It’s a Fracking Conundrum: Environmental Justice and the Battle to Regulate Hydraulic Fracturing

Elena Pacheco*

Over the past five years, the process of hydraulic fracturing, or “fracking,” has become a hot-button topic in the media and the courtroom. As more information about fracking becomes publicly available, serious questions have arisen about the environmental and health hazards it poses. In light of these risks, local governments have been some of the most vocal opponents of the process, many of them going so far as to completely ban fracking within their boundaries. By contrast, several state governments have embraced the oil and gas industry in hopes of capitalizing on the revenue generated from fracking. Now both groups have turned to the courts to answer the question: Who gets to regulate fracking?

Until fairly recently, both the litigation and its concomitant scholarship focused on the concept of preemption. State courts have been tasked with defining what kind of relationship their state has with its local governments and the bounds by which that relationship is confined. Some have ruled in favor of total state preemption, striking down any local bans or regulations deemed more stringent than their statewide counterparts. However, in Robinson Township v. Commonwealth, the Pennsylvania Supreme Court became the first to overturn key provisions of a state regulatory regime that claimed to preempt previously enacted local fracking bans. The court’s decision was not based on arguments of preemption, but instead focused on the environmental rights afforded to Pennsylvania’s citizens through the state constitution; the statewide uniform regulatory regime violated those rights and potentially placed the burdens of the industry on some communities far more than others.

* J.D. Candidate, University of California, Berkeley, School of Law (Boalt Hall), 2015; B.S., Urban Planning, minor in Sociology, Arizona State University, 2011. Infinite thanks to Robert Infelise, Professor Eric Biber, and my dear friend Allison Johnson for their thoughtful and diligent guidance throughout the writing and editing process. I would also like to thank the Ecology Law Quarterly editorial staff for their assistance and advice throughout the review process. And finally, to my friends and family, thank you for listening to, reading, and discussing this paper for more hours than you had available in your day. I am forever grateful.
This Note uses the Pennsylvania decision to step outside of the discussion on preemption, and instead focuses on how this struggle between local and state regulators has affected the environmental justice movement. Its aim is to first describe the environmental and economic impacts faced by those nearest to Pennsylvania’s fracking operations. In describing these impacts, this Note suggests that those burdened with the hazards of fracking are, not coincidentally, some of Pennsylvania’s poorest communities—justifying the Pennsylvania Supreme Court’s concern about fracking’s disparate impact. Building on that premise, the second half questions whether the court’s decision should serve as a means to achieve greater environmental justice for communities impacted by the rapidly growing fracking industry. Does the preservation of local regulation of fracking advance the environmental and economic justice movements? There is not a clear consensus among environmental justice advocates, but this Note concludes that given the current trend of lax state regulations, judicial decisions upholding local authority to regulate fracking may be the most effective way to advance environmental justice.

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INTRODUCTION

In February 2012 Pennsylvania wrote sweeping amendments into the Pennsylvania Oil and Gas Act by enacting Act 13. The new law required townships to authorize hydraulic fracturing operations in all zoning districts, including residential areas, and barred them from imposing more stringent conditions on the operations than those detailed in Act 13. Hydraulic

2. See id. at 971–1000.
fracturing, or “fracking,” refers to the pumping of highly pressurized fluid into a rock formation to produce fractures that allow natural gas or oil to escape. The process remains highly controversial. Thus, almost immediately following Act 13’s passage, townships, environmental advocacy groups, and individuals (collectively “the Township”) filed suit, claiming, inter alia, that the law violated the Pennsylvania Constitution. Barely a year later the Pennsylvania Supreme Court agreed in Robinson Township v. Commonwealth and rejected Act 13’s attempt to supersede the fracking bans previously enacted by local governing bodies. Act 13 violated the environmental rights bestowed by the Pennsylvania Constitution, and its burdens were not carried equally by the state’s communities. Local antifracking regulation won. The decision’s implications and reasoning offer a model for similarly situated litigants around the nation.

I. AN EVOLVING BODY OF RESEARCH AND JURISPRUDENCE

The core question that Robinson and related cases attempt to answer is whether local limits and bans on fracking conflict with state laws and are therefore preempted.

A. The Research

Cases like Robinson, which arise out of conflicting attempts by local and state governments to regulate fracking activities, have attracted a great deal of attention. In light of the rapidly unfolding litigation, a robust body of scholarly work has developed discussing the various aspects of preemption in the context of fracking. Some discussions have analyzed the roles of and relationship

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4. Robinson Twp., 83 A.3d at 914, 915.
5. Id. at 999–1000.
6. See id. at 981 (“[W]e are constrained to hold that the degradation of the corpus of the trust and the disparate impact on some citizens sanctioned by Section 3304 of Act 13 are incompatible with the express command of the Environmental Rights Amendment.”).
9. See generally Michael Burger, Fracking and Federalism Choice, 161 U. PA. L. REV. 150 (2013); Robert H. Freilich & Neil M. Popowitz, Oil and Gas Fracking State and Federal Regulation Does Not Preempt Needed Local Government Regulation Examining the Santa Fe County Oil and Gas Plan and Ordinance As A Model, 44 URB. LAW. 533 (2012); Ross A. Hammersley & Kate E. Redman, Local Government Regulation of Large-Scale Hydraulic Fracturing Activities and Uses, 93 MICH. B. J. 36 (June 2014); Bryan M. Weynand, Comment, Placing the Seal on A Fractured Debate How North
between federal and state governments in the regulation of fracking operations. Many more arguments focus on whether the relevant state statutory scheme governing oil and gas development is so comprehensive that it leaves no room for additional regulation at the local level. At least one commentator argues that a West Virginia state circuit court decision in favor of state preemption answered that question incorrectly. The author instead contends that the state and local regulations disputed in Northeast Natural Energy, LLC v. Morgantown were not in conflict, but served two distinct purposes. The broad, generalized state regulation established a program for conserving and exploring natural resources. In contrast, the local ordinance banning fracking was narrow, specifically protecting the drinking water of the town’s citizens. By overlooking this distinction, the court failed to acknowledge a local government’s power to “protect its citizens and the environment.”

