RURAL RESISTANCE AND FRACKING: THE IMPACT OF COMMUNITY EXPECTATIONS ON RESISTANCE FORMATION

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by

Timothy Richard Rose

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Thesis written by

Timothy Richard Rose

B.A., Kent State University, 2014
M.A., Kent State University, 2017

Approved by

Molly Merryman, Advisor
Richard T. Serpe, Department of Sociology
James L. Blank, Dean, College of Arts and Sciences
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INTRODUCTION

“The title of your thesis should be this: ‘The Golden Rule: He Who Has the Gold Makes the Rules.’ And oil companies know that.” —Sam

In recent years, hydraulic fracturing of shale rock to extract natural gas (a process also known as “fracking”) has transformed from an almost completely unknown process to one that is intimately shaping the lives of individuals and their communities. Widespread national media coverage and contested state policies regarding fracking indicate that individuals and groups are divided over this new form of natural resource extraction. In this case, division and general uncertainty has led to an increased demand for knowledge about fracking (Stickel et al. 2014). Of particular interest is how this practice has affected and will continue to affect communities in the United States.

In response to this demand, the literature on fracking has examined the social impacts of fracking, especially the processes by which fracking shapes communities. This literature draws heavily from the findings regarding how other forms of natural resource extraction (e.g., forestry, coal mining, traditional oil extraction) impact the lives of community members. However, despite the fact that this natural resource extraction (hereafter referred to as NRE) literature finds significant differences in the ways in which communities are socially, environmentally, and economically affected across NRE types (Stedman, Parkins, and Beckley 2004), the research regarding fracking has not explored how fracking might affect communities in its own unique fashion as a distinct type of NRE (Boudet et al. 2016). Furthermore, most studies of fracking
have focused on a single issue (e.g., how fracking negatively impacts the environment; Hudgins 2013) or on the viewpoint of one specific group in community debates/discussions (e.g., members of established resistance movements; Dokshin 2016; Buday 2017). This leaves unexplored a general understanding of the meanings and expectations of fracking held by communities as a whole as well as how those meanings and expectations shape community discussion, action, and even resistance (or lack thereof) to fracking. This project addresses this gap in the literature, specifically giving insight as to why a resistance movement may fail to coalesce even in the presence of significantly negative consequences of NRE development.

Given the goal of this project, it was necessary to approach the issue from a qualitative standpoint because qualitative research is one of the most effective ways to expand understanding of new and/or previously unexplored areas of inquiry (Lofland and Lofland 1995; Weiss 1994; Corbin and Stauss 1990). A quantitative investigation would have been an inappropriate tool to examine how community members perceive fracking development and the ability to resist said development because quantitative measurements do not allow for the rich depth and unanticipated information that may emerge through qualitative methods. Therefore, in order to address the question of how community expectations impact the formation (or lack thereof) of a resistance movement to natural gas extraction development, I have conducted a series of interviews with residents of an economically depressed rural community: Scio, Ohio.

The village of Scio is currently going through its third resource boom, and as is typical of resource extraction cycles, which boom before busting, many community members look to fracking as a potential rebirth of the local economy. Given this as well as the monumental investment into NRE infrastructure by fracking companies (including the construction of a multi-billion dollar processing plant), residents of this village are uniquely situated to provide
commentary regarding community perceptions of fracking consequences and the position of the community relative to NRE companies. My prior extensive contact with fellow Scio residents ensured that I was able to anticipate and inquire about local issues and specific matters of importance to Scio community members. Furthermore, my insider status as a born-and-raised member of the community helped garner participant trust and ensured that I could provide the necessary context in the presentation of community voices (Devault 1990).

The interviews investigate what individuals expected from the development of fracking before and during the initial resource boom. By doing such interviews, it was possible to not only capture the general expectations for fracking development in the area but also what individuals expected would result from attempts to resist fracking. The content of these interviews drew upon existing NRE literature regarding the relationship between individuals, communities, and resource extraction as a starting point for questions for the interview sessions. For example, Boudet et al. (2014) identify the demographic characteristics that are correlated with greater support for fracking, while Freudenburg (2005) examines the economic versus environmental debate that may (or may not) take place in communities. As the goal of the methodology employed in this study was to avoid being limited in examining only those themes that have emerged in previous NRE and limited fracking investigations, I allow the possibility for fracking to emerge as unique in its consequences as a form of NRE. By using an inductive method of exploration, it was possible to uncover significant themes that had yet to receive significant attention in the rural studies and resource extraction literatures, such as how rural individuals rationally assess the advantages and disadvantages of fracking development and resistance to such development.
The findings from this study indicate that perceptions of fracking and the willingness to resist it are far more complex than simply a morally exclusive frame of economic benefit versus environmental harm (Freudenburg 2005). In such a divide, community members separate themselves into camps that prioritize environmental or economic concerns and then attempt to exclude the arguments of the other sides as being uncaring of the general welfare of the community. By contrast, in this case, individuals within the Scio community were able to discuss and acknowledge the validity of economic gains as advantageous (while acknowledging their shortcomings) as well as the validity of environmental concerns as disadvantageous (and how some those concerns have been mitigated). Given this inclusive understanding of both sides of fracking, the lack of community resistance to fracking may be seen in part to the failure of community members to draw morally exclusive lines among themselves. While general perceptions of fracking benefits and harms do enter into the equation, community members largely indicated that the formation of a resistance movement to fracking is affected by perceptions of how efficacious such a resistance movement will be. When community members perceive that they are too disorganized to resist fracking and/or that the fracking companies are too powerful for the community to resist, expectations for a successful resistance movement are quite low. Lack of knowledge about fracking, a weak resource base, and perceptions of an organizational/leadership vacuum were also found to inhibit the formation of a resistance, while at the same time, the expansive knowledge base, material resources, and bureaucratic distance contributed to perceptions that it would not be possible to fight the fracking companies and win. Ultimately, this study finds that the decision to permit and not resist fracking development is based upon a rational evaluation of both the advantages and disadvantages of fracking as well as an assessment of the actual ability to resist. Importantly, this is in opposition to previous findings
and speculations that the lack of a resistance movement was based on moral exclusion that inhibits collective action of all community residents or on a lack of awareness of the potential issues (Dokshin 2016).
In order to understand how fracking might impact members of the Scio, Ohio community as well as how individuals perceive and act upon their experiences with fracking, it is necessary to first examine the broader literature regarding natural resource extraction (hereafter referred to as NRE). Although it is highly unlikely that the effects of fracking will perfectly mirror those of other forms of NRE, I begin below with an examination of the NRE literature to get a better sense of the positive and negative consequences of extraction development. Then, I examine research that has specifically examined the impacts of fracking as a type of NRE. Through highlighting the pitfalls of both threads of research, I argue that a full understanding of the relationship between individuals, communities, and fracking as a particular kind of NRE requires an understanding of general community members’ meanings and expectations of fracking as they shape community discussion, action, and even resistance (or lack thereof) to fracking development. Prior to tracing this literature, however, I start with a general discussion of what fracking is and how the process unfolds.

What is Fracking?

Hydraulic fracturing (also known as “fracking”) is a traditionally unconventional form of natural resource extraction (NRE). This is because it extracts natural resource deposits that are otherwise difficult to access due to depth and location of the oil and gas within shale deposits (Braiser et al. 2011). Dating back to its initial boom in 2011, the fracking process itself involves the extraction of natural gas from shale rock, which is located thousands of feet below the earth’s
surface. This is accomplished by injecting a high-pressure mixture of sand, water, and a variety of chemicals into the shale rock, which fractures the rock and allows the natural gas to escape and rise to the earth’s surface where it can then be collected and sent off for refinement for further development into secondary products such as plastic grocery bags (Boudet et al. 2014). The process is controversial, due in part to the vast amounts of water used during the process (i.e., up to 10 million gallons in some instances), which has in many locations impacted the hydro cycle (i.e., ground water, aquifers, surface water) in communities where fracking occurs (Schaff et al. 2013; Patterson et al. 2017). In addition, there is concern among environmentally-conscious individuals and groups about the contamination of local ground water that can result from the chemicals and chemically-irradiated water that is used during the fracking process as well as the gas released during the extraction that escapes collection (Braiser et al. 2011). Despite these environmental concerns, fracking is often seen as beneficial by community members due to its perceived positive effect on economic growth of local communities (Hudgins 2013; Freudenburg 1992), as well as the associated increased reliance on domestic as opposed to foreign energy sources (Flora, Flora, and Gasteyer 2015).

Though geologists have been long aware of the presence of natural gas trapped in shale rock, only within the last decade has fracking become cost-effective enough to warrant large investments into the process (Brasier 2014; Maxine Goodman Levin College of Urban Affairs 2013). Consequently, the literature on community responses to fracking development has been limited to initial fracking development in the early boom years. The transition from rapid development to the current stagnation has also led to a stagnation in research, meaning that little research has examined the continued and long-lasting impact of fracking in communities, including community members initial expectations compared to their current understandings and
complicit or resistant actions. Fortunately, a much larger literature exists for similar natural resource extraction infrastructure development and resource collection at several stages during the boom-bust extraction cycle that is typical of NRE. The boom-bust extraction cycle involves an explosion in infrastructure development and extraction of resources followed (sometimes many years later) by a bust in which it is no longer economical to continue extracting resources (even if some of the resource is still available). This bust, as will be seen later, is particularly problematic as communities involved with NRE tend to be heavily economically invested in the process, with both direct employment and secondary and tertiary businesses being negatively affected by the decision to stop extraction at the point of economic infeasibility (Freudenburg 1992).

While this general NRE literature is essential to inform the inquiry into the social implications of fracking, the many forms of resource extraction have been found to differ significantly from one another in terms of their social, environmental, and economic impacts (Stedman et al. 2004). This means that while fracking might be impacting communities in similar ways as other forms of NRE, research regarding fracking should examine fracking as its own distinct type of NRE (Boudet et al. 2016) in this new stage of the fracking NRE process. Clearly, a synthesis of the NRE and fracking literatures is essential to framing the question of why resistance movements to fracking (and other forms of NRE) do or do not coalesce. In general, however, the current lack of research of community perceptions in this stage of fracking necessitates the current project. Discussed below, I detail the literature regarding two areas of general NRE as well as fracking research that informs resistance formation, community perceptions, and the impact of social structural context at the local, state, and federal levels.
Community Perceptions of Natural Resource Extraction and Fracking

NRE spans a wide range of processes, including forestry, coal mining, and traditional oil extraction. Since these processes are embedded deep within the nation’s history, there is a wealth of literature on general NRE. One of the most consistent inquiries within this literature includes the investigation how demographic variables, such as political ideology, influence individuals’ perceptions of and responses to NRE. For example, regarding political ideology, Buttel and Flinn (1978) found that a conservative ideology is correlated general support for NRE. This finding carries over into the fracking literature, where research finds that Republicans in the Great Lakes region as well as in northeastern states like Pennsylvania and New York were much more likely to support legislative measures supportive of the fracking industry than Democrats (Issues in Environment and Energy Policy 2014; The National Surveys on Energy and Environment 2013; Clarke 2012). In general, this means that leaning to the right politically tends to correspond to support for fracking development.

Other factors have been found to influence perceptions of and response to NRE as well, such as gender. For instance, Bell and Braun (2010) found that it is more acceptable for women to speak out about the negative impacts of coal mining NRE, such as flooding or polluted air resulting from coal extraction practices. This is because such actions fall within the traditionally feminine role of looking out for the health and well-being of the family. Similarly, Bell and York (2010) detail a complementary finding regarding gender, where the actual act of extraction is considered to be part of a traditionally masculine identity as employment in the NRE is often promoted in such areas as providing for the family. This gender effect is also found in the fracking specific context, with females having significantly more negative perceptions of fracking development than males (Budgen et al. 2014).
Taken together, the findings regarding political ideology and gender illustrate well the tension between environmental versus economic concerns in the NRE literature. One significant way in which this conflict functions is through “moral exclusion,” where participants in one camp (e.g., the environmentalist camp) are portrayed as being unconcerned with the general well-being of the public by the other camp (e.g., the extraction friendly camp). In this way, anything the opposition says can be immediately discredited without actually being seriously evaluated or considered (Freudenberg 2005). Though both sides may have valid points, the key is that one side’s points are dismissed out of hand under the perception that nothing originating from the other point of view could be beneficial to the community at large. As this relates to the fracking debate, research indicates that individuals typically draw lines among themselves between those who perceive development to be economically beneficial and those who view it as being environmentally harmful (Freudenburg 2005; The Rural Sociological Society 1993).

Despite this moral exclusion of one or the other side, empirical findings are mixed within the general NRE and fracking literature regarding the actual economic benefit of extraction. Some studies find NRE to be linked with economic benefits such as higher income levels (Bender et al. 1985), while others find the opposite effect on income as well as unemployment (Deller 2014). Still, others indicate that the economic effect varies by NRE industry and geographical location (Stedman et al. 2004).

As this regards fracking, however, fracking research has found that many individuals within fracking communities view fracking positively due to the perceptions of newly created NRE-related jobs (Smith 2015; Hudgins 2013). Although, these positive perceptions are somewhat dampened by the realization that many of these jobs will be held by individuals from outside the local area (Ohio Shale County Listening Project 2014; Brasier et al. 2014). Fracking
is also viewed positively in communities due to its ability to generate income for established local businesses like restaurants (Smith 2015) and the ability to draw new businesses such as hotels into the region (Ohio Shale County Listening Project 2014). While on the surface it would appear that natural resource extraction would be clearly economically beneficial to communities through job creation and a greater amount of money circulating in the local economy, there are several hidden costs to extraction development that may result in negative consequences for communities.

One way NRE and fracking can negatively impact a community is economically through how it influences future development in that community. Papyrakis and Gerlagh (2007) found that while there may be a short-term boost in income in a rural community due to NRE, long-term growth was stymied due to poor reinvestment in the community. This finding mirrors the conclusions drawn by the Rural Sociology Task force on Persistent Rural Poverty in American (The Rural Sociological Society 1993). According to the Task Force, in rural communities where there are NRE jobs that do not require a great deal of formal education, individuals rationally underinvest in their education, having calculated that such additional effort is not worth the reward. This is compounded by the fact that the wages paid by resource extraction companies tends to be more than what is paid by local, non-NRE jobs (Freudenburg 1992). In addition, while resource extraction companies do “invest” in the communities affected by NRE, this investment tends to occur in periphery fields tied directly (e.g., NRE machinery sale/repair) or indirectly (e.g., hotels, restaurants) to NRE (The Rural Sociological Society 1993).

Another way NRE can negatively impact a community regards environmental and social effects. For instance, the destruction of the land and natural environment in and around communities affected by NRE development can hardly be endearing to residents. As such, it is
no surprise that environmental harm is consistently regarded as a negative consequence NRE and fracking in general (Ohio Shale County Listening Project 2014; Hudgins 2013; Brasier 2011). Additionally, many acknowledge that NRE may affect the health of residents by affecting the propensity for natural disasters such as landslides and earthquakes (Bell and Braun 2010). Residents are also aware of the risk of environmental contamination resulting from the extraction process, leading to an increase in negative perceptions of fracking. For instance, many are aware that the water of communities may become contaminated resulting in individuals becoming sick (Patterson et al. 2017; Hudgins 2013). NRE has even been found to harm the mental health of residents, especially among those within rural communities. Many rural communities are small, and therefore, a relatively small (e.g., 1,500-person) increase in population (e.g., from roughly 6,500 to 8,000) in a span of just a few years is enough of a major population change to have significant effect on residents’ health (Freudenburg et al. 1992). This large increase in a short period of time can cause a strain on social services, resulting in lower health outcomes for community residents (Williamson 2011).

Despite these negative effects of NRE, such effects are often downplayed or discredited in community debates/discussions. This is an example of how the moral exclusion phenomenon mentioned above works in practice in the case of NRE. For instance, the Rural Sociological Society (1993) found that both the environmental and pro-NRE camps attempt to morally exclude the other side, casting the arguments of the other side as immoral or out of touch with community residents. Freudenburg and Gambling (1994) report that this tactic of moral exclusion is often used more by the pro-NRE camp, where environmentalists are painted as “unreasonable” and unconcerned with the local need for new jobs. Even when environmental harms are acknowledged, they are framed as a necessary evil in order to gain the benefits offered
by NRE (Freudenburg 2005). This process underscores a theme that will be detailed below in further literature regarding fracking: that the problems surrounding fracking are at least partially socially constructed in that some NRE-related factors are framed as problems while others are not (or at least their problematic nature is played down).

