102 with the following year ushering filing for an additional 1,303 permits. 103 By 2016, of the 28 public schools and two career centers located in the counties I studied, "18 schools and one career center had entered into leasing agreements .... " 104 Further research and discussion revealed that "untethered districts had not been asked to lease, with one district losing the option because it sold its rights many years ago." 105

97 Id.; see also PRUD’HOMME, supra note 93, at 53–69.
99 Yahn, supra note 2, at 97.
100 Id.
101 See, e.g., id. at 99.
102 See OHIO DEP’T OF NAT. RES., supra note 72, at 7.
103 OHIO OIL AND GAS ASS’N, supra note 72.
104 Yahn, supra note 2, at 100.
105 Id.
1. Reading, Writing, and Revenue

Administrators in the Shale Valley reported they could not imagine a scenario in which abstaining from leasing would bolster the public’s confidence in their ability to properly manage the finances of their respective districts. By engaging in leasing agreements, school districts earned money that served as a stopgap: allowing them to pay down or pay off debts without asking their public or the state government for money.106 Participants reported using money to invest in liability issues, technology upgrades, building maintenance, or outstanding debts.107

Superintendents and treasurers also felt they were upholding their responsibility to the community: protecting limited tax revenue by seeking new sources of income. One superintendent, “whose district had experienced numerous failures at the ballot box[,] suggested that the community expected his district to lease.”108 He conjectured, “I think our taxpayers would believe that we had an obligation to do that [lease] because we could do things without taxing them.”109

By the fall of 2016, “more than [four] million dollars in signing bonuses was paid to the 12 districts represented” in my study.110 While none of the districts were earning royalty payments at the time of the study’s conclusion, they were earning revenue from six value-added opportunities including: ad valorem taxes, property valuation increases, corporate and private-citizen donations, new construction, enrollment spikes, and income taxes.111 Still, participants characterized the oil and gas leases they signed as a stopgap and the value-added opportunities as temporary.112 They challenged the idea that this revenue in and of itself was any type of long-term boom for their respective district.113 These funds were impermanent but provided necessary revenue that provided a temporary way to replace funding lost to state budget cuts, enrollment decline, and dwindling tax bases.114 As one seasoned treasurer explained,

106 Id. at 119.
107 Id. at 27, 123
108 Id. at 97.
109 Id.
110 Id. at 119.
111 Two districts in the study had passed income tax levies in the 1990s, making it possible for them to earn revenue when landowners in their district earned taxable revenue from leasing agreements and royalty payments. Yahn, supra note 2, at 97; see also STABILE, supra note 40, at 29–30.
112 Yahn, supra note 2, at 119.
113 Id.
114 Id.
Where people get into a problem is that this money coming in from gas and oil is non-recurring money... in my experience, non-recurring money, you use on nonrecurring expenses such as if you need to repave, buy the buses, whatever, you don’t use that money on wages and benefits each year because that money might not be there the coming year.\textsuperscript{115}

2. Major Findings

Six major findings emerged from the study that further illustrate superintendent and treasurers’ decision-making process, as well as the financial and organizational realities of fracking-for-funding:\textsuperscript{116}

1. Moderate Pro-Actionists: Superintendents and treasurers in the Shale Valley acted as moderate pro-actionists, proceeding with caution in spending and saving leasing and value-added revenue.\textsuperscript{117}

2. Stopgap: Revenue earned from fracking-for-funding was a stopgap. Superintendents and treasurers treated the revenue earned from leasing and value-added opportunities as one-time money or a temporary fix to long-term budget issues. It was most often invested in capital outlay and other nonrecurring costs.\textsuperscript{118}

3. Value-Added: Superintendents and treasurers recognized and capitalized on value-added opportunities that allowed them to accrue unanticipated revenue for their districts. They sought after six additional opportunities to earn revenue (in addition to leasing agreements) associated with the fracking boom.\textsuperscript{119}

4. Educating-in: Superintendents took steps to educating-in by investing in new and existing curriculum and programming that worked towards reversing the brain-drain that plagues the region.\textsuperscript{120}