At least one article has shifted emphasis from whether local governments should have authority to regulate fracking operations to how local governments can regulate fracking operations. By targeting the socioeconomic impacts of fracking operations as opposed to the environmental impacts, the author argues that local ordinances based on land use may more effectively withstand legal challenges. Eminent domain, special use permits, and traffic controls are just some of the strategies suggested for local authorities to consider as alternatives to outright fracking bans. Such ordinances are well within municipalities’ constitutional authority and can effectively curb the negative impacts that follow fracking operations.

In a similar vein, others have argued that the jurisprudence needs to look beyond the preemption debate and consider the practical implications of undermining local authority to regulate land uses. Prior to Robinson, it was

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11. Lyon, supra note 7, at 982.

12. Id. at 974.

13. Id.

14. Id. at 985.

15. Id. at 985–86.

16. Id. at 986.


18. Id. at 67.

19. Id. at 116–23.

20. Id. at 113–15.

21. Rachel A. Kitze, Note, Moving Past Preemption Enhancing the Power of Local Governments over Hydraulic Fracturing, 98 MINN. L. REV. 385, 401 (2013); see also John R. Nolon, Shifting Paradigms Transform Environmental and Land Use Law The Emergence of the Law of Sustainable Development, 24 FORDHAM ENVTL. L. REV. 242, 264 (2013) (“For the legal system, the challenges are
anticipated that parts of Act 13 would be struck down though it was less certain that courts could stave off the state’s fervent efforts to authorize fracking operations.\textsuperscript{22} Despite that lack of confidence, it was argued that there should be increased local government control because states often lack information regarding the localized impacts of fracking operations.\textsuperscript{23} Now, empowered by Robinson’s language shining a light on both the localized impacts of fracking and the potential for unequal distribution of those impacts, the branches of the wider discussion continue to grow.

\textbf{B. The Robinson Decision}

The claims brought in Robinson were unlike prior constitutional challenges.\textsuperscript{24} For the first time, the Pennsylvania Supreme Court was called on to define the rights protected by the Environmental Rights Amendment (ERA), codified in Article I, Section 27 of the Pennsylvania Constitution.\textsuperscript{25}

The court began its analysis with the threshold matter of standing.\textsuperscript{26} Because Act 13 would likely harm the Township residents “with respect to the values of their existing homes and the enjoyment of their properties” the court found that the Township had a “substantial, direct and immediate interest in the outcome of the litigation.”\textsuperscript{27} Of particular note for future cases, the court also dismissed a challenge to a private doctor’s standing.\textsuperscript{28} Under Act 13, healthcare providers could only access information about the chemicals used in fracking operations for purposes of diagnosing and treating their patients if they were willing to sign a confidentiality agreement barring them from sharing that information with other healthcare providers.\textsuperscript{29} The court held that such a restriction placed doctors in an untenable position, forcing them to choose between violating Act 13 and upholding their legal and ethical obligations to treat patients by accepted standards.\textsuperscript{30}

On the case’s merits, the court held key provisions of Act 13 unconstitutional.\textsuperscript{31} The court insisted there was more than a mere zoning dispute or separation of powers question at issue: “Rather, at its core, this dispute centers upon an asserted vindication of citizens’ rights . . . , insofar as

\begin{footnotesize}
\begin{enumerate}
\item[22.] Kitze, \textit{supra} note 21, at 401.
\item[23.] \textit{Id.} at 411–12.
\item[25.] \textit{Id.}
\item[26.] \textit{Id.} at 917 (quoting Fumo v. Philadelphia, 972 A.2d 487, 496 (Pa. 2009)).
\item[27.] \textit{Id.} at 922.
\item[28.] \textit{Id.} at 924.
\item[29.] \textit{See id.} at 901, 923 n.13.
\item[30.] \textit{Id.} at 924–25.
\item[31.] \textit{Id.} at 985 (“Sections 3215(b)(4) and (d), 3303, and 3304 are incompatible with the Commonwealth’s duty as trustee of Pennsylvania’s public natural resources. Accordingly, we hold that these provisions are unconstitutional.”).
\end{enumerate}
\end{footnotesize}
Act 13 threatens degradation of air and water, and of natural, scenic, and esthetic values. The disputed rights implicated a question of law and, therefore, justified the court’s de novo review.

In three clauses, the court explained, the ERA both identifies certain rights to limit state action and creates a framework for the state to enforce those rights. Based on the first clause, the court ruled that any state law found to impair those enumerated rights was unconstitutional. Nor were Pennsylvania’s duties limited to a passive obligation to not impair enumerated rights—the court held the ERA’s second and third clause imposed a trustee’s responsibilities. And as such, Pennsylvania “has a duty to refrain from permitting or encouraging the degradation, diminution, or depletion of public natural resources.” Furthermore, Pennsylvania was bound to consider both current and future residents as equal beneficiaries of the trust since the ERA was meant to equally protect against actions with immediate impacts and those with irreversible long-term impacts. Thus, in a largely unprecedented ruling, the court held the environmental rights included in the ERA unambiguously permit preventative protection of the environment for the benefit of current and future generations. Moreover, as a constitutional amendment, the ERA binds both state and local governments equally.