For this study of how perceptions of fracking impact expectations regarding the ability to resist resource extraction development, a variety of demographic factors identified in previous studies were important to consider, as these have been shown to significantly impact perceptions of NRE. However, despite the wealth of data gathered by these early studies on the impacts of NRE in general and fracking in particular and how these impacts are perceived, very few examine in any depth how individuals may hold a diverse number of perceptions concerning fracking and how these perceptions affect the ways in which individuals in a community interact with one another and with the fracking companies. As a consequence, individuals in these studies appear one-dimensional, holding either a positive or negative view of fracking (Ohio Shale County Listening Project 2014; The National Surveys on Energy and Environment 2013). A notable exception includes the study by Hudgins (2013), where, in her study, Hudgins found that perceptions of how other community members perceive fracking affects how individuals express positive and/or negative perceptions of fracking. Accordingly, the present study has been designed to capture the wide variety of perceptions each individual may hold with respect to fracking development to better account for the complex impact of fracking development on a community.

In addition, despite the breadth of these findings, it is also important to consider state and local context when investigating perceptions of and resistance to fracking. These social and political contexts shape not only how individuals perceive the fracking industry (i.e. poorer rural
communities are more likely to view it as a godsend), but also how they perceive their own ability to resist fracking (i.e., a state environment supportive of fracking development would likely decrease perceptions of being able to resist development). Accordingly, it is important to synthesize research on the impact of state and local context (especially that of a rural local context) on perceptions of and resistance to fracking. I now turn to this literature.

Local and State Context of Fracking and Fracking Resistance

NRE and the rural studies literature find that, in terms of local context and resource extraction, rural communities are likely to be both more open to and more harmed by resource extraction development (The Rural Sociological Society 1993). This is because rural communities are affected by NRE to a greater extent due largely to their geographic isolation. The isolation of these rural communities makes them less able to diversify economically, and this results in only a few industries dominating the economic fates of these communities (Freudenburg and Gambling 1994). The flight of industry from rural regions has only exacerbated this problem (The Rural Sociological Society 1993), making it even easier for NRE to increasingly dominate rural economies. In addition, rural areas have relatively less power and resources to resist the more negative aspects of NRE compared to less isolated, more urban regions (The Rural Sociological Society 1993).

This rural economic weakness due to isolation is further compounded by the fact that many rural communities, especially in Ohio (Peaceful 1996), which is the research site for this study, have a long and patterned history with natural resource extraction. NRE has been described as an addictive process due to the sudden influx of jobs and money. This means that NRE likely feeds into the reliance of already economically vulnerable communities on NRE for their next economic “fix” despite the potential long-term negative economic, social, and
environmental consequences (Freudenburg 1992). The “intermittent reinforcement” of NRE contracting and expanding throughout its extraction lifecycle leads to community members expecting that the good times will return (Freudenburg 1992: 323). The economic plight of many of these communities (Schafft 2013) contributes to many of these communities viewing NRE as a saving grace, one that the NRE boom-bust cycle (which sometimes repeats several times in a given community) reinforces (Freudenburg and Frickel 1994). This is apparent in the village of Scio, which is the focal community for this study, where many individuals initially believed that the jobs generated by fracking development would mirror those high paying coal extraction related jobs that were previously available to adults without a college education. This cycle conditions individuals to expect that extraction levels and employment will always return if one is patient. With this in mind, it is no wonder that Freudenburg (1992) found that communities are willing to sacrifice job benefits and community health to make it more appealing for a resource extraction company to keep its doors open even as it costs increasingly more to extract the remaining resources. For instance, within the community discussed in this study, community leaders at one point decided to not incorporate the multi-million dollar fracking plant in a zone that would allow the gathering of an income tax (a JEDD or Joint Economic Development District) due to perceptions that such a move would damage further investment in the local region.

The importance of local social context (especially for rural communities) is further compounded by findings that proximity to extraction sites is significantly correlated with certain perceptions of extraction. These studies and surveys have also identified variables that influence perceptions of fracking. Budgen (2014) found that proximity to an area with current shale extraction has a significant positive effect on perceptions of fracking. Schafft et al. (2013)
likewise found that higher levels of local drilling had a significant positive effect on perceptions. A study of mass and public media coverage of fracking in cities located within the Marcellus Shale region also found that proximity to fracking extraction sites decreased the likelihood of a resistance movement from forming (Vasi, Walker, Johnson, and Tan 2015). Accordingly, those communities which are most vulnerable to the negative consequences of fracking development are less likely to resist the industry due to proximity having a positive impact on perceptions.

In addition to the localized effects of living in a rural community, state level policies and politics have also been found to have an impact on resistance to natural resource extraction. By and large, events taking place at the state level shape how difficult is it for local communities to resist resource extraction development, in some instances to the point to where resistance is not even feasibly possible on a large scale. Studies within the fracking literature have identified that state level government has the most influence on fracking regulation (or lack thereof). Fisk (N.d.) found that while there are some champions of fracking at the national level, most of the control over fracking development is located at the state level. Therefore, due to the absence of strong federal regulations, regulation of the fracking industry varies widely from state to state. This variation in state policy requires that the current study be located in a single state. Attempting to compare the communities of two states may result in any observed differences being the result of differences in state policy as opposed to the effect of rurality or other local factors.

Fracking policy studies have also found that many states involved with fracking have sought to reduce the ability that local governments have in regulating and restricting fracking development and extraction practices, despite the fact that the local level of government is most trusted when it comes to environmental regulation (Smith 2013). A study of Colorado’s response
to the fracking boom found that part of the rationale behind strengthening state centralization of fracking regulation was to avoid fracking companies investing less in the state due to a high level of variation in regulation within the state (Fisk N.d.). Pennsylvania’s Act 13 sought to limit the ability of local governments to restrict fracking development through local ordinances for similar reasons (The National Surveys on Energy and Environment 2013). Finally, in Ohio, landowners may be forced into allowing fracking development and extraction on their land, with those not volunteering being subject later to a penalty cost that would have otherwise been deferred to the resource extraction company if the lease had been voluntary (Baker 2014). Therefore, it is at the state level at which both pro- and anti-fracking groups and individuals have the most hope to enact meaningful and wide reaching policies.

As fracking is a relatively new form of natural resource extraction, this study can only serve as the first step in investigating how communities perceive and resist this form of resource extraction development. As (Smith 2015) found that the impact of resource extraction development differs both by the type of resource and the host community, it will be the work of future studies to compare this study’s findings with how communities in other social settings react to fracking development. This initial study examines how individuals in a poor rural community react to fracking development, as Freudenburg (2005; 1992) has shown that these types of communities are particularly vulnerable to the negative implications of natural resource extraction development. As such, these communities have both the greatest incentive to resist the negative aspects of development while also having the fewest resources to do so. How the narrative of this community fits into the larger story of natural resource extraction as well as how I investigated the fracking expectations in this community are described in detail below.
As evidenced by the literature review above, there remains a significant gap in the existing fracking literature (and by extension the general NRE body of knowledge) regarding how general community members may simultaneously perceive both the positive and negative repercussions of fracking development. Furthermore, while some studies examine individuals’ perceptions of either fracking’s advantages or disadvantages, relatively little research has been done regarding what factors influence perceptions of the ability to resist fracking. Hence, the current study seeks to address both shortcomings by allowing individuals in a community that has been significantly and permanently changed by fracking development to discuss with relatively few restraints the myriad of ways in which perceptions of the fracking industry and of the community impact perceptions of resistance.
METHOD

“...and I thought, ‘Here comes a guy with a bias’...well I am glad to see that you aren't...”
—Robert, in response to my statement that I was not conducting this study from a pro-fracking or anti-fracking standpoint.

The focus of this project is to investigate the meanings and expectations that Scio, Ohio community residents hold in regards to fracking development. As such, the perceptions of individuals in the research site are the most critical points of data. Consequently, a data collection method was required that ensured that participants were able to present to the researcher the entirety of what they expected from fracking, rather than being guided to simply focus on one or two points that previous research has outlined as important factors, such as the environmental harms that may result from fracking (see e.g., Fox 2010). Accordingly, this study was conducted using a series of in-depth interviews, as this data collection method allows individuals to convey both their positive and negative perceptions of fracking (Weiss 1994). Due to the open-ended nature of the questions utilized during this interview process, conversation was able to emerge naturally through the course of the interview (Charmaz 1996, Lofland and Lofland 1995; Corbin and Stauss 1990), allowing the emergence of themes that have previously gone unnoticed in past research due to limited focus and/or overly structured framing.

Furthermore, such a methodology allows for a rich description of the community, the patterns of interactions that take place within it, and the social structures which influence how individuals perceive and react to the fracking companies (Harper 1988). Through such a description, it is
possible to discern how different factors that at the outset would appear unrelated to fracking development (e.g., the flight of young individuals from economically depressed rural areas) impact perceptions of the efficacy of organized resistance through their intersection with community social structures (e.g., the local government, community organizations). This rich description allows for a more comprehensive understanding of the myriad of social factors that come to constitute an individual’s perception of the community and the extraction industries, as well as the possible interactions between the two.

Undoubtedly, there are barriers associated with this manner of data collection. Especially within rural communities, individuals may be wary of divulging too much information (particularly in regards to sensitive subjects) to outsiders (Flora et al. 2016). This is similar to other communities with clearly defined in- and out-groups (Yow 1996). In addition, a level of rapport needs to be developed before conducting interviews to ensure that participants (even after recruitment) are comfortable speaking to the interviewer as well as to help the conversation flow more naturally. This is because participants are more likely to open up to an interviewer who has at least some understanding of the local social environment (Yow 1996; Lofland and Lofland 1995; Corbin and Stauss 1990). Finally, qualitative methodology often requires “an in,” or an established relationship with individuals in the study area, in order to ensure access to community members who are likely to have insight into the topic under investigation. Fortunately, these several barriers to high quality data collection are addressed in this study by selecting as the study location the small rural town in Eastern Ohio in which I was raised, which is also ground zero from one of the largest oil and natural gas process plants in the Eastern United States.
Study Setting

“In this particular area, we have…the wet gas which produces natural gas, condensate, ethane, propane, pentane, butane. And since we had the rail from the coal, again we are living our past. Many of the companies are coming to this area because of the heavy rail that we used for the coal.” —Bob H.

States vary with respect to their policies and dispositions towards fracking development and regulation. For example, some states such as New York have taken legislative and executive steps that facilitate resistance to fracking (Dokshin 2017), while other states such as Ohio have been much more welcoming to fracking development. As such, it was necessary that the study setting was restricted to one state. Sam, a landowner who has traveled across the country managing a construction company with his brother Joe, frames how Ohio state officials feel about fracking development (and therefore fracking resistance): “[The] Governor of Ohio was all for fracking. Any time they go near the gas and the oil for tax, Kasich says, ‘No, no, no. Leave them alone. We’ll drive them away.’” Due to its openness to development and consequently, the vast amount of fracking development that has occurred within the state, I selected Ohio as the starting location for this study.

While Ohio, from a legislative standpoint, has been deeply involved in the recent fracking boom, only about half of the state’s counties are actually situated on the Utica Shale play, with a shale play defined as an area that is geologically primed for profitable resource extraction (Maxine Goodman Levin College of Urban Affairs 2013). This deposit of shale rock only spans the Eastern half of Ohio as well as the Western half of Pennsylvania. In Eastern Ohio, 43 of Ohio’s 88 counties are positioned over deposits of shale with extractable gas, with eight counties rated as strong shale counties (Hill 2014). Within these shale counties, there are important demographic differences worth mention. The Southeast region of Ohio has a higher rate of poverty and is considered more rural than the Northeast region (Ohio Development...
This Southeastern region shares many qualities with the Appalachia region of the United States, such as historic ties to NRE (especially coal; Peacefull 1996), geographic isolation due to rough physical terrain, and elevated levels of poverty (Flora et al. 2015; The Rural Sociological Society 1993). Based on these characteristics, the Southeastern portion of the Ohio Utica Shale region is the most appropriate location for this study because previous research has shown that poor rural communities with historical and cultural ties to resource extraction are particularly impacted (for both good and ill) by NRE development (The Rural Sociological Society 1993; Freudenburg 1992).

Within this general region of Ohio, I have chosen to focus within Harrison County for several reasons. First and foremost, Harrison County was (Peacefull 1996) and continues to be (Hill 2014) deeply involved in NRE. While this is true of the surrounding counties, Harrison County as of the 2010 Census had a much higher poverty rate than its neighbors, Belmont County and Carroll County. Interestingly, these two counties share in Harrison County’s rurality, historic ties to coal mining, and location over large shale gas deposits, but they have markedly lower poverty. It was expected that the effect of fracking will be more pronounced in Harrison County residents, as economic plight has been shown to influence perceptions of NRE (Schafft 2013).

Though Harrison County encompasses a range of community units, I have further chosen the residents of the village of Scio and the surrounding community as the specific population for this study. Scio is the ideal location within Harrison County for three reasons. One reason is that Scio has had a long history with NRE. Hand in hand with the boom phase of NRE, Scio has also experienced the consequences of NRE’s bust phase. Today, with the heavy investments made in the area by fracking companies, the village’s NRE history was near the forefront of the minds of
many community members when discussing fracking. Bob, a former mayor of Scio and Economic Development Chair for Harrison Country succinctly contextualized Scio’s history and its current situation when he said: “This isn’t our first oil boom. This is actually the third time there has been resurgence.”

The two extraction busts before the current “resurgence” left their mark on Scio’s history in ways that significantly contribute to the findings of this study. The village was first shaped by the oil “boom” lasting from 1900 to 1902. Then, when oil extraction was no longer economically viable, it was largely the opening of the Scio Pottery Company that saved Scio from virtually becoming a ghost town. Today, however, the Pottery employs less than 20 individuals, long bereft of its glory when it employed over 1,000 individuals and served pie and coffee at all hours to residents in its 24-hour diner. Nonetheless, several residents have described Scio as being economically stronger than several other small communities in the county. However, with no other large source of employment in the area, the fracking boom had the potential to greatly impact the fortunes of the community and its residents.

Another reason why Scio is an ideal location is that the company MarkWest Energy Partners has been in the process since 2013 of constructing a multi-million dollar natural gas separating and shipping facility less than half a mile outside of the village (Downing 2014). This facility was referenced by several community members as being highly significant due to its cost and scale on the national level. JT, a lifelong resident of Scio and a man who, through his position at the Volunteer Fire Department is an integral member of the community, expresses his wonder at the construction of the fracking processing plant when he said: “I’m surprised that this plant ended up there because it is a huge plant…it is one of the biggest ones they say in…Northeast North America…it’s sitting right here.”
Clearly, the construction of the plant, as well as fracking development in the area at large, was a major social change for a community that has been deprived of a major source of income for some time. As such, the construction of such a large facility was a source of some debate within Scio (Baker 2013) and continues to serve as a constant monumental reminder of the effect of fracking in this economically disadvantaged rural community. As such, choosing this location for the study’s setting ensures that even participants who were not directly involved with the fracking development in the area can express their thoughts on how the community perceives and has been affected by fracking development.

A final reason that I have chosen Scio as the primary location for this study is, as previously mentioned, my personal and family history in the community. My family has lived in the community for several generations, and family members have held several important roles within the community (e.g., President of the local bank, Mayor, Fire Chief, etc.). The impact of these individuals on the community was so great that, even several decades after they have passed away, residents still reflected fondly about these community pillars. For example, Dee Ann, a long-time resident of Scio and friend of my grandmother recalls the place my family has in Scio’s history:

Well, Jay and Elizabeth were an integral part of that, and they were your great-grandparents, and they sort of helped hold the community together. And then your grandfather, talk about rail lines. When he was mayor of Scio, he tried to get the passenger trains to stop again in Scio…so he was quite a community person that tried to keep the community together. And…ultimately lost his life doing that. —Dee Ann

As a result of my family’s deep roots in the community, it was possible for me to contact individuals who have lived in Scio for much (if not all of their adult lives) and who therefore have witnessed the drastic changes that have been wrought as a result of fracking development. However, my own standing in the community also ensured that I was able to reach out to a
number of younger individuals, as well as organization leaders in the community. I was also involved in community organizations during the 19 years that I lived in Scio (e.g., Methodist Church functions, local 4-H club), and I continue to spend summers and many weekends in the community. Furthermore, because of my long residence in Scio and my frequent visits to the community during development, I possess intimate knowledge of what individuals were talking about during the initial construction phases as well as the gravity of the impact of fracking on the community as a whole. Consequently, I have the ability to engage with the participants of this study on a more personal level, allowing for the exploration of not only what fracking means to them, but why it means what it does as well. My understanding of the local culture allowed me to engage individuals on how the perceptions of fracking held by the community influence the formation of a resistance movement to the developing industry. This data would have been much more difficult for a non-resident to gather due to the trust barrier many community members have towards outsiders (Flora et al. 2016).

