

# How do landowners learn about high-volume hydraulic fracturing? A survey of Ohio landowners

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# Public Opinion & Fracking

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...So, what about landowners?

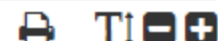
# In North Carolina, fracking rights rise to surface

By [Hallie Seegal](#) | FEBRUARY 8, 2013

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## Spread of Fracking Spurs Disputes Over Oil Rights

🕒 07/30 14:18 PM 🕒 07/30 14:23 PM



When it comes to settling disputes over who owns the oil & gas in Texas, the state's law struck a federal judge as anything but fair. After reviewing an opinion by the Texas Supreme Court, he said it was more like theft.

"The Garza opinion gives oil and gas operators a blank check to steal from the small landowner," wrote John Preston Bailey, a United States District judge in Wheeling, West Virginia.

### Lawmaker Seeks Repeal of Controversial Portion of Drilling Law

*August 14, 2013*

A Pennsylvania lawmaker wants to repeal a controversial section of a new drilling law -- as well as portions of state law dating back to 1961 -- to protect landowners from what she says amounts to forced pooling. [to READ MORE, register for a free trial](#) (active users log-in below)

# Hydro-Fracturing Literature

- \*Emphasis on macro-scale:

- Pro: Energy independence; Economic impacts

- Anti: Climate change; water quality

- \*Not much emphasis on local-scale:

- Surface impacts

- (Predatory?) Leasing

- Mineral rights

# Broader Implications

- \*Developing political fight
  - Largely at state or local level
- \*Transcends traditional ideologies
  - At least at the local level*
- \*Conflict over institutional design and change
  - To drill or not to drill
  - Compulsory pooling

# Sources of Preferences

- \* High salience issue for landowners involved and for local communities in shale plays
- \* Therefore, opinion likely derived from local considerations
  - Social networks
  - Anecdotes/specialized knowledge
- \* National/macro-sources of information may be skeptically read



# Sampling Strategy

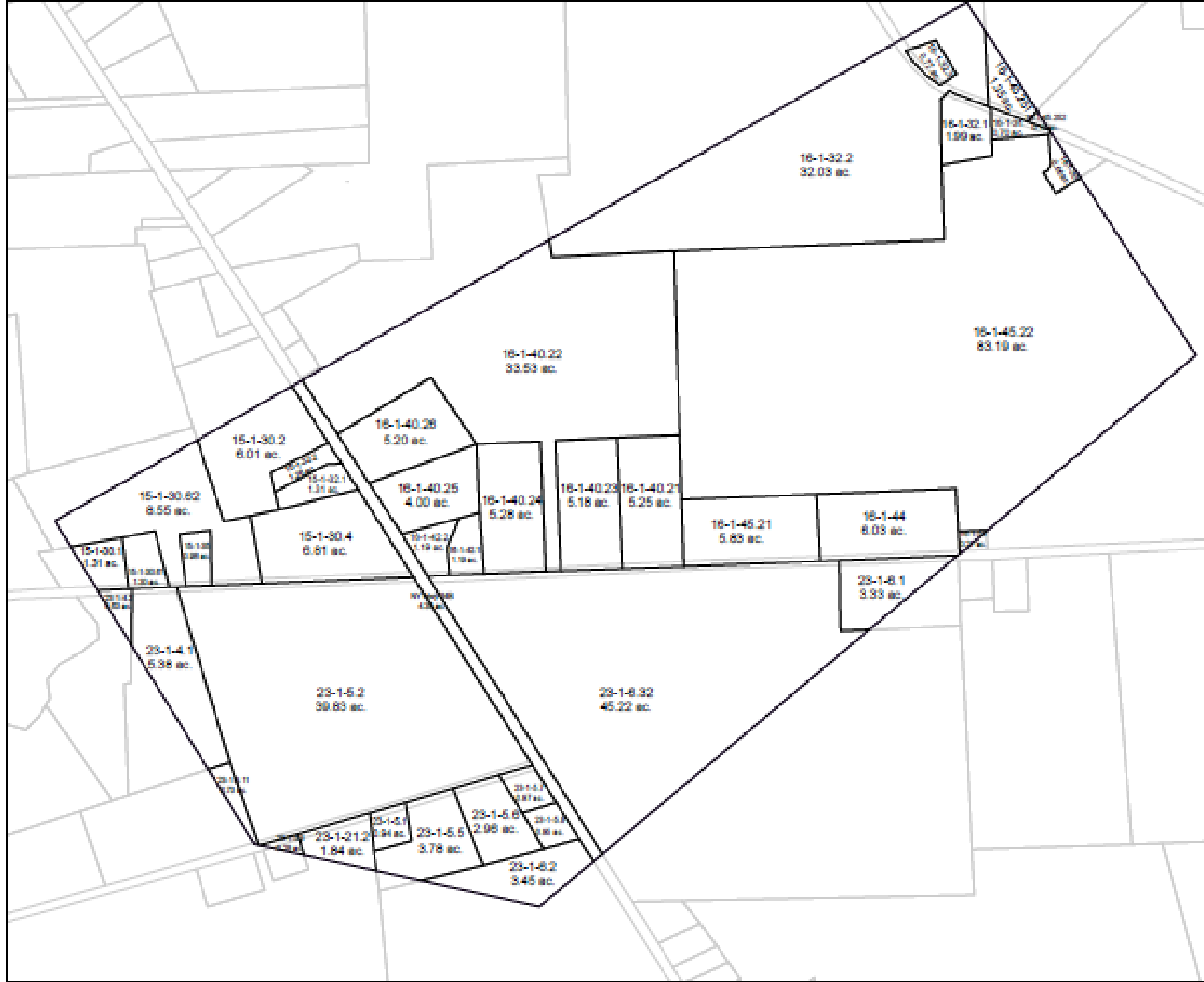
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- \*Identify conflictual well units by targeting landowners involved in a **pooling** order
  - Compulsory (“forced”) integration has been law, in most oil & gas states, for 50+ years
  - Integrate ownership under one **well** or **unit**
- \*Ohio counties