Applying its interpretation, the court held three key provisions of Act 13 unconstitutional. Section 3303 declared the state’s intent to preempt and supersede all local ordinances related to oil and gas. While acknowledging the state’s authority to revoke and grant certain powers to its local governments, the court held Act 13 went too far. Specifically, section 3303

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32. *Id.* at 942.
33. *Id.* at 943.
34. *See PA. CONST.* art. I, § 27; *Robinson Twp.*, 83 A.3d at 950. In its entirety, the ERA states:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania’s public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

PA. CONST. art. I, § 27.
36. *Id.* at 957.
37. *Id.* at 959.
38. *Id.* at 963.
39. *Id.* at 952.
40. *Id.* at 985 (“Sections 3215(b)(4) and (d), 3303, and 3304 are incompatible with the Commonwealth’s duty as trustee of Pennsylvania’s public natural resources. Accordingly, we hold that these provisions are unconstitutional.”).
41. *Id.* at 970.
42. *Id.* at 982 (“But, in that urgency, it is apparent that the Article I, Section 27 constitutional commands have been swept aside. Act 13’s unauthorized use of the public trust assets is unprecedented and constitutionally infirm . . . .”).
abrogated municipalities’ obligations as trustees under the ERA, thus violating the state constitution.\textsuperscript{43}

Section 3304 established a statewide, uniform land use system permitting fracking operations in all locally defined zoning districts.\textsuperscript{44} That is, Act 13 allowed fracking in both industrial and residential areas.\textsuperscript{45} The court concluded such a regime was antithetical to centuries of locally based land use decisions and was incapable of preserving the rights enumerated in the ERA.\textsuperscript{46} Though theoretically uniform, the court found Section 3304’s land use system would inevitably inflict more environmental harms on some Pennsylvanians than others.\textsuperscript{47} Those consequences were held incompatible with the constitution.\textsuperscript{48}

Finally, the court also struck down section 3215(b), which described the process for granting oil and gas companies waivers of many of the Act’s conditions.\textsuperscript{49} The court found the provision unconstitutional because it failed to provide adequate standards to protect state residents’ environmental rights.\textsuperscript{50} Section 3215(b) failed to ensure the state’s compliance with its obligations under the ERA.\textsuperscript{51}

Robinson offers compelling support to arguments for local fracking regulations. The court’s standing analysis illuminates the risk that lax fracking regulations can pose to property values and residents’ health, and its discussion of the disparate effects statewide regulations can impose on communities underscores why local governments should retain authority of land use decisions.\textsuperscript{52} Moreover, Robinson marks one of the first state supreme court decisions to invoke environmental justice concerns to strike down a state’s challenge to local fracking bans.\textsuperscript{53} In deeming it unconstitutional that “some properties and communities will carry much heavier environmental and

\textsuperscript{43} Id. at 977–78 (“[N]or can [the General Assembly] remove necessary and reasonable authority from local governments to carry out these constitutional duties.”).
\textsuperscript{44} Id. at 970–71.
\textsuperscript{45} Id. at 971 (“In short, local government is required to authorize oil and gas operations, impoundment areas, and location assessment operations (including seismic testing and the use of explosives) as permitted uses in all zoning districts throughout a locality.”).
\textsuperscript{46} Id. at 979.
\textsuperscript{47} Id. at 980.
\textsuperscript{48} Id. at 981.
\textsuperscript{49} Id. at 973–74.
\textsuperscript{50} Id. at 983.
\textsuperscript{51} Id. at 983–94 (“Considered in its totality, the Section 3215(b) scheme lacks identifiable and readily-enforceable environmental standards for granting well permits or setback waivers, . . . In this sense, the Act has failed to ensure compliance with the express command of the Environmental Rights Amendment that the Commonwealth trustee ‘conserve and maintain,’ inter alia, the waters of the Commonwealth.”).
\textsuperscript{52} Id. at 981, 983–84
habitability burdens than others,” Robinson gave voice to a movement previously largely ignored in litigation related to oil and gas regulation.

Though Robinson raises many questions, this Note will focus on two in particular. First, is there evidence of real environmental and economic disparities for Robinson to rest its decision on? And second, if we use Robinson as a model and ultimately preserve the right of local authorities to regulate fracking, does that decision advance the environmental and economic justice movements?

II. ROBINSON’S CONCERNS ARE JUSTIFIED

A. Environmental Impacts

Fracking’s disproportionate impact on poor, rural communities should be a focal point in every judicial opinion regarding local governments’ authority to regulate the process. Indeed, in Pennsylvania’s case, evidence suggests that the degree to which oil and gas drilling imposes environmental risks on the poor justifies the environmental justice concerns Robinson articulates. There are sixty-seven counties in Pennsylvania. Table A organizes these counties according to per capita income and separates them into three tiers. Tier I includes the twenty-two wealthiest counties, Tier II includes the next twenty-three counties, and Tier III is comprised of the twenty-two poorest counties. This three-tiered system is the organizational foundation for this Note’s observations—cross-referencing the tiers with publicly available data, as in Table A, reveals striking patterns. In particular, as counties become poorer and more rural, their exposure to fracking operations, and thus their exposure to any risks associated with fracking, increases dramatically.