Sample

Scio is a relatively small community, with, as of the 2010, only 763 residents—a 4.5% decrease in population since 2000 (U.S. Bureau of the Census 2010). Scio makes up approximately 5% of the total population for the county, which falls just under 16,000 individuals. The racial breakdown of the village before the fracking extraction boom was nearly exclusively white, with only 1.7%, or 13 people, identifying as multiracial, and one individual identifying as having a Latino/Hispanic background. While I expected that this racial make-up of the village would result in individuals discussing racial tensions due to the influx of non-white fracking employees to the village, almost all respondents indicated that this tension did not emerge because of the respect residents had for individuals willing to commit themselves to
honest, hard work. Trish, a member of the Scio counsel and whose family has resided in Harrison County since its inception, encapsulates best the sentiment many community members had with respect to the out-of-town workers who were not white: “If they came here because of the gas and oil, it’s because they are working. They are contributing, law abiding members of our town, and it is great to have them.”

Though increasingly, but not very racially or ethnicity diverse, Scio is diverse with respect to sex. The village is roughly evenly split in terms of sex, with just over half, or 401, females in the village (U.S. Bureau of the Census 2010). While this fairly even sex breakdown should have ensured that roughly an equal number both male and female participants would participate in the study, this was not the case. In fact, the majority of the participants for this study were men. Despite my position as a resident of Scio, trust may have been a key component of this disparity, as more female community members might have felt more comfortable expressing opinions with a female researcher (Devault 1990). A second, more likely reason for the low level of female participation may have been that many of the significant figures in the community were men (all of the business owners interviewed for this study were men), and those females that were community figures had a conflict of interest that precluded them from openly discussing fracking in the area. For example, while the current mayor of the village is female, she also has a position with the fracking plant outside of village. Fortunately, targeted sampling ensured that the female residents did participate and that they were from a variety of different age and occupation backgrounds. Interestingly, even with this targeted sampling, previous findings regarding gendered discussion about NRE (e.g., focusing on the protecting of the family; Bell and Braun 2010; Bell and York 2010) largely did not emerge throughout the course
of the interviews. This is likely because none of the female respondents had a dependent child living with them.

In terms of age, about one-fourth of Scio residents are younger than 18 years old, and the median age of Scio’s residents is about 40 years old. Though over half of Scio’s residents are between the ages of 18-64 years old (U.S. Bureau of the Census 2010), more than 15% of my participants were older than 65. This is likely because these individuals are no longer of work force age, and therefore, are more likely and willing to seize interview opportunities. Age of community members, and more importantly, of individuals active in the community, was a topic that was repeatedly brought up by participants throughout the course of the interviews. Robert, a retired individual who has spent the last 30 years of his life in the community, reflects on the population change in the area and the age demographics of the community currently:

The population of the area went down significantly, so for a long time what you had here was either the older folks or the retirees or those for what[ever] reason couldn’t leave or people who were on welfare. Those were the people that made up much of the community. —Robert

This overrepresentation of older individuals in this study’s sample is reflective of the age gap in social activism in the community, with many of the important figures in the community being drawn from the pool of older individuals. The effects of the age distribution (as perceived by community members) will be discussed further in the findings section below.

In addition to age, Robert in the quote above also identifies people living in poverty as a key demographic factor when attempting to contextualize the social environment in Scio. As of 2015, the poverty rate for Harrison County was 18.4%, which was higher than the surrounding counties, and in fact, higher than most of the counties in Ohio (Ohio Development Services Agency). The most recent poverty data for Scio is estimated as 28.5% of residents living in poverty, higher than both the county and state the village is located within (City-Data 2015). The
estimated median household income for Scio is $28,988 (City-Data 2015), also less than the median for the county and the state (U.S. Bureau of the Census 2010). Finally, roughly 8% of Scio’s residents age 25 or older are unemployed (City-Data 2015). Taken together, these statistics indicate that Scio is economically vulnerable and therefore more likely to be accommodating to NRE. This economic vulnerability was directly and indirectly referenced by participants throughout the course of the interviews.

*Recruitment*

Given my insider status, I was able to reach out to a range of community members in an attempt to capture the variation in community perception of fracking. One advantage of this status was the ability for community members to reach out to me if they wanted to take part in the study. While the specific recruitment methods, detailed below, were critical to gathering information from a variety of sources, equally important was the spreading of awareness, via word-of-mouth, of my study and its potential value to the community (detailed below in the data collection section). Throughout the data collection phase of this project, individuals would approach my parents (who continue to live in the community) about my project and inquire whether I would want to interview them as part of my study. Furthermore, because of the level of familiarity of community members with my family, individuals were able to approach me directly about potential participation. The most exemplary instance of this was when I was scheduled to interview Bill at the Scio History Museum, only to find his wife, Dee Ann, and their friend Robert there who also wanted to participate in the project. Furthermore, while interviewing these three individuals, JT stopped by and began taking part in the discussion, while later on, Sam stopped by to offer me his contact information so that I could schedule an interview session with him and his brother Joe. Without my insider status in the community, it is
unlikely that either this emergence of participants during an actual interview session or the organic development of conversations during the interviews would have taken place.

While my status within the community resulted in individuals often approaching me about participation in the study, I also employed recruitment methods to capture a breadth of perceptions of fracking in Scio. As such, participants were recruited for this study using a variety of sampling methods. Targeted recruitment was utilized first, in which I approached several community members that either held important roles within the community or were publicly known to have special knowledge regarding fracking development in the area. Some of these individuals include Bob (as a former mayor of Scio) and Kelcie (a female from my age cohort who currently works at the fracking plant outside of town). Respondents were first sent a letter, in which I announced who I was, described the purpose of the study, extended an invitation to participate in the study, and finally informed the respondent that I would be attempting to contact them by phone to talk to them further about their potential participation. I then called the respondent a week later (if I had not received a phone call from the respondent prior to this time) to provide additional information about the study. If the respondent was interested in participating, we scheduled a time and location for the meeting. Participants were also recruited via flyers posted throughout the community. These flyers contained the same information as the letter, and instructed potential participants to call me for more information about the study and how to participate (this is how Sam initially found out about the study). Finally, after concluding an interview session, I asked participants if they knew anyone who would be interested in participating and/or had special knowledge of fracking development in the area. These individuals were then contacted via a letter and a follow up phone call one week later. Through this sampling method, I was able to reach out to Trish, who as I later found out in her interview
was not only a member of the Scio Council, but was also a member of one of the oldest families in the county.

From these three forms of sampling, a total of 14 individuals were recruited for participation in this study. Several other Scio residents also expressed interest in participating in this study but were unable to give interviews due to time constraints. As this study is still ongoing, I will attempt to schedule interview sessions with these individuals in the near future. A summary of the individuals who did take part in this study can be found in Table 1 below. Of the individuals interviewed, 10 were male and 4 were female. All but two of the participants (one male, one female) were above the median age for the village. Additionally, one participant requested to have their interview session recorded with audio equipment only, while the remaining participants consented to have their interview video recorded. All participants were white, matching the community’s racial demographics. Finally, in regards to employment, two respondents had worked in some capacity in the town government, two worked in fields related to fracking development (forestry and hotel operations), one worked for the fracking plant just outside of the community, and several were local entrepreneurs.
<table>
<thead>
<tr>
<th>Participant Name</th>
<th>Sex</th>
<th>Position in Community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bob</td>
<td>Male</td>
<td>Publican; Former Mayor</td>
</tr>
<tr>
<td>Chuck</td>
<td>Male</td>
<td>Forrester</td>
</tr>
<tr>
<td>Joe</td>
<td>Male</td>
<td>Local Landlord; Brother of Sam</td>
</tr>
<tr>
<td>Sam</td>
<td>Male</td>
<td>Local Entrepreneur; Brother of Joe</td>
</tr>
<tr>
<td>Kelcie</td>
<td>Female</td>
<td>Fracking Plant Employee</td>
</tr>
<tr>
<td>Bill</td>
<td>Male</td>
<td>Retiree; Member of Community Organizations</td>
</tr>
<tr>
<td>Robert</td>
<td>Male</td>
<td>Retiree; 30+ Year Community Member</td>
</tr>
<tr>
<td>JT</td>
<td>Male</td>
<td>Volunteer Fire Department; Scio Street Fair Organizer</td>
</tr>
<tr>
<td>Dee Ann</td>
<td>Female</td>
<td>Director of the Scio Historical Museum</td>
</tr>
<tr>
<td>George</td>
<td>Male</td>
<td>Pharmacist; Son of Herman</td>
</tr>
<tr>
<td>Herman</td>
<td>Male</td>
<td>Pharmacist; Father of George</td>
</tr>
<tr>
<td>Tanner</td>
<td>Male</td>
<td>Hotel Employee in Nearby Community</td>
</tr>
<tr>
<td>Trish</td>
<td>Female</td>
<td>Scio Council Member</td>
</tr>
<tr>
<td>Joan</td>
<td>Female</td>
<td>Retiree; Former Elementary Teacher</td>
</tr>
</tbody>
</table>

In addition to these 14 interviews, I was also able to attend and record a two-hour community meeting between representatives of the fracking plant and residents of Scio. This meeting was called by a trustee of North Township (in which the fracking plant is officially located) to discuss the implementation of a Joint Economic Development District (JEDD). A JEDD would have extended the ability to levy an income tax on the plant to the Township with the income to be divided amongst the village and township. During this meeting, representatives from both sides of the debate presented their case as to why the implementation of JEDD would either be beneficial or harmful to the community at large. Of particular interest during this meeting was the opinions expressed by community members and why they would or would not support such a measure, although as of today no actions have been taken in regards to the approval of the JEDD. While not a true resistance movement, this meeting was the first known example of community members coming together in some fashion to discuss a way in which to force the fracking company to do something to which the company was opposed but was
perceived by community residents as in the good interest of the village. Comments from this meeting have been included in this study to highlight the several strengths of the fracking companies and social disorganization elements within the village, as well as how this arrangement was not as static as it may appear.

Data Collection

Instrument design and refinement. Preparation for this study included months of background research and interview guide development. The instrument for this study was originally constructed by first repeatedly visiting Scio and noting the issues regarding fracking that individuals talked about in casual conversation. This practice of sensitizing oneself to the topics of importance to community members is well-established within the qualitative literature (Charmaz 1996; Lofland and Lofland 1995; Corbin and Strauss 1990), especially in regards to formulating interview questions (Weiss 1994). As such, the majority of the data gathered in this study represents the topics that were salient to the respondents. Through these interview guide formation techniques, I was largely able to avoid the trap of only focusing on my preconceived notions of what was important to focus on when entering the research site (Lofland and Lofland 1995), while at the same time ensuring that the data gathered would still be of value in addressing unanswered questions within the study of natural resource extraction, and more broadly, rural communities.

Initial topics ranged from truck traffic and employment at the plant to the number of gas and oil employees eating at the local restaurants. During one evening at the only bar in Scio, I talked with several individuals about the failing of royalty payments and the tactics originally used by the “land men” to pay the lowest possible price for the leasing of mineral rights. I then drew upon the NRE and fracking literature to contextualize these local conversation topics,
constructing a series of general questions regarding key points of interest. These questions included, for example: What have been some of the positive and/or negative effects of fracking? Why did the community not resist fracking? How do people talk about fracking? These questions were primarily drawn from examinations of how moral exclusion operates in communities, by which one group of individuals excludes from community dialogue the concerns of other individuals. In addition, the primary interview questionnaire also contained a series of follow-up questions that were heavily based on issues specifically pertaining to Scio (e.g., What are the social organizations like in the community? How has Scio changed as a result of fracking development?) but tied into the literature regarding how communities in other localities have successfully resisted fracking development (Hudgins 2013; Freudenburg 2005). Finally, from these points of salience, the existing literature was used to construct specific probing questions that address these topics, such as how previous experience with extraction (e.g., coal, oil) impacted the way community members reacted to the current resource boom, as the literature shows that previous NRE involvement significantly impacts support for future NRE development (The Rural Sociological Society 1993; Freudenburg 1992). Through these questions, new themes emerged that were not indicated in either the rural studies or natural resource extraction literature.

After the initial interview questionnaire had been constructed, I pretested the instrument to ensure that the questions were broad enough to allow the respondents to bring to light topics that they felt were important but were not addressed in the initial interview guide. This questionnaire was assessed by individuals familiar with conducting qualitative work. Through this pretesting, the interview instrument was revised to make the questions more general, with a series of utility question designed to be employed should the participant wish to go down a
particular line of thought (e.g., Why was the truck traffic so bad? Why do you think the fracking plant was located outside of Scio specifically?). The refinement of the questionnaire after pretesting was directly aided by Dr. Molly Merryman, who has extensive experience in conducting visual sociology of hard-to-reach or vulnerable populations (Merryman and Bindas 2008; Merryman and Bindas 2005). In particular, through her experience conducting the documentary on the culture practice of rural individuals in combine demolition competitions (Merryman 2010), I was able to reformulate my questionnaire and interviewing practices to reflect the peculiarities of this population. This included reformulating my questions to focus on what individuals in the community perceived, as opposed to what they believed others believed in regards to certain issues (i.e., asking respondents how others in the community felt about fracking). This was of special importance to this study, as I was then able to retest the questionnaire and found that individuals were more comfortable talking about their own perceptions rather than what they believed the perceptions of others were. Additionally, I drew upon Dr. Merryman’s extensive background in ethnographic and oral history research to frame this study within the context of the life course of a community, thus structuring the interview to allow respondents to draw upon the area’s history to frame recent events involving resource extraction development.

Once this initial pretesting was completed, a second round of pretesting was conducted. This time, testing centered on ensuring the maximum level of familiarity and dialogue was obtained during the interviews. I sent the revised questionnaire to several trusted contacts in the community, including my family members, who were not previously identified as primary contacts for the data collection portion of the study. Feedback from these individuals centered on the flow of the questionnaire, with revisions focusing on making the participants feeling more
comfortable talking about themselves and the community. This pretesting was crucial, as community members indicated that the questionnaire as previously designed would have put many individuals on the defensive due to the large number of personal and family questions positioned near the beginning of the interview guide. The questionnaire was subsequently revised such that personal questions were only asked once a rapport had been established during the interview session.

Finally, even with all of this pretesting and revision to the interview questionnaire, new and previously unanticipated topics were addressed throughout the interview sessions. Whenever particular topics appeared to be of great importance to the study (such as the change in the community organizations over the years) or repeated emerged over several interviews (such as the importance of attorneys for both the fracking companies and community members), these topics were subsequently added to the interview guideline for future interviews. As grounded theory was fundamental to this project’s initial conception and design, the potential emergence of new themes was accounted for by utilizing my understanding of the local events during construction of the interview (Charmaz 1996; Lofland and Lofland 1995; Corbin and Strauss 1990). In fact, key figures in the community (such as Bob and George, the resident pharmacist and lifelong community member) were only approached after other initial interviews were conducted, ensuring that any widely recognized themes in the community regarding fracking that were missed during pretesting would have been identified and included in the interview guideline when interviewing these crucial participants. Even then, these individuals would generate even further points of discussion for later interviews conducted with community members recruited via snowball sampling, flyers, and word-of-mouth.
Audio and video recording. Video recording equipment was primarily used to capture each interview if the participant consented. If the participant did not wish to be visually recorded, audio-recording equipment only was used during the course of the interviews. There are several reasons why capturing the interviews on video was anticipated to contribute significantly to this study. First, since this study is concerned with community members’ perceptions of fracking, video recording the interviews allowed for the capture of important non-verbal cues regarding how the participant feels about fracking and community perceptions of fracking, especially if participants hold conflicting perceptions of fracking. This element of the current study drew heavily on the practices of visual sociology, which stresses (among other important data points) that non-verbal communication as an essential element of the social world and how humans convey social meanings (Grady 1996). As such, non-verbal cues can be used to assess how individuals are feeling about a certain topic, even when they do not directly convey those feelings (Harper 1998). For example, Joe when talking about the damage that the heavy trucks used to move fracking related equipment, he used emphatic hand gestures to convey his level of annoyance with being stuck with several property that had sewage flooding into their basements. Furthermore, non-verbal communication can indicate how individuals relate to each other in terms of perceived competence and power (Harper 1988). Bill, during his interview sessions, would often look to his wife when talking about environmental impacts, indicating his level of confidence in her competence on this topic. Rich data such as this which informs the content of what is said in interviews would be lost without the use of visual sociology. While these non-verbal cues were not stressed in this particular document, they did inform the how I adapted the interview structures over time, as I was able to reflect on the visual levels of comfort/discomfort displayed by respondents in regards to certain questions/themes within the interview.
Second, a goal of this project is not only to collect information of how fracking impacts social interaction in communities but also to convey such information to others. At a later date, I will use the interviews gathered through this project to create a documentary of my data and findings. This documentary will allow both scholars and laypersons to hear firsthand accounts of the social effects of fracking in Scio as opposed to such information being accessible to only those individuals who engage in sociology conferences and academic publications. The sharing of the findings of these interviews is especially important when considering that many community residents believe that no one outside of the area will ever care about what happens to the community.