# Sample Details and Methods

- 55 applications for unitization for horizontal drilling (November 2011 to February 2015)
- 1653 unique landowners in 12 Eastern Ohio counties
- 28-item, 8-page paper survey, \$1 incentive
- 27% response rate
- 388 usable responses
- Respondents are from 9 of Ohio's top 10 drilling counties

# Descriptive statistics

- Sample is around 60% male
- Mostly older (mean 62 years)
- Most respondents have at least a HS education
- Plurality of Republicans (40% of sample)
- Most are parents (85%)
- Most have long tenure in area (average is nearly 25 years)
- Most are at least somewhat familiar with fracking (92%)
- Most support fracking (73%)

Table 1: Descriptive Statistics on Demographics and Summary Questions

<i>Variable</i>	<i>Observations</i>	<i>Mean</i>	<i>S.D.</i>	<i>Min.</i>	<i>Max.</i>
<b>Female</b>	378	0.38	0.48	0	1
<b>Age</b>	357	61.67	12.34	22	95
<b>Education</b>	375	2.54	1.77	0	7
<b>Marital status</b>	378	0.73	0.44	0	1
<b>Any Children</b>	379	0.85	0.35	0	1
<b>Duration of Residence</b>	382	24.64	15.63	1	71
<b>Partisanship: Republican</b>	348	0.36	0.48	0	1
<b>Partisanship: Democrat</b>	348	0.24	0.43	0	1
<b>Partisanship: Other</b>	348	0.10	0.30	0	1
<b>Partisanship: Independent</b>	348	0.29	0.46	0	1
<b>HVHF Knowledge</b>	367	1.23	0.59	0	2
<b>HVHF Opposition</b>	377	0.36	0.64	0	2

# Key findings: Information sourcing

- Most people (90%) got info from at least 2 sources; mean number was 5
- Oil and gas industry is a more common source of information than environmental groups: 67% versus 27%
- Social ties (family and friends) are more important information sources than “official” sources (government, legal, landowner groups): 52-57% versus 30-36%
- Nearly half of information received was unsolicited



