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Source of Controversy: Newspaper Reporters' Sourcing Practices in Coverage of Natural Gas Drilling

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SOURCE OF CONTROVERSY: NEWSPAPER REPORTERS' SOURCING

PRACTICES IN COVERAGE OF NATURAL GAS DRILLING

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There is often great interest in the way journalists convey information about divisive issues. This phenomenological study is any attempt to understand why and how articles on a controversial topic were constructed, specifically in terms of what sources were used. This investigation into the pre-publication activity of journalists is situated within agenda building theory and is intended to produce a better understanding of the lived experience of sourcing practices of journalists, specifically Pennsylvania newspaper reporters who cover the Marcellus shale. In particular, this study continues to expand research into the sourcing decision making process of journalists, which play a significant role in determining the shape of the finished article as part of the media agenda. Understanding the process by which sources are included in a story and why they are included allows insight into the final shape of the article, as sources to shape the tenor and tone of the article. The study investigated the following areas of inquiry. 1) What is the process by which Pennsylvania newspaper journalists say they make sourcing decisions when covering the Marcellus shale industry? 2) What internal factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry? 3) What external factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry? Interviews with seven journalists revealed a

number of commonalities – despite their differing backgrounds, education, geographic location, and size of outlet – that shed light on how and why sources are selected for Marcellus shale stories. When considering what influenced their sourcing, respondents experiences were organized into five themes: the impact of unique characteristics of the Marcellus shale beat, considerations borne out of perceptions of the three categories of sources, and expectations for source credibility, as well as external forces and respondents' internal worldview and biases. Despite commitment to producing objective and balanced stories, respondents' experience in sourcing the Marcellus shale was an amalgamation of forces and influences.

DEDICATION

To my wife, Heidi, who has long made me want to be a man worthy of her love,

and to my son, Adam, for whom we so fiercely prayed. You are the universe.

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I must also thank my respondents, though I must do so without names for obvious reasons. Without their willingness and expertise, this study would literally not have been possible. But beyond that, their kindness and openness was beyond my wildest hopes.

What you have in front of you is a dissertation, yes, but it is also a tangible artifact of five and a half years of my life. A whole lot of life happened during the writing of this document – so much so that the one at the beginning bears scant resemblance to the one at the end. There is no better example of this than my son, Adam, who celebrated his second birthday two days before I defended this dissertation. When I began this journey I was a man holding onto flickering hope that I could one day be a father; I finish it as the father to the most incredible and clever son. So I want to thank him lastly. It is to him that I dedicate this dissertation.

And the rest of my life.

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CHAPTER I

INTRODUCTION

Since its birth, the story of America has been told daily through the newspaper. Much has changed since those halcyon days when newspapers were the sole medium for news, but one constant remains: the central task of all journalists is determining whom to interview in order to report on a topic or story. The collection of decisions that lead to whom the journalist decides to talk to and whom he or she decides to exclude — known as the journalist's sourcing practices — is often studied. Journalists' sourcing practices can be influenced by a variety of factors, including their personal views and biases, the demands of editors and newsroom policies, and expectations of their audience and communities. By analyzing how news stories are constructed, researchers have attempted to learn a great deal about both the news stories and journalists, as well as to gain insight into the eventual impact the stories will have on those who read them. The present study seeks to gain further insight into how journalists make decisions about which sources to use when covering a controversial environmental story, in particular Pennsylvania's nascent natural gas industry. The natural gas industry has become synonymous with the vein of gas that it taps: the Marcellus shale. While natural gas production has long been present in other parts of the country, the industry came to Pennsylvania relatively suddenly, thus creating a scenario where coverage techniques and strategies used by local press were also forced to develop at a frenetic pace. Because journalists covering the industry lack experiential heuristics to guide their sourcing practices, this presented a unique situation for studying how sourcing decisions are made during the construction of a media agenda.

With the focus on the process by which news is made, the present study is situated within the theory of agenda building pioneered by Lang and Lang (1983), which seeks to understand how certain topics become part of the media agenda out of the myriad of options for coverage (Weaver & Elliot, 1984). Agenda building research attempts to understand the process by which journalists make determinations over what is newsworthy enough to be passed on to readers or viewers and what is left, so to speak, on the cutting room floor. This process is complex and multifaceted, but sourcing practices play a central role (Dearing and Rogers, 1996). The decisions of whom to interview and who to exclude have clear impact on the eventual article's tenor and tone; for example, Zoch and Molleda (2006) found the source that initiates the story idea as being worth inclusion in the news agenda often had a strong impact on whether the article was positive or negative.

It is important to note that the relevance of agenda building is founded in the concepts set forth by agenda setting theory (Dearing & Rogers, 1996; Gandy, 1982), as creation of a media agenda necessitates that the press "frame" topics in a particular fashion and agenda setting theory explains the influence of those frames on the public and political agendas (McCombs and Shaw, 1972). Carragee and Roefs (2004) posit that "frames produce meanings and organize experience to broader structural and ideological processes involving journalists, their news organization and their sources" (p. 216). If one assumes these frames are important because of agenda setting theory, then agenda-building studies place importance in investigating the process by which these frames are created. In fact, agenda-building research can be seen as a corrective measure, as many agenda setting studies do little to actually investigate how news content is constructed

(Knight, 2010), thus leaving an important variable without clear definition. For example, studies have used content analysis to investigate the type and frequency of source use for environmental stories (Lacy & Couslon, 2000) and enterprise stories (Hansen, 1991), but have not attempted to determine *why* those sources were used.

This leads to an important distinction between these similarly named theories: while agenda setting theory seeks to understand what impact the stories have *after* they've been published, agenda-building studies seeks to investigate the pre-publication activity of journalists. Within the schema of agenda setting theory, this makes agenda building research valuable; if one agrees that the eventual frame of the media agenda can have an influence on the public and political agendas *after* publication, then it holds that investigating how that frame and agenda are constructed *before* publication will produce valuable insight. In particular, this study is focused on the pre-publication process of determining sourcing practices — especially the factors that influence those determinations — for stories on controversial topics. Sourcing practices plays a central role in this process, as sources exercise power by driving journalists to report a particular — often self-serving — perspective of the story (Lacy & Coulson, 2000). The present study aimed to continue to expand research into the decision-making process of journalists. While this study focused on decisions regarding sourcing practices, other researchers have investigated more general news decisions, including determinations over whether or not to cover a topic (a topic's "newsworthiness"). While most share the expectation that the news media should seek to inform the populace, several attempts have been made to develop models for the process of making news decisions (Donsbach, 1987; Kepplinger, 1989; Schudson, 1991; Shoemaker & Reese, 1991; Weischenberg,

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1992; Donsbach & Gattwinkel, 1998).

While there is no consensus as to a model for reaching news decisions, Donsbach (2004) argues there is some agreement on four main factors that impact if a story is "newsworthy" (that is, is it published or broadcast) and how it is presented to the audience: news factors, institutional objectives, the "manipulative power" of public relations information subsidies, and the "subjective beliefs of journalists" (p. 134). While researchers consider these factors for whether or not journalists deem a story to be newsworthy and how it is framed, they can also shed light on similar decisions in sourcing. These efforts are informative for the present study, as sourcing decisions are impacted by the fundamental decision of whether a story is newsworthy or not. In particular, the four main factors influencing news decisions cited by Donsbach suggest areas where sourcing may also be affected and offer initial frameworks for investigating sourcing of Marcellus shale stories and will be used as a framework for the present study. Thus, they warrant further exploration.

The first of Donsbach's main factors for news decision making is actually a set of sub-factors, called news factors, that are the characteristics that make story topic "newsworthy" and were first introduced by Lippmann (1922). According to Staab (1990), a rough agreement has been reached to the six basic factors: directness, proximity, prominence, unexpectedness, conflict, and significance. The simplistic causal model reflected by the news factors is one that is "a mere reflex to certain aspects of reality" (Staab, p. 427) and involves news decisions being made on the agreement as to the importance of the aforementioned factors and a topic's applicability to those factors. However, despite norms of objectivity, news factors alone do not impact news decisions.

In fact, Donsbach's second factor of news decision making reflects the axiom that objectivity is impossible to obtain in real life, as it reflects the ways in which the journalist's decisions are influenced by their workplace and coworkers. These influences, gathered under the umbrella of institutional objectives, include expectations created by the journalist's employer or editors for form and content. This can include giving more attention to topics that will increase audience attention — and subsequently revenue. This is generally seen as a negative influence, as it leads to focus on "lesser" stories like the "tabloidization" of newspapers where there is pressure on reporters to focus on topics and storytelling trends that will drive greater readership (Kalb, 1998). These pressures can also come from outside the editorial staff in the newsroom, as with a publisher who seeks to pursue an agenda (Donsbach, 2004). For the present study, institutional objectives as determinations for newsworthiness create easy parallels with similar considerations for sourcing decisions.

Even more directly to the present study, Donsbach argues that public relations practitioners serving as sources can impact news decisions. When it comes to the determinations for newsworthiness of a topic, public relations efforts are able to manipulate the process on behalf of their clients, especially as these efforts are increasingly backed by research into how journalists and news organizations operate (Manheim, 1991, 1997). Because of the applicability of public relations efforts on behalf of the industry to the present study, this news factor will be explored at greater length in the following section. Donsbach's fourth factor is journalists themselves, as a reporter's subjective beliefs or predispositions toward an issue or person can affect news decisions (Starck & Soloski, 1977; Kepplinger et al., 1991), though these influences are not

universal or prescriptive (Patterson & Donsbach, 1996). This acknowledges that despite professional norms of objectivity, journalists are often unable or unwilling to remove their own predispositions from the task of determining the relative importance of a news story. It is expected that this factor will also be present when investigating the sourcing practices of journalists.

In his oft-cited 2004 study, Donsbach leveled criticism that these four factors alone are inadequate. He posits that research has not effectively explained why specific news values are more effectively newsworthy when making news decisions or what specific institutional factors influenced decision-making. The impact of public relations is often studied by examining quantitatively how many stories were initiated by or reference information subsidies, but do not investigate the factors that lead to that result. Similarly, investigations into the subjective beliefs of journalists fail to assess "how predispositions affect the perception of an event and how it is covered" (p. 136). Donsbach sought to solve these deficiencies by exploring news decisions as the result of specific psychological processes; while it does not share the same methodological or epistemological aim, the present study draws on that criticism of the four factors as inadequate to explain the true process. However, the present study seeks to build on Donsbach's attempts to further and more effectively explain these important processes in the construction of the media agenda. In particular, by a more thorough examination grounded in in-depth evaluation of the lived phenomenon of one part of news decisions: sourcing practices.

Journalistic Norms and Sourcing Practices

Exploring news coverage by examination of sources is a worthwhile approach, as sources drive coverage by offering context and comment (Soley, 1992). Sources include "actors whom journalists observe or interview, including...those who are quoted... and those who only supply background information or story suggestions" (Gans, 1979). Journalistic norms of objectivity and balance lead most reporters to seek both sides of a controversial topic. A number of studies have evaluated media placement of information subsidies, or how often or how regularly journalists utilize public relations sources (Walters & Walters, 1992; de Semir, Ribas, & Revuelta, 1998; Morton, 1988; Morton & Warren, 1992), but few begin to explore the question of why and how. A number of factors can influence how and why journalists utilize sources. Specialized beats, like environmental or science coverage, have different expectations of sources compared to other more routine news coverage.

In his oft-cited study, Conrad (1999) used structured, open-ended interviews to determine how and why science journalists use expert sources and found they regularly relied on experts for background and clarifications of scientific findings. Science sources, a highly specialized subset of source like those often utilized for stories on the shale industry, were considered valuable when they could put difficult to understand information into context or offer perspective. However, Conrad found that not all of such sources are equal. Sources with "a recognizable name, title, or affiliation" were most prized of all (p. 291), and on other occasions reporters valued sources if they could fill a particular aspect of a story's narrative. For this, journalists seek out "predictable sources" with well-known views who can be expected to offer a particular point of view (Conrad,

1999). One science journalist, speaking about such sources, offered explanation for why reporters would rely on these sources even when they might not be the ideal option:

> There are some people who you just know where they stand on an issue. And if you're in a hurry, you need someone who can comment on one side or the other, you can count on them to say that for you (p. 292).

But, in general, the choice of whom to use as a source is rooted in practical and logistical concerns present in a deadline-driven field. In particular, these journalists sought out sources who are "knowledgeable, are connected to prestigious institutions, are direct and articulate and don't over qualify statements, and they return phone calls" (p. 299). In fact, for some journalists, accessibility and the speed at which calls are returned is the most important quality that determines if a source is used (Conrad, 1999). For these science journalists working in a very specialized type of news reporting, sourcing practices "simply means using sources who make themselves available to reporters" (p. 290). Other studies have also found access to be an important factor in someone being used as a source, as spokespeople can play a key role when journalists are dealing with large or bureaucratic organizations (Altheide & Snow, 1991; Ericson, Baranek, & Chan, 1989). It is expected that ability to translate jargon and ease of access will also play a role in sourcing practices for Marcellus shale coverage.

Background on the Marcellus Shale

The arrival of the natural gas industry in the Keystone State was the result of technological innovation. Prior to 2008, few people outside of geology and the natural gas industry had ever heard of the Marcellus shale. The shale — a diagonal swath of rock formation cutting southwest-to-northeast under nearly all of Pennsylvania — was nearly

four million years old, and geologists had long known it had great potential as a source of natural gas. But because this shale was particularly inaccessible through conventional drilling methods, it had simply not been cost effective for the gas industry to attempt to profit from the rich vein of fuel. However, in the last decade, advances in drilling technology led to a technique known in the industry as "hydraulic fracturing," or colloquially as "fracking," that not only made drawing gas from the Marcellus shale possible, but also profitable. Thanks to fracking, Pennsylvania soon became a drilling hotbed; in just five years after serious fracking efforts began in the state, Pennsylvania surpassed the Haynesville shale in Louisiana as the leading producer of natural gas in the country (Oil & Gas Financial Journal, 2013). In addition to thousands of jobs that are estimated to have been created (Crooks & Makan, 2013), the industry and its supporters say the natural gas industry has paid out billions of dollars in land acquisitions, mineral lease rights, taxes, impact fees, and other efforts to support the industry (Marcellus Shale Coalition, 2014). The mineral lease rights, which are paid to property owners on a per-acre basis in most cases, have created millionaires overnight out of farmers and land owners across the state. In many areas — particularly rural regions hard hit by the recession in 2008 and decades of lost manufacturing jobs — the arrival of the natural gas industry was a godsend, bringing with it jobs, economic development, and monthly royalty checks.

However, all extraction of natural resources comes with risks to balance those rewards. In this case, the fracking process uses millions of gallons of chemically treated water for each well drilled, which meant the explosion of drilling in the state led to a simultaneous rise in concerns over potentially significant environmental and health

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concerns of the process. In particular, the possibility of contamination of drinking water and waterways by fracking wastewater caused significant consternation and protestations, as well as concerns raised over disposal of the toxic wastewater, air pollution, safety, and impact on communities and roadways near drilling operations (Waples, 2012). The prolific rise of the industry has also created divisions within communities: for those who do not have mineral land leases or work for the industry, they see neighbors profiting immensely while they deal with a dramatic increase in heavy truck traffic and unsightly drilling rigs in their backyards. For some, the arrival of the gas industry has been a Faustian deal: once bucolic back roads winding through picturesque rural communities are now besieged with heavy truck traffic and 18-wheelers hauling oversized loads.

Marcellus Shale and Sourcing Practices

As a result of this dichotomy of perspectives on risk-versus-reward concerning the growth of the industry, the Marcellus shale and natural gas drilling have become a contentious issue in the state. The issue has pitted environmental concerns against economic interests when it comes to regulation of the growing industry, creating passionate partisans on each side. In fact, the direct monetary impact of the natural gas industry (in terms of jobs or mineral lease rights) and direct environmental impact (in terms of risk of wellwater and property value) has created a rare environmental topic: one that is both statewide and also intensely local and personal. For journalists covering the Marcellus shale, this presents a scenario where their sourcing practices are under greater scrutiny than on a non-contentious issue. Because of the controversy surrounding the industry, the decision of whom to use as a source is both critical and often open to criticism from each side of the debate. This is true of all controversial topics covered by

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the press, environmental or otherwise. The coverage of the Marcellus shale in Pennsylvania is unique, however, because the inchoate nature of both the industry in Pennsylvania and the fracking method that spawned the industry has created a scenario where Pennsylvania journalists have little guidance when it comes to sourcing practices. This is in stark contrast to other controversial environmental stories that have long histories and widely used and accepted sourcing practices for journalists to draw upon.

As mentioned above, a journalist's sourcing practices are the result of a convergence of factors and influences, sometimes contradictory ones. Moreover, a journalist does not always have control over his or her sourcing practices. A journalist, for example, might feel strongly about excluding a particular source only to be overruled by an editor; or, a journalist might want to include a source only to find community sentiment makes doing so impossible. Despite whether the factors are external or internal, this study sought to investigate what factors influence the sourcing practices used for this particular story topic. Several unique factors were believed to contribute to sourcing decision-making when covering the Marcellus shale, making it a topic ripe for investigation: journalists do not necessarily have training or experience in covering this type of industry and as such lack applicable sourcing heuristics; journalists may have personal or familial financial ties to the industry because of its widespread economic impact; and/or journalists find that since the industry is viewed quite differently in different parts of the state, the one-size-fits-all narrative usually used in macro-level environmental coverage is of little use. As mentioned previously, the newness of the industry in Pennsylvania means the state's newspapers do not have a track record of covering this type of industry. Pennsylvania, of course, is no stranger to heavy industries,

with both steel and coal production having long been a part of the Keystone State.

However, the potential environmental impact on waterways and the wide geographic spread of hundreds of individual gas wells rather than industrial clusters means the industries really share little beyond superficial similarities. Since many newsrooms operate on a set of best practices passed down from one beat reporter to another, this lack of previous experience leaves reporters without tried-and-true guidance for covering this new and different industry. Also presenting challenges for shale sourcing practices are internal biases created by the industry's wide reach in the state. Because of the ubiquity of valuable land leases in some areas of the state, this creates a personal financial stake in the environmental story of natural gas extraction that is not common for other environmental stories, like coal extraction. In fact, the prevalence of land leases for mineral rights means many Pennsylvanians have experienced direct financial gain from the industry, sometimes in the form of monthly checks for thousands of dollars. This creates a very real scenario where a journalist may have a family member who is directly benefiting from the industry, possibly creating a bias in its favor.

Finally, when covering other usually macro-level environmental stories, journalists can identify which actors fit the predetermined roles in the conflict-driven news narrative and as such, have clear external or experiential sourcing guidelines. However, coverage of the Marcellus shale industry presents a compelling situation where the roles can be drastically different from county to county and even from town to town. In particular, the reaction to the industry's arrival has been fragmented along political and geographic lines. In some areas of the state, the industry is welcomed and hailed for bringing much needed jobs and development; elsewhere, however, it is viewed with

distrust and reviled for the potential environmental impact. These distinctions are often in line with voting patterns, with heavily Republican areas of the state generally favoring the industry while majority Democratic areas favor environmental protections seen by the industry as detrimental. This results in a state-wide industry that is viewed quite differently in different parts of the state, creating a unique situation for journalists to navigate compared to other environmental stories, such as the BP Gulf oil spill, for example, where there is a clear "good guy/bad guy" dichotomy. This is often because many stories with an environmental angle deal with damage caused by industry. Since the stories focus on the harm caused by industry, it creates a simplistic narrative of "bad guy" (industry) being opposed by "good guy" (either regulators, environmentalist groups, or those affected by the damage).

This common theme of environmental stories — industry causing damage — means journalists have an easy time in differentiating who is considered trustworthy when making sourcing determinations (Dumanoski, 1994; Detjen, Fico, Li, & Kim, 2000; Lacey and Coulson, 2001). When covering the aforementioned BP Gulf oil spill, for example, journalists would likely be skeptical of sources from BP, as they would have an obviously vested interest in spinning the story in a positive light for the oil giant. However, there is no such consensus narrative with Marcellus shale — even within a journalist's own readership area or newsroom. This is because the Marcellus shale industry, while statewide, is also intensely impacted by local factors in ways that many other environmental stories are not. With the shale, the view on who is the "good guy" and the "bad guy" might be dramatically different from one area to another. In some parts of the state, for example, the conventional framework holds: the industry is seen as the

"bad guy" causing (or likely to cause) damage to the environment and stories reflect an attempt to mitigate that damage or stop it from occurring. But in other parts of the state, the industry is seen as an economic engine and regulations and/or environmentalists are cast as the "bad guy" who is attempting to derail the economic progress the industry brings. Sometimes everyone is the "bad guy" — depending on whom you ask. In some parts of the state, a contentiously located gas well might mean neighbors are pitted against each other and a journalist must navigate a readership area where there is no clear "bad guy" narrative but rather a murky stew of local politics, personal grievances, and geographically linked grudges. This stands in stark contrast to many other environmental topics; one would have been hard pressed to find, for example, fishermen along the Gulf Coast who were on the side of BP after the oil spill, meaning a journalist covering the story could be fairly certain their narrative was true up and down the coast.

This lack of an easy one-size-fits-most narrative combined with the newness of the industry means few reporters have relevant experiential heuristics for sourcing. The emergent nature of these sourcing decisions makes the coverage of the Marcellus shale industry in Pennsylvania a phenomenon ripe for exploration of how journalists actively determine their sourcing practices. All told, these factors combine to create a compelling opportunity for this study to explore the phenomenon of sourcing practices. By delving deeper into the process by which journalists develop sourcing practices, this study sought to provide better understanding of what factors influence the decisions that will ultimately determine the shape of the finished article.

Need for the Study

"The facts are not simple, and not at all obvious, but subject to choice and opinion"

(Lippmann, 1922: p. 218).