The third reason that video recordings were primarily used to record interviews is that this method of data collection will offer the greatest possible return to the people of Scio. One of the purposes of conducting these interviews is to allow community members to express how they feel about the changes in the community and to preserve the social history of the area as it is going through these substantive changes. While this could be done without the visual recordings, the usefulness of a text-only account of what is going on in the community has limited value for Scio residents, due in part to the reluctance to read a long written account. Visual media offers a medium by which community members will be able to consume the social history of their community in a more accessible manner. If this project were to not attempt to collect and present the findings of this data in a manner that is directly useful to community members, it would amount to taking information from a vulnerable population without offering anything directly back to the community. Furthermore, claims that community residents would benefit from society at large learning from these interviews are not justifiable unless those residents also receive some sort of direct benefit to their interviews being gathered. Otherwise, this would
amount to asking community residents to help better the society that has left them economically vulnerable without directly benefitting the residents who gave the interviews.

In addition to the visual recordings benefiting community members by presenting their oral history accounts in a way that is more readily accessible and digestible to the majority of residents, such visual recordings may also serve as a tool which community members can use to promote discussion and action regarding fracking in their community. Vasi et al. (2015) found that documentaries such as Gasland have served to promote community discussion and raise awareness of some of the potential drawbacks of NRE. If the interviews for this project are captured visually, this would provide residents with the community artifacts needed to more fully engage the topic of fracking, be it for resistance or support. In addition, these recordings could be used to foster a sense of pride in the community. These recordings could reasonably be played in the Scio Museum and/or at the annual Fall Festival, allowing community members to share with others this in-depth glimpse into the social fracking environment of the community. Finally, visually recording the interviews for this project created an educational tool, one that could be used in the local schools to foster discussions about developments that are happening in the students’ own community.

**Interview location.** Participants were interviewed at a location of their choosing. Some participants requested to have their interview session be conducted with a family member present as a second participant, and in one case, participants actually invited other community members to take part in their interviewing session. Seven of the ten interview sessions were conducted one on one, while two were conduct with two participants present, and one was conducted with four participants present. One individual was interviewed twice, once as part of a group interview that was already in progress, and the other time as a one on one interview. Six interviews were
conducted at the participant’s residence, two were conducted in local businesses owned by the participants, one in the Scio Municipal Building when no other individuals were present, and one (the session with four participants) was conducted in the Scio Historical Museum. Interview sessions ran from one hour to over two and a half hours, depending on the number of participants in a given interview session and the number of topics the participant(s) wished to address. The average interview time for this study was ninety minutes.

**Informed consent.** Before the interview process began, respondents were presented with informed consent documents that explained the purpose of conducting the study and their rights as research participants. Respondents were then provided an additional consent document for the video recording element of the study, which stated that respondents would be offered the opportunity to review any video recordings before they were released as educational or instructional tools. I provided clarification in the instances where respondents had questions about the documents or the study in general, and all participants consented to participate in the study. At the end of the interview session, I informed the participants that I would be in contact with them once transcription and editing of the video recording was complete for their review. I also informed respondents that they could contact me if they had any future questions or concerns regarding the study.

**Analysis**

So not everybody sees it as a positive, not everybody sees it as a negative. And like everything else, there’s pros and cons. —Bob H., clarifying his ability and the ability of many community members to see the good and bad of fracking.

As is common with research employing grounded theory, this research does not test any specific hypotheses (Corbin and Strauss 1990; Lofland and Lofland 1995). Rather, I have examined the data, gathering themes that help to explain why a resistance movement failed to
materialize even in the presence of negative social consequences resulting from fracking. After all interviews were completed, all audio was transcribed verbatim using Express Scribe transcription software. Through the use of open coding (Lofland and Lofland 1995; Weiss 1994), I was able to identify two underreported perceptions of fracking that help to explain the lack of resistant movements in small rural communities. This method of analysis involved first familiarizing myself with the content of the interviews by reading through the transcripts. Through this process, I was able to identify significant, recurring themes throughout the interviews. I then returned to the transcripts and highlighted all instances where a statement fell into one of the identified themes and assigned a custom code to the statement (Weiss 1994). From this analysis scheme, discussions of how perceptions of the strength and power of the fracking companies inhibited the formation of a resistance movement were coded as “fracking strength,” while perceptions of the communities inability to form a resistance movement due to lack of leadership or community organization were coded as “community disorganization.” To avoid painting a picture of a community that was completely disorganized, a sub-theme was also included (“community organization”) which included discussions of how community members were able to push back against the fracking companies, albeit in isolated incidences.

Additional themes included the following. Any mention of how fracking has impacted the community economically was coded as “economy.” This code includes both references to the economic benefits resulting from fracking development as well as the drawbacks of these benefits (such as dangerous truck traffic or lack of local employment). Similarly, the code “environment” includes references to how fracking development has endangered the local environment, how these environmental risks have been mitigated, and even how the environment has benefitted from the investment of NRE companies (such as reinvestment in the Muskingum
Watershed Conservatory). By allowing a broad definition of what statements fall into these two themes, this study takes steps to avoid painting a picture of a community that does not recognize the economic and environmental benefits and drawbacks. In addition, all instances where respondents referenced economic concerns being oppositional to environmental concerns or vice-versa (i.e., moral exclusion) were coded as “EE conflict.” Finally, I utilized notes taken during the interview process to identify subtle nuances within each theme regarding how respondents viewed the community’s propensity to resist fracking development. This visual presentation of the number of times a respondent reference one the themes in this study is provided below in Table 2 to facilitate an understanding of what themes were most significant for each participant, as well as general patterns within themes across all respondents.

<table>
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<tr>
<th>Participant Name</th>
<th>Economic Development and Fracking</th>
<th>The Environment and Fracking</th>
<th>Environment-Economy Debate</th>
<th>Fracking Strength to Resist</th>
<th>Community Organization and Resistance</th>
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Presentation of Findings

The findings for this study draw heavily on direct quotes taken from the interviews with community residents. This was done for several reasons. First, and perhaps most importantly, using direct quotes from those individuals who have lived the last several years in an area that has been significantly impacted by fracking gives life to the lived experience (Charmaz 1996; Devault 1990) of what it means to have your community significantly impacted by a network of powerful companies who wish to involve the area in a practice that some see as dangerous. Second, the use of these quotes allows for the findings of this study to be placed into context with one another. For example, while I will discuss below how the material resources of the fracking companies is one barrier to resistance formation, it is Joe that directly links this form of fracking power to resist with another form (its ability to use knowledge of the legal system to out maneuver any attempts to resist). In one quote, Joe was able to demonstrate the interrelated nature of the powers of the fracking companies better than I could in an entire page. Finally, by using the direct quotes of participants, I am able to incorporate the positionality of my participants within the findings of this study. Accordingly, it becomes possible to see differences between how an environmentalist (Chuck) and a fracking company employee (Kelcie) frame the same topic differently. This positionality of the data sources would be lost if I only presented summaries of my interviews with community members, as opposed to providing the direct quotes from those individuals.
RESULTS

Lack of Moral Exclusion in Interaction

Like, I don’t think anyone would have got shunned for their opinion…a lot of people put their opinions very blatantly on social media. —Kelcie, discussing community dialogue regarding the construction of the fracking plant near Scio

As mentioned above, moral exclusion is a tactic used in NRE debates to paint the opposition’s argument, for or against extraction development, as being essentially unconcerned with the general welfare of the community (Freudenburg 2005). This tactic, while able to be employed by groups who are opposed to extraction development due to the risk for environmental harm, is often used by pro-extraction groups to paint the opposition as environmentalists who are unconcerned with the economic well-being of community members. A major finding of this study was the general (although not complete) lack of moral exclusion arguments when communities members were asked to talk about how debates on fracking played out in the community.

Sporadic instances of exclusion. Moral exclusion of other community members was only directly referenced in one of the interviews conducted with community residents. Chuck, a forester who has taken on consulting work for the extraction companies, discusses how there were some initial tensions between individuals who did want fracking development to proceed and those who were hesitant to embrace the industry in the area. Interestingly, Chuck referenced the use of moral exclusion not against the environmental argument against fracking, but rather,
in opposition to the economic benefit argument. This statement reflected the core element of moral exclusion—that the other side does not care about the community as a whole:

You have a lot of people who are basically brain-washed into thinking ‘business and money is good and government is bad, regulations are bad.’ Everyone wants clean water and clean air, but they don't want...any interference from the government. But they want clean water and clean air and ‘blah, blah, blah.’ How many people do you find out there that are even for the EPA? And yet they are actually protecting what little we have left. —Chuck

As evidenced above, Chuck was morally excluding the pro-fracking argument that business and money is more important to the public good than environmental regulations. He does this by framing the desire for clean water and air as universal, and then describing the pro-fracking side as opposed to the regulations necessary to “protect what little we have left.” Building off of this, Chuck then proceeds to elaborate interactions in which those who supported fracking development morally excluded the environmental side:

And...that was their attitude. If you were opposed [to development] or just inquisitive and wanted to learn more…you better accept this because it’s good for our coal industry and good for our workers round here, irregardless [sic] of any other effects.

Chuck’s statement clearly indicates that at some level there was a degree of moral exclusion of pro-fracking individuals by other community members who were curious about extraction and infrastructure development in the area. Interestingly, while the above quote represents the only instance moral exclusion being used by one community member against another community member, moral exclusion was also used to exclude the input from outsiders with respect to the unique circumstances of Scio that non-residents did not fully understand.

Bob is a local entrepreneur and former mayor of Scio who has been deeply involved with trying to ensure that Harrison County benefits as much as possible from the recent extraction boom. In his interview, Bob morally excludes the concerns of Scio outsiders in general as being by and large based in fantasy:
And then you have… rural areas that don’t trust people, and they don’t want people there. And that is part of their mentality, and I am not saying that is good or bad…I just know that I am not going down there to mess with them, and I am not going to some suburb up here and I am not going to mess with them either. So, don’t come here and…I mean, if you got educational facts and you want to speak and it’s all logical, I’m all about hearing it. But if you are going to spin yarns and myths and beliefs that aren’t true, you know, I’ve got reality to deal with. —Bob H.

Although he contextualizes his statement as being willing to listen to outsiders if they have legitimate facts to present, in general, Bob’s statement reflects the general distrust of the intent of outsiders when they attempt to influence developments in rural communities such as Scio (Flora et al. 2016). He is able to exclude the arguments presented by these outside groups as “yarns and myths,” essentially excluding these outside groups from community dialogue on extraction development on the basis that these outsider inputs are not grounded in the reality of the community.

One risk of Bob’s statement in combination with Chuck’s earlier comments, however, is that it gives off the impression that there were not many individuals who were concerned with the environmental impacts of fracking or were not initially opposed to development because of potential environmental harm. However, this is not true, as discussion of the environmental impact of fracking was an often repeated theme in the interviews with community residents.
Kelcie, a young female participant who works at the fracking plant and has lived her entire life in Scio, describes the concerns of some community members regarding potential environmental risks:

A lot of people, especially people against the industry and more, for lack of better words, environmental-type people, and people that have been here for years, they… the change to the landscape frightened them. Cause they were like, you know, it used to be beautiful farmland out there, and now, it’s like all this industry, and they’re digging it up, and this and that. —Kelcie

While this statement again paints those who are “environmental-types” as being inherently opposed to fracking expansion, this does not automatically equate to moral exclusion.
Even in this statement from an individual who was clearly in favor of fracking development, she does not paint those concerned with the environment as the enemy, or portrayed as not being concerned with the good of the community overall. This awareness of the other side’s points without discounting them as being unconcerned with the community was the general rule in regards to moral exclusion dialogue in the community. While traditional understanding of moral exclusion dictates that Kelcie, as an individual whose livelihood depends on the continued presence of extraction infrastructure in the community, would seek to paint those “environmental-types” as being unconcerned with the community, she instead stresses that she was not aware of anyone being morally excluded in the community for their beliefs: “Yeah, I don’t believe anyone’s been really shunned like that. Not at all.”

Accordingly, despite the isolated incidents detailed above, moral exclusion of either the environmental harm or the economic benefit arguments was not a significant theme in my interviews with Scio residents. What, then, is the likely cause for the first major finding of this study, which is the general lack of moral exclusion dialogue in a community seemingly primed for such discourse? One likely explanation that emerged in my discussions with community members is that many individuals indicated, in one fashion or another, that they were able to see the value in the arguments made by each side and that both the economic and environmental arguments had their strengths and weaknesses. This acknowledgement of the value of the other side without putting it down as being immoral or unconcerned with the welfare of the community at large is antithetical to the moral exclusion explanation for the lack of resistance formation. This is because acknowledging that the other side’s argument has merit makes it difficult to also claim that the other side’s argument is without value to the community. This nuanced understanding of the different opinions in community discussions of fracking included
acknowledging how the local economy has been helped by fracking, as well as how those benefits were not as great an initially expected in addition to some of the negative social consequences of that development.

*The killer of exclusion: nuanced perceptions of economic consequences.* All individuals who took part in the interviews acknowledged in one fashion or another that fracking had been beneficial to the local economy in a host of ways. These benefits include: increasing the local tax base for schools, increasing local food sales, increasing local sales of clothing, increased employment opportunities, and new and improved infrastructure (such as roads, waterlines, and the electrical grid). Even Chuck, who was opposed in many ways to greater extraction development, acknowledged the economic gains in the community:

Royalties for this area…and then the spin off jobs, but these jobs are not permanent. So again you take advantage of it when you can if you are young and in the field, but I wouldn’t count on it as a career job…Construction. Forestry. Anything to do with a natural resource that might be impacted out there. Primarily those two, especially a lot of construction. Sales, farm, equipment, trucks, things of that nature. —Chuck

These economic benefits of fracking, both direct in the form of royalty/lease payments and indirect via the creation “spin-off” jobs, are well documented throughout the NRE literature as typical examples of perceived benefits of NRE (Freudenburg 2005; Freudenburg and Frickel 1994; Freudenburg and Gambling 1994; Freudenburg 1992). However, the presence of these economic benefits of fracking is tempered with acknowledgements that the real gains did not completely align with initial expectations of fracking gains. In fact, more conversation time was dedicated to talking about how more could have been gained if different paths had been followed than a denial of significant economic benefit to the community. This perception that fracking development could have been and still could be more economically beneficial for the community was the impetus for a community meeting regarding what actions the community
could take to ensure additional benefits from natural resource extraction and development. As one individual, Joe, lamented during the meeting with respect to money he believes that Scioans should have received above and beyond benefits actually accrued: “What do we get from them? I mean I don’t have anything against you sir, but…4 million dollars! you cost these people. Am I wrong?”

Clearly, individuals were able to recognize not only that the village had economically benefitted, but also that it could have benefitted to an even greater degree. In this sense, individuals were able to acknowledge that the economic benefit argument for fracking development was not perfect, but that it was still a reality. In addition, while respondents talked about how gains could or should have been greater, community members also acknowledged that there were significant drawbacks (unconnected to the state of the environment, more on that subject below) resulting from extraction development. A prime example of this nuanced perception of the fracking reality was how increased heavy truck traffic was universally referenced as a problem stemming from extraction development. Tanner, a young man who grew up in Scio and has returned from college to head his household, details the everyday problems that resulted from increased truck traffic:

You see a lot more mud being involved in roads, a lot more of storm drains being clogged leading to a lot more…yard flooding through and a lot more standing water. More of a town problem not keeping them cleared, but that is two problems. —Tanner

While this yard flooding may appear a mundane and relatively low impact negative consequence of fracking, this statement demonstrates that community members, even those that would be away from the community for sometimes lengthy periods, perceived the subtle ways

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1 This number was contested by the Fracking Plant Representative. Some estimates of the amount of money lost through the lack of an income tax were less than one million dollars.
in which fracking could negatively impact the community (outside of the risk for environmental disaster).

In addition to the everyday problems resulting from the truck traffic, my interviews with community members uncovered ways in which fracking development had serious consequences for the wellbeing of community members. Herman, a man with over 50 years experience running the only pharmacy in Scio, discussed how he has seen many doctors come and go during his many years in the community. Reflecting on the impact of fracking (and especially the damage caused to the roads by intense heavy truck traffic), Herman laments that the problems resulting from fracking traffic has impacted health services in the community: “They ruined the road here. Had to close the road because they ruined it. Now the doctor won’t come…” This statement that the doctor would not drive to Scio because of the road damage and resulting repairs taps into a previous finding that because of the low initial population and community resources, fracking investment has the potential to severely disrupt the lives of individuals in rural communities (Freudenburg, Bacigalupi, and Landoll-Young 1982). While the study detailed how a population boom resulting from a resource boom strained the ability of local health care providers to keep up with an increased health care demand, this issue is potentially graver given the terrain of the county and the relative isolation of each community. Due to the road damage, the only doctor in Scio was unable to make it to her office due to her unwillingness to travel on more dangerous (especially during the winter) back-roads. This problem is compounded by the fact that many individuals in Scio do not have access to transportation, and are therefore unable to travel to the nearest health services center located at least twenty minutes away even with ideal road and driving conditions. Clearly then, there are
real negative social consequences in Scio resulting from the same fracking activities that have economically benefitted the community.