54. Robinson Twp., 83 A.3d at 980.
56. See Robinson Twp., 83 A.3d at 980.
58. Per Capita Income, U.S. CENSUS BUREAU, http://quickfacts.census.gov/qfd/meta/long_INC910212.htm (last visited Nov. 17, 2014) (“Per capita income is the mean money income received in the past 12 months computed for every man, woman, and child in a geographic area. It is derived by dividing the total income of all people 15 years old and over in a geographic area by the total population in that area. Note—[sic] income is not collected for people under 15 years old even though those people are included in the denominator of per capita income. This measure is rounded to the nearest whole dollar.”).
The pattern persists among Water Supply Determinations (WSDs) that the Pennsylvania Department of Environmental Protection (DEP) has issued over the past six years. DEP issues a WSD when it determines that a private water supply has been affected by oil and gas activities.66 DEP has published a list of

### TABLE A: Pennsylvania Counties

<table>
<thead>
<tr>
<th>Tier</th>
<th>No. of Counties</th>
<th>Avg. per Capita Income</th>
<th>Avg. Pop. Density</th>
<th>No. of Wells</th>
<th>No. of Counties with Wells</th>
<th>No. of WSDs</th>
<th>No. of Well Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier I</td>
<td>22</td>
<td>$30,043</td>
<td>675</td>
<td>1610</td>
<td>5</td>
<td>8</td>
<td>268</td>
</tr>
<tr>
<td>Tier II</td>
<td>23</td>
<td>$23,906</td>
<td>645</td>
<td>2337</td>
<td>12</td>
<td>75</td>
<td>1698</td>
</tr>
<tr>
<td>Tier III</td>
<td>22</td>
<td>$21,552</td>
<td>74</td>
<td>3162</td>
<td>17</td>
<td>161</td>
<td>1914</td>
</tr>
</tbody>
</table>

59. Pennsylvania County Selection Map, supra note 57.
61. See Pennsylvania Population per square mile, 2010 by County, INDEXMUNDI.COM, http://www.indexmundi.com/facts/united-states/quick-facts/pennsylvania/population-density#table (last visited May 9, 2015); see State & County Quickfacts, supra note 60 (county data includes population and area).
63. Id.
65. Amico et al., supra note 62.
66. PA. DEP’T OF ENVTL. PROT., supra note 64 (determinations are communicated to the impacted resident or water supply owner through a “Water Supply Determination Letter”).
the WSDs is has issued since 2007. As of August 29, 2014, 244 WSDs have been issued to private water supply owners in twenty-four Pennsylvania counties. The data shows that low-income counties are disproportionately affected: DEP has issued 161 WSDs in fourteen Tier III counties, but only eight WSDs in three different Tier I counties.

Admittedly, Table A does not represent a detailed statistical analysis, but instead serves as an indicator that Robinson’s concerns are grounded in reality. Perhaps it is unsurprising that rural, low-income counties in Tier III have the most drilling operations. After all, in sparsely populated areas there is more space to locate a well, and rural residents are far removed from economically and politically powerful urban centers. Indeed, in stark contrast to Tier III, counties with the highest per capita income are also the most populated. The average number of people per square mile in Tier I is 675. The average population density in Tier III is seventy-four. In sum, more space, with less opposition from neighbors, means more wells.

Yet what is interesting is the degree to which Pennsylvania’s less urbanized communities bear the burden of state oil and gas development. The average population density of a Pennsylvania county is 284 people per square mile. Of the state’s sixty-seven counties, forty-eight are less dense than average. Moreover, as Table B indicates, these forty-eight sparsely populated counties are home to 96 percent of Pennsylvania’s active wells. For convenience they will be referred to as rural counties.

**TABLE B: Rural Pennsylvania Counties**

<table>
<thead>
<tr>
<th></th>
<th>No. of Counties</th>
<th>Avg. per Capita Income</th>
<th>Avg. Pop. Density</th>
<th>No. of Wells</th>
<th>No. of Counties with Wells</th>
<th>No. of WSDs</th>
<th>No. of Well Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA</td>
<td>67</td>
<td>$28,502</td>
<td>467</td>
<td>7109</td>
<td>35</td>
<td>244</td>
<td>3880</td>
</tr>
</tbody>
</table>

68. *PA. DEP’T OF ENVTL. PROT*, supra note 64.
70. *See State & County QuickFacts, supra note 60.*
72. Amico et al., *supra* note 62.
73. *Id.*
74. *PA. DEP’T OF ENVTL. PROT*, supra note 64.
75. Amico et al., *supra* note 62.
Looking just at the forty-eight rural counties, Table C demonstrates that the correlation between income and well violations or WSDs is not quite as strong as in Table A. While there are more violations in Rural Tier II counties compared to Tier I, the linear relationship between income and violations seen in Table A does not exist. Indeed, the wealthiest rural counties have more reported well violations than the poorest ones. One might interpret this pattern as evidence of a lack of income discrimination, since wealthier rural counties are seemingly subjected to the negligent fracking operations as much, if not more, than their poorer counterparts. Alternatively, one could view the relationship as an indication of heightened policing of fracking operations in the wealthiest rural counties. Total number of violations might be greater because oversight efforts are more intensive in wealthier rural counties, and conversely more lax in poorer counties. With further investigation and more comprehensive statistical analysis, a court looking at such numbers might be able to determine which of the two alternative interpretations is most accurate.

### TABLE C: Rural Counties of Pennsylvania

<table>
<thead>
<tr>
<th>No. of Counties</th>
<th>Avg. per Capita Income</th>
<th>Avg. Pop. Density</th>
<th>No. of Wells</th>
<th>No. of Counties with Wells</th>
<th>No. of WSDs</th>
<th>No. of Well Violations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural Tier I</td>
<td>16</td>
<td>$23,676</td>
<td>148</td>
<td>2265</td>
<td>7</td>
<td>49</td>
</tr>
</tbody>
</table>

76. A “well violation” occurs by violating Pennsylvania environmental regulations. They can be categorized either as “Administrative” or “Environmental Health & Safety” by the well inspector. See generally [Pa. Dep’t of Env’tl. Prot., Dep Office of Oil and Gas Management Compliance Report](http://www.depreportingservices.state.pa.us/ReportServer/Pages/ReportViewer.aspx?/Oil_Gas/OG_Co mpliance), last visited May 18, 2015.