While far removed from the infinitesimally more complex media landscape of contemporary newsgathering, this aphorism on the malleability of news remains as true today as it did in the early years of the 20th century at the advent of nationwide radio networks, mass-circulation newspapers, and magazines. Since this particular aspect of sourcing practices has not been investigated, the study will fill a gap in the literature. This study provides a deep understanding of the phenomenon of sourcing controversial stories, particularly those environmental news stories covering an inchoate industry. The study fits into a larger theoretical lens in that sourcing practices are an important part of the construction of the news agenda as described in the agenda building theory. Agenda-building theory is situated within agenda-setting theory, which speaks to the importance of how and why journalists make these decisions based on the eventual impact on the stories' ability to frame the discussion of the topic. In particular, this study investigates sourcing practices as a portion of the agenda building process that results in a media agenda.

The study drew conclusions and analysis from in-depth interviews with working journalists about how and why they select the sources they interview to provide a deep perspective on sourcing practices based on the firsthand experiences of journalists covering a controversial issue. Moreover, coverage of Marcellus shale does not fit the traditionally accepted paradigm prevalent in existing research on sourcing practices. In these cases, research on sourcing practices finds that journalists are distrustful of

information subsidies from industry and rate governmental sources as more trustworthy (Detjen, Fico, Li, & Kim, 2000). Since many environmental stories focus on examples of the negative impact of industry like pollution (Ader, 1995), this sets up a prevalent, if overly reductive, environmental narrative of the "good guy" regulators versus the "bad guy" industry. When it comes to coverage of the Marcellus shale, this common narrative will likely hold true in urban areas of the state; however, it is expected that because of the direct financial benefit rural or less economically developed areas of the state receive from gas drilling that there would be potential for the "good guy/bad guy" roles to be reversed, as the industry is seen as more attractive to journalists than in other environmental beats. As such, this study explores how and why sourcing practices for journalists covering the Marcellus shale are similar to and differ with other controversial environmental issues.

Statement of the Problem

Media coverage can be a powerful tool to influence the public by the sheer act of presenting some stories over others (McCombs & Shaw, 1972). This media agenda is especially important when the topic being covered involves an industry supporters say is worth billions of dollars and a drilling practice that critics argue can destroy the drinking water for thousands or even millions of people. The natural gas industry tapping the Marcellus shale is a lightening rod of controversy, making its media coverage particularly worthwhile to investigate. The present study examines the process by which media construct that coverage. This is an important area of inquiry as that construction is accomplished at the most minute level by an individual journalist's sourcing practices and those sourcing decisions will impact the tenor, tone, and frame of the articles about the

natural gas industry. This line of inquiry also fits into the larger societal concern over media bias. At its most practical, a journalist's sourcing practices are the most concrete activity when it comes to journalistic integrity, or lack thereof. If a journalist is biased (as is often asserted by media critics), he or she can select sources that will eventually lead to a story framed in a way that the journalist wishes. However, if the journalist is acting objectively, he or she will interview sources that will present a fair and accurate depiction of the reality of the story. In other words, the process of selecting the sources for the story being written has a major impact on how the story presents the topic at hand. As such, this is an important issue to examine in order to 1) better understand how journalists cover controversial issues by getting firsthand accounts of the process in the field; 2) better prepare journalism educators to train journalists who will face such issues; and to 3) better understand the ways in which the media construct an agenda, particularly in terms of how and why bias may be interjected into the process.

Purpose of the Study

The purpose of this phenomenological study is to describe the sourcing practices of newspaper journalists covering a controversial environmental issue, namely Marcellus shale drilling in Pennsylvania. By investigating journalists' sourcing practices and why they engage in them, a better picture was developed for what influences shape how the media agenda is built, allowing this study to advance agenda building theory and literature particularly with regard to coverage of controversial issues.

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Significance of the Study

As set forth in agenda-building theory, a journalist's sourcing practices have a major impact on the tone, scale, and scope of the finished article (Dearing and Rogers, 1996). The present study seeks to investigate the phenomenon of how journalists determine which sources to interview and which to exclude when constructing a story. This is a worthwhile topic of inquiry, as stories eventually become part of the media agenda (Lang & Lang, 1983), which in turn then influence the public agenda (McCombs and Shaw, 1972). In this particular instance, the study investigates specifically those stories dealing with the Marcellus shale, a geological formation of rock containing natural gas that recently became available for extraction through of advances in drilling technology. The typical contention surrounding extraction of natural resources was further exacerbated in Pennsylvania by the sudden onset of the industry in a state that had seen little of this type of drilling.

The rapid spread of the industry has highlighted the drilling practice, known colloquially as "fracking," and prompted a debate over its safety. Critics warn of the substantive environmental impact of retrieving the gas, most notably the potential danger to drinking water and watersheds. Proponents of the industry, meanwhile, believe economic benefits in the form of jobs, business development, and personal gain from land leases outweigh possible environmental impact. The merit of either side's claims is irrelevant for the present study. Rather, because the industry was birthed by a technological advancement and has grown rapidly in an area with little to no prior gas drilling, this issue has rushed to the forefront of the public and media agenda almost overnight. There are substantial stakes to these decisions, since the media coverage will

impact the public's perception and, as such, it was important to examine how that coverage was constructed by investigating the sourcing practices of the journalists covering the issue.

There is also further relevance to the field and the greater body of literature in expanding the concept of how the media agenda is created. Substantial effort has been made to investigate the importance of the impact of the media agenda on the public and policy agendas, so it holds that expanding the literature about how that media agenda is created will expand the understanding of the overall impact of news media coverage. The present study is also significant for the field, as it provides greater clarity for both journalists and public relations practitioners as to the process by which a story is reported. This may allow those interested in journalism training or education a better understanding of the factors that may influence future stories and provide a framework to develop ways to ameliorate unwanted influences. This could provide current and future journalists with a greater appreciation of how source selections impact the reporting of a story as well as ways in which the process can introduce bias into their reportage. For public relations, meanwhile, a better understanding of the sourcing practice process creates opportunity to utilize this information to better place clients' agendas into the developing media agenda.

Structure of the Dissertation

The study encompasses five chapters. Following this introductory chapter, Chapter 2 will overview the literature that has informed the study and present research questions to be answered by the remaining chapters in the study. The methods used in the study are discussed in Chapter 3 and the results are presented in Chapter 4. In Chapter

5, findings are discussed, which is then followed by conclusions and suggestions for further research.

The next chapter reviews literature involving agenda-building, followed by an examination of sourcing and story generation as parts of the media agenda. Particular factors in coverage of environmental stories are then discussed. Finally, the chapter provides an explanation of research questions and expected influences and factors on journalists sourcing practices.

CHAPTER II

A REVIEW OF LITERATURE

The present study explores the phenomenon of sourcing practices of Pennsylvania newspaper journalists covering the Marcellus shale industry. The term "sourcing practice" describes the news media's "choice, representation and deployment of sources" (Atton & Wickenden, 2005). The present study focuses on the process by which a journalist determines those sourcing practices; that is, how he or she decides whom to interview, and whom not to interview, for a particular story idea. This qualitative phenomenological study drew on in-depth interviews with working journalists to discover the essence of this experience in light of the importance of sourcing practices as described by agenda building theory. Agenda building studies investigate the pre-publication activity of journalists that contributes to the eventual creation of a media agenda. By delving deeper into the process by which journalists develop sourcing practices, this study seeks to provide better understanding of what factors influence the decisions that will ultimately determine the shape of the finished article and subsequently the media agenda.

Agenda Building

Since McCombs and Shaw's pioneering study of the 1968 presidential election, much agenda-setting research has attempted to analyze the impact of the media agenda on the public (McCombs & Shaw, 1972; Gandy, 1982; Dearing & Rogers, 1996). However, beginning with Weaver and Elliot (1984) and Berokwitz (1987), agenda-setting researchers have also investigated how the media agenda develops, in particular how the media agenda is "filtering and shaping reality rather than simply reflecting it."

Weaver and Elliot argue this endeavor is "just as crucial to the idea of media agenda-setting as the assumption that media emphasis is correlated with public salience" (1984, p. 87). This vein of research is dubbed "agenda building" and is focused on the origin of the media agenda that was first discussed by Lang and Lang (1983) and Cobb and Elder (1971). In fact, McCombs (2013) has argued that there is no need to differentiate between agenda-building and agenda-setting studies. However, agenda building studies are distinct in that they do not attempt to analyze the media-audience relationship. Rather, agenda-building research focuses on "how the press interacts with other institutions in society to create issues of public concern." This includes investigating how issues in the media agenda originate and how certain topics become part of the media agenda out of the myriad options for coverage (Weaver & Elliot, 1984, p. 88).

Agenda building research considers the press to be active agents in the creation of the media agenda, emphasizing or diminishing some subjects over others. This line of research attempts to understand the process by which journalists make determinations over what is newsworthy enough to be passed on to audiences. It is worth noting that like other agenda building studies, the present study does not attempt to explore the media agenda's eventual impact on public or policy agendas; rather, these studies are rooted in an acknowledgment of the media agenda's importance. If the media agenda can influence the public and political agendas (Shuchman, 2002), then it is critical to understand how that agenda is crafted. In this way, agenda building theory is considered to be an extension of agenda setting theory — i.e. agenda setting works within the text; agenda building studies the practices that construct the text. Agenda building research can be seen as a corrective measure for many agenda setting studies that do little to actually

investigate how news content is constructed (Knight, 2010), thus leaving an important variable without clear definition. In a similar light, Berkowitz (1987) suggests examining the relationship between journalists and news sources. This process of news gathering cannot be examined by content analysis of stories, which only studies the outcome of that relationship and process. Rather, one must investigate those phenomena directly. This is true for environmental issues like Marcellus shale drilling, and since agenda setting research suggests news coverage can have a significant impact on public perception of the industrial actors, this is an important line of inquiry that is focused on the relationship between journalists, sources, and the process by which news is reported. Thus, while it does not study the outcome, investigating the way the media agenda on Marcellus shale is created offers insight into the media's eventual impact on the topic.

To examine the creation of the media agenda is to explore the role media and other actors play in the process by which journalists identify, select, and develop story ideas, as well as which sources of information they call upon to complete those stories (Len-Rios et al, 2009). The process by which those sources of information are chosen, a journalist's "sourcing practices," is the focus of the present study and has validity as a measure of agenda-building. In Weaver and Elliot's initial study (1984), wherein they compared the agenda items of a city council with the topics covered by the newspaper covering the meeting, they found that a prominent source had major influence on the media agenda. Many subsequent studies investigate the use of sources. Studies have used content analysis to investigate the type and frequency of sources used in environmental stories (Lacy & Couslon, 2000) and enterprise stories (Hansen, 1991). These studies examine the media agenda after it has been constructed but make no attempts to

determine *why* those sources were used. This question of *why* is an important one,

particularly for agenda building research, because whom a journalist includes in a story

or how that source frames a narrative have been shown to have an impact on the way the

topic is portrayed in the media agenda. For example, Zoch and Molleda (2006) found that

the source who initiates a story idea as being worth inclusion in the news agenda often

had a strong impact on whether the article was positive or negative. This impact is often a

result of the way a topic is framed by the media, who provide readers with a means of

interpreting the issue.

Carragee and Roefs (2004) posit that "frames produce meanings and organize

experience to broader structural and ideological processes involving journalists, their

news organization and their sources" (p. 216). Gitlin (1980) defined media frames as

"largely unspoken and unacknowledged, [yet] organize the world both for journalists who

report it and, in some important degree, for us who rely on their reports" (p. 7). Gamson

and Modigliani (1989) argue that frames are the "central organizing idea or story line that

provides meaning to an unfolding strip of events" and address how a story is presented

and thus how audiences comprehend news. These frames are created as part of the

construction of the media agenda. This process is complex and multifaceted, but sourcing

practices play a central role (Dearing and Rogers, 1996). The present study investigates

this process of creating frames in the media agenda through the use of sources and builds

off previous research that has found sources play a significant role in the agenda-building

process. Some have found sources to be manipulative and controlling in the agenda-

building process, for example, by exploiting deadline-driven nature of news (Sigal, 1974)

or tailoring themselves to fit journalists' needs (Gans, 1979). The impact of sources on

the creation of the media agenda is discussed at greater length in the following section.

Sources' Influence on the Media Agenda

The literature suggests sources are a central factor in the construction of the media agenda. Berkowitz (1984) argues that the sources whom journalists cite in stories "exert a stronger influence over the news agenda than journalists." Sources play a central role in the creation of a media agenda in two primary ways: 1) by driving journalists to report a particular — often self-serving — perspective (frame) of the story and 2) by initiating story topics as being newsworthy and worthy of coverage (inclusion in the media agenda). For the present study, sources with a clear goal of influencing the media agenda on the Marcellus shale were expected to be a significant part of sourcing practice decision making process for Pennsylvania journalists covering the industry. The impact of sources on the creation of the media agenda acknowledges that many sources have vested interests in the way a story is portrayed in the press. For example, in an effort to accomplish their goal of creating and maintaining a positive image for their clients, public relations practitioners often attempt to influence the way their clients are portrayed in the media agenda (Turk, 1985; Curtain, 1999), and they are often effective at doing so. One study found journalists estimated that 44 percent of the media agenda is influenced by public relations practitioners (Sallot & Johnson, 2006b) and another suggested that positive framing in materials sent by public relations practitioners to journalists have positive correlations with press coverage (Kiousis, Popescu, & Mitrook, 2007). In fact, in a review of the literature, Grunig (2007) found that by serving as sources for journalists, public relations practitioners are often able to "frame" the news. Other studies have found that governmental public relations efforts are often able to frame news in ways favorable

to the administration or agency (Pan & Kosicki, 2001). The eventual frame the story takes on is important because Walejko & Ksiazek (2008) found that when published, a frame is given legitimacy and credibility by being part of a news story on the topic. Thus, the agent initiating the story has an enhanced ability to set the media agenda for that topic, at least for the particular story in question.

Conflicting Goals

This tug-of-war over the media agenda is an acknowledgment of the unspoken tension between the goals of a reporter and the goals of a source: while the journalist has serving the public interest or holding those at power accountable as at least an ostensible goal (Berkowitz, 1992), sources are under no such expectation or standard. Public relations practitioners, for instance, have a clear goal when used as sources: to produce a positive frame for their client or employer (Curtin,1999; Lacy & Coulson, 2000). In fact, since public relations practitioners often serve corporate profit motives or advocacy groups' agendas, their goals have been suggested to be diametrically opposed to journalists (Curtin, 1999). Still, despite this, studies have established that journalists and public relations practitioners have mutually reinforcing conflict-based roles (Shin & Cameron, 2003; Shin & Cameron, 2005) and that this relationship is part of a larger "shared culture" (Berkowitz, 1992).

Information Subsidies

One of the most common ways public relations efforts influence the media agenda is through the use of "information subsidies" — free news information packages for journalists, constructed by those seeking publicity, most commonly in the form of press releases (Berkowitz & Adams, 1990; Gandy, 1982). When successful, these information

subsides serve to bring story ideas into the media agenda, oftentimes with the preferred

frame of the group that produced the information subsidy. Gandy's oft-cited study (1982)

stressed the importance of information subsidies in the agenda building process.

Journalists will often utilize information subsidies as part of a story or simply publish

them outright, giving significant power to public relations sources in crafting the media

agenda. Since the present study will investigate journalists interviewing both

governmental and industry actors, it is expected that the use of information subsidies is a

likely factor to be considered in sourcing practices. This is because while public relations

efforts are often associated with corporate or industry actors, governmental agencies also

heavily utilize public relations tools to both influence news coverage and generate news

stories (Barstow & Stein, 2005; Farsetta & Price, 2006).

Since information subsidies have been suggested to play an important role in the

agenda building process, the routine use of information subsidies, particularly when

published verbatim, essentially allows these non-media sources to set the media agenda.

The issue of verbatim information subsidies being disseminated as news content is

epitomized by VNRs, or video news releases. VNRs are public relations tools designed to

look like news stories and intended to be run as such by news media. However, they are

frequently broadcast without identifiers indicating they were produced wholly by an

outside group, organization, or agency, leading to the impression that they were the

station's original reporting (Farsetta & Price, 2006). While this issue deals with television

news rather than newspapers, it evinces attempts by outside groups to influence the media

agenda directly. Other, more deceitful attempts to influence the media agenda have also

been undertaken, including the Bush administration paying syndicated columnists

thousands of dollars to promote the administration's agenda (Kurtz, 2005) and creating a VNR that appeared to be a news story — complete with suggested lead-in for the anchor to read — that promoted the administration's Medicare plan (Farsetta & Price, 2006).

Story Generation

Another way sources influence the creation of the media agenda is through control of story idea generation. Zoch and Molleda (2006) argue that in the agenda building process, the generation of the story idea is a crucial first step and whomever initiates that step has significant power over how the story is eventually framed. Curtin (1999) argues that story generation is not the only opportunity for sources to influence the agenda building process, but they have fewer chances in its later stages. This means that how the story idea is generated substantially affects the eventual media agenda, making it an important variable to be investigated as part of the present study. These attempts to influence the agenda building process is not to suggest sources have unchecked power over the creation of the media agenda, however. In a review of literature on journalist-public relations practitioner relationships and their impact, Grunig (2007) found journalists report that they tend to "balance" the frames presented by public relations efforts in order to maintain a neutral frame. However, Gruning's findings are based on journalists' self-reporting their adherence to objectivity and thus the balancing effect found in the study may differ in practice.

It was expected that public relations efforts on behalf of the natural gas industry will often seek to initiate positive stories about the industry. This is supported by literature suggesting public relations practitioners are often eager to initiate story ideas in order to provide a story with a positive framing for their client (Len-Rios et al, 2009).

Because they often seek to generate stories, government officials are also actively attempting to influence the media agenda. In fact, governmental agencies often rely on the same public relations efforts as corporations, but also have the additional tools of off-the-record interviews, background interviews and "leaks" to generate stories (Shoemaker & Reese, 2011). This is not a new development, as attempts by those in government to influence the press have been traced back as far as President Willimam McKinley's efforts to garner favorable press coverage (Ponder, 1994). While governmental attempts to influence of the media agenda are expected in the coverage of Marcellus shale, they are likely to be fewer in number than corporate efforts due to the sheer size of the natural gas industry compared to the relatively few governmental agencies with input on the topic.

Factors Influencing Journalists' Source Selection

One of the most powerful factors to influence the eventual media agenda is the journalist's selection of sources. Sources can refer to individuals as well as prepackaged information provided by public relations practitioners, which are often referred to as "information subsidies." The literature suggests a key criterion for whether a source is used or not is whether the person is deemed as credible by the journalist (Detjen et al., 2000; Gans, 1979; Goldenberg, 1975). However, there are a number of factors beyond credibility that have been shown to influence a journalist's selection of sources. Some of these factors are internal, including a reporter's own biases and ideology. Litcher and Rothman (1986) found that a reporter's political ideology influences their judgment of a source's credibility. Other studies have found journalists make sourcing decisions that are impacted by confirmation bias by avoiding sources with whom they may disagree

(Stocking & LaMarca, 1990). Other matters of bias have also been shown to impact sourcing, as with journalists who have credibility judgments altered by closeness to source (Soloski, 1989) or closeness of ties between the media outlet and the organization the source represents (Dreier, 1982). Other matters are more practical and tied to the deadline pressures of news gathering, including a source's ability to explain a topic (Fico, 1984) or simply being available at the time the reporter needs a source (Sigal, 1974; Conrad, 1999). Fico (1985) suggested that the pressure to produce stories by deadline influenced sourcing decisions and led to reduced source diversity for time-sensitive stories. In a similar vein, Gans (1979) also suggested that sometimes sources are selected because the journalist did not know whom else to speak with. Finally, a reporter's worldview and background has been argued to impact his or her news gathering process (Shoemaker & Mayfield, 1987). For a number of reasons, the literature has suggested that source distribution is weighted to particular kinds of sources, in particular governmental and public relations sources; thus it was expected that coverage of Marcellus shale would heavily feature governmental and public relations sources.

Governmental Sources

The literature suggests the regular use of government sources is at its core a matter of efficiency in the news gathering process, as finding officials to serve as sources is less time intensive than seeking other sources. In fact, the steady and accessible flow of information from government sources is quite attractive to journalists under deadline pressure compared to the "labor-intensive" task of developing other sources (Lacy & Coulson, 2000: p. 15). Sigal (1974) found that sources used on a regular basis — "routine news channels" such as officials from governmental agencies — make up the nearly 60

percent of national, local, and foreign news in major newspapers and 81.3 percent of all

sources were officials of some kind. In an investigation of television news sourcing,

Berkowitz (1987) found that nearly half of all sources were affiliated with some sort of

governmental agency, a level similar to previous studies of newspaper sourcing,

suggesting little meaningful difference between media. Subsequent studies have

confirmed this over-reliance on governmental sources (Hallin, Manoff, and Weddle 1993;

Althaus et al. 1996; Entman and Page 1994; Lacy and Coulson 2001; Walejko &

Ksiazek, 2008). The regular use of governmental sources has led some critics to raise

concern over those groups with extensive societal, economic, and political power

(governments, corporations, politicians) being given undue attention over those without

such power like minority or repressed groups (Gandy, 1982).

Public Relations Sources

Based on literature, it was expected that stories about the Marcellus shale would

feature public relations sources or information subsidies. It is worth emphasizing,

however, in light of the present study's focus on the process of selecting sources, that

journalists often view public relations practitioners negatively (Kopenhaver, Martinson,

& Ryan, 1984; Sallot & Johnson, 2006b). Similarly, non-public relations sources are

rated significantly higher by journalists compared to public relations resources (Len-Rios,

et al, 2009). Cho & Cameron (2007) found that journalists prefer not to use public

relations sources, but often are compelled to quote them by necessity of logistics or

deadline pressure. Despite journalists' views of public relations practitioners, it is

acknowledged practice that journalists often use public relations sources (Cameron,

Sallot, & Curtin, 1997) and that the increased demands of the Internet have made it

impossible for reporters to avoid using information subsidies (Len-Rios, et al, 2009). It is

expected that journalists interviewed in the present study will likely have similarly

skeptical opinions of public relations practitioners yet utilize them as sources nonetheless.