<i>Information Source</i>	<i>No</i>	<i>Yes</i>	<i>Total</i>
<b>News reported on the television, radio, or internet</b>	92 (25.48%)	269 (74.52%)	361 (100%)
<b>Other internet sources</b>	154 (46.53%)	177 (46.53%)	331 (100%)
<b>Family members</b>	168 (49.27%)	173 (50.73%)	341 (100%)
<b>Local community members</b>	164 (47.95%)	178 (52.05%)	342 (100%)
<b>Friends, coworkers, or acquaintances from outside my community</b>	147 (42.98%)	195 (57.02%)	342 (100%)
<b>Oil/Gas Companies</b>	117 (32.59%)	242 (67.41%)	359 (100%)
<b>Groups focusing on industry, employment, or economic issues</b>	193 (55.78%)	153 (44.42%)	346 (100%)
<b>Groups focusing on environmental issues</b>	251 (72.75%)	94 (27.25%)	345 (100%)
<b>Government officials or agencies</b>	219 (64.60%)	120 (35.40%)	339 (100%)
<b>Attorneys</b>	212 (63.47%)	122 (36.53%)	334 (100%)
<b>Landowners' association</b>	236 (69.62%)	103 (30.38%)	339 (100%)

# Key findings: Unsolicited information

- Family members offered unsolicited information to 75% of respondents.
- Information from environmental advocacy groups was unsolicited for 82% of respondents.
- Info from industry sources was unsolicited for 77% of respondents.

<b>Information Source</b>	<b>Solicited</b>	<b>Unsolicited</b>	<b>Total</b>
<b>Family members</b>	42 (25%)	128 (75%)	170 (100%)
<b>Local community members</b>	57 (32%)	120 (68%)	177 (100%)
<b>Friends, coworkers, or acquaintances from outside my community</b>	64 (34%)	126 (66%)	190 (100%)
<b>Oil/Gas Companies</b>	57 (24%)	179 (76%)	236 (100%)
<b>Groups focusing on industry, employment, or economic issues</b>	34 (23%)	114 (77%)	148 (100%)
<b>Groups focusing on environmental issues</b>	17 (18%)	77 (82%)	94 (100%)
<b>Government officials or agencies</b>	46 (39%)	72 (61%)	118 (100%)
<b>Attorneys</b>	57 (48%)	63 (52%)	120 (100%)
<b>Landowners' association</b>	39 (40%)	59 (60%)	98 (100%)

# Key findings: What determines information sourcing?

- Series of logit regressions with each type of information as dependent variable (types: personal, advocacy, other)
- Older people are less likely to get information from family or friends outside the community.
- More educated people are more likely to get information from industry and environmental advocacy groups, landowner groups, and government.

# Key findings: What determines information sourcing?

- Longer tenure on the land is associated with more info from advocacy groups.
- Republicans are less likely to get information from environmental advocacy sources, as are those who affiliate with “other” party (generally some type of conservative).
- Otherwise, partisan ideology doesn’t appear to matter.

# Key findings: What determines familiarity with fracking?

- Just receiving information is not enough to make someone feel familiar.
- Most information sources do not increase self-reported familiarity.
- Total number of *solicited* information sources positively predict familiarity, but total number of *unsolicited* does not.

# Key findings: What determines familiarity with fracking?

- Positive predictors of familiarity include info from:
  - Non-mainstream internet sources
  - Oil and gas companies
  - Other industry sources
- Interestingly, these do NOT predict familiarity:
  - Partisanship
  - Education
  - Age

# And support for fracking?

- We find no reliably statistically significant correlations between any information sources and overall support/opposition regarding fracking.
- There also is no relationship between overall familiarity and overall support/opposition for fracking.
- But keep in mind: Only 33 respondents opposed fracking!



# Conclusions

Local sources of information are important. This might explain some of the 'proximity matters' arguments in the literature.

Oil/gas industry information is common and improves familiarity.

Information from environmental groups is less common, usually unsolicited, and has little impact.

Information sources and familiarity do not appear to drive opinion in this sample.