77. *Pennsylvania County Selection Map*, supra note 57.

78. *See State & County QuickFacts*, supra note 60.


80. Amico et al., supra note 62.

81. Id.

82. *Pa. Dep’t of Env’tl. Prot*, supra note 64.

83. Amico et al., supra note 62.
Notwithstanding the weaker correlation between income and violations, comparing the two counties with the most active wells suggests that income plays a role in the day-to-day operations on fracking sites. With 1014 active wells, rural Tier I Washington County has the second largest number of wells of any Pennsylvania county.\textsuperscript{84} The only county with more active wells, 1071 to be exact, is rural Tier III Bradford County.\textsuperscript{85} Bradford County beats Washington County in more than just active wells. While operators in relatively wealthier Washington County have been cited 154 times for violations since fracking began, their counterparts in poorer Bradford County have accrued 759 violations.\textsuperscript{86} Thus while the two counties have comparable number of wells, there have been over six hundred more violations in Bradford County. Nor is the divergence limited to violations. DEP has issued fifty-two WSDs in Bradford County but only two in Washington County.\textsuperscript{87}

Zooming in further, even a single company’s operations indicate more careless behavior in poorer counties. Chesapeake Appalachia, LLC, operates 15 wells in Washington County and 101 in Bradford County.\textsuperscript{88} The company’s Washington County operations have only been cited for one violation, a ratio of one violation for every fifteen wells.\textsuperscript{89} Using that ratio, one might deduce that the company has seven or eight violations for the roughly one hundred it operates in Bradford County. This would be incorrect. Chesapeake Appalachia accumulated 311 violations in Bradford County.\textsuperscript{90} In fairness, this is just one operator’s actions—an industry-wide survey might demonstrate that it is an

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|c|c|c|c|}
\hline
Level & & & & & & \\
\hline
& Rural Tier II & & & & & \\
\hline
16 & $21,342 & 113 & 2218 & 10 & 115 & 1535 \\
\hline
& Rural Tier III & & & & & \\
\hline
16 & $19,716 & 68 & 2030 & 14 & 74 & 1106 \\
\hline
\end{tabular}
\end{table}

\textsuperscript{84} Id. \\
\textsuperscript{85} Id. \\
\textsuperscript{86} Id. \\
\textsuperscript{87} PA DEP’T OF ENVTL. PROT, supra note 64. \\
\textsuperscript{88} Id. \\
\textsuperscript{89} Id. \\
anomaly. Nevertheless, the dramatic discrepancy in operational standards is rather shocking and calls for further investigation.

These findings lend support to proponents of local fracking regulations. Robinson acknowledged that a state-based regulatory regime would disproportionately impact certain communities if it did not take localized impacts into account. This Note’s observations suggest that, in Pennsylvania, the communities bearing those environmental burdens are the poorest and most rural. Moreover, their share of the burden is so disproportionate that there is no reason to believe these patterns are coincidental.

Instead, a more useful way to conceptualize Pennsylvania’s current oil and gas policies is to compare them to the discriminatory federal zoning and housing policies in place between 1930 and 1970. Litigation surrounding those zoning and housing policies gave rise to a line of jurisprudence. Those cases, in turn, brought attention to the disproportionate and discriminatory hardships facing low-income and largely African American communities, and resulted in widespread reforms. Admittedly, Pennsylvania fracking operations do not implicate issues of race to the same extent as federal housing policy once did: The state’s rural population is overwhelmingly white. However, the industry seems to impose the same kind of disparate impacts on economically similar communities, and Robinson appears to indicate courts’ growing sensitivity to these issues. With these parallels in mind, pursuing similar strategies could quite plausibly lead to a similar outcome—widespread fracking reform.

### B. Economic Impacts

Fracking’s negative economic impacts receive less attention, but the financial implications are no less frightening than the environmental ones. In the past year, national lenders have become more cautious about underwriting mortgages for properties located near fracking operations. Likewise, local mortgage brokers in Pennsylvania have started asking if there are any fracking

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93. About Rural PA, CENTER FOR RURAL PA., http://www.rural.palegislature.us/about.html (last visited May 18, 2015) (“In 2010, 260,300 rural residents, or 8 percent of the total population, were nonwhite and/or Hispanic. (U.S. Census Bureau).”).

wells or impoundment lakes near applicants’ property. These questions have consequences. In 2012, a local news channel reported what appeared to be the first example in western Pennsylvania of a mortgage being denied because of the homeowner’s proximity to a neighboring gas drilling operation. Leases to companies operating Bradford County’s 1071 active wells cover roughly 93 percent of the county’s acreage. This raises real concerns for prospective homebuyers. Given lenders’ concerns about fracking, is obtaining a mortgage for a home on the remaining 7 percent even possible? Indeed, though some believe that local mortgage lenders may continue issuing loans to sustain business, all agree that, given the risks, national lenders lack any incentive to approve loan applications for properties surrounded by fracking operations. In sum, beyond fracking’s environmental risks, industrial activities on a neighbor’s land make property owners vulnerable to economic blowback.

Low-income loan applicants living in rural areas are particularly vulnerable to this phenomenon. For starters, the U.S. Department of Agriculture (USDA) is concerned that lending to property owners near drilling activities might violate the National Environmental Policy Act. It thus debated requiring extensive environmental review before issuing mortgages under the Rural Housing Service program. The program targets low-income individuals and families, providing loans and grants for housing without requiring a down payment. USDA acknowledged that rural business owners applying for loans would be similarly affected. Full environmental reviews would pose significant hurdles for these low-income residents and business owners if they applied for federally backed mortgages, making homeownership and economic security that much more out of reach.