Cameron et al. (1997) suggest that journalists view public relations practitioners

as untrustworthy because they actively seek to produce the best version of a story for

their client. Thus, the practitioner's vested interest in the story reduces their credibility as

a source for a journalist attempting to remain objective. This is supported by other studies

that have found journalists prefer information from government agencies and nonprofits,

who are seen as less self-serving than public relations practitioners working on behalf of

clients (Cameron, Sallot, & Curtin, 1997; Curtin, 1999; Pincus, et al., 1993; Turk, 1985).

However, journalists do not treat all public relations practitioners in the same manner.

Sallot and Johnson (2006) found journalists view public relations efforts from nonprofits

as more favorable because "practitioners representing non-profit organizations were seen

as less self-serving" (p. 84). Meanwhile, though public relations sources are often viewed

as untrustworthy, Cameron et al. (1999) found that individual practitioners are often

viewed much more highly than the field as a whole.

Accessible Sources

Since the present study is focused on the process of news gathering, it is

important to note that the preference for governmental and public relations sources in the

literature has often been attributed to the logistical issue of access. Studies have shown

that sources can also determine what becomes news (e.g. part of the media agenda) by

simply having access to reporters who are in need of story ideas. Sources from

government or corporate sources are more likely to have access to journalists than

ordinary citizens, giving them more power to influence the creation of the media agenda (Sigal, 1974; Brown et al. 1987; Hallin, 1993; Entman & Page, 1994; Lacy & Coulson, 2001). Following open-ended interviews with journalists, Conrad (1999) defined access brusquely: "usually it simply means using sources who make themselves available to reporters" (p. 290). Many times this access is in the form of information subsidies — most often in the form of a prepackaged press release. Curtin (1999) found that more than one-quarter of newspaper managing editors said they frequently "used public relations materials as the basis for a news story even just to spark an idea." It is thus expected that those sources that actively seek inclusion in the media agenda will be more likely to be used by Pennsylvania journalists covering the Marcellus shale.

Cost of News Gathering

While deadline pressure is often cited by journalists as a justification for using public relations materials for story generation, economic factors are can influence journalists' source selection. In particular, the cost-effective nature of using information subsidies has been found to contribute to their regular usage by journalists; literature suggests that information subsidies are widely accepted by journalists because they simplify the news gathering process (Gandy, 1982; Berkowitz & Adams, 1990). This represents a savings for the media outlet in terms of financial resources and manpower. While there is evidence that this cost-driven use of information subsidies is more prevalent for television news outlets than newspapers (Abbot & Brassfield, 1989; Shoemaker & Reese, 2011), it has still been suggested that the news gathering process has been dramatically altered by the economic fortunes of the newspaper industry. In particular, the newspaper industry has trended toward papers becoming part of publicly

traded companies in recent decades where market-driven pressures are impacting

newsrooms as management attempts to please shareholders' expectations (McManus,

1994). Some have suggested that the editorial operations of chain-based newspapers are

influenced by the bottom-line (Lacy, Shaver & Cyr, 1996), and are focusing more on "all

the news that makes a profit" (Olien, Tichenor, & Donohue, 1988, p. 261). Many

journalists seem to share this view. In fact, a 2004 survey of unionized journalists found

overwhelmingly that reporters felt bottom-line pressure was negatively impacting news

coverage (Stoli & McManus, 2005). A 2004 Pew survey found similar results, with 57

percent of local journalists and 66 percent of national journalists feeling that bottom-line

pressure is "seriously hurting" news coverage (Pew Research Center for the People and

the Press, 2004). However, studies have also found that despite having to answer to

stockholders, not all journalists report seeing the profit-based focus as impugning

coverage (Coulson, 1996). It was expected that, for those covering the Marcellus shale,

the profit-motive or financial self-interest of the newspaper may serve as a factor in a

journalist's sourcing practices.

Ownership Influences

Similarly, it was expected that the views and ideological preferences of

newspaper ownership would potentially be a factor in the sourcing practices of journalists

covering the Marcellus shale. In addition to pushing financial concerns, Shoemaker and

Reese (2011) argue that owners and publishers have a major impact on news organization

simply by being the ultimate authority figure and, because reporters want to keep their

jobs, it is in their interest to not run afoul of policies or ideologies of the owner or

publisher. This leads to news outlets that often reflect the personal views of these

authority figures (Kenney & Simpson, 1993; Hasen, 1999). A 2000 survey by Pew and Columbia Journalism Review found journalists were indeed experiencing pressure from ownership, with 51 percent of journalists reporting that corporate owners influenced coverage decisions (Pew Research Center for the People and the Press, 2000). However, the literature suggests that not all owners exert such influence. A 2003 survey found nearly 21 percent of television journalists felt ownership directly influenced their reporting while a nearly equal percentage reported no pressure at all (Price, 2003). Of particular interest to the present study, the ideological bent of owners or publishers has been found to influence news coverage (Coffey, 1975; Hasen, 1998; Gilens & Hertzman, 2000). Since the natural gas industry and its efforts to extract the Marcellus shale involve ideologically polarizing issues like government regulation and environmental conservation, it is expected that ownership preferences may be seen as a factor for journalists' sourcing. Another way the literature suggests owners influence coverage is through pressure to avoid complex stories for financial reasons (Pew Research Center for the People and the Press, 2004).

Logistical Concerns

Other factors influencing source selection found in the literature include logistical concerns such as the size of the newspaper and its staff. Literature suggests that newspapers with more limited resources are more likely to use information subsidies. Len-Rios et al (2009) argue that outlets with small staffs, like newsweeklies, are more likely to use information subsidies out of necessity; they rely on public relations sources because they cannot produce enough content otherwise. Smaller market newspapers have also been found more likely to save information subsidies for future use than larger

papers (Abbot & Brassfield, 1989), and weekly newspapers are more likely to rely on information subsidies for content (Curtin, 1999). As such, it was expected that reporters at smaller sized newspapers in Pennsylvania may be more likely to utilize similar public relations subsidies when covering the Marcellus shale. The staffing of a newspaper was also expected to be a factor, particularly reductions in newsroom personnel. Studies have found that journalists view staff cutbacks as being detrimental to quality of coverage (Underwood & Stamm, 1992), and that staff size positively correlates with a newspaper's performance (Lacy, Fico, & Simon, 1989). Current industry trends have seen newspapers make small circulation gains in 2014 (Pew Research Center's Journalism Project, 2014), though this follows years of dramatic drop off in revenue and drastic reductions in staff sizes. According to a survey by American Society of News Editors (2013), the number of full-time reporters and writers dropped 32 percent and number of photographers and videographers fell 43 percent from 2013 to 2000. Last year, total newsroom employment fell by 6.4 percent, to about 38,000, though newspapers with the largest circulations saw slight upticks in hiring (ANSE, 2013). The literature concerning environmental news coverage will be reviewed in the following section.

Environmental News Coverage

The role of sourcing in building the media agenda on environmental issues is of particular interest because studies suggest significant agenda setting effects for the public's perception of environmental issues (Curtin & Rhodenbaugh, 2001). The literature supports the agenda setting function when it comes to information about the environment, as there is a strong correlation between the media and public agendas (Ader, 1995; Atwater, Salwen, & Anderson, 1985; Elliot, Regens, & Seldon, 1995).

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While the present study did not investigate interplay between media and public agendas, it is based upon the importance of understanding the creation of a media agenda about environmental issues because of its ability to impact the public agenda. In fact, the tenor and tone of media agenda on environmental issues is heavily influenced by the agenda building process (Turk, 1985; VanSlyke Turk, 1986; Turk, 1986). As such, the present study is rooted in explicating the role of sourcing decision making in the production of a media agenda for the Marcellus shale.

Environmental coverage is usually produced by a "beat reporter" who is often more of a specialist with a different role than a "general assignment" reporter. While environmental coverage differs from other specialized beats like health or science, there is support in the literature that beat coverage differs significantly from general news reporting. Because the impact of sources is an important aspect of the agenda building process, it is worthwhile to consider sourcing for environmental stories. The literature suggests that all reporters seek sources that are credible, accessible, and available on deadline (Powers & Fico, 1994); these factors mean that like other types of news coverage, environmental journalists often overuse governmental sources, as detailed above. Environmental coverage is notable for an imbalance in the use of sources. For coverage of environmental disaster and environmental risks, Smith (1993) found that journalists relied heavily on government and corporate officials, with much less frequent appearances by sources representing environmental activist or advocacy groups. A 1993 survey found journalists covering environmental stories relied heavily on government sources or information subsidies (51 percent of sources), followed by environmental activist groups (25 percent) and rarely utilized sources or subsidies from industry (1

percent) (Dumanoski, 1994). Lacey and Coulson (2001) found that government sources were heavily favored by environmental reporters, while consumers and environmentalists were marginalized. Limited use of sources, as well as limited understanding of the topics covered, makes journalists susceptible to manipulation (Schoenfeld, 1980; Freidman, 1991). In particular, a lack of experience covering a topical beat like the environment has been found to increase the likelihood that a journalist will rely more than usual on government sources (Lacy & Matustik, 1984).

Research suggests beat journalists seek specific attributes when selecting sources. In a survey of reporters, Conrad (1999) surveyed journalists in specialty beats such as science news, and found they utilized sources as experts to clarify information or offer background or context and the "experts with a recognizable name, title, or affiliation are prized sources" (p. 291). Among the other attributes that made a source appealing, Conrad found, were if sources were knowledgeable on the topic, were clear, didn't over-qualify statements, and if the sources "return[ed] phone calls" (p. 299). The same survey found that journalists are likely to seek out sources with "predictable" views on a topic, with one respondent describing the benefits of these sources:

> There are some people who you just know where they stand on an issue. And if you're in a hurry, you need someone who can comment on one side or the other, you can count on them to say that for you (p. 292).

While the survey addressed science reporters and not specifically environmental reporters, it was expected in the present study that similar traits would be appealing to reporters on both beats.

Several studies have investigated the impact of public relations efforts on journalists' sourcing practices for environmental stories. Early studies showed that environmental reporters relied heavily on press releases for story ideas and information (Witt, 1974; Sachsman, 1976; Turk, 1986). In particular, one study found evidence for the agenda building capability of public relations efforts for stories about the environment when newspapers studied published 51 percent of information subsidies provided by governmental agencies' public relations practitioners, with most being published as separate news stories (Turk, 1986). More recently, Griffin and Dunwoody (1995) confirmed that environmental reporters working for local press often use the "least costly, most readily available sources of information" indicating a heavy reliance on information subsidies.

Watchdogs and Advocates

Another factor influencing environmental reporters' approach to coverage is the journalistic norm to serve as a watchdog over powerful institutions such as business and government (Berkowitz, 1992). This may lead journalists to view sources on environmental stories differently, as these types of stories often pit the interests of industry against those of the public. A study of journalists' role perceptions supported this, in which Tandoc and Takahashi (2014) argue that environmental journalists may view themselves in an advocacy role to combat "environmental injustices" and "business malpractices" (p. 890). Journalists covering environmental stories may also be more likely than most reporters to have preconceived notions on the topics they cover. Sachsman, Simon, & Valenti (2002) found most environmental journalists supported environmental protection and occasional advocacy on behalf of the environment. It has

also been suggested that journalists may identify and come to support the views of their sources (Sigal, 1974), meaning journalists who regularly interact with environmental groups may come to share those views.

In this way, the literature suggests support for environmental coverage as being more likely susceptible to journalists' biases and personal opinions than most general news coverage. McCluskey (2008) found that environmental journalists are more likely to write positively about environmental groups than other specialist journalists' were to write about groups within the coverage of their beats. The survey also found environmental reporters were more likely to imply these environmental groups were serving a public good in solving a problem and often framed stories as conflict between these groups and business and industry. A survey of environmental journalists found that 47 percent felt coverage favored environmentalism while just 2 percent believed coverage was slanted to support business and industry (Sachsman, Simon, & Valenti, 2002). This supports the conventional wisdom of a "good guy-bad guy" frame in much of environmental reporting, in which environmental advocacy groups or governmental conservation and protection agencies are often portrayed positively in that they are supporting the public good. These groups are often portrayed in conflict industry groups, which are framed less favorably and often as a malefactor. It was expected that this conventional frame could influence Pennsylvania journalists' sourcing practices in terms of acceptance of environmental sources or rejection of industry sources when covering the Marcellus shale.

Trust on the Environmental Beat

As mentioned earlier, according to studies of journalists' use of sources, reporters have clear preferences for whom they are willing to trust. This is also true of environmental reporters, who are likely to trust non-profit sources such as university researchers and governmental officials far more than industry sources. In a survey of environmental journalists' perceptions of source credibility, more than half of the respondents rated academic sources as the most credible, with government sources considered very credible by 24 percent, environmental groups considered very credible by 21 percent and only 6 percent considering business or industrial sources as very credible (Detjen, Fico, Li, & Kim, 2000). Agenda building studies have also indicated that journalists prefer governmental or nonprofit sources without a clear self-serving agenda (Cameron, Sallot, & Curtin, 1997; Curtin, 1999; Pincus, Rimmer, Rayfield, & Cropp, 1993; Turk, 1985). It was expected that these attitudes would prevail among some Pennsylvania journalists when making sourcing decisions for stories about the Marcellus shale. However, because many stories on the Marcellus shale do not fit the common "disaster or risk" frame of many other environmental stories, it was expected that these attitudes towards source credibility might be inverted in areas of the state where the natural gas industry is seen positively. In these cases, journalists may view industrial sources favorably and environmental or governmental sources viewed less positively than the literature suggests is the norm.

Building the Environmental Media Agenda

As mentioned above, many times sources attempt to mold the media agenda in their favor; this is also the case for environmental stories. Journalists covering the

Marcellus shale interact with a number of sources that are actively attempting to control

the discussion of the industry and its expansion — from the companies that make up the

industry to the governmental agencies designed to regulate them and the environmental

groups who oppose them. It was expected that the natural gas industry in Pennsylvania

would actively utilize public relations tools to influence the media agenda, as Curtin and

Rhodenbaugh (2001) found that journalists receive a "steady stream" of public relations

materials from industry sources. Oftentimes for environmental topics, these information

subsidies are framed to contradict the concerns of environmental groups. This

"environmental backlash movement" pushed by industry and industry-backed groups

suggests that the environment is not in peril and the economic impact of environmental

policy decisions needs to be considered more carefully (Lyman, 1994). According to

Curtin and Rhodenbaugh (2001), public relations firms working for industry actors have

fueled this movement. Of course, environmental groups have also attempted to influence

the media agenda. While environmental protest groups have been marginalized as sources

in the past (Manning, 2001), studies have also shown that environmental groups are

becoming more adept at navigating the agenda building process by becoming more media

savvy, targeting specific outlets, and cultivating a more research-based image (Anderson,

1993; Carmody, 1995). However, Cracknell (1993) found that environmental groups are

better able to place items in the media agenda than they are in influencing the coverage's

framing.

Areas of Inquiry

The present study explores sourcing practices of journalists in order to better

understand the process by which a news story is constructed and what factors may have

shaped that process in order to better understand the eventual media agenda. The

literature suggests several factors that may influence journalists' sourcing practices,

including internal factors (i.e., a journalist's biases, opinion on information subsidies,

experience and training) and external factors (i.e., expectations of editors and colleagues,

pressure from community or activist groups). Thus, the study began with three areas of

inquiry from which interview questions were drawn. The first area of inquiry focuses on

the process by which journalists choose sources for a story on the Marcellus shale. In

light of the present study's phenomenological focus, these questions sought to detail the

journalists' own descriptions of how they make sourcing decisions. Thus:

> *AI1***:** What is the process by which Pennsylvania newspaper journalists say they
>
> make sourcing decisions when covering the Marcellus shale industry?

Questions related to AI1 included efforts to prompt the journalist to describe his or her

experiences with sourcing in his or her own words. While the other areas of inquiry

plumed specific topics, AI1 inductively followed the journalist's lead in describing his or

her procedures and then the thought processes behind those procedures.

As indicated, a number of factors can influence these decisions; therefore, the

second area of inquiry investigated specific factors that stem from the journalist that may

impact sourcing. Thus:

> *AI2*: What internal factors influence Pennsylvania newspaper journalists when
>
> they make their sourcing practice decisions covering the Marcellus shale industry?

Questions related to AI2 were based on literature about the internal factors impacting

sourcing practices as they apply to coverage of the Marcellus shale, including the

journalist's personal opinions and attitudes concerning the subjects they cover and how

sourcing should be conducted. This area of inquiry investigated the journalist's personal opinion on environmental regulation and conservation; the journalist's personal opinion of the cost or benefit of the Marcellus shale gas industry's environmental and economic impact; and the journalist's potential for economic ties to the industry (i.e., personal or family gas rights leases). Questions were also included based on studies' suggestions that a journalist's opinions impacts his or her job, particularly how his or her view of journalistic norms can impact sourcing practices. This includes how the journalist's personal opinion on the appropriateness of using for-profit and non-profit information subsidies, the journalist's acceptance of public relations efforts from industry or environmental or governmental actors, and the journalist's personal opinion on journalistic norms of objectivity and balance in stories centered on conflict. Similarly, it was expected based on the literature that a journalist's training and experience would impact their sourcing, so questions also included the amount and type of training and education the journalist has received and the amount and type of environmental coverage experience of the journalist.

The literature suggests that there are a number of influences outside of the journalist's control that can impact sourcing decision-making. The third area of inquiry sought to explore these external factors:

AI3: What external factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry?

Questions related to AI3 sought to explore factors found in the literature that might impact sourcing of stories about the Marcellus shale. Some of the questions addressed the

impact of the newspaper's readership and geographic location, particularly if drilling was seen as an economic benefit in the readership area. Questions also investigated the prevailing opinions of residents in that area concerning the gas industry (i.e., favorable in rural, negative in urban), the pressure placed on the journalist or newspaper to reflect that readership, and to what extent of gas drilling activity and subsequent economic impact in the area might influenced a journalist. Other questions about factors influencing journalists' sourcing practices based on the literature were external to the journalist but come from within their organization, including the instructions or expectations of the journalist's editor(s); the policies and procedures of the journalist's newspaper; and the pressures from the newspaper owner, publisher, or editorial board.

The present research adds to the body of literature concerning sourcing practices and provides further insight into how and through what processes the media agenda is constructed. While the coverage of the Marcellus shale is not a wholly unique phenomenon compared to other news topics concerning natural resource extraction, as mentioned above, it does present a unique temporal moment as the newness of the industry in Pennsylvania creates a phenomenon where sourcing is being decided organically, rather than following pre-established protocols. Further study into the topic of sourcing practices resulted in value for journalists who seek to better understand how their craft is conducted — be it for coverage of Marcellus shale or any other news event. While the results of this study are not generalizable, there are useful takeaways for journalists, journalism educators, and public relations practitioners when critically analyzing media coverage of this news topic as well as the next phenomenon. The following chapter will address the study's methods, sampling, and approach to analysis.

CHAPTER III

METHOD

Design of the Study

This dissertation utilized a phenomenological design guided by Moustakas'

definition

> The basic purpose of phenomenology is to reduce individual experiences with a
>
> phenomenon to a description of the universal essence [...] The inquirer then
>
> collects data from persons who have experienced the phenomenon, and develops a
>
> composite description of the essence of the experience for all of the individuals.
>
> The description consists of "what" they experienced and "how" they experienced
>
> it (1994, p. 76).

The phenomenon investigated was the sourcing practices employed by newspaper

journalists in order to cover a controversial subject: the natural gas industry in

Pennsylvania. In particular, this study focuses on the pre-publication process of

determining sourcing practices for these stories, especially the factors that influence those

determinations. Data was obtained via in-depth interviews with newspaper journalists

covering the Marcellus shale in Pennsylvania. Coding and analysis were completed in an

effort to develop the composite description of the essence of determining sourcing

practices for a controversial story such as the natural gas industry.

Rationale for a Qualitative Approach

While the philosophical battle between qualitative and quantitative paradigms has

raged for some time, it is increasingly accepted that there is no one-size-fits-all solution

for approaching a study and that the method should match the study's purposes,

questions, and issues (Bloomberg & Vopal, 2012). For the present study, a qualitative

approach was appropriate. As an investigation of the how and why of journalists'

sourcing practices, qualitative's holistic approach of deep inquiry was better positioned to

the goals of the research design than the broad tack of quantitative research. Many studies

that examine sourcing in news stories focus on quantitative analysis post-publication by

counting which sources appear with what frequency. This leaves researches with only

speculation as to *why* those sources appeared and at that frequency. The present study

sought to rectify that shortcoming and, as such, expand the literature on sourcing in news

stories. When analyzing the study's purpose, questions, and issues to be investigated, the

qualitative approach offered deep understanding of the participants' realities. In that vein,

the qualitative tradition of phenomenology was well suited for the study's goal of

producing a more thorough understanding of the decision-making process of a journalist's

sourcing practices. Since sourcing practices play a large role in the eventual news story

produced by a journalist, this study sought to delve deeper into what factors influence

those sourcing decisions, thus providing a better understanding of the forces shaping

news coverage and the media agenda.