5. One Wallet: Superintendents and treasurers recognized that “you only have one wallet.” Revenue from fracking

\textsuperscript{115} Id. at 123.
\textsuperscript{116} Id. at 112–56.
\textsuperscript{117} Id. at 114–19.
\textsuperscript{118} Id. at 119–24.
\textsuperscript{119} Id. at 124–31.
\textsuperscript{120} Id. at 131–38.
was invested with the bigger financial picture (what schools call a five-year-forecast) as a guide.121

6. Invisible Gorillas: Invisible gorillas—or economic, environmental, and social issues associated with the fracking boom—limited the long-term possibilities the boom might have for school districts. These issues have the potential to inflict long-term powerlessness on schools and communities where the fracking boom occurs. Participants’ awareness of these issues was varied.122

Collectively, the findings indicate that that superintendents and treasurers in the Shale Valley strove to empower their school districts by navigating oil and gas leases as well as other financial opportunities associated with the fracking boom to benefit their districts and surrounding communities. Still, the forms of power the participants had acquired on behalf of their school districts were tempered by the constraints typical of state-led schemes. State policies and corporate influence underscored the political and economic forces that promise to keep the public schools in the weaker position for the duration of the fracking boom. This resulted in subtle acts of resistance by district leadership. In Part IV, I expound upon these findings by analyzing the acquisition and loss of power by district leaders on behalf of their respective districts.

IV. POWER AND POWERLESSNESS

I would argue that there is a noticeable relationship between the actions of Shale Valley administrators and John Gaventa’s seminal work on power and powerlessness in the Cumberland Valley of Central Appalachia.123 While studying a post-extraction community, Gaventa became particularly concerned with why quiescence had settled into the Cumberland Valley. Gaventa was most curious as to why, in a democratic society, this group of disadvantaged citizens did not see protest or rebellion as viable options for pushing back against hardships inflicted on the Valley by corporations and the government.124

More than 30 years later, Gaventa’s study, as the title of this Article indicates, calls to mind the important role a local community’s social historical actors play in navigating large-scale development schemes like the shale gas rush. In that regard, this Article is specifically concerned with how schools and communities navigate the short- and long-term implications of the fracking boom

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121 Id. at 140–42.
122 Id. at 143–52.
123 JOHN GAVENTA, POWER AND POWERLESSNESS: QUIESCENCE AND REBELLION IN AN APPALACHIAN VALLEY (Univ. of Ill. Press 1980).
124 Id. at 205–27.
before the bust rattles through their hills and valleys. As Gaventa brought to our attention, rebellion may be an implausible means of affecting desirable outcomes for communities grappling with the economic, environmental, and social issues that come at the heels of large-scale resource extraction.125 Yet, as the findings cited in Part III of this Article indicate, quiescence is not always the alternative when conditions are ill-suited for rebellion.

The work of James Scott, who, like Gaventa, focuses on human agency in his work on state-led schemes to improve the human condition,126 provides a platform for further analyzing the disposition Shale Valley administrators took towards the fracking boom. Scott probes at how humans react at the intersections of history and biography when state-led schemes like the fracking boom are taking place.127 He finds that instead of local residents acquiescing all power, they adapt more subtle mechanisms for handling the undesirable consequences of being in the weaker position.128

I came across similar findings in my interviews with Shale Valley superintendents and treasurers as they discussed their use of local practical knowledge as a means of responding to the unexpected influence the interests of corporations and the nation had on their school finances and organization. In these discussions, Shale Valley administrators asserted that their aim was to leverage leasing agreements to strengthen their financial and organizational autonomy, hoping to bolster their local control over the vision of their school district.129 In the next Section, I discuss to what extent the data indicated Shale Valley superintendents and treasurers acquired the power to pursue such opportunities.

A. Power in the Shale Valley Schools

Researchers find that place-specific matters, rooted in local cultural norms and values, influence the decision-making process of rural superintendents grappling with the situations like the shale gas rush.130 Their success seemingly hinges on how well they know the places they serve. In fact, scholars find that tenured rural superintendents possess an intimate knowledge of place that complements their professional training and allows them to navigate the tensions that arise surrounding issues such as school finance, personnel

125 Id.
126 Scott, supra note 5, at 307–57.
128 Id.
129 Yahn, supra note 2, at 98–112.
decisions, and local media influence. Shale Valley superintendents’ responses to the fracking boom illustrate this point.