However, despite the importance of this particular finding, the larger story conveyed by this and other accounts of community members is that individuals were able to identify both the economic benefits and their associated negative consequences, as opposed to being unaware of the other half of the story. This identification of problems while acknowledging that they are necessary in order to reap the economic rewards is hinted at in Freudenburg’s (1992) finding that communities that have become “addicted” to NRE are willing to make social sacrifices to garner the economic benefits of extraction. In this study, however, community members directly state how they are able to perceive the sacrifices of things they hold near and dear as the unfortunate price that is paid for economic revival. Bill, a resident of Scio of over 30 years with deep roots in the community, discusses the distressing exchange, rarely captured in other studies but often repeated by Scio residents, of sacrificing the peace and quiet, the charm of small town life, in order to gain access to more resources for the community: “We know there is nothing that we can do about it…it is here and consequently we can’t have the darkness back…has to be the way that it is. We can’t have the quietness back.” In his description, Bill simultaneously conveys his sadness at the loss of small town charm and quite while also addressing the reason why the sacrifice “has to be the way that it is.”

While it might not be surprising that there are advantages and disadvantages to economic development through fracking, a major finding of this study is that individuals are able to perceive and discuss both, regardless of whether, overall, they would consider themselves pro-fracking or anti-fracking. This is a more complete image of individuals in a community, as opposed to other documentaries and studies, which paint individuals as
monolithic in their thoughts and concerns regarding fracking. In such simplistic portrayals, an individual is either whole-heartedly supportive of fracking due to economic gains or entirely opposed to it due to environmental and health risks. While clearly not the case here, an even more important finding is that while individuals were able to acknowledge both the benefits and drawbacks of fracking development, individuals in the community were not shunned for expressing their opinions on the matter, which likely contained a pro-fracking or anti-fracking overtone. Once again, Kelcie describes the collegiate nature of fracking related discussions in the community. “And, no one’s like, you know, ‘shut up, don’t talk to me.’ Like, it turned into a discussion. An enlightened discussion.” This statement by Kelcie taps into one reason why moral exclusion did not widely take place in the community. Since individuals were able to acknowledge both the pros and cons of the fracking situation, community members were able to have “enlightened discussions,” which by definition means that individuals were open to considering points made in support or opposition to fracking development. In this way, nuanced perceptions of economic consequences of fracking (both positive and negative) undermined the undermining (i.e., moral exclusion) of the pro-economic camp by the environmental camp.

The killer of exclusion: Nuanced perceptions of environmental risks. The acknowledgement of advantages and disadvantages of extraction development thus far has been limited to consideration of the economic benefits of fracking and the associated negative consequences (i.e., the sacrifice paid for the economic benefits). However, individuals across the support/opposition spectrum were also able to acknowledge that there were legitimate environmental concerns, as well as the fact that a great deal of effort was expended in minimizing these risks. These fears ranged from contamination of the groundwater and destruction of the environment, to the more immediate and intense fear that a catastrophic
failure would occur at the fracking plant. This fear of a catastrophic failure at the fracking plant
was mentioned throughout all of the interviews with Scio residents and was much more
poignant than the more common environmental contamination fears that traditionally make up
the “environmental-harm” faction in moral exclusion debates. For residents of Scio, the health
risk of fracking was not limited to a slow corruption of the land into something harmful, but was
ever present in the risk of sudden and inescapable destruction of the entire community as a
result of fracking infrastructure failure. Below are a few excerpts from multiple community
members regarding how individuals in Scio and the surrounding area perceived the risk of the
sudden annihilation of Scio:

Because, it’s like, I think a lot of people look at it as like, big, scary, like, I don’t know it is, it
could potentially blow up, it’s the devil. —Kelcie

I am sure they are checked religiously…it is the ‘what if’ and now it is kind of like a joke.
‘Well if something happens we won’t have to worry about it because we won’t know what
hit us.’ —Trish

As these quotes show, the fear of sudden, wholesale destruction of the community was a
significant and present fear for many individuals during the initial construction phases. This fear
is especially prominent since there is often a flame used to burn off excess gas at the top of one
of the fracking plants, casting a constant glow over the village and a shadow of fear on the
minds of many residents (although certainly not all, as exceptions include Kelcie, JT, Bob, and
other individuals with intimate knowledge of the safe-guards in place). Over time, though,
individuals acclimated to this perceived risk by constructing mental defenses, such as the joke
that they wouldn’t even know that something had gone wrong in the worst-case scenario that it
did.

In addition to these mental defenses, one reason why individuals may not have tried to
morally exclude economic arguments for fracking development as unconcerned with the
wellbeing of the community is because Scio residents were able to perceive the ways in which the potential health risks resulting from development have been mitigated. This perception of safeguards was one likely reason why many interviewees stated that they were not worried and/or aware of environmental contamination. Dee Ann repeatedly stated during our discussion that the fracking companies took pains to restore the land to its previous state once fracking infrastructures (i.e., pipelines, well-pads) were constructed. In the same interview session, her husband Bill goes on to elaborate that as a result of fracking investments in the area, the environmental situation of the county was actually better than before the fracking boom: “…the land where the pipelines go. You cannot tell the pipelines have been…they have reclaimed them so as far as, environmentally, the land, I think is going to be the same or better.” Bill, who has an intimate understanding of the economic and environmental developments in the region, then continues to expand upon his perceptions of environmental reclamation in regards to the Muskingum Conservatory District:

I would say that they have not [ruined the natural environment]…uh…ruined the recreation areas, the water or anything to that nature … and Muskingum has benefitted…from the amount of money they have gotten from Gas and Oil for leasing so they have benefitted more than they have hurt from recreation. —Bill

In the case of traditional moral exclusion, individuals who perceived negative environmental and health consequences of extraction development would use these consequences as a basis for resisting future development while also excluding economically based arguments as not caring enough about the physical wellbeing of all community residents. However, here, we have two individuals that were saddened by the environmental changes and were (at least initially) worried about the health implication of fracking, but who also acknowledge that at least the feared environmental damage has been mitigated.
In addition to taking pains to ensure a minimal as possible environmental impact, representatives from the fracking plant also engaged in actions aimed to lower the apprehension of disaster befalling the village as a result of a catastrophic event at the plant. Informational meetings were held and information regarding the plant and its safety features was distributed to Scio residents at the Fall Festival early during extraction development and plant construction. Residents were even given the opportunity to take a tour of the plant, allowing them to see first-hand the safety measures that have been put into place. Joe, a businessman and landowner in the area, expresses his general confidence in the safety features present at the plant even while acknowledging the catastrophic consequences of a failure at the plant: “I think it was a little bit concerned of…how massive it is…you know they have storage for millions of gallons out there you know…and if anything would happen…but they have literally tons of safety features…”

While Joe discusses the safety features in general, Kelcie, a fracking plant employee, was able to list specifically the myriad of safety features employed by the plant to ensure the wellbeing of the community:

…but there was a gentleman I took for a tour out there because he was worried about the safety of the area. So I explained to him, you know, we have all these safety interlocks at various parts of the plant, we have our emergency response team, we have spill kits, we have a lot of fire hydrants, fire monitors and whatnot out there, we have foam, in case we have a gasoline spill…And after I took him on his tour, he’s like, “My mind is so much more at ease now, now that I know what kind of safety protection systems you have in place.” —Kelcie

Much of this information provided by Kelcie was made available to community residents throughout construction of the plant (the effects of providing this information on resistance formation is expanded upon below). This is not to say that community members were unaware that sometimes environmental problems did arise as a result of extraction development. However, these were portrayed as exceptions to the norm, and that part of the blame for
environmental harm sometimes lies with landowners who did not read the leasing contracts carefully enough before signing.

Ultimately, moral exclusion did not appear to have a significant impact on interaction between community residents. As demonstrated, this manner of discussing natural resource extraction development was undermined due to individuals being able to take a nuanced approach to the subject, recognizing the economic benefits and drawbacks of development, as well as the environmental dangers and the myriad of ways these risks have been successfully mitigated. However, if moral exclusion was not present in community discussion, and since residents were able to acknowledge that there were several drawbacks associated with fracking development, why did a resistance movement fail to coalesce, even if the purpose of that resistance movement was to mitigate the negative implications of fracking rather than seeking its complete ban? Once again, Kelcie offers insight into the perceptions of community members at large: “So, I’m sure it’s like, you know, no one really wanted to resist them moving in, because it’s a money opportunity.”

Since residents were able to perceive the economic benefits of fracking and were also able to rationally assess the economic situation of the community, it is quite likely that the potential gains of fracking were the main reason for many community members to not resist fracking development. However, this explanation does not account for why individuals who did not economically benefit from fracking (directly or indirectly) did not oppose extraction development, especially given the evidence presented above that community members in general were aware of fracking drawbacks. Below, I present two distinct though interrelated findings that shed light as to why at least some individuals (especially those people who lived in Scio and therefore did not benefit much from royalty/leasing money) did not band together
collectively. These findings indicate that community members did not resist fracking in part because they rationally perceived that they would likely not be able to win in a fight with the fracking companies.

*Fracking Power to Resist Resistance*

“Let me show you what real money can do. You think you’re in the big leagues? Let us show you, we are going to money whip you.” —Sam, referencing the monetary power of the gas and oil companies

The second major finding of this study was how perceptions of extraction company strength inhibited the formation and growth of a resistance movement. Often discussed in response to why individuals did not organize and resist the fracking companies, community members described the apathy regarding resistance as a result of the perceived futility of such an endeavor. Outside of any particular reasons, just the mere size of the undertaking was enough to dispel most notions of resistance. Community members were clearly aware of isolated incidences in which individuals tried to fight against the fracking companies (although this fighting was mostly in regards to getting what was believed to be due to a property owner, not a fight to ban the practice in the area) and conveyed their thoughts regarding the futility of such endeavors. Chuck in particular details the difficulties in pushing back against the fracking companies.

You know, you beat your head against the wall. You get a lawyer, and then you still have to go back to court just to fight what you already established as how it’s going to be in the contract. So again, just because they tell you one thing does not mean it is going to be done that way. —Chuck

Here, Chuck expresses that because of the strength of the fracking companies in regards to their legal counsel and ability to draw out contests in extended court battles, substantive pushback would be required to “just fight for what you already established.” While this
statement was in reference to negotiations with fracking on signed contracts versus resisting fracking wholesale, it is logical to conclude that factors inhibiting pushback against the extraction companies for what was already established would also inhibit overall collective resistance to extraction development in general.

Fracking power through knowledge. From my interviews with community members, there were three recurring topics regarding why the oil companies were too big to resist. First, the fracking companies were perceived to have the edge in regards to knowledge of extraction development and a clearer set of expectations of how the development and extraction process would proceed. The fracking companies that have come to do business in Eastern Ohio did not ignorantly stumble into this operation. Rather, the move into the area, and into Scio in particular, was expertly calculated and based upon years of experience in the natural resource extraction field. Investigation into the area’s history and potential for a new resource extraction focal point began long before any discussion of fracking or new plants ever surfaced. Indeed, Dee Ann, who manages the Scio History Museum, recalls a strange occurrence that happened several months before the first community meeting to talking about fracking development in the area.

Well, let me tell you a story. We were away, and I have someone who comes to the museum, she was called and came over, and we got back and she said ‘This is the strangest thing...this person, the only thing that he wanted to do was look at this picture where all the oil wells were and look at everything you had here.’ And she said, ‘You want to look at anything else here’ and he said no...We thought it was like a scout, because he came the evidence was here and if he read any of his history he knew that it wasn’t all tapped into and he knew this valley was very rich. And we were so puzzled by that until things started to happen. So we felt he was either a chemist, an engineer, someone with knowledge and someone from TX or OK who knows what they see. So it wasn’t because of a great place to put a plant. It was because what was in the valley. —Dee Ann

From this statement, Dee Ann clearly believes that extraction companies began to research the area long before any discussion of constructing a fracking plant was made public.
This background knowledge likely allowed the fracking companies to, among other things, design leasing contracts that were advantageous to them, such as not stipulating how land reclamation would proceed or how the company would compensate the landowner for any environmental damage. One way in which this knowledge was used to weaken the potential for resistance was the inclusion of non-disclosure clauses in contracts. By accepting a contract with such a clause, landowners were forbidden from telling others in the community the amount they received for leasing their land. One community resident, Joe, who had taken it upon himself to educate himself on resource extraction contracts and who had gathered and compared several contracts offered by extraction companies in the area commented: “…and [they] said ‘Listen. We are going to cut you this deal, we are going to give you 300 more dollars an acre, but you gotta sign this confidentiality clause. You can't tell anybody.’…So where is your bargaining power?”

This fear of losing out on a large sum of money resulted in individuals being unable to unite and use their collective bargaining power to get additional concessions from the extraction companies. Furthermore, there existed the fear that since fracking companies had such a wealth of knowledge regarding leasing and natural gas in the area, attempting to wait for better prices or organize collectively to push back against the companies would result in individuals receiving no compensation and still having the resource extracted due to drainage, or others in the area signing leases that tap into the resource. In such a circumstance, individuals are less willing to resist individuals because, as Tanner put it: “I mean if everyone around you sells, does it really matter if you say no? Might as well get your money…again you are going to imagine it gets taken anyway.”
While the goal of collective action regarding leasing agreements and pricing would not have been about resisting the industry in its entirety, the fear of losing out on a good deal might have also inclined individuals to not speak out about the negative consequences of involvement with natural resource extraction. Other displays of knowledge power included demonstrating that the extraction company was well versed in using the letter of the agreements in their favor. One sore spot in the community was how the extraction companies required evidence that their trucks and materials caused the damage they were being asked to fix, even where it was clear that extraction development was the source of the damage.

So the town goes after them and the one company supposedly goes out of business and the other company says ‘Well these were damaged before we came in here. Do you have videos?’ So they are gonna money whip them… basically those road use maintenance agreements (RUMAs), they're useless. —Joe

Here, Joe demonstrates how fracking companies were able to use their knowledge of the law and burden of proof policies to ensure that they did not have to repair roads damaged by trucks hauling equipment to build the nearby fracking plant. Clearly, then, members of the community were aware not only of the extensive knowledge background possessed by the extraction industries, but that the extraction companies were able to use this knowledge to their benefit. While the incident that Joe references did not involve the fracking companies using this knowledge to undermine collective resistance efforts, the mere fact that community members were aware that extraction companies had this knowledge would have contributed to making a fight against such a knowledgeable entity unenticing. Of course, this knowledge base is only one way in which fracking companies were able to demonstrate that they were too big to be pushed around, even if the community was so inclined.

*Power through material assets.* The second significant way in which the strength of the extraction companies enhanced the perception that there was no way to win in a fight against
them was through the mobilization of their vast networks of resources. These financial resources allowed the fracking companies to utilize their extensive knowledge base by hiring the best legal representation and funding, when necessary, expensive and time consuming legal battles. Joe spent an extensive amount of time discussing the ability of the fracking companies to attract and retain the most skilled legal counsel: “If you get a guy that’s top of his class, the best attorney you can imagine, he works for the other side, the oil companies.” Here, Joe connects the previously identified strength of the extraction companies (their knowledge base) with a second form of power, the material resources necessary to retain experts who are able to utilize the extensive knowledge the fracking companies have acquired through years of extraction development and negotiations.

Joe continues to frame legal battles against fracking companies to be in many ways futile, as the outcome of these engagements tend to favor the companies as a result of the highly skilled lawyers they are able to retain: “That's not what the law does…One of my favorite poets said ‘The courts do not predict who is right or wrong...they show you who has the better attorney.’” While Joe’s account details the utility of fracking lawyers in an actual legal engagement, this is not the full extent of how the resources of fracking companies (here embodied in expensive legal counsel) can impress upon residents that resistance to the fracking companies is often futile. The retention of highly skilled legal representation also allowed the fracking companies to impress upon each individual landowner that they would not be able to resist extraction development, and that to do so would result in significantly negative consequences. In many instances, community members claimed that extraction company representatives threatened the use of eminent domain to ensure access to desired properties even if the landowner (initially) objected. This claim was made even though the representatives likely
knew that they would not in fact be granted eminent domain. Chuck personally witnessed this tactic when he was originally approached about leasing his property to the extraction companies. He states:

The strong-armed tactics of...the industry people and especially the pipeline. They come in threatening eminent domain even if they know they don't have or have the right. I personally have been lied to by some of their reps. —Chuck

Once again, while the claim of eminent domain and knowledge of when and how to use it falls within the knowledge power of the fracking companies, this is tightly intertwined with their material power. The fracking companies were able to make these sorts of claims demonstrated by Chuck not only because they knew of their effectiveness, but also because they were able to pay highly trained land men to impress upon landowners that their property would be taken by force if they did not comply. Furthermore, this threat of eminent domain inherently involves a threat of extended legal battles, which are only made possible by the company’s extensive resource base to commit to such battles. As discussed in regards to the strength through knowledge aspect of the power wielded by extraction companies, the ways in which fracking material strength was displayed was not directed at stopping people from banning fracking. However, a show of strength through material resources (often in the form of highly paid legal counsel and “land men”) likely had the effect of demonstrating to community members that it would be futile to fight against such a powerful entity.