Rationale for Conducting Phenomenology

The purpose of a phenomenological study is to investigate the "lived experience"

of people to identify the essence of a phenomenon (Creswell, 2012). This qualitative

tradition involves studying a small sample of subjects through repeated interviews to

determine patterns that reveal meanings of an experience (Moustakas, 1994). This

tradition fit well with the purpose of the present study. Compared to the other

methodological traditions, phenomenology was the most appropriate as it allowed the

researcher to study journalists within their environment and allow them to use their own words to describe what factors influence their sourcing practice decisions. Utilizing journalists' own words also allowed the researcher to examine the complex factors that influence sourcing practice decisions. A survey or other broad methodological approach might have provided a larger sample, but would have produced far more superficial results that would not as effectively explored the phenomenon. Rather, this type of thick description (Geertz, 1994) was better drawn from the in-depth interviews that made up the phenomenological study.

Methodology

Unit of Analysis

The unit of analysis was interviews with reporters working at newspapers in Pennsylvania who have covered the Marcellus shale industry. The present study was focused on drawing a sample of newspaper reporters from the state because 1) the industry is in active production in large portions of the state while the impact of the Marcellus shale industry reaches all areas of the state; and 2) the gas pockets in the shale have only recently become available for extraction, making sourcing stories on the topic an emergent phenomenon. In particular, the nascent nature of the gas industry in Pennsylvania makes covering it different from other shale drilling areas such as Texas or Kentucky, where extraction of the gas has been big business for some time. Subsequently, coverage of the industry in these regions has had a longer time frame to determine best practices. Moreover, several unique factors may contribute to sourcing practice decision-making when covering the Marcellus shale, which made it a topic ripe for investigation. Unlike many other topics, journalists covering the shale industry do not

necessarily have training or experience in covering this type of industry and as such, lack applicable sourcing heuristics. Journalists may also have personal or familial financial ties to the industry because of its widespread economic impact in the form of land leases and mineral rights fees. And journalists may find that since the industry is viewed quite differently in different parts of the state, the one-size-fits-all narrative usually used in macro-level environmental coverage is of little use.

Newspaper reporters were selected for the study because they are more likely to have regularly covered the industry than a television or radio reporter. This difference in frequency of coverage is a reflection of both the differing priorities of broadcast and print media as well as typical newsroom structures. Newspaper journalists were sampled over broadcast reporters because original reporting is done most often by newspaper journalists (Drew 1972; Altheide, 1976), with studies showing most new information reported within a news ecosystem comes from print sources (Pew Research Center, 2006; Pew Research Center, 2010). Since broadcast journalists regularly draw story ideas, information, and most importantly sources from the work already done by newspaper journalists, including these broadcast reporters would have jeopardized the validity of a study into the process of determining sourcing practices.

Newsroom differences between print and broadcast media also played a factor in sample selection. For example, a television reporter is less likely to be assigned to cover the gas industry exclusively for that station; a newspaper reporter, meanwhile, is often assigned to a "beat" that is their province for comprehensive coverage. This is a reflection of the fact that newspapers continue to produce the bulk of original reporting as compared to other local news media outlets (Pew Research Center, 2014), even while

television remains the dominant medium for Americans to consume news (Pew Research Center, 2014a), and even as newspapers facing tough economic times and even more difficult cultural shifts downsize coverage.

Moreover, television news is less likely than ever to devote substantial time to topics like the Marcellus shale, as local television outlets have seen cutbacks in airtime for edited package stories in favor of increased time emphasis on traffic, weather, and sports (Pew Research, 2013b). According to Pew Research Center's State of the Media Report (2013a), only 33 percent of the local television newscast is devoted to packaged stories, down from 41 percent in 2005. In one survey, Pew found that while television draws large audiences for a few popular topics (weather, traffic, sports), newspapers attract smaller groups to a wider range of subjects (Pew Research Center, 2011). In fact, newspapers were seen as the top source for 11 of the 16 topics surveyed, a reflection of the primary role newspapers play in the reporting ecosystem. This is reflected in the stark difference in daily coverage: local newspapers typically had between 70 to 100 stories per issue, while a typical half-hour local television newscast had roughly 15 stories, which led to fewer topics being covered according to Pew's analysis. This diverse set of coverage found in newspapers results in print reporters more likely becoming specialists in certain types of reporting, such as environmental, business, or health news. Therefore, for the purposes of this study's focus, newspaper reporters were best suited for investigating the phenomenon of sourcing this type of story.

Newspaper journalists who cover the Marcellus shale beat were the most attractive subjects for study because of their repeated exposure to the phenomenon. Thus, in addition to working for a newspaper, a secondary criterion was the requirement to have

covered the Marcellus shale industry as a "beat" or at least as the primary reporter for the paper's coverage of the industry. This was operationalized as the reporter being identified as covering the beat by an editor or the reporter having covered a plurality percentage of the paper's stories on the industry. These criteria are important to ensure the participants of the study have indeed lived the experience of sourcing Marcellus shale stories. Newspaper journalists from around the state who fit these criteria were invited to participate in the study.

Subject Selection

The subjects for the study were drawn from newspapers listed within the current edition of the Pennsylvania Newspaper Association membership guide. Because of the need to ensure the subjects have experienced the phenomenon being studied, the researcher purposefully selected newspapers located in areas where the natural gas industry is active. In particular, the researcher began attempts to recruit participants with a focus on the seven newspapers located in Bradford, Washington, and Susquehanna counties, which lead the state with roughly 1,000 active natural gas wells (StateImpact, 2014). As the most active counties, these areas will most likely feature reporters who have experienced the phenomenon.

A second-tier of counties was utilized in case sufficient subjects could not be drawn from the counties listed above. The second tier consists of the seven newspapers from the three counties with more than 500 active wells: Lycoming, Greene, and Tioga. To ensure variety within the sample, the researcher also balanced the subject selection so as to include both rural and urban subjects. To achieve this, the researcher included newspapers located within Allegheny and Philadelphia counties, which are the most

densely populated within the state, but lag behind others in terms of active natural gas wells.

For each newspaper within the sample selection, the researcher contacted the newsroom via email in an attempt to identify the reporter(s) working the Marcellus shale beat. As previously mentioned, selecting a reporter who covers the industry on a regular basis was important for establishing their experience with the phenomenon. Once the reporter was identified, the researcher attempted to contact him or her via phone or e-mail to establish an interview. Seven respondents were recruited in this manner, which is within Polkinghorne's (1989) typical sample size for phenomenological interview studies of between 5 and 25 participants. A snowball sampling effort was also undertaken to allow respondents to suggest other applicable reporters to invite to participate; this resulted in a journalist from outside the eight targeted counties listed above to be included in the sample. The recruited journalists represent newspapers located in or with coverage in Bradford, Washington, Tioga, Greene, Philadelphia, Allegheny, and Lackawanna counties. Newspapers of various circulation sizes were represented, with at least one respondent from each of the following categories: small daily (under 10,000), medium daily (under 30,000), large daily (under 50,000), and major metro daily (over 100,000). One respondent was employed by a small weekly (under 5,000).

Data Collection

The method of data collection was semi-structured interviews with purposeful sampling of newspaper reporters who have worked the Marcellus shale beat or have been the primary reporter for their paper on natural gas industry stories. A semi-structured interview approach was appropriate as it allowed for organic open-ended responses that

illuminate the respondent's perspective (Tracy, 2012). Interviews also allowed the

researcher to uncover complex and hidden factors that influenced the phenomenon

(Rubin & Rubin, 2005) and encourage respondents to use stories and narrative anecdotes,

which allow for a view into how the participant sees the world and provide justification

and rationale for their decisions (Lindlof & Taylor, 2010), which were of particular

interest to the purpose of this study. According to Tracy (2012), interviews are

"especially valuable for providing information and background on issues that cannot be

observed or efficiently accessed" (p. 132). Since the internal decision-making processes

of journalists cannot be observed, this positions interviews as an effective method of

discovery. The researcher utilized Oakley's (1981) friendship model of interviewing,

which suggests the importance of building rapport with interview subjects as people

rather than objects and allows the researcher to interact dynamically with the respondent.

An interview protocol was developed and data was recorded both by the

researcher's notes and audio recording. The respondents' interviews resulted in a total

transcription of 24,271 words. Six of the interviews were done remotely over

teleconference software. One was conducted in person. The focus of the interviews was

on the factors both internal and external that influence a journalist when he or she is

making sourcing determinations. The researcher asked the participants to consider the

thought process that they engage in when considering the sources necessary to produce

stories on the Marcellus shale and what factors influence their decision making. During

data collection, the researcher bracketed his own experiences with sourcing and allowed

participants' organic responses to drive discussion. Prior to interviews, the participants

were asked to complete a consent form, the purpose of the study was explained, and a

copy of the finished study was offered to the participants (Creswell, 2012).

Data Analysis

While Moustakas' (1994) schema provided a general structure for data analysis in a phenomenological study, data analysis that followed the interviews was based most closely on Graneheim and Lundman's (2004) procedures, concepts, and definitions for qualitative content analysis. To follow Graneheim and Lundman's data analysis procedures, the researcher read the interviews — the unit of analysis — several times to obtain an understanding of their whole. After identifying "significant statements" (Moustakas, 1996) about how the individuals are experiencing the phenomenon, the related statements were then grouped together into meaning units that emerged from the data and further condensed. These emergent condensed meaning units were abstracted and labeled with a code. The researcher then interpreted the latent content within these codes to form the theme. To accomplish this, following Moustakas (1994), the researcher wrote a textural description of what the participants experienced using the participants' own words, including verbatim examples of their experiences with sourcing. The researcher then reflected on "the setting and the context in which the phenomenon was experienced" (Creswell, 2012: p. 194) in order to craft a structural description of the phenomenon of sourcing. By combining these two descriptions, Moustakas posits that a researcher can describe the "essence" of the phenomenon.

In order to add further transparency in the data analysis in the present study, several aspects require careful definition. In this perspective, the definition of meaning units is "words, sentences or paragraphs [which] contain aspects related to each other through their content or context" (Graneheim and Lundman, 2004: p. 106), and the

process of condensation involved shortening those meaning units while preserving their meaning. In addition, the data analysis did not include categories that were exhaustive, as Graneheim and Lundman argue that achieving mutually exclusive categories can be difficult due to the "intertwined nature of human experiences" (p. 107). As such, their definition of categories refers to the descriptive level of content as an expression of the manifest content of the text. Finally, a theme is defined as the meaning underpinning the meaning units, codes, and categories at an interpretative level that represents the latent content of the text. Identifying these themes allowed the researcher to find commonalities in the experienced phenomenon of sourcing Marcellus shale stories.

Trustworthiness

While qualitative studies are sometimes maligned, a careful researcher can ensure results are rigorous and trustworthy. According to coding procedures laid out by Graneheim and Lundman (2004), trustworthiness can be achieved by making appropriate decisions with sampling to include the proper criteria to actually study the phenomenon being addressed, using the most appropriate method of data collection and amount of data, and selecting the most suitable meaning unit during coding. Too broad a meaning unit, for example, could contain various meanings, while one that is too specific would fragment the data (p. 110). In order to demonstrate the trustworthiness of the study, the researcher utilizes respondents' own words whenever possible to ensure transparency in efforts made when coding the data. Meanwhile, credibility was achieved by using representative verbatim quotes from the actual interviews instead of paraphrasing. This prevented confusion over subjective judgments of participants' responses.

In order to establish a credible study, the researcher also endeavored to provide "thick descriptions" (Geertz, 1994) with appropriate detail and nuance to plumb the depths of the phenomenon of sourcing practices. Thick descriptions seek to explain the context of a behavior and the justifications and reasons for it. To ensure the credibility of the phenomenological study, the researcher ensured that the factors that influence sourcing practices are appropriately analyzed and contextualized. Transparency was achieved by describing any data collection or analysis discrepancies or diversions; moreover, the researcher also maintained transparency by acknowledging if and when access to a respondent was the result of personal or professional connections.

Confidentiality of Respondents

The importance of confidentiality is central to phenomenological investigations utilizing deep interview methodology. The literature provides ample support for the importance of confidentiality in research design but offers little by way of specific, practical guidance for disguising identities in qualitative research (Giordano et al., 2007; Wiles et al., 2008). Still, it is important to make efforts to ensure that respondents are not identifiable by those who know them from the statements and details included in a research study (Tolich, 2004). Oftentimes, researchers accomplish this task by altering aspects of responses or details of a respondent to ensure confidentiality (Weiss, 1995; Parry & Mauthner, 2004; Wiles et al., 2008). In a similar effort to protect the anonymity of interview subjects, the present study utilizes pseudonyms and potentially identifying details have been altered. While concerns can arise from the practice as it may alter the meaning of data (Parry & Mauthner, 2004), care was taken to ensure altered details will not impinge the phenomenological investigation at hand. In line with expectations from

the literature, a respondent's age, level of experience, and educational background were not altered, neither were the size of newspaper the respondent worked for, nor the population density of the newspaper's readership. Respondents' names and genders, in particular, as well as specific names of natural gas companies or towns or identifiable story topics or events, were modified to ensure anonymity of respondents. When referring to specific companies or covered events that may lead to identification of respondents, generic references will replace pseudonyms to prevent identification. Due to the paucity of areas of the state featuring multiple newspapers, most geographic locations will be addressed vaguely to avoid identifying respondents by process of elimination. Market and newspaper sizes will also be broadly categorized – small rural, mid-sized, or major metro, for example – to avoid similar deductions of respondents' identities.

Conclusion

Through use of semi-structured interviews with a criterion sample of working journalists, this phenomenological study produced data on the process of sourcing practices for Pennsylvania journalists covering the Marcellus shale. Because the purpose of the study sought to understand the factors that influence these journalists in order to better understand the articles they produce, the present study fills a gap in the literature. Many studies that investigate sourcing practices simply evaluate the finished article and merely count the appearances by different types of sources. What those studies fail to produce, and the present study sought to correct, is an understanding grounded in the lived experience of the phenomenon of sourcing. It is not enough to simply know what sources journalists use when covering stories like the Marcellus shale; it is vital to know *why* those sources were chosen. The next chapter will address those findings.

CHAPTER IV

FINDINGS

This chapter provides an overview of findings based on in-depth, semi-structured interviews with seven Pennsylvania newspaper reporters, which when transcribed ran 24,271 words. The seven respondents were drawn from a population of 20 newspapers published in counties with heavy drilling activity – Bradford, Washington, Susquehanna, Lycoming, Greene, and Tioga counties – as well as the counties containing the state's two largest cities, Allegheny and Philadelphia counties. Data analysis was based most closely on Graneheim and Lundman's (2004) procedures, concepts, and definitions for qualitative content analysis, which was described in depth in the previous chapter. Themes that arose from the individual interviews were categorized into aggregate topics, allowing for commonalities to be identified. These findings will be discussed in depth in the present chapter. Connections between themes described in the following chapter will provide an understanding of the lived experience of sourcing coverage of the Marcellus shale. This chapter is divided into five broad sections: unique characteristics of the Marcellus shale beat, perceptions of the three categories of sources, evaluation of source credibility, and external and internal factors influencing sourcing. Each section allows respondents to describe their lived experiences of covering the Marcellus shale, using their own words whenever possible.

Unique Characteristics of the Marcellus Shale Beat

A number of factors contributed to an increased level of difficulty for reporters attempting to cover the Marcellus shale. The suddenness of the natural gas industry's arrival into Pennsylvania meant that few reporters or editors at newspapers in the state

had any practical or even conceptual experience with covering the industry. While the state has a long track record with resource extraction industries, none had utilized a method like hydraulic fracturing, or fracking, and the broad potential for environmental impact associated with it. This meant reporters had no institutional knowledge to draw from to answer questions about sourcing and framing stories on the shale. Nor had any previous resource extraction industry featured as many "ordinary" citizens receiving direct financial benefit from an industry. From coal to steel, many Pennsylvanians have been employed by resource-centric companies or their support industries; never before, however, had those with no employment ties to an industry had potential for such direct, explicit financial gain. In the case with Marcellus shale, any land owner within the swath of land under which the shale ran had potential to make money from mineral rights on their property. This factor, exacerbated by the lack of institutional knowledge, complicated reporting and sourcing decisions. These concepts will be addressed in detail in the following section.

Lack of Institutional Knowledge

A factor that makes covering the Marcellus shale unique compared to other environmental stories often addressed in the literature is the precipitous arrival of the industry in Pennsylvania. While natural resource extraction is nothing new in the Keystone State – coal and steel have long histories in the state – there has not been a corollary for natural gas industry. Unlike many industries, which ramp up gradually or incrementally, the natural gas industry, which thrived in other areas of the country but had virtually zero presence in Pennsylvania, arrived seemingly all at once thanks to advances in technology that made reaching the deep shale gas profitable. The arrival of

the industry was not a small foothold, either. In just five years the state went from essentially zero natural gas production to become the leading producer of natural gas in the country. Compared to more "traditional" environmental stories, which allow journalists to draw on countless sources of institutional and educational knowledge for best practices and sourcing decisions, the speed of arrival of the natural gas industry in Pennsylvania and the completely foreign process of fracking left reporters functionally on their own. Taken together this lack of knowledge and training was a major factor in early sourcing decisions, as respondents indicated. The lack of training, institutional checks, and guidance left reporters without tried-and-true approaches to sourcing found in many other beats.

The cutting edge nature of hydraulic fracturing presented problems for the reporters tasked with covering the industry, said Joe, a reporter at a mid-sized paper, because they simply didn't understand the issue enough to effectively cover it. "This was a totally new industry; drilling isn't new, but the way they're going about it is completely new," Joe said. "It was something no one really understood and it took us a while to really grasp what they were doing." Perhaps most tellingly, the industry and fracking were so new to Pennsylvania that it was not only the reporters who were struggling to keep up. "It was very new to everybody so that made it interesting – it was very exciting to cover early on," said Rebecca, who works for a major metro daily. "We were constantly learning; the scientists were learning too. You were covering this development that everyone was realizing was changing in real time. Reporters were very much part of that." This meant, of course, that those initial years of reporting were somewhat rudimentary, she said. "I go back and read some of my earlier stories and it's interesting

because we know so much more now. It's not like anyone knew that much more then, not even the scientists." The lack of institutional knowledge meant reporters ceded some level of control over the direction of their own stories, Rebecca said. "[We] would've benefited to have someone on staff who had more in-depth knowledge or history with it. "At least to say what had been covered before."

In a practical sense, this newness meant that reporters did not have any guidance within the newsroom as they might with other story topics. Editors, typically a source of guidance or expertise, were often less-prepared to guide the stories than the reporters covering them. While allowing that "some have written [about shale] more than others," Neil, a reporter for a medium-sized daily, said there was "no Marcellus shale expert in any newsroom." Joe, who works for a medium-sized daily near an urban center, said that while he could find advice in the newsroom on environmental coverage, there was "no one to ask for advice on shale." James, a reporter at a small market in the corner of the state who actually took over the "shale beat" a few years after the industry's arrival, felt the absence of expertise years after the industry's initial arrival. "I was on my own," he said of his time covering shale from 2013 to 2015. Despite taking over the beat in 2013, long after the industry became a major force in Pennsylvania, there was still little to gain from editors, James said. Instead of an editor offering insight into how to best cover the story, the dynamic was essentially flipped on shale. "I don't think my editors or colleagues understood [the industry]," he said. To illustrate the knowledge gap, he pointed out that "there was plenty of jargon I would have to define for editors." This experience was effectively unprecedented for respondents: no other beat existed where the reporters covering a topic were pioneering what shape that coverage should take.

Sourcing decisions, then, were made not on the basis of "generations" of reporters tackling a topic, but often at the whims of an individual reporter or the cadence of a particular story.

Topic complexity

This lack of support from within the newsroom was exacerbated by the sheer complexity of the Marcellus shale topic. Respondents said the relative ease with which many stories are sourced — for example, a comparatively straightforward crime story or township meeting article — is replaced by a fluctuating and essentially never-ending amount of possible sources for Marcellus shale articles. Unlike many local stories that are fairly encapsulated, even if part of an ongoing issue, respondents felt shale stories were a dizzying mixture of intersecting and interconnecting trails. "A lot of situations you're never really done," said Scott, a ten-year veteran at a medium daily. "You're filing a chapter in the story." The size and scope of the industry coupled with its broad application meant "shale stories" could and did overlap several areas of conventional beat coverage; the shale beat was in actuality multiple beats in one. "It's different than other types of coverage," said Rebecca, a reporter at a major metro newspaper. "It's just very diverse because it's not just a policy story or a just a science story or just an environmental story."

Stories that might fall under the shale beat could actually be considered business, real estate, environmental, crime, politics, investigative, and more, respondents noted. The topic's wide breadth added a degree of difficulty in the determinations of sourcing practices because "you have such a broad array of sources to choose from," as Rebecca said. Compare this with, say, a crime or courts story where a police officer or lawyer is

the obvious, and likely only, source. Since there were so many options, sourcing choices on shale stories had major ramifications, according to respondents. While the overall topic may be Marcellus shale, the decision to include one source over another could dramatically influence whether the story produced focused on economic issues or environmental concerns or political ramifications.

Because sourcing decisions led to these types of first-level changes to stories journalists produced, respondents indicated that covering Marcellus shale was uniquely difficult. According to Joe, a ten-year veteran at a mid-size daily, the "layers and complexity" make covering the shale more difficult than the average story. Scott agreed, saying that there are "a lot of different angles and follow-up stories" required by the topic. "It's hard to get a complete picture," Joe said. "Quite honestly, I don't think anyone knows what the complete picture is. We try to get as complete of a picture as possible – and there's always disagreement." James, a young journalist at a mid-size daily, found covering the Marcellus shale was made difficult by the overall question of the nation's energy consumption, which was unable to be extricated from the industry's activities in Pennsylvania. "I think it has to do with complexity of energy and we're all a part of it and addicted to it," he said. "We are all a part of demand [natural gas companies] exist to serve. That's a really hard thing to reflect in a news story, the complexity of an industry like that."