1. Acquisition of Power

School districts that engaged in fracking-for-funding capitalized on an important caveat of the shale gas rush’s success: the dependence on local landowners. To gain access to the Marcellus and Utica shale, natural gas companies first had to negotiate an arrangement that allowed them to access this natural gas resting on private property. The terms of these leases are of eminent importance to the industry’s success, given that fruitful natural gas production requires the constant addition of new well sites each year.

In negotiating with oil and gas companies and pursuing value-added revenue, school leaders gained a less-obvious form of power. Like participants in Scott’s study, Shale Valley administrators acknowledged that the fracking boom was a scheme bolstered by state support, so they ruled out less advantageous forms of power acquisition. To administrators, rebellion against the shale gas industry would be in vain: wasting precious energy that could be put towards other options for gaining power.

Participants directed their momentum towards stabilizing the district’s finances, using it as proof to the community that district leadership could maintain stability. Leasing bonuses and value-added revenue were allocated toward lessening the overreliance on local taxes and state funding. The attempts to educate-in create the possibility of long-term economic gains for not just the district, but also its constituents.

2. Execution of Power

Both superintendents and treasurers felt the best use of their energy was to place their districts in a position of influence during the fracking boom. To do so, they engaged in practical maneuvers. The first maneuver was to take moderate actions, engaging in the fracking boom without overinflating its financial possibilities. In this vein, the money from leasing was used as a stop-gap to pay off debts, invested in one-time expenditures (e.g. capital outlay, new

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131 Id.
132 Yahn, supra note 88.
134 SCOTT, supra note 5.
135 Yahn, supra note 2, at 106–18.
136 Id.
137 Id.
technology, or educational materials), or saved for a later date. Likewise, value-added revenue was also treated as one-time money and allocated towards resolving immediate deficit issues or used to build the district’s general fund.

The second, and perhaps most progressive, maneuver was focused on educating-in. This initiative involved creating new or strengthening existing curriculum and programs focused on reversing the trend of outmigration from the region.\(^{138}\) Participants were clear in their rationale for the shift to prioritizing educating-in. They explained that the fracking boom’s emergence had provided funding, reason, or external support (and at times all three) that allowed for a more curated effort aimed at improving the life prospects of the student population.\(^{139}\) Many of the interviewed superintendents believed these investments might benefit the district by stabilizing the population and strengthening the tax base. If these possibilities are realized, the next generations of residents should be better equipped to maintain their community’s vitality. One superintendent described the promise he saw for the fracking boom to enhance the future of the public schools and local communities:

> And just the opportunities for our local students, that is probably the biggest thing that I see. My kids, other peoples’ kids that are my age, they will not have to go to Columbus for employment. There are things they can do right here. So if they stay in this area, they will raise kids in this area. We will reinvigorate all the schools in the county.\(^{140}\)

3. Power Moves

Participants engaged in cunning acts that at times threatened the well-being of neighboring districts. For example, participants revealed steps to allocate new funds towards programs that might entice students from neighboring districts to act upon their right to open-enroll. Furthermore, districts were not afraid to challenge one another legally to secure ad valorem taxes. Two districts went to court over what they deemed outdated taxation policies that needed to be adjusted, now that one well could extract oil and gas from properties in multiple districts. Similarly, participants often forwent alliances with local officials in their community in order to broker better leasing agreements.

\(^{138}\) *Id.* at 131–38.

\(^{139}\) *Id.*

\(^{140}\) *Id.* at 135.
4. The Limits of Power

As the previous Sections illustrate, fracking’s appeal to Shale Valley public school administrators was the financial possibilities of property leases and value-added opportunities.\footnote{Howley et al., supra note 16.}