This is not to say that all displays of fracking strength through resources were negative. The fracking company was also able to use these resources to demonstrate how its strength could be of benefit to the community. This, however, likely had the same effect as the show of strength in legal contests, with individuals being less willing to resist a company that demonstrated it has the power and resources to greatly benefit the community. Chuck goes on to
frame how individuals in the area viewed fracking and resistance, a theme repeated in many other interviews with community residents such as George:

Because there were people that were convinced of the benefits because…goodness we have jobs coming to the county. —Chuck

I think that they were all…they all thought they were going to get rich just like with the coal miners. —George

While these expectations may not have been fully realized as development progressed (far fewer people than originally expected actually work at the plant today), it is clear that the perceptions of the power of the fracking companies to change the community for the better were present in the minds of many individuals. These perceptions were reinforced through the public works projects that the fracking companies took on at their own expense for the betterment of the community. Trish and Bill recall several instances of representatives of the fracking plant offering assistance to the community:

Some liaison came to the town and said is there something you people could…funds you could use for the town. Well, at that time after they had gone through College Street so much and the sewage lines some of them still aren’t right. But the water replacement, they gave the town $176,000…as the town’s portion of a grant that we receive from Ohio Public Works commission…told us we needed some playground equipment for the park. So they bought that. —Trish

Now that GO is here, one of the things that they have done to try and make us happy again is they are providing fireworks during the street fair to let us know that what we can’t afford they will help afford that… —Bill

Not everyone took this show of material strength as a sign that fracking strength would be beneficial for the community, however. Several individuals believe that this show of strength was not in fact made in good faith or for the betterment of the community primarily, but instead was done for the sake of appearances. The playground equipment and especially the fireworks purchased by the fracking company for the village, a point of pride for some individuals like Kelcie, were perceived as manipulative of public perceptions.
Well they’re…they reach out when it is convenient. Like they are sponsoring the fireworks because they can get a big splash out of that. —Chuck

…Because they have not done anything for local businesses. They say they do…they helped sponsor the street fair, they helped to put up the fireworks. What have they done to improve the town…we still have to maintain all of our roads that their trucks have destroyed. We have to put in new water lines because they have overtapped what is good for the town, and now we have to supply more for them. —George

Oh yeah, that was splashed everywhere…they made sure…when they came over there was a big picture. —Trish, in reference to the construction of playground equipment by employees from the fracking plant.

While part of this “sake of appearances” was undoubtedly about making the fracking company look like a beneficial partner to those who would claim it was harmful to the village, it also likely served to remind everyone in the community the material power that the company could bring to bear when it chose to do so. That is to say, even when individuals were not swayed into believing that the fracking company cared about the community, such displays of material resources would still likely impress upon these individuals the overall strength of the fracking industries, and thereby discourage the formation of a resistance movement to that powerful industry. Whether it was to impress the benefit of fracking involvement in the community or simply to remind residents of the vast material resources at their disposal, representatives of the fracking plant at a townhall-style meeting discussed their willingness to mobilize their power in the community and the large effect that it could have:

What I am trying to say, if you have concerns about your roads, about issues regarding pipes…Whether we are responsible for it or not, we want to hear it. I’m telling you, these guys are prepared to make significant investments in this community. We’ve got to have an orderly way to prioritize the concerns that you have. And we are perfectly willing to listen to those concerns. —Fracking Plant Representative

Interestingly, this statement was made at a meeting where the topic under consideration was whether to force the fracking companies into a development district that would subject them to up to a 1% income tax. Such a statement in this setting reinforces the finding that the
material wealth of fracking could be referenced as a mechanism to quell a resistance or backlash movement. This statement from the plant representative taps into community members’ perceptions obtained during the interviews that the money offered to individuals and the community at large can serve to impress upon the community the power of the fracking companies. This power could then indirectly underscore the futility of attempting to collectively resist or ban fracking.

For many individuals, then, this display of power may have lowered resistance expectations due to the demonstration of how much good the companies had the power to effect in Scio and the surrounding area. However, even those individuals who were suspicious of the intentions behind the gifts were aware of the power the fracking companies had relative to the village, as displayed by the company’s ability to pay for things the village could no longer afford. As referenced above, firework show for the Fall Festival was one commonly represented example of the fracking plant paying for services that the community could no longer afford. Regardless of the intentions of the fracking companies (whether they were funding such projects to be good neighbors and/or to make a PR splash), the executions of such projects was handled in a beneficent manner. JT, as the lead organizer of the Scio Fall Festival, describes how the plant took charge of taking care of the firework show with little prompting.

…She wanted to know what they could do, and I said we used to have fireworks on the 4th of July which we don’t have a 4th of July celebration anymore…that would be something nice if they would be interested in doing that. So she got back with me in a couple weeks and said that we would be doing the fireworks. Now they take care of it they call and contract them and sign the contract and have them come in. We don’t basically do anything…they take care of everything. We don’t see a bill. —JT

In taking on all of the work regarding the firework display, the fracking company representative was able to use the company’s resource pool to convey a ‘good neighbor’ stance to JT, who as an active member of the fire department and organizer of the Fall Festival, has a
degree of social influence within the community. From the effort displayed in the quote above, it is clear that this endeavor was successful, as JT’s general demeanor when giving that statement was very positive and upbeat. While the importance of this firework display may be lost on those not familiar with Scio, this is not the case with community residents. This is because the Fall Festival serves as a reunion for a community in which many members have left to peruse their careers (more on this further below) and has great prominence within the minds of community members. As such, even those who were skeptical of the intent behind the decision to provide fireworks do not doubt the potential impact of this event. In this, we see the blending of two parts of fracking’s strength, a knowledge base (represented in an understanding of the local culture and customs, especially in terms of who to contact) and material resources.

*Power through bureaucracy.* The last way in which the strength of the extraction companies may have discouraged the formation of a resistance movement is through the bureaucratic nature of the company and the social distance of its highest decision-making individuals from the community. While not an active application of strength (as was the above case with the mobilization of resources), this bureaucratic removal is a strength of the fracking company in regards to the formation of a resistance movement, as this bureaucracy shields the company from all but the most well-organized and well-financed approach. Tanner vaguely references the decision making process of whether to invest in extracting resource for an area, bringing to light the fact that these decisions were not a matter of public discussion: “You can’t bring [emphasis on bring] oil and gas to you. It is something that is chosen so high above you…you don’t get to decide that.” Tanner emphasizes that the bureaucratic nature of such a large business ensures that people living in Scio do not have the ability to “bring” NRE business to the area. Interestingly, this lack of power does not appear to stem from the resource base of
the community, but rather from the fact that the decision makers of the large fracking
companies are so far removed (both geographically and in terms of bureaucratic layering) from
the events on the ground.

Chuck, by comparison, goes one step further and states that it is the international nature
of the fracking companies that makes it difficult to try and fight back. Interestingly, Chuck also
hints at the final finding of this study (discussed below), which is the power of the local
community relative to that of the fracking companies: “It’s hard to do, it’s hard to do. And when
you’re…it’s almost impossible to fight a multi-billion dollar international corporation or
corporations. What can a group of a few people do realistically in a depressed area?” Here,
Chuck directly references the power disparity between the fracking company and the
community. While this touches on the ability of the company to use material resources to inhibit
resistance, as noted above, this statement also emphasizes that the sheer size of the company
itself can serve as a barrier to resistance. Specifically, in framing an “international” corporation
compared to a depressed “area,” Chuck indicates that the process of resisting the company is not
simply about resisting it in one locality, as that locality is but one head of the fracking company
hydra. Both Chuck and Tanner indicate that the size of the company, as well as the distance
between events unfolding on the ground and decision-making for entire regions that are under
consideration for potential development, insulates the fracking companies from local pushback
against the development process. However, it is George who directly addresses the difficulty in
attempting to approach such an organization with the intent of changing its decision making
process:

But how do you fight city hall. You are not talking about somebody you can go over there
and talk to and they can answer. You want to put something in my store you come and talk to
me and we will debate it and think about it and you are going to get an answer. With them,
you never get to see the person that makes the decisions because it is a corporate board way off somewhere else. —George

This inability to sit down and talk with someone who has the power to enact change completes the trifecta of fracking strength which, though indirectly and perhaps unintentionally, helps to paint a picture of resistance as ultimately futile and doomed to failure for the sheer weight of the extraction industry. It is this last point, however, that solidifies the strength of the other two because it ensures that the fracking company is able to control when and how to mobilize its strengths. For example, there is no need to immediately mobilize resources to counter residents’ concerns when it is possible to accept those claims and yet state that it will take some time to work these concerns through all of the required channels. Furthermore, it isolates those few individuals in the fracking companies who have the authority to mobilize the company’s full power from those residents who might be concerned with extraction development.

In summary, Scio residents and individuals from the surrounding community indicated to me that one overarching reason why fracking was not collectively resisted or even banned in the area was that the fracking companies were too big and too powerful to even have a chance of fighting against. Many participants recognized that part of this strength early on was based on the company’s extensive background knowledge and experience in the industry in other states. Building off of this, individuals also recognized that even with the appropriate knowledge, resistance would be difficult due to the resources the company could bring to bear in a protracted legal fight that would likely last for years if not decades. Furthermore, many individuals viewed the displays of fracking’s strength in a positive light, especially because that strength in many instances was used to the betterment of the community and the lives of several individuals/households. Finally, many individuals discussed that even beginning a resistance
movement would have been difficult due to the level of bureaucratic removal of the decision-makers in the fracking company from events unfolding on the ground in the community.

Ultimately, the power of the fracking companies was so great that many individuals came to the rational conclusion that it would not be possible for locals to resist because the fracking companies would not back down and would fight to continue developing in the area. This sentiment of desire for extraction and the strength to continue development is best encapsulated in the following statement from Sam:

I had people say, I would get rid of these oil and gas guys. I said, let me tell you something…as long as there is oil and gas here you could shoot these people and they are not going anywhere. They are here because they are making money. When they no longer make money, you can’t buy them back. They are here because they are making money and you can’t stop them. —Sam

As evidenced above, residents of Scio rationally assessed the strength of the fracking companies and came to the logical conclusion that those companies were too strong to resist. However, as with all fights—real or imagined—the strength of one’s potential opponent is only half of the equation. Evaluation of the success of engagement also depends on one’s own perceived strength relative to that of one’s opponent. This, then, is the third major finding from this study on why individuals in a community impacted by fracking did not form a collective resistance movement.

Community Factors and Perceived Resistance Potential

And I just don’t think we…It was an unknown so we…we didn’t know…but I don’t really feel like any kind of a concerted effort would have made any difference, because when people have in different areas around the country…they don’t win. —Chuck, in reference to the ability of the community to resist fracking development.

After talking about the advantages and disadvantages of fracking development in the area and why a resistance movement did not form in the presence of the negative consequences, many community members indicated that the task would have been monumental not only
because the fracking companies were so powerful, but also because the social circumstances of Scio would have inhibited the formation of collective resistance. Many of these social disorganization points mirrored the topics raised in regards to the strength of the extraction companies, such as knowledge and material bases for resistance in the community. However, much more time was spent discussing how social disorganization elements (e.g., who would lead the resistance effort, what organizations would be involved, divisions that would arise in the village and surrounding community) would have made the formation of an organized collective resistance extremely difficult and undesirable in the face of the resulting negative social ramifications.

Community knowledge and resistance potential. As with the total strength of fracking, community knowledge was a major factor in influencing the formation of collective resistance. However, as opposed to the fracking companies, community members by and large did not have a wealth of background knowledge upon which to draw when fracking first came to the village. During her interview, Trish provided her insight into the potential impact of this lack of knowledge (at least during the earlier years of development and extraction):

And a lack of any real knowledge on means of making change. I mean the average person sitting in Scio doesn’t actually know the proper channels or how easy or how difficult it is to actually make change without actually trying. So again, I feel that is why the area is targeted for these sorts of things is because they know the people will not be doing the research and will not be looking at the long-term effects. —Trish

As can be clearly seen, Trish believed that not only did individuals in Scio have a lack of knowledge regarding how fracking plays develop over time, but that Scio was chosen in part because of this lack of knowledge. This perception of the oil and gas companies choosing Scio because of its low knowledge base was echoed by Joan, a retired schoolteacher who has lived and worked in the community her entire adult life. She augments this argument by claiming that
this tactic of moving into areas with little background knowledge was a tried and true tool of the extraction companies:

I didn’t understand very much about it and…I don’t think anybody knew the details about how it worked, and I don’t think anybody does now. If you don’t know what is going on, then you don’t have big expectations.
 —Joan

Here, Joan connects the lack of knowledge in the community regarding fracking, and the fracking plant in particular, with community perceptions. According to Joan, because individuals in the community did not know what was going to happen, expectations for the future in regards to fracking were not crystalized. Unsurprisingly, then, a resistance movement did not coalesce early on because very few people had formed concrete expectations of what would result from fracking infrastructure development, especially in regards to the construction of the fracking plant.

Of course, in a community that is able to see many different sides of the same issue, it is not surprising that there were counter-claims to the argument that fracking companies moved into the area because of the knowledge base of the population. Other residents such as Bill and Bob contest this fact and state that this area was primarily selected for extraction development, and especially construction of the plant, because of the geological nature of the area as well as the existing infrastructure in the area (e.g., heavy rail lines that were previously used to transport coal):

So the infrastructure that was put in for the coal for many years and decades is now the salvation we had…Encompassed with the fact that we have the wet gas window, it was a natural fit for many of the plants. —Bob

…and I don’t think that they looked at the population of Scio saying ‘I think we can pull this across their eyes without them knowing.’ —Bill

Clearly, whether the fracking companies moved into the area because of the general lack of knowledge regarding extraction development progression was a key area of community...
contention. However, for this study it is not of primary importance of the intent of the fracking companies, as such claims and counter-claims do not dismiss the finding that most individuals in Scio were not prepared for the level of development accompanying the fracking boom. Rather, while this knowledge of oil company operations was not directly tied to the ability to resist, the lack of experience did help ensure that there was no resistance movement forming when fracking was just beginning to expand into the region (arguably, the time when it would be most vulnerable to collective resistance). Once again, Trish’s comments provide the connection between knowledge and resistance formation: “I don’t think anybody thought about fighting against it because we didn’t know what was coming.”

This is not to say that all Scio community members were not aware of what to expect regarding fracking. Joe spent a good portion of his interview describing the pains he went through to do his “background research,” particularly in regards to what differentiates a good leasing contract (from a landowners perspective) from a bad one. Bob actually went to areas that had previously been involved with fracking development and extraction to get hands-on experience with how the growth of the industry can affect a small community: “Knowing that we were going to be…a short while ‘til impact hit us. Four of us went to Bradford County, PA, and we wanted to do research.” This statement clearly depicts the value placed upon knowledge, especially as it pertains to getting the best deal possible from the fracking companies. Bob was particularly passionate about the importance for a community to have knowledge regarding fracking development. During his interview, Bob conveys that one of his proudest moments was when he was able to use the knowledge that he had acquired to have a property-owner friendly contract designed that he was then able to share with many community residents. It also underscores that this possession of background knowledge by this community member was an
exception to the wider social pattern of not knowing what to expect regarding fracking development.