Of course, not all respondents were confounded by the size of the shale. One way reporters said they could combat the complexity of the topic was to voluntarily reduce the scope of their efforts. Mike said he employed a strategy often utilized by many small weekly papers: a narrow focus on only the local area, rather than covering the whole

industry. In fact, Mike said he would not utilize information subsidies or stories that were focused on statewide or industry trends, though he would pick out job predictions in his region or incidents or companies in his area. In doing so, he may not provide readers with a complete picture of the Marcellus shale, but the task of covering it was much more feasible.

Perceptions of Governmental, Industry, and Environmental Sources

A journalist's sourcing practices are the result of a number of factors and influences. Some are logistical and intrinsically practical. In a vacuum, most journalists would choose the most knowledgeable and pithy source available to advance a reader's understanding of a topic. However, journalism is not conducted in a vacuum. A myriad of forces hold reporters in their sway, torqueing their efforts away from the asymptote of ideal sourcing and towards what is feasible. Most obvious is the issue of access: the fundamental ability to get a source to speak on the record. Time and resource pressures also compel reporters to make compromises and sacrifices, as deadlines loom and the need to divide one's attention in order to report other stories are a constant vexation. These concerns and their impact will be addressed later in the chapter, but to appreciate their influence requires an understanding of reporters' perceptions of sources. For the present study, the three broad categories of sources are governmental, industry, and environmental. A thorough examination of respondents' attitude toward these sources follows.

Attitude Toward Governmental Sources

The literature suggests government officials are commonly used as source in a variety of news topics, often more than almost every other type of source (Hallin,

Manoff, and Weddle 1993; Althaus et al. 1996; Walejko & Ksiazek, 2008). This imbalance is often attributed to practical considerations of the news gathering process, as finding officials to serve as sources is less time intensive than seeking other sources (Lacy & Coulson, 2000; Sigal, 1974). Like other types of news coverage, environmental journalists overuse governmental sources (Smith, 1993; Dumanoski, 1994), heavily favor governmental sources over others (Lacy & Coulson, 2001), and are considered one of the most credible types of sources (Detjen, Fico, Li, & Kim, 2000). Respondents described perceptions of governmental sources when covering the Marcellus shale that did not fall in line with the neat conclusions of the literature. The following will address factors influencing respondents' trust in governmental sources.

Factors undermining trust in DEP. Those covering the Marcellus shale were tackling an issue unlike any other environmental topic. Thus, despite expectations grounded in the literature, journalists covering the Marcellus shale did not share the same enthusiastic preference for governmental sources. Previous research suggests that reporters believe government sources are credible on environmental stories because they are independent and without agenda (Cameron, Sallot, & Curtin, 1997; Curtin, 1999; Pincus, Rimmer, Rayfield, & Cropp, 1993; Turk, 1985). The political climate in Pennsylvania during the arrival of the natural gas industry to tap the Marcellus shale undermined that perception of independence, particularly of the DEP as a regulatory body overseeing the natural gas industry. While research suggests reporters valued the government's role as an at least ostensible neutral party on other environmental stories, the intense divineness of natural gas drilling meant that governmental sources did not occupy the same conceptual space on shale stories. In short, when covering the Marcellus

shale "there really is no independent source," said Joe, a mid-size newspaper reporter in western Pennsylvania. Regulators were not seen as a referee, he indicated, as much as another player in the debate.

This lack of faith in governmental sources was solidified and internalized by reporters in the early days of the industry's arrival. In particular, the perceived influence on regulatory matters of Tom Corbett, the Pennsylvania Governor from 2011-2015, was seen as undermining the trust in governmental sources like those from the state Department of Environmental Protection (DEP). The then-governor's campaign was in part predicated on support for the drilling industry according to respondents, so that position colored the actions – and inaction – of regulations under the administration. For Joe, this caused him to doubt governmental sources in ways he said he normally might not. "You look at DEP during the Corbett administration and they were basically bankrolled by the drilling industry," he said. "Could [the DEP] be considered an independent source? I don't know." It is worth noting here that, compared to expectations drawn from the literature, even questioning the independence of governmental sources is an indictment of the normal operating schema of environmental reporters. Neil, a reporter with three decades of experience, also questioned the credibility of the governmental agencies tasked with regulating the natural gas industry because of perceived pressures from Governor Corbett. While running for office Corbett made clear he "welcomed the [natural gas] industry," Neil said, and therefore "the DEP was under a lot of pressure from [the governor] to let the industry have its way."

The influence of the Corbett administration was evident beyond just inferences based on campaign promises, however. Joe said the number of fines dramatically – and

suspiciously – increased as the governor's term was ending. As part of a re-election push, Corbett attempted to pivot away from outright support of the industry: "There were record fines coming out in 2014 and you can't tell me it was just 2014 this was an issue," Joe said, the implication being that once suppressed violations were now being allowed to see the light.

While respondents expressed these opinions in contrast with previous research that has found that governmental sources dominate environmental coverage (Lacey & Coulson, 2001), this particular line of critique was tied to the particular political considerations of the early days of Marcellus coverage in Pennsylvania. No respondent indicated that the concern of political influence impacting source decisions continued after the Corbett administration left office, suggesting this was a temporary and finite influence on source decision making. In fact, the reporter who was most skeptical reporters of the DEP has softened that stance with the new administration, indicating he has changed his view of governmental sources. "As time has gone on I think the DEP is more reliable as a source…if there is an issue, they will explain it now, I think they're doing a better job explaining it, being more precise," Neil said. "I would say DEP is doing a lot better job."

However, respondents indicated issues other than concerns over a governor's influence that lead to relative mistrust of governmental sources. For Neil, the issue was the lack of resources allocated for the task of regulating such a large industry with far-reaching concerns within the state. "The staff [at the DEP] was cut; they didn't have enough people or know the answers to the questions," Neil said, and since they were understaffed the DEP made errors that made trusting them difficult. In practice, this

meant he needed to get additional sources to verify DEP claims when he otherwise might have not felt the need to check out. "We had to be more focused on what [the DEP] were saying," he said. "Sometimes what the DEP was saying – it wasn't that they were trying to mislead you, sometimes there were just mistakes in what they were determining."

For example, Neil said, an incident report where the DEP indicated there had been four fires at one well site that was, in actuality, four fires at three separate sites. The error was not a small one — "that really changes the scope of the story," he said — and it meant that in future dealings he could not take DEP statements at face value.

However, Mike, a reporter at a small weekly paper, categorized his decisions on governmental sourcing differently. While Neil said he was forced to confirm statements made by government sources, Mike said he trusted government sources simply because there was no other means of verifying their information. Functionally, this meant if there was a difference of opinion between the government and a drilling company, Mike was reflexively more inclined to go with the government source:

> There are some stories where I get a statement from DEP and statement from a gas company and there's no third [party]. I don't feel like I know enough about the – there's not a third party involved who can say DEP didn't do a good enough job of testing it. Or that there was something more, I don't know, that happened. I have to take [DEP's] word for it.

Trust in governmental sources, respondents indicated, was not so much earned as acquiesced to. The difficulty in holding the DEP accountable was grounded in a lack of sufficient knowledge about drilling, and fracking in particular, to provide that accountability. While a number of respondents shared this general view of somewhat-

reluctant trust in governmental sources, Mike was the only reporter to expressly categorize trust in terms of having to "take their word for it."

Trust in governmental sources was not entirely in question for respondents. Several reporters did not directly critique governmental sources when asked, indicating that they were given no particular pause when dealing with this type of source. It is worth noting, however, that only Mike said he considers governmental sources trustworthy until proven otherwise. The rest suggested some level of discomfort or caution when dealing with sources that the literature suggests are the most credible option outside of academic sources (Detjen, Fico, Li, & Kim, 2000). Unlike some of the other respondents, Mike said he would utilize these sources' claims without the need to vet or further investigate. Interestingly, Mike's reasoning fell in line with the official nature of these sources. "Generally things from DEP we're more likely to take at face value… They're the official government in charge of overseeing [natural gas drilling]," he said, suggesting that this position of authority meant their statements were subsequently authoritative on the issue. This was not a blind faith, however; he was open to the idea of governmental sources being contradicted. "If we get somebody, and I don't think this has happened, if we get somebody with good credibility that DEP is wrong, we consider it," he said, before adding, "That hasn't happened." The implicit trust was evidenced later, when, in contrasting governmental sources with less trustworthy ones, he indicated just how little skepticism he brought to government sources: "I print DEP's answers almost verbatim and don't look for information to dispute them," he said.

Trust in local officials. Since the DEP is the state agency tasked with overseeing natural gas extraction in Pennsylvania, perhaps unsurprisingly most governmental

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sources respondents referred to were members of this regulatory body. While there was a lack of trust in these regulatory bodies, respondents did indicate they had more trust in local officials and politicians, which are also considered governmental sources in the literature. Interestingly, a large aspect of the increased trust for local sources was attributed to respondents having a previous track record of working with these officials. Underscoring the impact of experience with sources on the perceived trustworthiness of those sources was that discussion any sort of previous relationships was mostly absent when discussing regulatory officials.

Comparing statewide regulatory sources, which were essentially strangers to familiar local political or bureaucratic sources, illuminated the role previous experience played for respondents when judging the credibility of sources. Scott, a reporter at a small daily, encapsulated this: "When you start talking to source for the first time you're skeptical," he said, "but as for the [local] officials you can draw from past experiences." With known commodities like local officials, "I figure I don't necessarily have to validate this claim or that claim or so on," he said.

Respondents did not indicate this meant local government sources were considered unimpeachable, however. In discussing local sources, one reporter found it important to differentiate between government sources like politicians that might have an agenda on the Marcellus shale and those employed by government who were "just doing their jobs." Mike said he is much more comfortable trusting "bureaucrats than politicians":

> When the governor or our local representative or a county commissioner or a
> school board member makes a statement, I might still print it but I'm much more

likely to look into it to see if there's another side to the story.

The inferred corollary: non-political local governmental sources were not subject to such scrutiny because they are more trusted. This distinction between political and bureaucrat supports similar instances found in literature concerning trust in government sources. At its core, the distrust respondents indicated they had for governmental sources of all stripes was nearly always situated in concerns over agenda. The impact of agenda on credulity will be discussed at length later in the chapter.

Access to government records and sources. Several studies have indicated ease of access or relative accessibility compared to other sources as a reason why government sources were used — or overused — by reporters (Sigal, 1974; Powers & Fico, 1994; Lacy & Coulson, 2000). Access was important to respondents; however, rather than being a positive for governmental sources, as indicated by the literature, the issue of access was often seen as a negative for many respondents when covering the Marcellus shale.

Frustrations over lack of access was also a major theme of respondents concerns with industry sources, as will be discussed later, but the topic of access with government sources is particularly interesting with shale stories as it directly contrasts with the expectations in the literature, where government sources are often seen as valuable because of access. Respondents indicated the lack of access to sources and "extremely long" Open Records delays were their primary concerns with the use of government sources in Marcellus shale stories. Neil bemoaned a "seven-week wait" to access DEP records, for example, as part of the logistical difficulty of utilizing governmental sources when covering the Marcellus shale. James illustrated the issues of access with DEP

sources this way:

> I had written a couple of [Marcellus shale] accident stories – ones you'd treat like
> typical cop story: you call EMS and probably end with the industry who wouldn't
> give you anything so you need to go to DEP. But to access what I really needed
> — from DEP — I needed a Open Records request — PA lets them stall for 40
> days — so most of stories I would have to plan out, start working out a month
> before I got to file it.

In an industry defined by its daily – and sometimes hourly – grind, this kind of delay was effectively debilitating, respondents said. Respondents described attempting to use government records as a source was frustrating because it seemed impediments were put in place to make the process difficult. Simply navigating the bureaucracy to request the records was esoteric and archaic, said Rebecca, and required great expertise. "Knowing what form to ask for is half the challenges with these stories because it's certainly not well explained and not electronic," she said. What you're looking for is often "really, really buried in paper files" and then, even when records were accessible, they were "deeply confusing," she said. For someone to effectively find records and do substantial analysis from them would require "someone with an investigative background and resources."

The concern over records requests being drawn out was exacerbated because documents were seen as a necessity for reporting with the lack of access to sources and ineffectiveness of government public relations practitioners. "DEP would not make experts available for interviews and PR people were not effective at answering the kinds of questions I had to level of detail I needed, so I needed to see documents first hand,"

James said, again circling back to the delays this lack of access created. "Very rarely could I get a story out before a month or so after it happened because I was waiting on Open Records." As a result, James said he simply "didn't do daily stories on Marcellus." In other words, the access — or lack thereof — of governmental sources forced a reporter to change his approach to covering the industry. Rebecca found that access to government sources was fluid based on both the agency in question and the topic of the story. "Sometimes you can get someone and sometimes you can't," she said. "Ongoing investigation, you get tightly controlled press statements, not a lot of access to people on ground. Less contentious issues? Probably talk to actual person who's in charge of facilitating that program." Unfortunately for reporters attempting to get information from government sources, it is more contentious issues that would most require access to sources. Despite the frustrations over working with government sources, in the aggregate, they were perceived as being more trustworthy and accessible than industry sources. Respondents' attitude toward industry sources will be discussed in the following section.

Attitude Toward Industry Sources

In respondents' estimation, industry sources include executives, employees, and public relations practitioners from natural gas companies, their affiliated industries, or drilling advocacy groups. Industry sources are often conflated with a general pro-drilling sentiment, which makes up one of the two dominant "sides" of the Marcellus shale debate. The literature on sourcing practices in environmental stories does not paint a positive picture for industry sources. According to studies of environmental journalists' use of sources, reporters vastly prefer non-profit sources such as university researchers and governmental officials to industry sources. In a survey of environmental journalists'

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perceptions of source credibility, only 6 percent considered business or industrial sources as very credible (Detjen, Fico, Li, & Kim, 2000).

This general distrust or skepticism of industry sources is at its heart a concern over sources with self-serving agendas. Journalists of all kinds have a longstanding preference for sources without a clear self-serving agenda (Cameron, Sallot, & Curtin, 1997; Curtin, 1999; Pincus, Rimmer, Rayfield, & Cropp, 1993; Turk, 1985). Journalists are aware that all sources of all types have some sort of agenda and push a particular framing of a story. However, the likelihood and extent that the agenda will shape the source's information is the hinge on which credibility judgments are made. For a journalist attempting produce an objective article, sources with an obvious vested interest in the story are seen as less credible (Cameron, Sallot, & Curtin, 1997). That is not to say that these sources do not serve a purpose, but rather that their claims are taken far more skeptically and subject to greater verification checks before publication than sources without clear agendas. The largest impediment to trusting industry sources on Marcellus shale stories was skepticism over these sources' agenda, which will be examined in the following section.

Trust in industry sources. Respondents described a lack of trust in self-serving claims of industry sources and were unequivocal in their belief that industry sources required a heightened skepticism. These industry sources still played a central role in Marcellus shale stories, but respondents acknowledged that their use required them to adapt their normal sourcing practices to be cognizant of the source's agenda. For example, Scott said he had a "good working relationship" with industry sources during his time as a reporter at a small daily newspaper because he found them useful for

representing a company's interests on a story, but "I wouldn't say they're trustworthy; they have their agenda." James, a relatively new reporter at a mid-size daily, said it is understood by both sides that industry sources are inextricably tied to their agenda. "I have to consider that all the time," he said. "That's just the constant background unspoken understanding. They know that you know they have agenda they're unashamed about it." Adam, a 36-year veteran reporter working at a large metro paper, also identified a categorical self-interest of industry sources. "They're all spinning you; that's their job," he said.

Functionally, this attitude toward industry sources meant respondents treated them differently. For example, James said he would seek to confirm any industry information about economic gains with state or federal data rather than simply publishing them. Similarly, Mike said he would weigh the likelihood that industry sources were "spinning" him when considering a claim:

> If we get statements of production levels from a well they just tested, that's fine; I'm not going to argue with that. If they've got statement about environmental impact on an alleged spill, I'm looking for other sources; I'm not going to take their word on it.

Mike said the vested interest of public relations practitioners meant a fundamental need to verify with other sources. "You had to get more sources," he said. "You've got to." Mike did acknowledge that it didn't always work that way: "Some stories I do really well with that and some I don't." Neil also found industry sources to be untrustworthy but said his adherence to journalistic norms meant he did not let being misled or spun on one story impact the way he approached those sources on another story. "As a reporter you have to

open yourself up to hearing the industry out regardless of whether you believe they are telling you the truth on something else," he said.

Lack of trust in industry sources ran a spectrum from cautious skepticism of claims to outright disbelief. In one telling example, after experiencing difficulty trying to report on a contentious issue with a natural gas company operating in his region, Joe found himself exasperated with industry sources to the point where they began to lose all credibility. "Some of the stuff they were saying was literally unbelievable," said Joe. In several instances Joe and his colleagues found industry sources would make claims or statements only for those statements to be contradicted by information that came to light later. When he pressed these industry sources, they would go so far as to evade the contradictory evidence altogether. "Even in interviews when we'd sit down, with our findings, and ask these questions, they wouldn't answer the questions" and would instead act as if they weren't aware of the information he had just presented them. Because he couldn't trust the industry sources, "their importance to the story became less," Joe said.

An outright refusal to acknowledge dissonant facts was a particularly extreme example of sources being compromised by their agenda. Other times, industry sources would refuse to comment on stories that might portray them in a negative light. "Sometimes people just ignore you or they just don't want to weigh in on an issue [even if they respond to others]," Rebecca said. This selective accessibility was made more frustrating, Joe said, when the same sources who refused to comment would then complain about the story that was written without their input. "They wouldn't get back to us so we went with what we had, and then we would, of course, get the phone call the next day to say the whole story was wrong," he said.

When respondents did describe trusting industry sources, it was often the result of having developed a relationship with public relations practitioners from working together on previous stories. In some cases, simply having a track record with the practitioner to judge made respondents seem more inclined to trust the source in future interactions. James described developing a positive reputation with sources was "crucial for working with industry" in order to know which sources were usable and which were not. Previous experience also allowed reporters to get a sense of just what kind of public relations practitioner they were dealing with. Adam said knowing "everybody involved in this issue" was important because, as a reporter, he had to "know who's qualified to speak and who's a crackpot. It goes to your own credibility as a reporter to make sure you're speaking to credible sources." Rebecca said she trusted industry sources who were willing to connect her to other sources rather than only providing "canned" responses:

Not that there's not a use for a prepackaged statement in some cases, I understand that, but if someone who is a facilitator, you're more likely to have a more trusting relationship with that person as PR and a journalist than if that person is the only person you can have a relationship with and they never pass you on any information from someone else or set up an interview with somebody else.

Even if they cannot set up an interview with another source, Rebecca said she evaluated the usefulness of a spokesperson as a source on if they had "done their homework" enough to have a sophisticated knowledge of the topic to offer a useful addition to a story. Adam also preferred to use industry sources based on their willingness to facilitate:

I think good PR people who are honest and accessible and know the subject are invaluable to all processes. The good ones, where you have established with a

relationship, if they don't have the answer they will go to their sources and get

back to you and put you in touch with people directly, often that's what it leads to

— put you on with a CEO or vice president or whoever in the agency.

According to respondents, no matter their personal attitude toward these sources, being

denied access to useful industry sources was a significant hindrance on Marcellus shale

stories. This aspect will be described in depth in the following section.

Value of access. Respondents indicated most of their industry sources were

public relations practitioners, likely meaning the distrust for industry sources was

compounded by a general antipathy for public relations sources (Kopenhaver, Martinson,

& Ryan, 1984; Sallot & Johnson, 2006b). However, the literature suggests journalists do

use public relations sources (Cameron, Sallot, & Curtin, 1997; Cho & Cameron, 2007),

even though they would prefer not to. This was clearly the case for respondents, who,

despite reservations about industry public relations, also found them essential to reporting

on the Marcellus shale. In community impact stories, economic stories, or even policy

stories, it was important to have a spokesperson from industry respond or comment,

meaning public relations practitioners were often included in respondents' sourcing

practices. Despite this, not all public relations practitioners were viewed the same.

Interestingly, despite much of the talk of vested interest and conflict mentioned

above, the simple concept of access was a central component in respondents' views of

public relations practitioners. Neil's determination of a "good PR person" was quite

simple: do they "answer the phone when you call or answer email"? The philosophical or

theoretical distrust of public relations practitioners could be conquered by their

willingness to participate in the process. "If they answer your questions, those are the

ones that I like and rely on," Neil said. In fact, many respondents described not only

trusting but relying on public relations practitioners who made themselves available to

reporters. Scott described having a "good working relationship" with industry sources in

his area who were "very responsive." He had a public relations practitioner's cell phone

number and "if we needed a comment from the company, he was right there with it," he

said. James, meanwhile, praised one prominent gas company because they never got a

"no comment."

The importance of access was made especially clear when reporters were on

deadline, respondents said. For example, Adam preferred spokespeople who "understand

what deadlines are," which he operationalized as them being "more likely to respond on a

tight deadline." In fact, Scott ascribed his good working relationship with industry public

relations practitioners to the fact that they "knew where we were coming from" as

reporters and helped fill those journalistic needs. Believing public relations practitioners

for industry understood what they offered to journalists was another commonality among

respondents. "They were always ready to fill that journalistic role of when you reach

out," said James. Other respondents described using industry public relations

practitioners as a reliable source to maintain balance by having someone "represent" the

industry in a particular story. In a variety of ways, respondents often qualified questions

of trust in industry sources with whether or not they were accessible and therefore

capable of assisting journalists in fulfilling their duties. In this way, while they often

spoke with caution about industry's trustworthiness, the reporter's personal need to

complete their story or stories came first. This aligns with the Cameron et al. (1999), who

found that individual practitioners are often viewed much more highly than the field as a

whole.

The principle drawback of sourcing public relations practitioners is that they are almost always lesser value sources than the experts, officials, or employees they represent, respondents said. Instead of being able to speak with the engineer, scientist, or executive, the journalists instead had to settle for second-hand information from the practitioners. Since respondents expressed desire to get the best information in their stories, this meant practitioners were explicitly seen as worse options for sourcing than those they represented. As a result, respondents spoke highly of industry public relations practitioners who put reporters in touch with sources directly.