The actions of superintendents and treasurers are notable, illustrating how to engage in unique forms of agency when enmeshed in a state-led scheme like the fracking boom. However, research on the effect of path dependencies, the concept of how past decision making limits present and future options for communities, suggests the Shale Valley administrators’ present decisions might inevitably limit the options available to their districts in the future.\footnote{Martin V. Melosi, \textit{Path Dependence and Urban History: Is a Marriage Possible?}, in \textit{Resources of the City: Contributions to an Environmental History of Modern Europe} 262–75 (Bill Luckin et al. eds., 2005).} For example, one significant limit to fracking’s appeal may be the potential long-term impact it could have on the property values in the respective school district.\footnote{See, e.g., Susan Christopherson & Ned Rightor, \textit{How Shale Gas Extraction Affects Drilling Localities: Lessons for Regional and City Policy Makers}, 2 J. TOWN CITY MGMT. 4, 17 (2011).} Although leasing school properties brings an immediate cash flow,\footnote{Id.} the district is still mainly reliant on the local tax base under Ohio’s current school-funding formula.\footnote{Id.}

Though public schools in the Shale Valley have made noticeable gains from fracking-for-funding, current decision making should not shortchange the potential negative impact of the industry’s inevitable bust. In fact, while regional lawyers who specialized in oil and gas leases were optimistic, they also cautioned district decision makers. They emphasized that the legally binding agreements would mean that public schools might encounter similar responsibilities and issues prevalent in other leasing agreements.\footnote{Glenn S. Krassen & Matt W. Warnock, \textit{Utica and Marcellus Shale Development for Ohio Schools}, SHALE RESOURCE CENT. (Dec. 20, 2011), http://www.bricker.com/resource-center/shale/publications/utica-and-marcellus-shale-development-for-ohio-schools.} They advised public schools to plan for insurance and environmental issues, decide if they will permit wellheads on the property, and determine how they will handle royalty tracking.\footnote{Id.}

### B. Powerlessness in the Shale Valley Schools

Although the circumstances differed from the Cumberland Valley, powerlessness threatened the public schools in this study. Superintendents and
treasurers articulated a collective belief that the fracking boom’s impact, while real, was limited. As one superintendent explained,

There have been isolated pockets of fracking within our service region, but not to the extent that it would be considered a “boom” for school district long-term budgets. One of the counties in this “fracking boom” has the highest unemployment rate in the state. Nearly one out of two students in the region is considered to be “economically disadvantaged.” In some respects, there has been a negative impact on school funding and other unintended consequences of oil and gas exploration in the region.148

The money earned from leasing, even when it neared a million dollars, was small in the scheme of a yearly operating budget that might range from nine to ten million dollars—explaining why participants saw it as a stopgap at best. Shale Valley administrators also lamented that the royalties, once imagined to follow on the heels of leasing agreements, had not begun. It is also worthwhile to note that districts were only earning significant value-added opportunities (i.e., secondary benefits) if their territory included large square mileage in areas of the region with high rates of fracking activity.

Similar to the Cumberland Valley, democracy could not thwart some of the growing forms of powerlessness experienced by school leaders. Shale Valley superintendents and treasurers recognized they were in the weaker position, and they were becoming increasingly wary of long-term powerlessness tied to the more undesirable consequences of the fracking boom.

1. The Invisible Gorillas149

During my data analysis, I identified what I came to call invisible gorillas, or consequences of the fracking boom that could lead to long-term environmental, economic, social and political dilemmas for schools and communities.150 Invisible gorillas are indicative of how current decisions might further compound existing path dependencies151 created by previous resource extraction in Appalachian Ohio. First, the fracking industry is driven by the free market, meaning it is prone to booms and busts that can substantially impact the economic well-being of communities and, therefore, school districts in those

148 Yahn, supra note 2, at 152.

149 The term “invisible gorilla” is inspired by a psychological study conducted by Christopher Chabris and Daniel Simons’ study of people missing seemingly obvious things. See, e.g., CHRISTOPHER CHABRIS & DANIEL SIMONS, THE INVISIBLE GORILLA: HOW OUR INTUITIONS DECEIVE Us (Harmony 2010).

150 Yahn, supra note 2, at 143–52.

151 Melosi, supra note 142.
communities. Worse, as the shale reserves deplete, property valuation in Shale Valley will decline just as it did during deindustrialization.152 Yet, in the interim, the value of the Marcellus and Utica shale means Shale Valley school districts will be assessed as property rich by the state of Ohio, possibly resulting in less state funding.153 This is problematic given the wealth disparity the boom ushers in at the local level—the biggest payouts go to the largest landowners in the county.154

The shale gas rush is also associated with environmental degradation. While it is too soon to predict with certainty to what degree this degradation will occur, the fact remains that just one well pad covers five to ten acres of land requiring two to five million gallons of water to frack the well.155 Counties such as those in the Shale Valley are predicted to see 200–300 total wells156 at the height of the boom.