Kelcie at one point during her interview discussed the early uncertainty of fracking in the community: “Oh, I’m sure it was a lot worrying and rumoring, because no one really knew the ins and outs of it. Which, granted, how are you supposed to, you know?” This unease due to lack of knowledge did not go unnoticed by the fracking companies (demonstrating once again the power of their knowledge and resource base in undermining the desire for collective resistance). In an effort to ease concerns about fracking due to lack of knowledge, the fracking companies took pains to provide the community with information regarding practices and safeguards in the industry. Two community members describe these informational meetings in different terms:

They actually had a…forum kind of thing at the firehouse. It was before they started moving ground at the plant, but to explain things, to explain the process, how everything works, and how we’re going to approach this. —Kelcie

Well I think the townhall discussions was mainly bringing in representatives of the Utica plant. The townhall discussions mainly had these people presenting all good things, and so because the community didn’t really have that much information I don’t really think there was much discussion. —Joan

While these meetings did provide Scio residents with information regarding fracking, as Joan indicates none of this information would have been of any use in building a case for how to resist or even ban fracking. Chuck expands upon this notion that the informational meetings were biased in favor of the fracking companies: “But basically it was…it was informational yet bias towards the oil and gas who was putting this stuff on. Even the farm bureau. I went to the farm bureau and they definitely on the side of the oil and gas.” This presentation of information in a way that is generally supportive of extraction development has been found to occur elsewhere (Matz and Renfrew 2014), and like in Scio, it focused in part on detailing how the
natural gas industry has taken many steps to ensure minimal negative consequences while stressing the potential gains of extraction. As such, Scio residents were not able to easily draw upon this presented knowledge or the experience of others to formulate plans regarding how to resist extraction development. Thus, it fell to individuals such as Bob to do their own background research and share what they knew with those who would listen and had not already signed contracts with the extraction companies. However, it must be noted that this does not constitute a collective resistance in the traditional sense, as the goal of this movement was getting a better deal from the companies rather than an effort to deny access to the resources the company desired. This general lack of knowledge, then, consequently reduced the ability of the community to conceptualize how a resistance movement to fracking might have been successful.

Community resources and resistance potential. The lack of material resources to commit to a fight against the extraction company was the second main way in which the social circumstances of Scio and the surrounding area likely inhibited the formation of a collective resistance movement. While other studies have also established that resistance is more likely in areas with more resources (Dokshin 2016), this study offers more details regarding the process by which the lack of material resources inhibits resistance formation. In order to understand the economic reality of living in Scio, it is important to note that the economic plight of the village before extraction development began was repeatedly mentioned in every interview with community members. While there were several reasons for this economic decline, I found it interesting that the decline of coal was mentioned as one primary reason for economic decline. For instance, Bill states: “Well, the coal business has disappeared. Well, that helped to make this town have employment. There is hardly any employment in this business today.”
Bill’s statement that coal helped build the village’s employment base is interesting, as it hints that Scio may have in some ways become “addicted” (Freudenburg 1992) to resource extraction in that the village was economically declining as a result of a resource bust and was only saved by the grace of another resource boom. Though this point was contested by other community members (in part because while the county was heavily involved with coal, little coal extraction occurred proximate to Scio), it is important to contextualize how previous involvement with extraction may have weakened Scio’s economic ability to resist later forms of extraction development. This also corroborates the finding that previous experience with coal or oil in a rural area tends to decrease the probability of resistance formation (Dokshin 2016).

Given the economic situation of the community, the lack of income and the money offered by the extraction companies helped to undermine any thought of biting the hand that feeds. Even Chuck, who was extremely concerned about fracking development, chose to lease his property due to his financial situation:

At the time I signed the contract five, five and half years ago…and at that time I probably would have waited, but I was literally broke. Literally broke…and I waited as long as I possibly could to sign a contract or I would have waited. But…that’s why I signed. Financial hardship basically. —Chuck

As repeatedly demonstrated, Chuck is an individual who cares deeply about the environment and the health of the community in general. However, because of his financial situation, he was not able to hold out and resist the extraction companies’ efforts to lease his land, even though he expresses that he wished he could have (at least for a little while longer, at any rate). This, while the tale of one man’s dilemma, offers insight into how economic vulnerability of an entire community could undermine the ability to formulate a collective resistance effort, especially given the fact that many individuals who live in Scio subsist below the poverty line.
As mentioned earlier in an above finding, part of the way in which extraction companies’ material strength may have lowered the probability of organized resistance is due to perceptions that such strength could be used for the good of the village. Joe’s quote provides further context for this finding (demonstrating the interconnected and yet distinct nature of fracking strength and community resistance factors), speaking to the point that the community was in desperate need of economic revitalization and the fracking companies were just the entity to provide that revitalization: “This was a small town. They didn’t know what was going on. It wasn’t done with malice it was just done through ignorance. They just didn’t know, but these big companies come in, and they threw the money at them.”

It was not just that the fracking companies were strong, but that the community was economically weakening after decades of shifting national and global economics and therefore needed the aid of an industry such as resource extraction. This created the situation in which the fracking companies could overwhelm the residents with large sums of money, a situation that could not develop as readily where individuals already had accumulated wealth and were economically stable. However, as with fracking material strength, there is another side to how Scio’s economic stagnation impacted the formation of fracking resistance. As a result of this economic decline, the community (either individually or collectively) did not have the resources to mount an effective offense against all fracking development/drilling/refinement. Both Trish and Joe offered particularly insightful comments on the relative power of Scio and the fracking companies whenever it came to litigation:

I mean they have a lawyer to have a lawyer to tell the next one how things ought to be. We pay a solicitor who does his best and if need be he would refer us to something else, but the small villages do not have the resources that those people had. And they know it… —Trish

A lot of attorneys in this area that started to run the ads…experts …I’ve sat in people's office that were in decision makers in the oil company on the other side, and they have
laughed about these other attorneys and said, ‘These people don't have a clue about what they are doing.’ —Joe

While it might not come as a surprise that the community did not have many resources to resist the fracking companies given that many individuals in the community did not have the resources to individually resist, these statements underscore the disparity in economic power between the fracking companies and the community as a whole. For if individuals do not wish to have fracking develop in their communities, but neither they nor their local government have the finances to fund a resistance movement, where they do they turn when their state has embraced the industry and they as rural individuals do not trust the machinations of outside groups? In such a context, it is likely that community members would not collectively resist fracking.

Finally, even if an individual had enough resources to fight their own battle, such a battle would have been futile if enough members in the community agreed to lease their own property. This is because in many states, individual property owners could be forced into leasing their land through what is known as forced pooling. Forced pooling, as described by one community member, typically works in the following fashion:

So the government says we want you to drill. So the oil company can go to them and say, look if you have a certain percentage of this unit...we're gonna force drill you. So what they do is they go underneath, they drill. And then depending on who you talk to, what they do is they take the money the other people are getting and they put it in an account supposedly, or they hold it, and then you come through and if you go to court and they say you have to pay all this other stuff you can get your money. But they force pool you. You can't let a small piece of property hold up a huge unit. And I can show you units that have corners cut out of them. —Joe

Accordingly, only collective resistance theoretically has the power to ban extraction development in the community, as the existing legal structure prevents one or two individuals from holding up the entire development process. Yet, as described by Trish and Joe, the collective resources necessary for such a resistance were not present, at least in the form of the
town government’s coffers. In such circumstances, it is not surprising that, as many interviewees put it, residents did not even consider fighting the fracking companies. Or rather, if they did consider it, those considerations were dropped after a cursory assessment of the village’s resources compared to those of the fracking company. However, there is still one final element to this explanation of why community members did not resist fracking development in the area.

*Community organization and resistance potential.* There is one final way in which the social circumstances in Scio undermined the ability of the community to collectively resist fracking. By definition, collective resistance requires many individuals in the community to share meanings with respect to wanting to ban or severely limit extraction development. This leads into the third reason why community members believed a collective resistance did not occur: social disorganization. Above and beyond the lack of knowledge of extraction and resources by individuals and the community at large, this lack of cooperation between community members significantly inhibited any dream of collective resistance.

One major reason for this lack of cooperation is that individuals in the community (which extends to individuals living in the countryside around the rural village of Scio) significantly varied in the benefits that they received from fracking development and extraction. Farmers and individuals in the countryside were repeatedly referenced in interviews as the main beneficiaries of fracking due to their large tracts of land. This is because:

They were more apt to sell big tracts of land to the main lines, the pipelines. —Tanner

And it had a big, you know, somewhere that had a lot of acreage in the same area, big farmland, it’s easy to build on, easy to form the land. I think it was just, economically a good opportunity. —Kelcie
Since the primary economic benefit of fracking is through royalty and lease payments, it makes sense that those living in the countryside with large tracts of land available for leasing would benefit the most from fracking development, a finding confirmed in other recent fracking research (Dokskin 2016). However, this stands in significant contrast to the experience of individuals living within the actual village of Scio. As stated in the first finding, where individuals talked about the economic gains and shortcomings, it is apparent that the benefits accrued to those living in the village were not as great compared to those living in the country. Robert specifically states that there have been noticeable differences in the benefits accrued from fracking in regards to royalty payments. “So the county has really benefited, and the [North] Township has greatly benefitted from that, but again that has nothing to do with Scio. It’s all outside of the village. I don’t know anybody that owns property in Scio that is receiving royalty or anything like that.” Since the properties in Scio were not prime tracks of land for leasing, due in part to the small property parcel sizes in the actual village, individuals in the village did not experience the sudden explosion of wealth that turned several poor farmers in the surrounding area into overnight millionaires. Furthermore, while some Scio residents did get jobs with the fracking plant, and others saw an increase to their businesses (such as restaurant owners), many Scio residents did not directly benefit from fracking.

This difference in direct benefits accrued as a result of fracking resulted in an initial split in the overall community in regards to whether fracking should be resisted or not. Therefore, as might be expected, any organization to resist or ban fracking would likely have pitted residents of the countryside in general against community activists. Bill offers particularly insightful comments regarding how a drive to resist fracking would have driven a wedge between Scio residents and individuals living in the countryside around the village:
They would be attending all those meetings, if you were going to try to get a ban on fracking. We would have farmers from all around this area that would be in here saying what is the matter with you crazy people, because I am getting thousands of dollars a month for my GO and here you are sitting in Scio saying we don’t want fracking. And I don’t anticipate that happening at all. —Bill

As can be seen, there are differences in benefits accrued based upon whether one is located within the village proper or the surrounding countryside, resulting in a division in community support for a formal resistance to fracking. This division is further emphasized in points raised during a community meeting with fracking plant representatives regarding a burgeoning movement to tax the fracking plant. While many members of Scio expressed interest in incorporating the fracking plant in a Joint Economic Development District (JEDD), residents of the countryside were more generally opposed to the endeavor. As one unnamed individual from the surrounding countryside stated during the meeting:

I’ve got some concerns…When I hear people start talking about my fair share and this kind of stuff, I’m really wary of it… And two, all I’m hearing is new taxes. I live up on Gundy Ridge; I’m seeing some fairy dust here. Like all of sudden we get this JEDD going, and General Motors is going to put a plant up on Gundy Ridge? I don’t think so. I think let’s get down to what it is really about; the only game in town is that plant. —North Township Resident

This statement perfectly encapsulates the difficulty of forming a collective resistance movement to fracking in this area. While residents of Scio, who have had to bear the brunt of the economic downsides of fracking development while at the same time not receiving many direct benefits, wished to try and get more money from the plant, those living in the countryside did not want to endanger the benefits that they were already receiving.

Finally, complicating this likely division between village and countryside is that many individuals expressed beliefs that one of the main benefits of fracking are the benefits that have been accrued by farmers, who are framed as particularly deserving of these monetary benefits.
Specifically, the two comments below from Sam and Kelcie capture the key reasons why farmers factor in so heavily when considering natural resource extraction development.

…if there is a way for farmers to get money, God bless.. —Sam

We have a lot of wealthy farms now, which, good for them because farming is a very, very feast or famine kind of lifestyle. —Kelcie

Both Sam and Kelcie in their interviews indicated that farmers deserved to receive the income that they are getting from their involvement with fracking, due in part to ability of fracking money to mitigate the economic hardship associated with farming, a finding mirrored in a recent study of farmers involved with fracking (Buday 2017). Accordingly, any individuals within the actual village of Scio (who arguably have benefited less than individuals in the countryside) are placed in the position where taking collective action against the extraction companies would also amount to taking action against families they have proclaimed are deserving of all the benefits that extraction can provide. This, in combination with the likely resistance of those residents of the townships to a resistance movement, in part decreased the desire to take part in a push for a banning or restriction of extraction development.

The other way in which community disorganization impacted the perceived futility of attempting to ban or severely limit fracking development/extraction is that the weakened social institutions and organizations offered little potential as forces that could drive the community to organized collective action. One social organization that was perceived to have little power in organizing a collective resistance to fracking was the village government. While this notion that the local government was too disorganized to push for resistance, Bill drills into one of the key weaknesses: “You can’t hold a mayor more than 5 years. A council member if he spends one term he has about had enough and so we get somebody else who knows nothing about how to run a village or business or anything else.”
In addition to the village government not having the material resources to resist fracking (as mentioned earlier in this section), the council was further disorganized by the rotating nature of its membership. As such, few individuals who served on the council were involved long enough to get a strong sense of how to bring the power of the government into play in regards to pushing back against the companies. Furthermore, other community members indicated that council members typically joined in response to one issue, and once that issue was resolved, they no longer expressed interest in continuing to serve on council. This lack of willing and able people to serve on town council also extended to the other remaining social organizations and institutions in the community as well. Dee Ann and Bill, long-time residents of Scio, offered their thoughts on the state of the community organizations in Scio:

And I think that the community is disenfranchised from being members of groups and organizations and the days of the pottery the community came together they did projects together. They supported their own school. The Scio community supported that school and nobody else did. The churches had people in them because that was the social outlet. That basis disappeared and I think we’ve just felt…unempowered to do anything as a group of people anymore….volunteerism has dropped off. —Dee Ann

When I joined Ruritan we had 40-45 members…today we have 15 members…and so the clubs might still be here but they are not near strong as what they were 20 years ago… —Bill

As members of the Ruritans, the Alevians, and other community organizations, Dee Ann and Bill were perfectly situated to comment on how these groups have changed over time. Interestingly, the major change was that they had not changed in regards to members. That is, very few new individuals had joined these groups. Consequently, these organizations do not have the power they once did to impact everyday life in the community at large. The impact of decreased enrollment on the power and efficacy of community organizations was best captured by Trish, as she recalled a request from representatives from the fracking plant regarding feeding the construction workers during the height of the building phase for the plant:
She said, ‘Well, we have the Civic Club, the Alterian Club, the Alevian Club…and the Fireman’s Auxiliary and the Legion Auxiliary.’ And I said, when you stop and mention those, the same people that are in the Alevian are in the Alterian Club are in the Civic Club, and they are all over 70 years old. Are those women going to want to work every day for nothing. —Trish

As emphasized in this quote, one reason why the Scio community organizations would have been relatively powerless in an attempt to ban fracking was due to the fact that many of the members that belonged to one organization belonged to another. Consequently, the utility of getting multiple organizations to back a resistance effort would have been minimal, as this would not have brought together individuals who otherwise would have had little contact with each other.

Tied into this structural overlap is another reason why Scio’s social institutions and organizations would be of relatively little aid in an effort to resist or ban fracking: the lack of leadership for such an endeavor. According to Robert, ideally, the individuals who would lead such a resistance effort would be younger individuals. In his quote below, Robert details why he believes this specific group of individuals would be uniquely situated to lead a resistance effort:

There is nothing there as far as the young people, I don’t think they are concerned on that issue at all…once again, if you are going to have a local fracking ban, who is going to initiate it and who is going to be that committee and who are the people that are going to be on it? I can’t think of anybody in Scio that would initiate something like that. And then again it can’t just deal with the village of Scio it would have to be a much larger area. So I could be wrong…I haven’t heard anything at all about anybody even considering trying to do that, because remember there is a small population in Scio and an ever smaller population that are adults and even smaller population of adult ages say from 30-50 which would be the group that would be involved in something like that. The older people are not, the younger people are not. So I just don’t see something like that occurring. And then the people that are outside of the village remember are the ones that are reaping the financial benefits of all this, so why would they do it? —Robert

“Leaders” in the theoretical resistance movement would be adults who have been around long enough and are established well enough in their own careers to have the resources to lead such a movement. As previously mentioned, though, these individuals have not been joining
community organizations, shortening their social reach and their ability to mobilize the community as a collectivity. Joan, as an elder in the community, also shares Robert’s sentiment that any form of resistance movement would require the leadership of younger individuals: “I think it is possibly because that there are a lot of older folks and sometimes it takes younger people who get a bee in their bonnet or some fire in the belly to get organized.” Therefore, according to Joan, part of what makes youth good leaders for a resistance movement is that they have the “fire in the belly” requisite to mobilizing the population for a collective resistance action. However, as Robert mentions, these individuals are in short supply in Scio.