When that was not possible, and practitioners were the only available source, respondents felt there was a clear distinction between "good PR" and bad. A key component in being considered a quality source was being knowledgeable about the topics the journalist was writing about, respondents said. When covering the Marcellus shale, respondents found that despite often serving as the sole voice for a company these practitioners were not always well versed on the topic or the science behind it. "It doesn't take long to figure out which PR people are well informed," Adam said. Rebecca found that the quality of these practitioners' offerings varied widely:

> There are certain of them who you know are doing really good work…you can
> really trust that they are speaking having gotten as much info as they can, even if
> they don't let you speak directly to the person in their company who might be
> handling whatever issue, you can tell if they have sophisticated knowledge of it,
> in that case I think that's a very valuable source. Sometimes if it's just a canned
> statement from a spokesperson who clearly hasn't had the time to review and vet

that work; that's frustrating. That's not as useful – it's not as useful as a reader. The problem with these uninformed sources serving as the voice for industry is that they are unable to provide anything that helps the reader "really advance your understanding," Rebecca said. Respondent frustration with being denied access to sources that would help advance that understanding is discussed in the following section.

Closed-off industry sources. Respondents spoke at length about the importance of access and how they valued public relations practitioners who were accessible. This was often underscored by complaints and critique of industry sources who were inaccessible or natural gas companies who were even antagonistic to the press. This refusal of access to industry presented more than a simple logistical hurdle for respondents, it shaped the framing of the story in a way that was outside the reporter's control. Respondents saw the issue of access as an issue of ensuring objectivity. "If all you're hearing from is one side of the story then your reporting is going to reflect that," Adam said.

With access often valued highly by respondents, it was clear that the lack of availability among industry sources was a point of contention. In particular, industry sources were described as "limited" or "closed off" and that when trying to get a quote they would "clam up" or be "difficult." As a generalization, Rebecca said most natural gas companies are "fairly closed in their culture," with few sources for reporters to call on. Compounding matters, those sources that were available are often not the ones reporters want to interview. Respondents were often forced to source public relations practitioners instead of the scientist, engineer, or official actually associated with the story being written. Rebecca described attempting to interview high quality sources that

are doing "incredibly good work" only to find that are not accessible because of "PR strategies." "It's sometimes difficult with companies to get past a PR policy that really restricts all of the official speech to one person," Rebecca said. Some companies do allow a reporter to access engineers central to a story, for example, "but it's rare to get access," she said. These types of policies that restrict employees from speaking to the media were often cited as a problem with using industry sources, as it forced reporters into a limited pool of possible interviews. "With industry you're limited [in who you can speak with]," Neil said. "Range Resources have one person who speaks [to the media]. A lot of companies don't have anyone. It can be really difficult." Since stories about Marcellus shale would be incomplete without at least some sort of perfunctory industry comment, respondents had found no choice but to work under the confines of these restrictive public relations practices. "There are only so many options if you're writing about a certain company," Rebecca said. "You're probably going to deal with their spokesmen."

Though no one interviewed for the present study preferred speaking with spokespeople, at least the company or industry viewpoint would be represented. A particularly troubling recent trend for respondents was when even a company's official spokesperson would be inaccessible, as the company essentially refused to participate in the journalistic process. James described working on stories about fairly run-of-the-mill accidents involving natural gas companies, stories that were "nothing confrontational" and treated "like a typical cop story" that are written every day at papers around the globe. However, despite being relatively innocuous in nature, when he would contact the industry for a response, they would refuse comment. "They would ignore me," he said. "Some would not respond whatsoever."

Other respondents described industry sources that would refuse to comment on an issue "even if they have in other venues" or would just wait until after deadline to respond. The result, according to Joe, was often a "very unbalanced story." The lack of cooperation from industry was not restricted to just stonewalling requests for comment. Though the natural gas industry's efforts had the potential for considerable community impact, the drill sites themselves were private property, meaning that journalists were regularly restricted from witnessing firsthand what they were attempting to report on. Respondents said they would regularly be denied physical access to the most fundamental location for drilling stories: drill sites and the properties they reside on. "They don't open their doors and take you there," said Neil. This made holding the industry accountable for its claims especially difficult, Joe said, even those claims that were in the industry's benefit. For example, when trying to report on industry claims of safety equipment in place for wastewater holding, Joe was barred from actually seeing what public relations subsidies were touting as a major breakthrough. "They're telling us they've got this technology but we've never been on at the site; you can't get up there, it's private property, it's closed off," he said. In other words, as a result of a lack of access, there was no way to confirm if this was anything other than public relations puffery.

As detailed above, respondents had plenty of experience with poor access of industry sources. Paradoxically, respondents often followed those anecdotes with statements about how they, through doing work that sources respected, were able to get access to sources. This seemingly contradictory scenario can be summarized by the belief that way to break through the industry wall, respondents said, was by building a positive reputation among the sources who make up the Marcellus shale beat. Scott, who

described frustrations over being stonewalled by industry sources, said minutes later that, "I could call people in both industries and the DEP and they respond to me because they have a relationship with me," adding that he felt he was "pretty well respected" by these sources. According to Scott, a source's impression of a reporter and his or her work was an important consideration in getting access to quality sources. "You have to be likable as a journalist," he said. "When you're likable and you write fair balanced stories they talk to you more than other people." James described one story he "stumbled on" when a "media wary" source, an industry geologist, contacted him because he had read his previous coverage on Marcellus shale. James' coverage, according to this geologist, showed he would treat the story the right way, unlike many at other newspapers, which is why he felt he had success with industry sources. "I think it's because of the landscape of the rest of media in Pennsylvania," he said. "All it took to make industry happy was a little objectivity and fair dealing with them. A little bit went so far it was sad."

Adam did not feel it was a matter of catering to industry, necessarily, as much as his reputation was based on presenting "the positions fairly in context." This meant he ensured his sources felt they could trust him to accurately portray them in print, which, in turn, led to better access. "If [sources] feel things are being twisted and you do that repeatedly you end up alienating constituencies that you need to have access to," he said. Rebecca echoed this belief that the "norms of balance" are key but also that time on the beat was a path to success in access:

> I think one of the things that's helped as you do this for a longer period of time you have more people who you know are willing to comment or lead you to other people who may be specialists in it. I have been doing this long enough that I

generally can get to somebody who's not just a spokesperson but is ether a policy

analyst or someone who is directly working on issue, one of their counsel, a

lawyer who is actually working on something.

Interestingly, the division between accessible and inaccessible natural gas companies

sometimes included the very same sources. Those respondents who have worked the

Marcellus shale beat for several years described with chagrin that they had dealt with

companies in their area that were once open to being interviewed becoming increasingly

closed off to comment over time. In some cases, the changes were a result of a maturation

of the industry. One reporter described the differences sourcing today versus during the

immediate aftermath of an early environmental incident, the Dimock, Pa., methane

contamination: "At that point the spokesman for company was just their lawyer, no PR

army," the reporter said. "That's not the case [anymore] as shale became much more

controversial. Companies got more sophisticated; the PR network is built up." This

follows the common theme: an initially open industry that became closed off as criticism

or controversy arose.

Joe offered a succinct version of this view of natural gas companies: "In my mind

they've determined that no news is good news," he said. "Even if it's good news, it's bad

because now their name is on the page where they can be attacked by the 'frackivists.'"

Joe said this shift from the early days of the industry's arrival in Pennsylvania, when

"they would roll out the red carpet," was painfully clear to those working the beat:

The way the industry reacts to the media and local residents is very different than

it was seven, eight years ago. They were very open – sponsor pigs at the fair, host

open houses – back in '07 and '08, when they were trying to explain [the process

of natural gas extraction] and reach out. And then the issue became so divisive
that some in the industry won't return our calls. And then we have a very
unbalanced story.

Respondents were able to call to mind anecdotes of poor responses from the industry, where they felt they were ignored or "jerked around." One reporter described a dramatic reversal in the public relations tactics of Chesapeake Energy, a major natural gas company that "fell from grace." The company initially entered the region with an active local public relations office that heavily emphasized "good news" like charitable donations. However, after controversy and as things turned sour in the area "that whole department lost their jobs," the reporter said. With the local office shuttered, the reporter had to contact the public relations office in Oklahoma – who would often refuse comment. "They became very cold," the reporter said, and what was once an active and forthcoming source suddenly dried up. Though not widespread, this type of strained relationship with industry sources sometimes deteriorated to the point where natural gas companies were treating reporters as an oppositional force. This will be addressed in the following section.

Antagonism from industry sources. Beyond the typical professional conflict or tension seen between reporters and public relations practitioners, three of the respondents also related experiencing an antagonistic relationship with industry as part of writing Marcellus shale stories. In some cases this was an explicit attack on reporters or their coverage. Rebecca described a specific "hard knuckled" attempt by industry public relations to discredit her and her reporting in the days when the Marcellus shale was first becoming controversial:

Their spokesman was not happy about a story I was going to write about a whistle

blower who had used to work for one of subsidiaries and then had his water

supply affected. He had damning things to say about early practices of that

company. I reached out for long time to try to get the company to respond. I knew

the whistle blower had made compliant to state DEP so there was some

documentation and the company had had to follow-up. Instead of responding with

that documents, which should have been forthcoming, this spokesman contacted

and wrote letters before the story came out to all kinds of local important

stakeholders – elected officials, chamber of commerce, companies – saying,

'they're going to publish unfair and inaccurate stories about us.' Instead of

spending time gathering resources that could've been factually disproving or

rebutting some of the complaints, he spent that time trying to accuse me of being

unfair before the story had never even been written. I had never had that

experience before. It was outrageous to me as a reporter.

The incident, which Rebecca characterized as an "attack," was the most concrete example

of direct antagonism from industry; however, the culture of intimidation that it

represented was reflected by other respondents who described difficult dealings with

industry sources.

While Rebecca's instance was an obvious attempt at undercutting reporting about

industry, Neil described being keenly aware that industry was also engaged in much more

subtle, yet still pernicious, efforts. It was not uncommon, Neil said, for him to notice

during public meetings that industry employees or public relations practitioners "paid

close attention" to how much time he and other reporters spent talking to environmental

lawyers or anti-drilling activists. This was a clear attempt to ascertain where their "loyalties" lay, he said, and made him conscious that he was being watched. "In this particular story you have to be careful what you say what to," he said. "They're keeping track." More troubling, he said, was that the industry had employees whose job was specifically to keep an eye on reporters. "The industry has spies; they've admitted it," he said. It wasn't just reporters that were watched, he said, adding that the industry also operates a "secret police force" to watch their truck drivers actions.

Neil was not alone in feeling the industry was employing efforts to monitor journalists. In Joe's estimation, the industry's efforts extended beyond just reporters and reached the point that he considered them "PSYOPs," a military term for the gathering and use of information in an attempt to undermine enemies. "There were some people in the industry who were hired to be PSYOPs, to do opposition research against people – against people who are against this," he said. "I have no doubt that they probably did PSYOPs or responses to me." It is important to note here that sources engaging in this type of clandestine effort as a tool to possibly discredit reporters is essentially unprecedented. In fact, when disgraced head of Fox News, Roger Ailes, was suspected to have been conducted a similar effort against reporters it made national news (Rieder, 2016). Moreover, there is little in the literature that suggests a similarly pervasive atmosphere of antagonism at an industry-wide level exists in other areas of environmental reporting. Despite speaking with passion about the topic, each respondent insisted that industry antagonism had not impacted his or her ability to be fair or objective on the industry.

Attitude Toward Environmental Groups

The source category of environmental groups covered a far wider swath of possible inclusions than government or industry groups. The primary group respondents addressed when discussing environmental groups was anti-drilling or anti-fracking advocacy groups. This includes well-organized and financed outfits, both state and national, as well as more loosely tied grassroots movements and individual critics of the industry. Landowners, or the general public, were also often included in this group by respondents. This group was more likely to criticize the industry rather than speak out in support of it. The literature suggests environmental coverage is marked by an imbalance in the use of sources. Environmental activist or advocacy groups are regularly found to be marginalized or underrepresented by environmental journalists (Smith, 1993; Lacey and Coulson, 2001). Environmental groups have been found to be preferred by reporters over industry sources, however (Dumanoski, 1994). Respondents' perceptions of environmental voices when covering the Marcellus shale follows.

Dismissive attitude. Respondents described working with the landowners and environmental groups as a situation wholly unlike those with governmental or industry sources. Effectively, this category of anti-drilling sources had far greater variation in the quality of person's potential contribution to an article, as landowners or other members of the public were less professional and therefore less credible than industry or governmental sources. Respondents indicated they perceived many environmental voices dismissively, with respondents describing some of these sources as "fairly eccentric," "spouting off conspiracy theories," "screaming," and as "crazies" who "no matter what the industry did they were against it."

Members of the public against drilling or environmental groups were often generalized as being typified by their least professional or most outlandish examples. Little, if any, effort was made to include hedging statements about reasonable or important voices from this group. This was especially true for members of the public. Neil, for example, said that residents could be "hysterical" about possible drilling impact, which hurt their credibility as sources. "Some of them earn their reputations as not being very reliable by their own actions – false alarms," he said. "There's a certain degree of hysteria." Neil indicated that he understood why this happened – a dearth of information motivated people to have questions and doubts – but the result was the same: sources from the public were seen as untrustworthy.

When asked about environmental groups, Joe described them as being hyperbolic and reactionary:

> Some people – you don't want to say one side is good or bad – but some people on the environmental side are so over the top. If you're not taking the industry to task on every single one of your stories then you were in bed with them or you were pro-drilling. There were certain people who were so anti-drilling that you just had to just step away from what they were saying because it was so off the wall. It really was.

Joe said there were some environmental voices that he knew weren't credible so he would simply not consider them as potential sources. "If you know someone would just go off the rails and this was their M.O. every meeting, sometimes you just had to put your pen down." Scott said you have to trust the "feeling in our gut" on public sources and "learn the types of personalities you can trust and those you have to look into what

they're saying or just dismiss it." Adam indicated that pro-drilling voices can be just as untrustworthy as anti-drilling and that any use of public sources required "finding people who are reasonable on all sides of the issue." "There's plenty of environmentalists who are not out raging in the streets sort of thing or wanting to sabotage of vandalize well sites or chain themselves to tree that see some real implications to all this," he said. Environmental or anti-drilling sources were by definition pushing an agenda, which likely helped to marginalize them in the eyes of journalists who are skeptical of those with clear agendas. The ramifications of this for respondents will be explored in-depth in the following section.

Clear agenda. Respondents indicated that environmental sources had a clear agenda, which was a factor when considering their credibility. As mentioned previously, all sources are understood to push particular frames, but respondents often categorized environmental sources as taking this to an extreme that made them less useful in objective newsgathering. Many environmental sources were described by respondents as having a knee-jerk antagonism to the industry regardless of the circumstances of the story being covered. "If you're not for them, you're pro-drilling. It's one or the other," said Joe. These types of sources were held in low regard because the source's agenda prevented any reasonable evaluation of the issue and resulted in a lack of substance or nuance.

It is important to note here that when it came to judging a source's credibility, an agenda makes these anti-drilling groups just as potentially compromised as industry groups relentlessly pushing a pro-drilling message. Rebecca said she applied the same skepticism to both sides:

You always are evaluating the sources, what their strategy is, and what their

position is. You have similar skepticism for environmental group that is pushing

for a particular policy just as you would just for an industry group that is maybe

pushing against that same policy.

Mike described a similar instinct to not trust an activist group on a particular framing of a

story any more than he'd trust a gas company's framing. When this type of source makes

a claim, "I'm looking for other sources," he said. "I'm not going to take their word on it.

I'm not going to stop with them." Scott approached most public or environmental sources

with a default level of skepticism and expected them to prove their claims before he was

willing to report them. "As far as judging whether a person can be trusted, there's people

who approach us with claim or whatever and the simple question I ask them is 'how do

you know that?'" he said. For example, a person called him to report sand being spilled

from trains in the area was toxic and not being cleaned up properly. When pressed how

he knew the sand was toxic, the caller's claim fell apart, Scott said. "They're not doing

their own research," he said. "They're claims out of the blue." Avoiding these sorts of

spurious claims is important for his paper to maintain its credibility. "We have to be very

careful," he said. This level of skepticism was blanketed across all environmental

sources, despite the fact groups and individuals can cover a wide range of advocacy

positions and interests. "They all have agendas," Neil said of environmental sources.

Landowners as sources. An important subset of sources within the

environmental grouping were landowners and residents in the areas where drilling was

taking place. As briefly mentioned above, while not technically environmental sources or

even exclusively anti-drilling in attitude, respondents often discussed landowners and

members of the public in conjunction with environmental groups. It appeared the distinguishing factor in the grouping was not necessarily attitude towards the industry as much as being non-professional sources. Of the three sides of the Marcellus shale debate respondents commonly and blithely referred to – government, industry, and environmental – landowners and other members of the public could effectively be found in support of any side, or straddling the lines between them.

Still, respondents indicated that the loudest voices from the public were often those in opposition to drilling, which may have also contributed to their inclusion in the overarching environmental group. It is important to note that members of the public may include those with natural gas land leases or those without, those who own land and those who do not, and those who support drilling in their area and those who do not.

Regardless of the specifics, respondents felt inclusion of these sources was valuable. "You always want to find people who have a dog in the fight – maybe they live a mile or two from a drill site," Scott said. Rebecca spoke at length about her efforts to include in her stories a "regular person's voice with how it affects them" because this is a story that is happening in "people's backyards." The difficulty in finding these sources meant "regular folk voices" were often underrepresented in Marcellus shale stories. "You don't hear them often even though that's where all the impact is happening," she said. (The ways deadline pressures contribute to that underrepresentation will be discussed later in the chapter.) Scott also felt "passionate people" were valuable additions to Marcellus shale coverage. "There's opinions all over the place," he said. "It has been an issue on forefront of people's minds."

For those homeowners who had land leases from the natural gas industry, issues of conflict of interest and access were factors respondents considered when determining sourcing stories. Whether it be pro- or anti-drilling, respondents found they had to weigh the agenda of landowners in determining their credibility as a source.

In particular, sources who were too eager to be used in stories about the Marcellus shale were seen as less credible because they were pushing a particular narrative. "I look for sources who are not trying to get in the media aggressively," James said. "I feel the harder someone tries to be quoted – if they're a serial source – the less likely I am to trust them." This includes sources respondents felt were being pushed by "the environmental movement" as "case studies" that were overused and overexposed. "There are four or five people who were always, always having their stories told over and over again," he said. "I would talk to them all the time but I would rarely write about them or quote them." Their reliable outspokenness did make them attractive to reporters who needed a public voice, though James disagreed with his peers who fell back on these overused sources rather than finding more organic and appropriate ones. "[Those sources] were there just to fill a role in piece of journalism," he said. "To see them over and over again made for lousy journalism." On the other side were sources like landowners with anti-disclosure agreements that are often part of land lease deals. Joe described one landowner who was eager to be quoted about the positive impacts of drilling but since he was being paid by the industry Joe could not consider him a credible source. "He had an impoundment on his property and couldn't be happier about it – but he was also paid to say that, right?" Joe said. Even if he were unhappy, "he signed a non-disclosure" and if he is happy, well, Joe said, that's probably because "he's getting plenty of money."

These examples contrasted with landowners who were considered more trustworthy because "if you approach them, they never wanted to be in media and had never told story before," said James. "There's nothing on their name on Google." Unlike the clear partisans attempting to frame the media agenda or those who had been featured before in news stories, James said the sources he had to seek out were more valuable because they offered a view of the topic that was not predetermined or rehearsed. "Those people always had mixed views of industry," he said. "Like, a check is nice but water is nice too. That was the real story that I was looking for." This reticence to be featured by the media was also what made finding these sources so difficult. Scott felt the type of people who lived in areas where drilling was most likely to have an impact were also the least likely to seek the limelight. "One challenge you face in small town journalism is people live in small towns because they want to be left alone," he said. "You go to talk to them and they might not want to talk for whatever reason. They want to be out of the spotlight – want someone else to speak."

Beyond the few who were actively trying to get in media coverage, respondents felt it was difficult to get access to those landowners who signed leases with natural gas companies, in no small part because of the non-disclosure agreements. "Overwhelmingly [people with] leases don't talk to the media," Neil said. This posed problems for journalists trying to report a complete picture of the natural gas industry, as those closest to the drilling were the least likely to be sources. Not that respondents didn't try: Rebecca said in the early days of the industry's arrival she went "knocking on doors" to try to ask people near drill sites about their experiences, which she now says "was probably not the wisest." "I got chased back to my car by dogs at one point," she said with a chuckle.

Evaluation of Source Credibility

Whether a source is used or not depends heavily on whether the person is deemed as credible by the journalist (Detjen et al., 2000; Gans, 1979; Goldenberg, 1975). A number of factors have been found to contribute and confound this process of determining credibility, which are detailed in Chapter 2. When judging a source's credibility for a Marcellus shale story, respondents described considering the source's agenda, the quality of the source's potential contribution to the article, previous experiences with the source, and practical considerations like ease of access and the novelty of the source. These factors are considered in the following section.

Weighing Agenda's Impact

Respondents indicated a primary consideration when judging a source is what, if any, agenda the source may be attempting to convey. As discussed above, respondents described being aware of the attempts by sources on all sides of the issue to frame the reporter's coverage of the topic. Adam captured this default expectation most succinctly: "I understand they're coming from a point of view or have a business interest or environmental interest, and that's fine," he said. "Everybody has something that they're trying to promote."