2. Seeing Like a State

Public schooling is a state-led enterprise that is a form of development intended to improve the human condition.157 From the government’s vantage point, rules need to collectively govern all schools, and, therefore, the nuances of local places is absent from most legislation. This dampened the efforts of Shale Valley superintendents who worked towards educating-in. For example, newly instituted shale and manufacturing academies might be best suited for the region’s career centers that are organized to serve students from multiple districts. However, administrators reported that existing state guidelines for these centers did not anticipate these types of programs. As a result, a charter school had to be created or a school district had to agree to host the program. This instigated animosity amongst districts, which began to accuse each other of using these academies and new programs to compete for students through open enrollment. Participants reported addressing these issues with the Department of Education, which, in turn, was empathetic but remained unresponsive to the need to revisit policies that no longer aligned with present economic conditions.158

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152 Christopherson & Rightor, supra note 143.
153 See, e.g., STABLE, supra note 40, at 44–52.
156 OHIO OIL AND GAS ASS’N, supra note 72.
157 Theobald & Campbell, supra note 52.
158 Yahn, supra note 2, at 136–38.
3. The Limits of State-Led Schemes

Powerlessness was also felt as Ohio lawmakers failed to raise taxes on the oil and gas industry, leaving Ohio with one of the lowest severance taxes in the nation.¹⁵⁹ Superintendents and treasurers with whom I spoke were frustrated by the state government’s aversion to securing a more substantial profit from an exhaustible resource. They recognized that the absence of a strong severance tax would make it impossible to fund the steps other states have taken to support schools and communities that are afflicted as industries go bust.¹⁶⁰ Furthermore, the inaction could render them vulnerable to similar issues associated with previous deindustrialization.¹⁶¹ As one superintendent lamented in frustration, Not, I mean I don’t want to get political on you. The state government, the federal government and the local government they need to decide how they are going to use this gas and oil money. I feel as a local leader of the school that a percentage of that needs to go back to the school districts, but I don’t know if the state government believes in that.¹⁶²

4. The Inequalities of Geographic Locale

Beyond state policies, local geography and politics also fostered other forms of powerlessness. Several districts had no viable land to lease, while others had only small parcels. Of the 28 public schools and two career centers located within the seven counties, approximately 11 districts were reportedly not offered a lease.¹⁶³ Yet, these districts are not physically removed from the scene of the fracking boom, experiencing the negative byproducts, without the compensation of the benefits enjoyed by their neighboring districts.¹⁶⁴ Contrasting, those districts with territory rich in shale are still vulnerable not only to the byproducts, but also to the stark rise in Class II mineral valuation.¹⁶⁵ While this increase will lessen their state aid as their wealth index increases, it provides no

¹⁵⁹ MULTISTATE SHALE RES., COLLABORATIVE, GRADING PLACES: TOWARDS TRI-STATE SHALE POLICIES FOR PUBLIC GOOD 22 (2016) [hereinafter MULTISTATE SHALE].
¹⁶⁰ Id.; see also BERGER & FISHER, supra note 15.
¹⁶¹ DIETERICH-WARD, supra note 84.
¹⁶² Yahn, supra note 2, at 149.
¹⁶³ Ultimately this quantification came from “member checking” during the Author’s research and reviews of state audits on respective districts as well as their treasurer’s reports. See generally Yahn, supra note 2. To the best of the Author’s knowledge and the available resources reviewed, The Author could not identify a district that had outright rejected a leasing option. See generally id.
¹⁶⁴ See generally id.
¹⁶⁵ STABILE, supra note 40, at 5–21.
guarantee that local taxpayers will agree to be taxed at a higher rate.\footnote{166} However, participants' discussion of the unprecedented amount of contests to tax bills at the county auditor's office foreshadows the unlikeliness of increased local support.