Further compounding this leadership problem, and tied into why so few young individuals were part of community organizations, very few individuals in Scio and the surrounding area meet these criteria, a result of the “rural flight” of young people from the area (Flora et al. 2016). Bill describes this rural flight in the context of his own family:

My other kids went anywhere there was employment and since one of them was a school teacher, he settled around the Cambridge area because he couldn’t get a job around here. My daughter went to work in Columbus…our family has left Scio in order to maintain their livelihood. —Bill

Bob and Trish, who have served in local government positions, were able to talk about rural youth flight in the area more generally:

But many of them left, because once they got that education, there was no possibility of making a living here. And they didn’t want to travel 45 minutes or an hour and a half to ply their vocation or occupation. —Bob

And maybe a lot of the younger kids wouldn’t be leaving and that isn’t what happened… —Trish

Once again, we see how Scio’s economic condition impacts all the different element of the fracking narrative in the community. Due to declining economic prospects, there are relatively few young individuals in the community who would be able to lead the charge in
organizing a resistance movement. Of course, rural youth flight does not imply that all young individuals leave the community to pursue their careers elsewhere. However, both Robert and JT comment on how the young people who do remain in the community do not fit with the ideal leader type detailed by Robert earlier.

The young people right now, at least those at are in the village, I don’t think care a bit. I mean it is not…enter into their conversations, they are more busy thinking about…when they are going to get their next beer and when their next baby is going to be born. —Robert

And I think one of the big troubles is you don’t have the class of people, the young people aren’t in the same class as the older people. They aren’t as educated…they don’t care as much. They are just here. —JT

Both Robert and JT paint a drab portrait of Scio’s current leadership potential, where young individuals are much less concerned than their predecessors with the larger concerns of the community. This depiction of the youth population in Scio stands in stark contrast with descriptions of past leaders in Scio, who were bankers and lawyers were the leaders of the community. As such, while young individuals may remain, many do not appear interested in taking up the mantle of leadership of their forbearers. As such, even when individuals in the village began to realize that their initial expectations were not being met in regards to fracking development, there was no standard bearer behind which the disaffected could unite and collectively resist (even if the knowledge and material resources necessary were present).

From the many in-depth discussions with community members, it has become apparent that Scio was not well-equipped to resist fracking, even if community members had been so inclined. This should not be taken as a statement that if community members had the ability to successfully resist fracking that they would or should have done so. Rather, this is a realistic assessment by community members of the ability of the area to put a halt to or severely restrict extraction development. Part of this perceived lack of ability to halt fracking was the lack of
background knowledge of extraction development in other parts of the country, ensuring that there was little existing organized resistance when fracking initially made inroads into the region. However, even if this knowledge had been widely apparent, the general economic depression of the region ensured that residents, both individually as well as collectively, did not have the material resources and expertise to go toe-to-toe with the fracking companies in extended legal battles. Finally, even if both the background knowledge and resources had been initially present, there still existed the problem of the state of the community organizations and leadership within the town and townships. Due to rural flight, there were few individuals living in the region with the requisite age and experience to lead an effort to resist fracking, while at the same time significant overlap in community organization membership ensured that there would be little gain from these organizations working in concert. Ultimately, these findings taken together with the findings of fracking strength help to explain both why moral exclusion was by-and-large not present within the community and why an organized community effort to resist or ban fracking did not materialize during the early years of fracking development.
DISCUSSION

What is the picture that the residents of Scio and the surrounding community paint for us regarding how and why individuals resist natural resource extraction development? Primarily, these stories indicate that the moral exclusion that has been found to be used by one party in the environmental-economic debate in many communities is significantly based on the perception that a fight between the community and the extraction companies is a fight that could be won. When individuals believe that the anti-extraction faction could potentially triumph, or at least seriously disrupt development, the environmental argument typically posed by this faction is morally excluded by the pro-extraction group to undermine their opponent’s credibility and ability to enact change (Freudenburg 2005). However, when a credible threat to extraction development and operations is not present, individuals likely do not feel the need to exclude one side of the argument and are free to discuss both the advantages and disadvantages of extraction (both in regards to the economic side of extraction as well as the environmental side). The lack of moral exclusion and the presence of nuanced discussion of extraction development both stem from an underlying factor.

Therefore, while it appears that the main focus of this Scio portrait is how individuals are able to discuss the nuanced advantages and disadvantages of fracking in the area, a larger view of the artwork reveals a more complex picture. Specifically, the true focus is that when individuals do not perceive a fight against the fracking companies to be hell-worthy, even in the presence of widely recognized (intentional or unintentional) social ills that have, directly or
indirectly, resulted from development and extraction, a resistance movement will not coalesce into organized social action. As with any fight, individuals may choose to not engage because they perceive their opponent to be of Goliath proportions and/or because they perceive themselves as armed with no more than a stick and string. In this study, community members conveyed that talk about resistance did not gain traction because, in part, the fracking companies were viewed as too powerful and distant to engage.

Previous studies on the effects of and resistance to natural resource extraction have focused on communities where there was a desire for resistance (Buday 2017; Vasi et al. 2015), even if those who desired to fight back were too afraid of social backlash to speak out against development (Hudgins 2013). This unfortunately paints a picture in which all communities, if given the chance, would resist development. However, this has resulted in less attention being placed on the structural factors that impact poor rural communities such as Scio (Rural Sociological Society 1993). The overlooked factors are weaker social institutions and fewer personal and economic resources that can be called upon for battle, as well as the significant risk for social conflict. The findings of this study indicate that before resistance to fracking (and likely other forms of NRE) even begin to form in these communities, community members must first perceive that the fight could be won and is worth the cost of already scarce resources.

This is not to say that the cost of fighting does not have an impact on talk of resistance, as many community members acknowledge that such a fight would result in even further divisiveness in the community. A local fracking ban would have likely set individuals in the village against those living in the country due to different benefits and costs associated with fracking depending on one’s physical location. Bill offered this observation of what would have happened in the event the village did try to ban fracking during its initial development:
I think there was too many farmers getting a big income that there was ever going to be put a halt on it because if we were to have a village meeting here to put a woe to it we would have twice that number of people that live around us that would be in here to put the heat up on us because they would say we want and need the income from that. —Bill

Clearly, there would have been severe consequences for the community if a movement to ban fracking had gained steam, as many community members who resided outside of the village corporation limits indicated that they needed the fracking money for their livelihoods, a finding that has been supported in other research (Malin and DeMaster 2015). However, despite the impact of this perception of divisiveness on propensity to resist, its impact is in fact moot if individuals do not believe that they ultimately could win the fight. Only when this criterion is met would community members then have to worry about whether resistance would be worth the price of potentially exchanging bonds of familiarity with neighbors for feelings of resentment and social discord.

This, then, is the reality for individuals in this community (and potentially other similarly situated communities), which has been deeply impacted by natural resource extraction development. The gas and oil companies are able to tactically advance when the opportunity is most ripe and provide the best defense in areas where the notion of extraction might be assailed because of previous battle experience. Lawyers, trained in the art of legal negotiations regarding mineral rights and taxation, work for the gas and oil companies because the companies are able to marshal the resources to retain such advisors who are able to use the law to their benefit, such as through force pooling and threats of seizure through eminent domain. By contrast, the legal counsel that most community members have access to do not have the depth of experience in this particular battleground and so would not be able to legally outmaneuver the fracking companies in most engagements. The fracking companies are well-organized behind innumerable layers of bureaucracy, ensuring that only the most concentrated and equally well-
organized counter-movement would be able to make their demands heard. Unfortunately (regardless of whether one is pro-fracking or anti-fracking), small rural American communities have been suffering for decades for a host of reasons, from declining participation in community organizations and the flight of many young individuals (Rural Sociological Society 1993) who are no longer available to take up the mantle of leadership for their former homes, as well as economic stagnation resulting from national and international policies that have largely neglected rural communities as they exist in reality (Flora et al. 2016).

This study reveals three important insights previously unexplored in the natural resource extraction literature. First, this study finds that community members (when not forced to pick a polarized side in response to a potential resistance movement) are able to freely discuss the many nuanced elements of living in an area increasingly dominated by natural resource extraction. Moral exclusion of one side or the other is not necessary when strict battle lines for the future of the village’s environmental and economic health are not drawn. Second, interviews from this study indicate that respondents see no point in fighting a giant like an extraction company, as the strength of that company has been displayed since the first days of the resource boom when representatives of the fracking companies used their greater experience, knowledge base, and available resources to get the best deal possible on mineral rights and leasing contracts. This perception of gas and oil strength results in individuals being free to discuss extraction, as the general community mindset is that no organized group will be able to fight such a power. Last, participants in this study indicated that, even if a group of community members had decided that they would be willing to take on the Goliath that is gas and oil, there are very few resources in the community that would aid in making the threat of organized resistance a credible one. Declining membership in community organization, a lack of younger
individuals willing to lead the charge against extraction development, less experience with extraction development, and access in general to only less experienced and specialized legal counsel all come together to add a dreary color to the resistance picture. For even if one has the will to fight, one must also have a weapon to make the threat of combat more than an empty battle cry. These findings ultimately stand in contrast to the speculation that individuals do not resist fracking either due to moral exclusion of one side of the debate (Freudenburg 2005), or because community members are unaware of the negative consequences of fracking (Dokshin 2016).

This is not to say that the people of Scio and the surrounding areas are powerless. Rather, it is a rational assessment of the reality on the ground and a tactical decision to not engage in battle against a company that has in many ways benefitted the community, with virtually no hope of success and a near certainty that relationships in the community would be damaged for years to come. It must also be noted that while a battle analogy has been utilized because of its utility in depicting the differences in strength between the community and the companies, the fracking companies have never expressed themselves in a hostile fashion towards the community as a whole. As many individuals proclaimed, the company that operates the plant just outside of the village’s limits have contributed in both time and monetary resources to the community, rebuilding roads and donating thousands of dollars, such as in the form of playground equipment and fireworks for the annual Fall Festival. This perception of a benevolent relationship with an extraction industry is a key component of resource extraction “addiction,” although whether Scio is addicted to resource extraction is a subject for future analysis (Freudenburg 1992). However, even when later pressed about the relationship between
the village and the plant, company representatives stated in a town hall style meeting with community members:

We see [the plant] as part of the community. That’s why a couple of days ago, we committed to be fully engaged in fixing this water treatment facility issue. What’s needed? Let us know. We have funding…we can make the funding available. We’ve got different resources, state agencies that are committed to help. Let’s sit down at a table and talk about this… —Fracking Plant Representative

Finally, even when representatives of the fracking companies early on were attempting to get the best deal for the companies (such as offering contracts that were the most beneficial to the company or offering low initial prices for gas and oil leases), these actions were generally not viewed as having been done with malice on the part of the companies. Instead, several participants expressed thoughts concordant with the statement that:

That’s his job, his boss said...did you get the contract signed. That’s his job, he has to do that. I don't think he has malice. —Sam

But these people don't understand that the corporation had to do that, they are indebted to their share price going up. That is what they are in business for. To turn a profit and to pay back the people that invested in them. That is their living breathing entity. There is nothing wrong with what they do; they are just acting like a corporation. —Joe

Given this, it is important to bear in mind that individuals are less likely to fight against someone perceived as a neighbor rather than as an enemy. Of course, being a neighbor does not entail living in perfect harmony with those around you, but it does entail at least partially considering the well-being of those who live in proximity to you. In this light, it is not surprising that many community members have not taken an adversarial stance towards an entity that has professed through word and often time through deed that they would like to be “good neighbors.” And if one is your neighbor, and you do not typically fight intense battles with your neighbor, one will not begin to take stock about the logistics of fighting a battle. And if these logistics of fighting against a larger power are not considered, there will be little in-
fighting and division (i.e., moral exclusion) regarding whether the logistics for a battle should be acted upon.
LIMITATIONS AND FUTURE DIRECTIONS

Despite the promising nature of this study’s findings, some caution must be taken when interpreting the data. Primarily, these findings are unable to be generalized to other rural communities involved with natural resource extraction (NRE) for two primary reasons. First, while the proximity of the large fracking plant to the research setting ensured that the topic of NRE was salient to community members, the presence of such a large facility is not a common experience in most communities involved with NRE. Typically, NRE involvement in a community is more diffuse, and in instances of oil and/or natural gas extraction, is primarily focused upon the leasing of land from individual families in the countryside (Stedman et al. 2004). Accordingly, community perceptions of the ability to resist fracking may differ significantly in areas where the lines between “community” and “fracking” are not so stark.

Second, the small size population of the study setting may have resulted in few outside organizations being aware of the events going on in Scio. As previous studies (Buday 2017) have found that outside involvement is often essential to successful resistance to NRE, this adds an additional layer to fully answering the question of why a resistance movement may fail to coalesce in the presence of negative social consequences. Given that few individuals in Scio expressed a desire for outside groups to come in and help resist fracking, this community may be unique in its distance from larger state and national resistance movements.

Another limitation of this study is the time in which the study was conducted. As of the final interview conducted for this study, the majority of the major construction for the fracking
plant had been completed for several years, although expansions to the plant and pipeline construction were still ongoing. Furthermore, at the time of the study, resource extraction as well as development in fracking infrastructure had stalled (though not completely halted) due to plummeting prices for oil and natural gas. Accordingly, as conveyed by many community members, oil and gas was not the hot-button topic that it has been a few years ago when construction was at its height. While this temporal distance from the intensive development stage did allow participants to reflect on their initial expectations for NRE development and whether these expectations were or were not met, such a distance prevented me from collecting fresh data on how individuals felt about the idea of resistance during the development phase in which resistance would have arguably the greatest impact on the industry in the area. As the price of oil and natural gas is predicted to once again rise, future studies should endeavor to gather data from communities while extraction development is in its beginning as well as years down the line.

Fortunately, the insights generated from this study illuminate future paths of exploration into how communities perceive fracking and why they interact with the fracking companies and each other as they do. Future studies of perceptions of fracking, especially in economically depressed rural communities, could significantly expand upon the findings of this study by examining how nationalism influences perceptions of fracking (and consequently the formation of a resistance movement to fracking). Although not a major theme of this paper, several individuals discussed the national importance of energy independence when talking about the benefits of fracking, even though they were not specifically prompted to think about the larger implications of local fracking development. This initial finding appears to indicate that nationalism is a salient topic when discussing fracking, and as such future research should
specifically investigate to what degree this desire for energy independence shapes individuals overall perceptions of fracking and fracking development.

A second area ripe for future investigation that was uncovered through this study was the division between the countryside and municipalities in regards to supporting or opposing fracking. Currently, initial research (Malin and DeMaster 2015) has found that those in the countryside perceive both the positive and negative implications of fracking development. Other studies (Dokshin 2016; Malin and DeMaster 2015) have found that large-landowners have some power in debates regarding proposed fracking bans or restrictions (in areas where a resistance movement has sufficiently coalesced to pose those measures). However, there remains a paucity of literature investigating how individuals from the countryside view fracking resistance compared to those that live in municipalities. It is likely that this area of research has been largely overlooked due to the fact that, in areas with a large population center, that population center serves as the focal point for the research question, while in areas with small population centers, the focal question centers specifically on those that live in the countryside. Future research that centers on how individuals in small rural municipalities interact with individuals living in the nearby countryside would be able to shed light on the interpersonal dynamics that emerge in regards to NRE development in an area where the mobilization of anti-fracking resources is difficult (due to weak connections to high-resource high-population areas). In so doing, such future research would be able to work at dispelling the notion that all individuals who live outside of major population centers are roughly homogenous in their perceptions and actions.
CONCLUSION

Why does resistance to the development of NRE coalesce into a resistance movement in some communities and not others? In addressing this question, it is not enough to say that a resistance movement does not form because the benefits from fracking convince community members that it is ultimately better to work with the extraction companies. While this is the case for many individuals (such as poor farmers getting a much needed economic boost from royalty and leasing money) and communities (in the form of infrastructure projects such as road and water line improvements), the fact that not all individuals benefit equally from NRE development should result in at least a portion of the population attempting to resist extraction development. This study finds that, in addition to the benefits accrued from extraction development, resistance movements may fail to form due to community members’ perceptions of the strength of the extraction companies and the social disorganization of community organizations and social structures.

Ultimately, even when some individuals perceive that extraction development is not personally beneficial and potentially harmful to the larger community, an organized resistance to the extraction companies will be less likely to form when community members perceive that such a resistance would, in the end, be a futile gesture. This sense of futility arises from community members (often quite accurate) perceptions of the knowledge that fracking companies have regarding how to make extraction development proceed smoothly, as well as the material resources to utilize this knowledge to its greatest effect. This includes hiring expert legal
counsel to mobilize in court the company’s decades of experience in the industry to ensure extraction development is not impeded. These material assets are also the means by which the fracking companies are able to utilize their knowledge of local circumstances to provide aid in ways to diminish negative perceptions of the industry.

The rational assessment that obstruction of extraction development in Scio (and other rural communities) is not wise is made complete when community members compare the power of their community to that demonstrated by the fracking companies. With only a few individuals having an in-depth knowledge of fracking development practices, few resources to commit to a resistance movement, and no apparent leaders to head such a movement, it is not surprising that formal resistance did not crystalize. However, in conclusion, it is important to restate firmly that this decision was not based on ignorance of the negative consequences of fracking. Rather, this is a case where rational adults assessed their local social situation and came to the conclusion that “this is the way that it has to be.”
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