USDA is not the only federal agency concerned with the risks fracking poses to homeowners’ health and safety. The Federal Housing Administration

95. Id.
96. Id.
97. Id.
98. Id. (quoting Bob Benjamin, a local real estate broker and appraiser).
99. Id. ("Radow says it's logical that high-volume horizontal fracturing . . . has lenders worried. . . . She predicts that homeowners will start seeing mortgage provisions prohibiting gas drilling." (citing attorney Elisabeth Radow)).
101. Id.
103. Urbina, supra note 100.
104. See id.; see Kate Sheppard, USDA Not Changing Policy on Environmental Review for Rural Loans, MOTHER JONES (Mar. 20, 2012, 6:38 PM), http://www.motherjones.com/blue-marble/2012/03/usda-not-changing-policy-environmental-review-rural-loans. Ultimately, USDA publicly announced that its loan and grant programs would continue to be exempt from NEPA environmental review requirements. Id.
(FHA) prohibits lending to homes within three hundred feet of a property with an active or planned drilling site.\textsuperscript{105} Moreover, FHA’s appraisal process recommends caution or outright rejection of loan applications for reasons likely associated with current or future drilling operations:

(iii) Rejection recommended for observed environmental contaminants, noxious odors, offensive sights or excessive noise which endanger the improvements or affect the livability of the property or the health and safety of the occupants.\textsuperscript{106}

Like the challenges an extensive environmental review imposes on low-income applicants to USDA programs, the FHA’s stringent appraisal process likely hinders low-income homebuyers’ ability to acquire needed loans—a phenomenon the FHA is not unfamiliar with. The regulation above and its counterparts do not explicitly discriminate against a target group like the FHA red-lining policies of the 1930s.\textsuperscript{107} It recognizes the risks inherent in gas drilling operations, and arguably makes a sound judgment not to invest in properties positioned near those risks. The problem is that the properties positioned closest to those risks are, as described in Part I.A, some of the state’s poorest communities. Like the African Americans homebuyers of the 1930s, low-income residents now find many federal economic assistance programs out of reach, and it is because of fracking.

Fracking operations directly inhibit low-income individuals’ and communities’ ability to achieve greater economic independence. Homeownership and small business development not only benefit an individual’s socioeconomic trajectory, but contribute to more widespread improvements in quality of life.\textsuperscript{108} Projects like the Rural Housing Service program and FHA-insured mortgages exist to provide those kinds of economic opportunities for poor communities. Yet, as a consequence of the risks posed by oil and gas drilling, these programs are at risk of disappearing altogether.

The first question posed at the end of Part I.B was whether the Robinson court was justified in its concern about the potential for inequitable distribution of the risks associated with fracking. While this Note does not include a comprehensive statistical analysis, its observations are preliminary steps toward a complete answer to that question. The observations made indicate the court’s reasoning is not just a charitable notion; it reflects the reality of the situation.

\textsuperscript{105}. Drouin, \textit{supra} note 94.


\textsuperscript{107}. Madrigal, \textit{supra} note 91; \textit{FHA Mortgage Insurance}, \textit{supra} note 91.

III. WEIGHING THE REALITY OF RISK

A. Bring it to Court

In light of the above observations, this Note calls on courts and litigants around the country to use *Robinson* as a model in litigation about whether or not state regulation of fracking operations preempts attempts by local governments to do the same. The gravity of the environmental and economic issues at hand justifies their consideration in the ongoing litigation over fracking regulations. Moreover, in addition to the dramatic environmental hazards and the economic risks, local residents must cope with fracking’s secondary impacts on their communities’ roads, schools, fire, police, and emergency response systems. 109 Deciding the appropriate regulatory framework without a discussion of those effects exacerbates these environmental justice concerns and risks paralyzing local governments’ attempts to address those issues. If only for the purpose of bringing awareness to the disproportionate effects of fracking, this kind of information deserves a place in the judicial opinions inspiring conversation around the nation. Indeed, lawsuits raising questions about preemption serve as ideal stages to illuminate the burdens carried by the communities impacted by fracking.

This brings us to the second question this Note seeks to address. Would a string of *Robinson*-like decisions actually advance environmental justice? If all courts faced with the issues *Robinson* confronted ultimately fall on the side of local government, will environmental and economic justice advocates see those decisions as a victory? Briefly, it depends.

B. Environmental Justice 101

The answer to this second question depends on how the concept of environmental justice is understood. The environmental justice movement emerged in the civil rights era. It began among Latino farm workers in the West demanding more pesticide regulation, and African American communities in the South opposing decisions to locate landfills and sewage treatment plants nearby. 110 Though it took lawsuits and nationally televised protests, by the mid-1980s a conversation about the intersections between race, poverty, and environmental hazards had begun. 111 Robert Bullard, known as the “Father of Environmental Justice,” 112 defined environmental justice as “embracing the principle that all people and communities are entitled to equal protection of our

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111. *Id.*
environmental laws. It means fair treatment, and it means all people—regardless of race, color or national origin—are involved when it comes to implementing and enforcing environmental laws, regulations and policies.”

Similarly, the First National People of Color Environmental Leadership Summit, a gathering of leaders in the domestic and international environmental justice movement, emphasized the fundamental right to political and environmental self-determination. In adopting the Principles of Environmental Justice, participants called for “the right to participate as equal partners at every level of decision-making, including needs assessment, planning, implementation, enforcement and evaluation.” During the Clinton administration, the Environmental Protection Agency formed its own definition of environmental justice as well: “Environmental Justice is the fair treatment and meaningful involvement of all people. . . . It will be achieved when everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decision-making process to have a healthy environment in which to live, learn, and work.” These definitions and others guide advocates seeking to eliminate discriminatory land use practices, which disproportionately burden low-income people and people of color with environmental hazards.