Despite this expectation that industry, government, and environmental sources all having an agenda on Marcellus shale, respondents still indicated they found sources without an agenda to be more trustworthy. Sources who "didn't seem to be pushing anything" were their preference, as they were believed to be more credible. "I sought out neutral people whenever I could," said James. "I loved neutral people." In practical terms, neutral seemed to be those sources who were not at the farthest extremes of the

debate or pushing something that would benefit them. The more obviously self-serving a source's motivations were, the "less likely I am to trust them," James said. He recalled one "neutral" source he found particularly credible, a woman who was concerned about air quality as the result of natural gas drilling and had heavily researched and investigated the potential risk but "also liked a lot of things about the industry." Unlike many polemical sources found on both sides, this woman was "very cautious and talked a lot on background," James said, which was "a mark of discerning source." Interviewing sources "on background" is a tactic often used by journalists to get a greater understanding of a topic rather than actually advance reporting of a particular article; these interviews are not used in publication nor is the information reported with attribution. The woman's desire to be "on background" rather than in print or in the limelight signaled to James that she was not aggressively trying to "get in the media" and meant her contributions were less likely to be self-serving. These more neutral or independent sources were more difficult to find, as they were less visible and vocal.

Quality of Contribution

At their most fundamental level, interviews with sources are explicitly transactional. Interviews are primary vehicles by which journalists collect the information to write articles and, as such, respondents judged the credibility of a source in part by the quality of a source's potential contribution to an article. Sources with expertise capable of providing knowledgeable insight into the topic were valued highly. The potential quality of contribution served as an important consideration when sourcing, respondents indicated. As such, respondents reported preferring sources with substantive knowledge as well as those who could be succinct, though those preferences were sometimes at odds.

Respondents said they valued sources who could discuss Marcellus shale issues substantively, saying they preferred sources with "nuance" and "subtlety" who could be "more thoughtful" and "see a lot of different dimensions" to the issue. A way to determine if a source is knowledgeable or not is if they can essentially "cut through" jargon or complex concepts to "do a translation" for an average reader. Respondents expressed disdain for sources who provided only talking points or "canned" statements that were not actually answers to the questions posed. These prepackaged responses were seen as the lowest quality contribution, since they rarely actually addressed the particulars of an individual story and overtly designed to most effectively push a particular frame. While industry public relations practitioners were the most likely to offer these types of superficial information, respondents did indicate that it was a problem with sources of all kinds.

Adam recalled a particularly telling instance when a source offered nothing but low-quality information. He was interviewing a congressman, someone with whom Adam knew he was "not going to have a long chat;" plus the congressman was "media savvy and understood the story and why he was being quoted." When he met with the politician, rather than waiting for Adam to ask a question, the congressman hijacked the interview, showing a complete disregard for what Adam actually intended to interview him about. "[He said,] 'do you want my quote? Here it is…' and just laid it out. And that was it: 'here's the talking point, we're not going to have a conversation,'" Adam recalled. From the journalist's perspective, this was a source who was not interested in being interviewed so much as someone seeking to have his talking points disseminated. The exchange did not allow for any depth or real contribution to his story, which left Adam

feeling hollow, despite the "get" of having a big name. "My feeling was, why am I doing this when wire services and everyone else will have the same thing?" he said. "I'm not adding anything." The idea of "adding" something to a story was fundamentally how respondents envisioned quality contributions from sources.

As discussed above, respondents had differing expectations from industry, governmental, and environmental sources. Estimations of what constituted a quality response from a source were also influenced by which group was being discussed. Environmental sources were found to be of quality when they avoided hyperbolic or unreasonable criticism of industry. Industry and governmental sources, meanwhile, were judged mostly by their credentials and expertise. Reporters also evaluated sources based on their interactions with them. This could occur before deciding to use a source in a story, during the interview, or after. Unsurprisingly, journalists viewed the interview itself as a means to make major assessments of a source's credibility. In other words, the interview not only served as a way to collect information for the article but also to determine if that information was worthwhile. Respondents felt sources who were poor interviews were often not credible additions to a story. "You come to your own determination, if they're evasive or respond to a question or they do a Donald Trump sort of thing and respond with whatever their talking points are," Adam said. In particular, public relations practitioners, who as mentioned earlier are not exactly held in high regard by journalists, were judged on how knowledgeable they were and how effectively they would provide information to journalists.

For environmental sources, a source's substance was based on whether he or she was able to articulate reasonable opposition to the industry or not. For example, Joe said

environmental and anti-drilling sources who "have these opinions and they feel strongly about them but they're not going to get bogged down in the muck" and thus could be "very analytical about it" as far more credible than those who had a reflexive antagonism to the industry. That lack of substance and knee-jerk opposition is part of what made anti-drilling protests, which were once a common feature of Marcellus shale coverage, unappealing to Adam, who called them "zoo like" and uninteresting to cover. Sources from the anti-drilling side that he found to not be credible were often those who were "intractable in their positions and not at all open to discussion," he said, who were "frequently flying in face of factual evidence." Because sources from the anti-drilling side disregard everything other than their position on the issue, their potential contribution to a story is incredibly limited, Adam said, and thus "I generally don't quote them much." To be considered a credible source, environmental voices must avoid being too partisan to be useful as part of an article, respondents indicated.

For governmental and industry sources particularly, a source's credibility was often determined by their background, position, or education, often referred to obliquely by the catchall term "credentials." Essentially, respondents described judging whether or not the source has a reasonable ability to discuss the topic at an acceptable level of knowledge. Mike described preferring sources with credentials over those who were less credible: "When things happen you'll have a lot of people commenting on it. Doesn't mean they know anything; they just have an opinion." For a source to be truly credible, "they've got to have some credentials," he said, including, as an example, "people at DEP and environmental regulators," "scientists and academics who had written a paper about [the Marcellus shale]" and "the lawyers involved who speak for themselves and for their

client." Credibility, in Mike's estimation, meant the source was able to reasonably back up what they were claiming. "I'm looking for someone with credentials, but if local people say, 'I saw water that looks black and foamy,' you don't need credentials for that," he said, before quickly adding: "But to tell me the chemistry and how it traces back to a source, they better have credentials."

Though they may be harder to access, sources that are most credible are "qualified to speak" on the issue, said Adam:

> You're looking for more than just quick quote from somebody – somebody who will return your phone call. There's a lot of other decisions that you would weigh about on who to call … it's getting the right people to talk on a topic of which they're qualified to speak. There's plenty of people out there who will generate a quote for you or call you back because they like their name in print or they have something to say and it's all pretty predictable what they're going to say.

Perhaps contradictory, respondents also wanted these sources to speak intelligently and with substance but to do so succinctly. Journalistic articles are built on direct quotations from sources, so reporters need someone who they can quote effectively. To Adam, this meant someone who spoke in tight useable chunks:

> You need sound bites … a lot of direct quotes that are in stories distract from the piece itself if they're long and laborious and cloud the issue. You may have a long conversation but want someone who can sum up what they say in one quick tight sentence that fairly summarizes what they're saying.

The more complex the topic or more esoteric the debate's details, the more important respondents deemed sources' credentials.

For example, when dealing with stories about scientific research concerning potential impact of the industry, Rebecca said she finds most industry sources to not be credible enough to respond to scientific findings produced by academics. They may represent a major player in the industry, public relations practitioners are not scientists and cannot reasonably comment on scientific research, she said. On one "science story" this led the industry to accuse her of not including their perspective, which she categorically disagreed with:

I had multiple scientists at universities with different perspectives on the study and didn't think an industry quote would be a useful addition, frankly. [The industry spokespeople] are not epidemiologists. The criticism was stated with real sophistication and care by other scientists [already quoted in the article] and I didn't see any kind of value in having [the industry] weigh in on that when the criticism was raised by someone credentialed.

Interestingly, Rebecca believed that including a lesser credentialed source actually hurt the effectiveness of an article:

A hundred times out of a hundred, I'd prefer to have a someone who is a credentialed scientist respond to another scientist's work rather than someone who's a spokesperson who clearly hasn't had the time to review and vet that work. It's not helping anyone to include uninformed opposition statement in name of fairness. I would much rather include something that's useful for someone to help them to understand a complex subject.

It is worth noting that the presence of "credentials" and thus credibility was often assumed for government or regulatory sources, who were considered to be "official"

sources and thus were considered credible by extension of representing the office or organization. Respondents made clear that in many cases they trusted governmental sources because of this official status, sometimes going so far as saying they do not vet information from these sources. The DEP was considered "trustworthy until proven otherwise" in one respondent's words. This seemed to result from a confluence of expectations of expertise on the topic in their role as governmental officials and a greater likelihood of familiarity when compared to industry or environmental stories. The concept of instinct trust in officials' credentials was extended to the documentation produced by those officials. Respondents placed a great deal of trust in paper records, which were seen as factual and intrinsically evidentiary. These public documents were the "best source of information in all this," said Neil. Records, which respondents allowed could contain errors, were seen as altogether different than sources pushing competing agendas. Having information from documentation was seen, perhaps fittingly, as more black and white. "The printed records are most reliable sources," he said. "Whether I'm reporting on shale or crime I want a document from somewhere." When reporting on highly complex and technical issues in which DEP and industry public relations sources wouldn't make experts available, James said he could only rely on records. "I needed to see documents first hand," he said.

Beyond functional qualifications like employment status or academic background, reporters also determined whether a source is credible or qualified to speak by leveraging other sources to get a sense of "what other people say about them" to determine their standing among those in the Marcellus shale sphere. If a potential source has a bad reputation or is deemed to be a fringe voice that hurts the source's credibility and thus

chances of being included in the sourcing for the story. While this can be a consideration

for any type of source, respondents indicated it was most common at the extremes of the

anti- and pro-drilling camps. While most associated with environmental groups because

they are more often not professional operations, pro-drilling groups were not immune,

respondents said. "There are some spokespeople who are not the industry but maybe

advocates for drilling that are a little off or maybe not respected," Adam said. "I won't

quote even if they're accessible and they're quotable." The use of these credible sources

and not "crackpots" in stories has a major impact on a reporter's reputation, Adam said,

because "everybody involved in this issue" "know the players" and thus will judge

whether the journalists sourcing decisions are of high quality or not. "It goes to your own

credibility as a reporter to make sure you're speaking to credible sources," he said.

Regularly utilizing sources held in low regard by others meant journalists ran the risk of

struggling to access high quality sources. The importance of access in evaluating sources

is detailed in the following section.

Impact of Access in Source Evaluations

In a deadline-driven business, journalists believed those sources who allowed

them to do their jobs more efficiently were more credible. This manifested itself in two

basic ways: efficiency of communication during the interview and being available to

respond to journalists' interview requests. These considerations are in line with findings

in the literature on the practical ramifications of sources' effectiveness and accessibility

in the newsgathering process on sourcing (Sigal, 1974; Conrad, 1999). For Marcellus

shale stories, respondents valued a spokesperson who was "able to answer questions off

the top of [their] head" and were critical of those who "didn't understand the industry too

well" and thus would insist on "clunky" email interviews to disguise their inability to answer questions, which "took longer." This particular consideration seemed to have as much to do with the time difference between a knowledgeable source and one who "couldn't answer questions" as it did with judging the credibility of what they were actually saying. This tension was apparent when James described "access and expertise" as the most important characteristics of a credible source – in that order.

It is unsurprising that access played such an important role, since access is a prerequisite for utilizing a source. Reporters were effectively held hostage by whether a source would agree to participate in the journalistic process. "The tyranny of access, you know? Who gives you access and who you build that up with," Adam said. Or, as Rebecca put it:

> Source decisions can depend on who answers the phone or who is willing to give
>
> you a call. You are, to some extent, at mercy of who is willing to talk to you. On
>
> this issue it's not a given that people are going to talk to you. When you have a
>
> limited time that makes it difficult.

While respondents were quite comfortable detailing the ways in which they evaluate, select, and reject sources for their reporting, they were far less likely to delve deeply into the ways in which sources had agency or control over the process.

It has been suggested that sometimes sources are selected simply because the journalist did not know whom else to speak with (Gans, 1979). For respondents, it was clear that familiarity with sources did impact sourcing practices. Reporters preferred sources they knew and these relationships seemed to encroach on the objective process of newsgathering. For example, James went so far as to describe the spokesperson from the

local natural gas company as an "acquaintance" who he described enjoying "bantering" with. The impact of familiarity was a cyclical factor, as reporters became familiar with sources by using them and then being familiar with a source increased the likelihood that source would be used in the future. This meant the more time a reporter spent on the Marcellus beat, the more likely they were to use accessible sources, and as they continued to develop relationships with those sources the easier access with them became. "You build up a stable of people who have experience with you and will return your call," said Adam. Practically, this meant familiar sources may outweigh more credible or appropriate sources.

Still, respondents viewed developing relationships with sources as a positive. After more than 35 years in the industry and nine working on the Marcellus shale beat, Adam said he had developed a list of sources he felt he could rely on because he was familiar with them – and they were accessible. "A lot of it is now after so many years a lot of the sources that you've developed and established some level of trust with," he said. In a sense, being familiar with a source essentially made reporters more likely to trust them – without addressing whether these sources were actually credible or not. Scott found well-worn sources required less scrutiny:

> [Previous experience with sources] makes things a million times easier. When you start talking to source for the first time you're skeptical but as for [familiar sources] you can draw from past experiences and figure 'I don't necessarily have to validate this claim or so on.'

Often an exacerbating factor of access, deadline pressure can also influence journalists' sourcing decisions (Fico, 1985). This was clearly true for respondents. On

occasion deadlines have forced Rebecca to use a spokesperson's "canned statement" rather than someone with knowledge on the topic as the industry response. "I hate to do that, but on a short deadline [spokespeople] are often available to give you a response and, rather than having nothing, I'd like to have something in there to give some sense of the opposition," she said. If the source himself does not have expertise or knowledge on the topic, as is often the case with public relations practitioners, respondents also determined their credibility by how likely they were to have sought out expertise of others in their organization, even if the reporter is not able to access that expertise directly. Public relations practitioners are more credible if you get the "sense of that they are sort of authentically passing on info that they're gathering from people who are particularly knowledgeable," said Rebecca. "Sometimes they don't do that work. Sometimes you trust that they are."

External Factors of Sourcing

A journalist's sourcing practices are torqued and shaped by a multitude of factors. Some of these are driven from within, internal factors like a journalist's biases, degree of adherence to journalistic principles and norms, and training or experience. Other influences come from external factors, like pressure from editors and colleagues, criticism from readers or sources, or the ubiquity of deadline pressure. The following section provides an in-depth examination of external factors.

Editors' Deadline Pressure

It is perhaps no surprise that one of the most oft-cited external factors influencing sourcing decisions was the ever-present pressure of deadlines. Respondents talked at length about the mitigating factor of time on their decision making, which supported

literature suggesting that the pressure to produce stories by deadline influenced sourcing decisions (Fico, 1985). On "run-of-the-mill" stories, journalists acknowledged that at times they simply did not have time for ideal sourcing practices. Neil considered deadline pressure a matter of fact:

> We have deadlines so sometimes you don't get there and you just end up printing what you have. For advance stories, or investigative, you have time to pressure sources to get back to you. Otherwise, you have what can get done in time frame allotted.

James, who said he no longer tried to do daily stories on the Marcellus shale, found that when covering this topic the "single biggest obstacle was the time factor."

Scott approached the daily grind of stories from a different perspective, framing the inability to do a "perfect" story each time by focusing on the aggregate work being done. On a topic like the Marcellus shale "you're never really done," he said, and are essentially writing just a "chapter in the story." His argument was essentially for considering shale stories from a serialized approach. "With certain stories if you have deadline for tomorrow's edition you can't get [everything] and you may have to get it another day," he said. Practically, this meant that when reporting a Marcellus shale story, Scott tried to do "as decent a story as you can in time allotted," which meant "you take what you're given" on sources. Sourcing is, respondents indicated, unequivocally impacted by deadline pressure. Logistical issues of newsgathering also compounded deadline pressure. Finding and reporting news has always been a time-intensive process for reporters but practicalities of where natural gas drilling takes place posed an especially onerous obstacle for respondents. Since most drilling takes place in rural areas,

simply getting to the sources on the ground was time consuming. "You're driving an hour and half, two hours to get to something to cover it," Rebecca said. "That adds to deadline pressure." Time driving is effectively wasted time, she said, and deadlines do not wait.

Making things worse, these far-flung sources sometimes refuse to be interviewed, starting the process over. Though this can and does happen with any story on any topic, respondents felt it was more common with Marcellus shale because of the polarized and contentious nature of natural gas drilling. As Rebecca pointed out, "When you have limited time that makes it difficult." James argued that the challenge of physically getting to where the "real" sources where is why so many reporters covering the topic sacrificed source quality for source availability:

> These parts of PA are remote – it's not easy to get to these places. Door knocking,
>
> you could waste a whole day to get to five properties and come up empty. In
>
> today's news world, that's really hard to persuade an editor to let you do that.

Moreover, behind any day's deadline pressure was the acknowledgement that the cycle would begin again the next day, or as Scott put it, there was always the need to "keep the stories streaming." The constant need for more stories requires that deadline pressures truncate some journalistic efforts in order to move onto the next story. "We make do and keep plugging at it," he said.

Other Stories

Even though respondents were or had been primarily focused on Marcellus shale coverage for at least a period of time, they were not exempt from feeling editor pressures to write other stories. With limited manpower and also finite time in a day, covering the Marcellus shale at all but the largest newspapers meant some other stories in need of

covering was getting short or shorter shrift. Joe recalled one occasion working on a time-intensive investigative project involving him and two other reporters. At the end of two days of reporting, the three-man team was proud of their work, but "there was our editor, needing stories for tomorrow's paper." Even when respondents described committing the time and resources to a drilling story, the "scanner in background squealing" was a constant reminder that editors would be ready with other stories needing coverage, Scott said.

Respondents felt editors did play a role in influencing their coverage by directing, and sometimes diverting, reporters' time. James described feeling pressure to come through with a story on the Marcellus shale or he risked getting redirected by his editors to some other story. "I could get that time [on Marcellus shale] but if there was a hint that I wasn't going to file something they would throw what I would consider garbage work at me – an event to cover or day on the cop shift," he said. This also made it difficult to chase down the types of leads that sometimes turn into great stories but also often end in a dead end or a non-story. The quick trigger of his editors made James feel pressured to produce. "It had to look like everything I was doing would lead to amazing results or I would be redirected," he said. James also recalled trying to balance the time and effort it took to do Marcellus shale stories the "right way" with editor expectations of productivity, which he felt would result in quicker, yet inferior, stories. Ostensibly dedicated to covering the Marcellus "beat," respondents often found themselves pulled onto other topics and balancing stories totally unrelated to drilling. "You're covering a murder-suicide one day and then Marcellus shale the next day," Joe said.

Editors' Impact on Framing

Controversial or complex stories always result in internal debate within a newsroom and Marcellus shale is no different, respondents said. Adam acknowledged there was a lot of "divergence of views" in his newsroom and they would "thrash it out," especially in the early days of the industry. Yet even with the highly polarized nature of the industry and an editor's fundamental ability to drive the frame of a story, respondents did not feel any particular difference in editor's influence on Marcellus shale compared to any other topic.

That is not to say that editor did not direct coverage, but rather that it was not done in a way that conformed to the debates outside the newsroom. While outside the lines in the sand were usually drawn between pro- and anti-drilling camps, editors inside the newsroom were pushing frames around more beat-centric differences. "Editors were coming at it from different points of view: business editor had one way and saw economic development story, editors dealing with environment saw different aspects, and managing editor would see something else," Adam said. Despite this, he didn't feel pressured to frame his stories in favor of one side of the Marcellus shale debate. "Nobody says, 'you should or shouldn't be covering it a certain way,'" he said. This was echoed by other respondents, who were generally adamant that no one in management attempted to sway, influence, or cajole them into covering the Marcellus shale from a more pro- or anti-drilling frame. Some even went so far as to reject the premise as ludicrous, like Neil who said, "I wouldn't be here if that was the case." More than that, there was also no clear feeling that editors approached their reporters covering this topic differently than on any other topic.

Even editors who had benefited or been impacted from the industry, either directly or indirectly, were not seen by respondents as allowing their personal feelings on the industry to shape coverage. "Some of the editors live in rural areas — some are impacted positively or negatively," Joe said, but this did not change how they directed reporters "one way or another." Only one respondent described feeling that an editor had a particular agenda on the shale. Mike said a previous editor was an "environmentalist type," though he acknowledged "I didn't work with for long" and "I don't know if she'd have pushed" that agenda on reporters. That editor is now a columnist.

In some cases, respondents described the complexity of the Marcellus shale inverting the power dynamic normally found between reporters and editors, with editors deferring to reporters as the "person of expertise." This allowed Adam, for example, to speak with some authority on whether a story idea is worth pursuing, even if the idea came from an editor. "Sometimes those are good ideas and you run with them. Other times ideas you have less merit and you can make case for why that's not a story. And they're open to that," he said. Because he has built an internal case for expertise on the topic, "if I say one thing and they think another they'll take that I'm speaking on sound journalistic grounds." If editors or other reporters had strong personal feelings on the industry, they kept it to themselves out of professional decorum, respondents said. "It's still a newsroom so people know where their place is," Adam said.

That is not to say that the journalists did not feel the influence of their higher ups, however. Despite not feeling pressured by editors to support or oppose drilling, coverage still drifted at editors' wishes toward anti-industry topics. It is an important distinction that respondents said the message from editors was not to frame stories in favor of one

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side of the issue or the other, but rather toward what those in the newsroom felt was "good journalism." And so, despite personal preference for objectivity and a newsroom of editors ostensibly practicing it, that idea of good journalism was often conceptualized as stories about negative impact. This belief in what "good journalism" was "structural," Adam said, meaning that it was far more than a single editor pushing a personal agenda.