C. History Rhymes

The Shale Valley's and the Cumberland Valley's circumstances are not identical, but they inarguably share kinship. Like the coal boom in the Cumberland Valley,\footnote{167} the shale gas rush is creating path dependencies\footnote{168} that yield challenges that may be difficult to reverse. Ultimately, the forms of power the Shale Valley superintendents and treasurers had acquired on behalf of their school districts came from being moderate pro-actionists who capitalized on stopgap and value-added opportunities. Likewise, their efforts to educate-in were done so with the foresight of building community vitality that would, in turn, increase revenue for their schools. However, all of this was tempered by the constraints of state policies and corporate influence that promised to keep the districts in the weaker position for the duration of the fracking boom. This is seen most notably in the state's aversion to tax increases\footnote{169} and the lack of attention given to environmental degradation associated with fracking.\footnote{170} In Part V, I press this issue by recommending policy changes that might assist the Shale Valley schools and their communities, along with other sections of Appalachia experiencing the fracking boom, in making long-term gains necessary for their communities to thrive in the bust years.

V. Policy Recommendations

Researchers find that the inevitable busts associated with resource extraction do not have to be devastating to communities.\footnote{171} The reason they most often are is associated with a lack of long-term foresight and state-led schemes that shut out the local perspective necessary in the planning and implementation phases.\footnote{172} School-finance theorists find that this has been particularly problematic in states where blue-collar employment was once a viable post-high-

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\begin{itemize}
\item \footnote{166} Id.
\item \footnote{167} GAVENTA, supra note 123, at 55–58.
\item \footnote{168} Melosi, supra note 142.
\item \footnote{169} MULTI-STATE SHALE, supra note 159.
\item \footnote{170} See, e.g., Ted Auch, Ohio Shale Country Listening Project Part I, FRACKTRACKER ALLIANCE (Jan. 8, 2016), https://www.fractracker.org/2016/01/oh-listening-project-part-1/.
\item \footnote{171} See, e.g., MULTI-STATE SHALE RES. COLLABORATIVE, ASSESSING THE IMPACTS OF SHALE DRILLING COUNTY CASE STUDIES 1 (2016) [hereinafter ASSESSING THE IMPACTS].
\item \footnote{172} Id.; see also WHISNANT, supra note 12; ELLER, supra note 13.
\end{itemize}
school option. They point to the negative correlation between low academic attainment and statewide median income. Scholars assert that states with inadequate school funding are likely to see increased outmigration; increases in both underemployment and unemployment; and a weakened tax base. These issues put a substantial strain on the respective state’s coffers and create pressing budget issues. In the spirit of overcoming these dilemmas, I make the four policy recommendations.

A. Recommendation 1: Enhancing Community Vitality

Superintendents in the Shale Valley described their efforts to educate-in, suggesting this was one of the plausible ways to make long-term financial investments with revenue accrued during the fracking boom. Much of the cited programming focused on preparing students for both primary and secondary industries associated with fracking. This decision is arguably necessary. However, it is imperative that administrators have foresight of the post-boom economy. Prior to the fracking boom, Shale Valley schools were grappling with funding issues deeply tied to the downturn of once-prominent rural industries. It is critical at this juncture that school district leaders envision a more diversified regional economy, one that will sustain the bust years of the shale gas rush. Such policies should be adopted in the form of strategic plans, voted on by the board of education, and made visible to community members and key stakeholders.

B. Recommendation 2: University School Relations

Treasurers in this study struggled to envision manageable ways to make long-term investments based on one-time funding. Moreover, both treasurers and superintendents lacked formal education on boom-to-bust industries. As one superintendent wryly observed,

I don’t know that many folks that are in our business understand how really volatile the industry really is. You know it can go gang busters for a few years like it did, but then something can happen not only in our country, but maybe Russia or OPEC decides they want to flood the market and all the sudden it just shuts down.

174 Id.
175 Id.
176 Yahn, supra note 2, at 131–38.
177 Id. at 147.
The counties in this study are not academic deserts, as they are surrounded by a number of private and public universities and community colleges. These institutions of higher learning should be approached about the need to offer coursework and professional development options that serve current students and working professionals by preparing them for present and future opportunities and dilemmas associated with the fracking boom.