Grasping the long-standing connection between land use decisions and environmental justice is as important as grasping the principles that define the movement. The earliest environmental justice litigation challenged the proposed placement of a dump and a toxic landfill in communities made up predominantly of Hispanics and African Americans. And while the court ultimately ruled against the plaintiffs, it held industrial uses threatened the communities with irreparable harm. The case “launched the use of the courts as a tool for the new movement and highlighted the need for data collection and access to information by communities challenging environmental decisions.”

Only a few years later, a General Accounting Office study found that race and income affected the siting of hazardous waste facilities, landfills, and other

113. Robert Bullard, supra note 112.
115. Id.
118. See U.S. COMM’N ON CIVIL RIGHTS, supra note 92, at 13–14.
119. Bean v. Southwestern Waste Mgmt. Corp., 482 F.Supp. 673, 677 (S.D. Tex. 1979) (“The plaintiffs have adequately established that there is a substantial threat of irreparable injury.”).
120. U.S. COMM’N ON CIVIL RIGHTS, supra note 92, at 13.
environmental hazards—confirming that hazardous land uses disproportionately burden racial minorities and low-income communities.121

As the studies and cases make clear, zoning practices have presented noteworthy challenges to the environmental justice movement.122 There are historical and current land use policies that designate communities of color and low-income communities as “industrial.”123 As a result, industry moves in, communities are exposed to greater health risks, property values decrease, and residents are increasingly forced to choose between fleeing or accepting the declining conditions.124 In the end, the remaining residents are left with little political clout to challenge the zoning policies.125 Some attribute this phenomenon to the free market, suggesting that land is simply less expensive next to these industrial uses, and that is why lower income communities grow nearby.126 Evidence suggests otherwise. The U.S. Commission on Civil Rights has found that “minorities attract toxic storage and disposal facilities, but these facilities do not attract minorities.”127

Today’s hydraulic fracturing operations are what landfills and toxic dumpsites were to the early environmental justice movement. The industrial operations conducted on fracking sites pose comparable, if not greater, threats to residents’ health, safety, and economic security.128 Inconsistent disclosure laws around the country compound these issues, making it that much more difficult to demonstrate the consequences of these operations.129 Indeed, it seems the poor communities that attract toxic storage may also attract oil and gas drilling operations.

121. Id. at 14.
122. See id. at 15.
123. Id.
124. See id.
125. Id.
126. Id. at 16–17.
127. Id.
C. Process or Results?

The environmental justice movement, like many of its predecessors, has developed subcategories of focus over time. Environmental justice advocates agree that the poor and people of color are disproportionately saddled with environmental risks. There is a great deal of evidence that this inequity results from past discriminatory land use policies that purposely advised industrial operations to locate in these communities. Yet, advocates differ on how to address this issue. The principal divide is between advocates primarily interested in strategies that result in fair outcomes—those who prioritize results—and advocates primarily interested in ensuring that the process by which outcomes derive is meaningfully accessible to all people—those who prioritize process. The degree to which Robinson matters depends on whether one finds the former or the latter more compelling.

Distributive justice refers to the fairness of the distribution of environmental risks among a population. This is our results-based priority. In the environmental justice context, distributive justice does not merely seek to equitably distribute pollution or environmental risks. More accurately, it seeks to increase pressure on communities to reduce the relevant environmental hazards by ensuring that they too are burdened by those hazards. Procedural justice, the process priority, “refers to fairness in the decision-making process, including the right of all members of the public to meaningful participation in all aspects of agency decisions.” Arguably, this concept is a move away from the traditional model of most administrative decision-making processes that treat all stakeholders as equal. In contrast, the “fairness” the procedural justice theory refers to takes into consideration who bears the risks of a proposed action. Thus, where the traditional model theoretically gives all

130. Compare this development to the splintering of the second-wave feminist movement that spawned different voices in white, affluent women and women of color. See Ashley Fetters, 4 Big Problems with The Feminine Mystique,’ THE ATLANTIC, Feb. 12, 2013, http://www.theatlantic.com/sexes/archive/2013/02/4-big-problems-with-the-feminine-mystique/273069/ (“Though Friedan’s book had spawned what came to be known as the second-wave feminist movement, it focused on what wasn’t a universal female problem but rather a problem endured only by white, upper- and middle-class mothers and wives.”).

131. See Skelton & Miller, supra note 110.

132. Id.; U.S. COMM’N ON CIVIL RIGHTS, supra note 92, at 16.


134. Id. at 460.

135. Id. at 459.


137. Id. at 100.

138. Id.

139. Id.

voices equal opportunity irrespective of any stakeholder’s unique interest, procedural justice advocates argue that those with the most to lose or gain should have more influence over or greater opportunity to shape the pertinent decision.

Robinson is more a victory for procedural justice than distributive justice. In striking down the key provisions of Act 13, the Pennsylvania Supreme Court sought to change how the state regulates the fracking industry. This intent is most evident in the court’s comments on choice, stating that the statute’s one-size-fits-all requirements undermined the choice individual communities were entitled to: “Act 13 . . . has effectively disposed of the regulatory structures upon which citizens and communities made significant financial and quality of life decisions.” Similarly, in relation to the process by which operators received waivers from Act 13’s few requirements, the court found the state’s participation scheme unsatisfactory: “Section 3215(d) marginalizes participation by residents, business owners, and their elected representatives with environmental and habitability concerns, whose interests Section 3215 ostensibly protects.” It is not obvious that rejecting the uniform regulatory scheme resolves the disparate effects of fracking cited by the court—local fracking regulations could produce the same disparities created by the state regime. Instead, this landmark decision may be best understood as a call for a fairer process that offers more meaningful opportunities for local governments to influence fracking regulations.