C. Recommendation 3: Tax Place-Based Industries

Extractive industries are unique amongst the nation’s corporate giants because they are reliant on place-based resource. This means it is much more difficult for industries to shop around for tax advantages. Still, states like Ohio are reluctant to increase taxes on said industries.

In the case of Ohio, as superintendents and treasurers pointed out, if Ohio’s 0.3% severance tax on oil and gas is not increased, the loss of revenue will be a detriment to both citizens living within and outside of fracking zones.

The state of Ohio continues to face deficit issues that, if left unresolved, will affect school funding for all of the state’s districts. Schools both inside and outside of fracking zones can find common ground in the need to ensure that oil and gas reserves are not depleted for free. According to the Multi-Shale Research Collaborative, Ohio’s neighbor West Virginia has a combined oil and gas severance tax of 4.4%, while Colorado, another state with comparable oil and gas activity, implements a 5% combined severance tax.

D. Recommendation 4: Address the Wolf at the Door

The overreliance on local property taxes remains a school funding issue throughout the U.S. and is particularly troublesome to public schools in Appalachia. Class II property valuation that starkly increased when the shale gas rush began but will just as quickly deplete once the oil and gas is exhausted provides a platform for lobbying state officials. Not only is the example relevant to Ohio, but it is also relevant to other states in the Appalachian region that have a disproportionate amount of school districts in similar situations.

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178 See WHISNANT, supra note 12; ELLER, supra note 13; RAITZ ET AL., supra note 83, at 285–98.
179 See MULTI-STATE SHALE, supra note 159, at 25–38.
180 Id.
181 Id.
182 OHIO LEGIS. SERV. COMM’N, supra note 55.
183 Id.
184 MULTI-STATE SHALE, supra note 159, at 29.
VI. CONCLUSION

Mills pushed social scientists working at the intersection of history and biography to sidestep the penchant to "explain something as a 'persistence from the past.'"\textsuperscript{185} He counseled that instead, "we ought to ask 'why has it persisted?'"\textsuperscript{186} The limited power acquired by school districts in this study, along with their impending powerlessness, might incline one to make the participants and schools in this analysis into a caricature: the inept victims of a corporatizing state. The state then becomes the villain. From there, the cartoon's simplistic plotline unfolds. Viewers watch for an act of cunning that will allow the weaker (but good) protagonist to overcome the behemoth strength of the evil antihero. I would counsel readers that perpetuating this myth is both ahistorical and impractical in navigating current issues Appalachia is facing.

Currently, the long-term economic impact on the schools and communities in the Shale Valley remains in question. The biggest threats to long-term powerlessness are the ambivalence of the state and industry to local needs and the inaction of local leaders in regards to known consequences of environmentally invasive boom-to-bust industries. Contrastingly, the superintendents' visions of educating-in has potential to generate the economic diversification the Shale Valley will need when the fracking boom turns into a bust.

One superintendent, whose family had lived in the region for generations, pointed out that it is undeniable that to a significant degree, the fate of the Shale Valley is in the hands of school administrators. He emphasized that they must take part of the responsibility for the outcome of the current boom. He suggested that the power for the school leaders comes in knowing local history well enough to foreshadow how the plotline may further unfold. He remarked:

We’re in that stage again where there is another natural resource that is being extracted from our land and we have to be smart about making sure we protect the land. As far as financially with schools, you work with the local leadership. And when I say leadership I am talking about politicians that have power. And you make sure you work with the port authority, and the business bureaus, and all those folks to make sure you diversify. Make sure that you have county portfolios. To make sure that the county and schools thrive after the industry is gone.\textsuperscript{187}

I would extend his point by urging other stakeholders in Appalachia’s northernmost states to consider their role as well. Arriving at the crossroads of history and biography, we must recognize what can be done to end the

\textsuperscript{185} Mills, supra note 75, at 154.

\textsuperscript{186} Id.

\textsuperscript{187} Yahn, supra note 2, at 172.
persistence of the most negative outcomes of previous rural industrial declines. Said another way by Wendell Berry, the formidable voice of Appalachia and a tireless advocate for all that remains small and rural in America: "Without prosperous local economies, the people have no power and the land no voice."188

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