D. The Risks of Advocating for the Process

There is an inherent risk in advocating for procedural justice. Though both procedural and distributive justice theories fall under the larger umbrella of environmental justice, there exists a schism between these two strategies. Procedural justice supporters, those advocating for the fairest possible decision-making process, can achieve their goal whether or not that process produces an equitable result—process trumps results. The question that arises, however, is whether or not procedural fairness is enough to override claims of injustice when a substantively unfair outcome results from that process. Ideally, a decision-making process that accurately reflects each stakeholder’s interest will

141. Id.
144. Id. at 984.
145. See Clayton, supra note 133, at 461 (describing the difference between “Equality” and “Procedural Issues”).
naturally result in a more just system in the aggregate. But there is no guarantee. And mere hope falls short of the equitable distribution of risk, benefit, and enforcement that the distributive justice advocates demand.

In the fracking context, the challenge boils down to a question of priorities. Is it more important that a regulatory regime equitably distributes the hazards and the benefits of oil and gas operations? If so, then Robinson-style decisions that bar state governments from imposing uniform regulations do not help much. Alternately, is it more important that the chosen regulatory regime be the product of a decision-making process shaped by the communities most impacted by those same oil and gas operations? If so, a string of Robinson-like decisions will be helpful.

The practical implications of viewing Robinson as a procedural justice strategy are a mixed bag. Putting control of fracking regulations in local governments’ hands does not guarantee that larger environmental justice goals will be achieved. Some Colorado residents complain of undue political influence at the local level, and warn other advocates of local control to “be careful what they wish for, because oil and gas money will funnel into local races . . . stacking county commissions and city councils in the industry’s favor.”

Likewise, Philadelphia’s city council has recently begun considering how the city might capitalize on the state’s oil and gas reserves, despite the environmental risks posed to the city’s residents. As one reporter notes: “The biggest challenge may be convincing the public . . . that the plan won’t harm Philadelphia neighborhoods, some of which are already packed with oil and gas infrastructure.”

Certainly, once empowered with the ability to regulate fracking as they please, low-income and rural communities may find the promise of high-paying jobs and economic security too alluring to pass up. Meanwhile, more affluent communities, those in less need of any economic benefits associated with fracking, arguably have the luxury of banning the process entirely. Thus, the protected process, one devoid of statewide uniformity, may provide little to no resolution of the disparate effects spoken of in Robinson.

148 Peter Moskowitz, Could Philadelphia Be the Next Houston? The Oil Industry Hopes So, AL JAZEERA AM. (Nov. 15, 2014, 5:00 AM), http://america.aljazeera.com/articles/2014/11/15/could-philadelphia-be-the-next-houston-the-oil-industry-hopes-so.html. (“Environmentalists and local community activists point to a train derailment last January to highlight their concerns about using Pennsylvania’s decades-old energy infrastructure for shale gas development.”).
149 Id.
151 Robinson Township, for example, is located in Allegheny County, which has a higher per capita income than Pennsylvania as a whole. See Allegheny County, Pennsylvania, U.S. CENSUS BUREAU, http://quickfacts.census.gov/qfd/states/42/42003.html (last visited May 6, 2015).
E. Why the Risk is Worth It

Robinson was rightly decided. Even acknowledging the possibility that the status quo remains the same, preserving local governments’ ability to choose their own fracking regulations is the most effective way to further the larger environmental justice movement. The alternative is leaving fracking regulations solely to state governments, many of which have indicated their intent to invite as much oil and gas exploration as possible.\textsuperscript{152} Such is the case in Texas, where the city of Denton became the first in the state to pass a fracking ban in November 2014.\textsuperscript{153} In spite of the city passing the ban by eighteen points, the state refuses to acknowledge the decision.\textsuperscript{154} Act 13 and Pennsylvania’s other pro-industry policies amount to the same thing—an unwillingness to allow localities to ban fracking. If residents cannot depend on their state governments, local control is their only chance to prevent fracking’s harms. Judicial decisions like Robinson make that protection possible.

CONCLUSION

Ideally, local and state government regulations would work cooperatively to regulate fracking. State regulations could serve as a floor, a set of minimum requirements for the oil and gas industry. Local governments would be free to build on those minimum requirements, taking into account the unique impacts faced by their residents. The viability of this model is well-established, and reflects the cooperative federalism between states and the national government envisioned by major environmental statutes including the Clean Air Act.\textsuperscript{155}


\textsuperscript{154} Levine, \textit{supra} note 153.

Alas, in the real world, these parties have chosen to fight rather than cooperate. This conflict should be accompanied by a serious conversation about environmental justice. Ongoing preemption litigation can and should serve as a microphone for the movement and its advocates. Scholarly work discussing the intersections between fracking and income, population density, and race—an important aspect of environmental justice that this Note did not reach—can support the arguments spoken into that microphone. This Note does not call for a new cause of action; it is not intended to comment on the legality of preemption or home rule. Instead, it advocates for greater recognition of environmental justice issues for the purpose of elevating them to a category of factors regularly considered by courts in these fracking suits. Robinson was the first to do this; but as this Note has shown, there is good cause for other courts to follow its lead.

We welcome responses to this Note. If you are interested in submitting a response for our online companion journal, Ecology Law Currents, please contact cse.elq@law.berkeley.edu. Responses to articles may be viewed at our website, http://www.ecologylawquarterly.org.