From James' perspective that meant his newsroom "was really negative on drilling impact" because editors "wanted stories on how people were harmed" for wholly selfish reason. "They wanted something that would win awards," he said. "I think editors want to win awards. No one wins awards for 'there's a mixed impact on community.' You win awards for how industry destroyed a community." This was never explicitly delivered as a decree from editors, he said, but "I could tell by the way they asked and talked about [stories about people being harmed by industry]," James said. "That's what they thought good journalism was about this topic." Adam also felt an invisible hand pushing the newsroom toward negative stories about industry – but not out of opposition to the industry but fealty to journalistic norms:

> I know the stories people tend to get most excited about – and this just reflects journalists being journalists – are the stories that kind of make you gasp. They're not the long thoughtful stories that explain an issue or bring clarity in some way that you hadn't thought of. They're the stories that make you want to shout.

These stories, he said, were nearly exclusively about industry harm. Other more systemic factors facing respondents were the "ebb and flow of stories," which were often determined by editors. Adam never saw editor ideology driving coverage decisions but witnessed editors nonetheless shape the frame of the story as they began to treat the story

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differently as time progressed. "How much space for a story you're given and how it's played [on the page] reflects more on if people see things as being urgent; this is less of a front page story [in 2016] than three years ago," he said.

Op/Ed Impact

In most newspapers, opinion pieces like editorials, columns, endorsements, and letters to the editor are only found on the editorial pages, which are commonly referred to as the "op/ed" section. These pieces are kept physically separate from the presumably objective pieces found elsewhere in the paper to demarcate between the work of journalists from that of pundits and columnists. Most often op/ed and news content is produced by completely different staffs with limited to no overlap. Though the distinction is quite clear for those within the news business, the difference between news and op/ed content is often not quite as clear for readers and sources. This can and does lead to issues for reporters who are accused of being biased because of opinions featured in the newspaper's op/ed section, particularly for topics that are controversial or highly partisan.

According to respondents, this was "very common" when covering Marcellus shale. "People can't differentiate between editorial board and news," Joe said. "It's a real problem." James said he "hated" that he would "hear about it from sources" because of what was written in an op/ed piece. They fundamentally didn't understand his work was separate from that of opinion writers. "That's a massive problem," he said. "No one knows the difference anymore." Neil also found he would be blamed for content he had nothing to do with and it, on occasion, "damages" his relationship with sources. "Reporters don't chime in on content of editorials — only if person writing wants clarification. We take the heat on it regardless. When the source doesn't like what they

see in editorial, they're' going to take it out on me."

Most troublesome for respondents was when their newspaper's editorials took on the Marcellus shale topic. Editorials are a subset of op/ed content and are unbylined pieces that represent the newspaper's official opinion and are written by the members of the newspaper editorial board. Most respondents found these official stances often took a negative approach to the drilling industry – James went so far as to say his paper's were "pretty universally negative" – and that meant reporters faced the wrath of sources and readers who supported the industry. Joe felt this was a common occurrence:

> If you knew how many times I went to cover a story and someone would get in my face because of what the editorial board said. [Editorial writers] write something that jazzes up the public and the public face [of the newspaper] is the reporter and then they deal with the consequences.

While respondents did try to downplay these interactions – Neil described it as letting angry sources "blow off steam" over op/ed content – it was clear that this was a frequent factor in sourcing Marcellus shale stories. It is important to note that, despite opinions on the natural gas industry being clearly spelled out on the op/ed pages, including the newspaper's official opinion on it, respondents did not feel any pressure from within the newspaper to adapt or alter their content. "I do not get told, 'well, we have a point of view on this story and your coverage needs to reflect that,'" said Adam. "That has never been communicated, not even in subtle ways." Op/ed content was not the only time when respondents described hearing critiques from readers or sources. This factor will be described at greater depth in the following section.

Readership and Sources Criticism

Newspapers expect feedback and criticism when covering any controversial or highly partisan issue. As such, the influence of readers' and sources' criticism of their coverage was another area that was considered a possible factor for reporters covering the Marcellus shale. But while respondents had ample options to choose from when recalling readers or sources taking umbrage with their reportage, respondents claimed it had no effect on the way they approached their work. While acknowledging the volume of criticism was high, respondents dismissed it because it was particularly partisan and lacking substantive claims or because they felt it did not truly reflect the bulk of their readership. Respondents indicated that it was hard to put much stock in the criticism since it came with such frequency from both sides of the drilling debate and with such predictability and superficiality of content. In simplest terms, anti-industry voices were nearly always people with environmental concerns or landowners who feel they had been negatively impacted. Pro-industry voices, meanwhile, were split between those who are landowners receiving lease benefits and those who work directly for the industry.

In either case, the criticism was nearly always easily dismissed as being prompted by partisanship rather than actual faults in the reporting. "Both sides have said I've been unfair," Rebecca said. "I've been essentially told I'm a bad person from people on all sides of the issue." Joe had similar experiences, down to individual stories:

> I've had both sides be mad at me for the same story. Either I didn't go hard enough or I was too hard. I think with these stories I think you assume every time you cover Marcellus they're going to blow up your inbox, one side or the other or both – most likely both.

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The voices most likely to criticize, respondents said, were the ones to have the least

substantive or considered reasons for doing so. The hyperbolic and reflexive nature of the

criticism meant respondents did not put much weight to it. "Some people on the

environmental side are so over the top. If you're not taking the industry to task on every

single one of your stories then you were in bed with them or you were pro-drilling," Joe

said. Of course, the opposite was also true, Joe said:

> Sometimes simply asking tough questions of the industry meant you're an
>
> environmentalist. Personally I don't really care what people think of me, that's
>
> my job as a reporter, but it was surprising to see how visceral the anger was from
>
> both sides on the same story. You're in the middle and you're hated by both sides,
>
> which didn't bother me, but it's interesting to see how two sides would perceive
>
> the same story totally different.

These types of critiques were easy to ignore, however. Joe said he did not "change or

approach it differently" following critiques, though he did acknowledge that those

sources "definitely perceived me differently."

In explaining why reader and source criticism was not going to sway their

approach to the story, respondents also coalesced around a sentiment that these strident

voices do not reflect the bulk of readership. And by that logic, since most of the

readership did not take issue with the reporting, there was little need to kowtow to vocal

critics. This thinking was based in the truism that while many are eager to criticize

reporting they take issue with, rarely do people take the time to praise work of reporters.

Joe felt most complaints were unrepresentative of readership:

Both sides are so loud that's all we hear, but maybe the vast majority of people do

rely on our reporting. I can't gauge that. I don't get emails saying, 'that was a

really great story and it was really fair and you reported the facts great.'

Adding to this "silent majority" estimation was an expectation that far more people took a

middle-of-the-road approach to drilling than held a position at either extreme. Rebecca

summed up this widely shared middle position as wanting "to benefit broadly" from the

Marcellus shale but also have drilling "done the best possible way with as little impact on

the environment as possible." This position, by its very nature, was less likely to result in

vocal opposition to reporters' work. "You don't hear those as loudly because it's sort of a

consensus point, but I think that's probably pretty accurate depiction of most people," she

said.

Despite saying they did not believe criticisms altered their approach, respondents

did acknowledge they were more keenly aware of the impending criticism based on

sourcing Marcellus shale stories. Anticipating potential critiques about sourcing allowed

respondents to write articles that were more fair, Rebecca said, because it allowed for

insight into where "all sides are coming from" on the topic:

As reporter, with this subject, I do try to anticipate the criticism and try to think of

ways to give those voices space in the story in advance. The sides are pretty

understood at this point so if you can try to anticipate what one side would think if

reading or the other side and then try to write it so it's fair.

Being aware of potential criticism is not the same as avoiding it, however. "You can't be

afraid of stepping on peoples toes in covering this issue because you wouldn't do

anything valuable," Rebecca said.

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The belief that other sources were cognizant of a reporter's sourcing practices and judging those decisions was prevalent. Adam in particular felt criticism from sources was "very important." He was most concerned about source criticism because of the chance that angry sources might impact future reporting. Therefore he's willing to listen to those who disagree with how he presents information in stories and will run corrections if he feels their grievances are "reasonable." By acknowledging and running corrections when a source has "pointed out something that I was unaware of or taken something for granted that I shouldn't have" he is able to maintain his reputation among the interconnected world of Marcellus shale sources, Adam said:

> [Sources are] a key group of readers and they will talk amongst themselves and about your consistency and how they were treated in the story. If they're not treated fairly then you'll develop a bad reputation within a particular community. Once that happens you start to undermine your credibility overall.

Reporters must be concerned enough over loss of credibility because of source's opinion of sourcing decisions to carefully consider the quality of those included in a story, Scott said. "If you use a source, Chicken Little or not, and the company knows he's not true but I don't, you've damaged your reputation as a journalist," he said. "The company won't respect anything I write. They're judging me by what sources I use. You need to be careful. Just like with the company side." Concerns about how sourcing would be perceived was clearly a factor for respondents. Also influencing them, however, were internal drivers. These will be examined in the following section.

Internal Factors of Sourcing

As described above, various external factors may shape a journalist's sourcing practices. Internal factors are also expected to play a role, including a journalist's biases and ideology (Litcher & Rothman, 1986; Stocking & LaMarca, 1990; Shoemaker & Mayfield, 1987), degree of adherence to journalistic principles and norms (Berkowitz, 1992; Grunig, 2007), and sense of what constitutes quality environmental reportage (Sachsman, et al., 2002; Tandoc & Takahashi, 2014). Respondents indicated that coverage of the Marcellus shale was in fact shaped in these ways. Each of these internal factors is addressed in the following section.

Journalistic Norms

Journalistic norms and expectations helped shape respondents' sourcing decisions, indicating that they were influenced by what they thought was the right thing to do as well as by what their professional role expected of them. Several common journalistic norms were cited as internal reasons for sourcing practices, including preserving objectivity and serving the public by performing a watchdog function and giving voice to the voiceless. In a more abstract and poetic manner, Mike described the principle commitment of journalists simply: "Whenever possible get to the truth."

Two of the most common journalistic principles cited by respondents were commitments to fairness and balance. These concepts were seen as directly tied to sourcing practices since the most basic way a story could be skewed would be by choosing to portray only one side or to emphasize one over the other. Respondents suggested they were aware how powerful sourcing decisions could be in shaping a story or coverage of an issue, which may explain their explicit commitment to fairness and

balance. These are foundational concepts in objective reporting whereby the reporter attempts to ensure that all sides of the story are told in a neutral manner. For a Marcellus shale story, respondents indicated this meant whichever side was the primary focus of the article would be offset by a response from the other side. Rebecca felt this approach was "the standard":

> You're always asking somebody for response who has some kind of stake in what the first person is saying. If it was a community story, you always ask for a person from the gas company to respond; if story of opponent in community, you get proponent in industry.

Of course, not all stories are as simple as getting a single response — this topic does not lend itself to "simple he-said/she-said," James said. In those more complex cases with more than two major stakeholders, the desire for balance meant respondents felt compelled to take sourcing efforts further. Stories with a variety of voices were seen as stronger journalism than those with fewer, a clear reflection of the norms of the profession. "I do think, as a journalist, you should include as many perspectives as you can that you can that add something to a story," Rebecca said.

In a story as divisive as the Marcellus shale, balance was also incredibly important for avoiding biased reporting and thus it often factored into respondents' internal deliberations when considering sourcing. Respondents described going to greater lengths when sourcing Marcellus shale stories out of a desire to reflect the myriad of sides in the debate. "There are so many people with a stake in it or feel passionately about their side," Rebecca said. "You have to take into account all of those positions and do a thorough job of it." Mike described sourcing Marcellus shale stories as getting enough

voices to account for all agendas; though that is easier said than done, he admitted. Neil described "walking on egg shells at all times to make sure [stories are] balanced." While he knew that criticism would come from partisans on both sides, he worked to ensure that his story would hold up to criticism when it came. "We're not in business to make friends; if they get angry, they can," he said. "What matters is whether or not the story is balanced and accurate. If it's true they have no legs to stand on." Practically, this devotion to balance meant sources would be sought out to ensure that the appearance of balance was maintained. Sometimes, however, that appearance was deceiving.

In what may seem paradoxical, respondents also described being careful to not unnecessarily add sources to the story in an effort to create "false balance." Adam discussed the danger in creating the appearance that two sides have equal weight when available evidence suggests otherwise. Comparing covering Marcellus shale to other controversial environmental issues like climate change, Adam said an example of false balance is to give climate science equal billing with climate change doubters when "the preponderance of evidence agrees climate change is a real thing and man-made." While the principle is the same with Marcellus shale, it is more difficult to clearly identify, he said, as the issue lacks the consensus of climate science. "How much is proper acknowledgement of contrary views without giving too much weight to one side or other?" Adam said. "It's a judgment call and sometimes you don't get it right."

In practical terms, this meant sourcing practices involved choosing to include or exclude particular sources and also how much of a platform to give their views. With some stories, respondents decided to not include certain sources in an effort to avoid false balance. For example, Mike said he does not try to find Democratic officials to offset

Republican voices in his paper's heavily Republican county. Democrats, who are typically more anti-drilling, "don't have a voice" in the county, he said, and he was not going to make it appear that they did. In a similar sense, Joe felt that adding a reaction from an anti-drilling voice to a clearly reported story indicating industry malfeasance is unnecessary. "The facts of the matter, what [regulatory] reports were turned in, they spoke for themselves. You didn't need an environmentalist to come over and say, 'look this is what they've been doing,'" he said. "We laid it out [in the reporting]."

Other times, as James described, anti-drilling voices would be excluded because they were attempting overstate or skew what a company had done. James complained that even in relatively minor cases the "really hardcore" environmentalists would, if used as sources for a story, overhype what actually occurred by categorizing even small incidents as catastrophes. As a result, he decided it was better to leave them out then create false balance. Though referenced less overtly by respondents, a commitment to overall objectivity was a journalistic norm that impacted sourcing decisions. In particular, respondents expressed a desire to "put all the sides out there and leave it up to people to decide," as Mike phrased it. This was not necessarily easy to do, as Adam said. "I've spent a lot of time and effort building myself up as neutral," he said. Objectivity was often framed as a corollary to the desire for balance to ensure all sides were heard. By covering all sides of the debate, journalists felt they gave readers a clear picture by which to make their own determinations. The result was stories that "spoke for themselves," said Joe.

Despite expressing a desire to balance stories and keep them neutral, respondents also expressed a preference for holding those in power accountable, a concept sometimes

referred to as the "Watchdog Role" of the press. This somewhat contradictory principle means journalists committed to objectivity and balance are also inclined to be more antagonistic to the powerful and protective of the disenfranchised. While journalistic norms helped shape respondents' sourcing decisions, they were also influenced by what their professional role expected of them. This worldview is captured in the journalistic axiom: "the job of the newspaper is to comfort the afflicted and afflict the comfortable" (Shedden, 2014). Rebecca felt this perceived duty to question the powerful would likely lead to a more anti-drilling viewpoint for reporters covering the Marcellus shale:

> I think people are open-minded, but I think journalists as tribe are skeptical of big companies and powerful people and we tend to want to be defenders of the underdog. I think in this story that's not always clear cut [who is the underdog] …I think generally this story seems to be one of those big businesses versus small town person who doesn't have the resources of a large corporation.

This worldview could impact sourcing in various ways, from preference for sources that would represent the "underdog" to increased skepticism for claims from industry. Sources may be marginalized or excluded altogether based on a reporter's worldview rather than the story's merits.

In aggregate, respondents felt internal factors influenced their sourcing decisions, particularly their duty-bound need to approach stories objectively and fairly as well as serving the public as a watchdog and voice for the voiceless. Another set of internal beliefs likely to influence their coverage was respondents' attitude toward the Marcellus shale and the industry tapping it. This aspect will be addressed in the following section.

Attitude Toward Drilling

Despite journalists' commitments to objectivity and unbiased reporting in line with professional norms, true objectivity has long been considered impossible. While reporters can attempt to bracket their predispositions on a topic and attempt to not allow it to consciously influence their coverage, they cannot eliminate unintended or unconscious impact that might still take place. As such, it is possible that journalists' attitudes, opinions and beliefs serve as an internal factor on sourcing decisions, particularly on highly partisan or controversial topics. It is worth noting that journalists interviewed strongly believe that this is not the case for them; they believe they personally produce objective reporting, though they doubt other reporters actually accomplish such a feat. This example of cognitive dissonance is likely part coping mechanism, as one would likely not want to acknowledge violating a core principle of one's profession, even unconsciously. Outright dismissal of the possibility of internal biases shaping reporting may also serve as a shield to circumvent accusations of bias from external voices. It was, then, wholly unsurprising that respondents viscerally denied allowing their personal opinions to impact their reporting. Joe, for example, when asked if he saw himself as sympathizing more with one side of the debate, interrupted with: "I see myself as someone covering the issue." This brusque dismissal of even having opinions on the topic of coverage is in line with journalists' perceptions of themselves as without internal bias.

While many respondents went so far as to claim they held no opinion on Marcellus shale, the way they discussed the issue and its players offered clues to their unexpressed views on the industry. One path of inference was to consider the way that

respondents discussed each side of the Marcellus shale debate. Though all respondents made efforts to reference their understanding of the views of both sides – a classic appeal to the middle ground that journalistic norms of neutrality suggest is safe – the two sides were not always articulated equally. Many times a respondent would discuss one side at length and while the other side would be reduced to a comparatively brief comment, as if almost an afterthought. For example, Joe described several specific aspects of economic improvement before tossing in an abstract reference to environmental concerns, which he then quickly moved past. "There's no way you can look at – whether it's housing prices apartments, businesses that popped up, these other factors, tanker companies, they're local companies – it's definitely had a positive impact on businesses," he said. "You weigh some of that with the environmental issue. I think the biggest drawback to this entire issue is how it's divided everyone. It is the most divisive issue I have ever covered." In this case the environmental concerns were only referenced long enough to be overshadowed by a "bigger" drawback of divisiveness, which seems to indicate little, if any, regard for that anti-drilling position.

In much the same fashion, Neil said his "general opinion is that it's hard to deny the positives [of drilling] – there are a lot of positive results. Lots of hotels, selling second-hand stuff – business is booming in places now." Meanwhile he said "the only overarching complaint I've heard" is about "horrendous" traffic because of the increase in volume of trucks and subsequent wear and tear on roadways and "cops are burdened with more work, criminal mischief kind of stuff," which he categorized as a "headache." Here again, framing of positives are given a much more substantial weight than concerns of anti-drilling groups, which are referenced in a dismissive fashion, "a headache," that

would therefore not seem to warrant true consideration.

Sometimes using inference to determine a respondent's personal opinion was not difficult – or even very necessary. Some respondents were willing to edge quite close to acknowledging an outright preference between pro- and anti-drilling camps. Neil, for example, said "personally, there's no denying it's been helpful" and called potential for environmental damage "the unknown," which he did not seem too concerned about, adding: "I hope that if they run into that they're mediating that; when there's been spills the response has been pretty good." This generally pro-industry view also appeared to be shared by Mike, who when asked about his take on the industry focused first on it resulting in "investment that wouldn't have been there" and that "people have made a lot of money." He acknowledged that, "it's not that nothing happens," but said he felt "people are cautiously optimistic. That's been our experience." The switch from third person, "people," to the first person possessive, "ours," seems to indicate he shared that viewpoint. That is supported by follow-up questioning about personal connections to those with land leases from industry. "I know people who have benefited – people on both sides of family. They haven't gotten rich yet – they're hoping," he said. This was, of the respondents, the only acknowledgement of a direct tie to land leases, the aspect of the industry's economic impact most likely to reach residents of the state that would normally be unaffiliated with resource extraction industries. No respondent indicated a close relation worked for the natural gas industry.

In line with the watchdog advocacy role described above, respondents were far more willing to directly or indirectly acknowledge their environmental concerns or express a negative view of the natural gas industry. James, for example, bluntly described

the industry's arrival in Pennsylvania as a "net bad thing in the end." Scott said though "some people benefited," he felt the impact of Marcellus shale has been "overall more bad than good." While he acknowledged that the "money is good" with natural gas drilling, his stance on the industry was not positive: "I think personally more should've been done as far as safety and making sure things wouldn't happen," he said. "…Mistakes will happen. From that aspect I do have reservations about gas drilling."

Rebecca did not share an explicitly negative view of the industry, but joined in suggesting that things could be done "better." She described having a middle-ground view of natural gas drilling, but focused on the need for the industry to improve: "I absolutely see the benefits and I have absolutely witnessed the harms and would like them to do a better job." This last aspect is where she did not shy away from discussing at length how her personal feelings were more closely aligned with protecting the environment over protecting industry profits:

> I don't have a lease and nobody that I know or love has a lease. I'm not standing to benefit from it economically. I don't judge people who chose to take that route, but I'm also a person who spends free time hiking and have always been interested in environmental issues and having seen some of the errors that have been made I think [the natural gas industry] can do better and I'd like them to do better. I have concerns about adapting to a new fossil fuel [natural gas] as our dominant energy source. I think there are large scale impacts to the United Sates putting huge investment in transition of its resources to running on natural gas. I am very concerned about understanding and trying to explain for readers as much as I can the implications of that, which would be in terms of climate.

Rebecca indicated her view of the industry as more critical may stem from being located far from the economic benefits of the Marcellus shale: "I definitely have outsider perspective; I don't live in a place where I could possible benefit economically from leasing directly... so it's hard to be a stakeholder in that way."

Even Joe, who was quick to detail the economic benefits of the natural gas industry – including to the survival of his own newspaper, betrayed deep reservations about the impact of drilling: "I mean, would you want to live next to a drill site?" he asked bluntly. He was also exasperated for the phrase "responsible drilling" used by those seeking a middle ground, which he saw as a weasel word for not taking a side:

> This thing is so far down the line there is no such thing as responsible drilling. All it takes is for one company or one drill site to cause a problem for a bunch of people. Is that responsible drilling? It comes down to there needs to be more oversight. There needs to be more transparency. They are private companies but they have public impact.

James, whose educational background is far more environmentally focused than other respondents, also expressed a view more in line with anti-drilling groups, though he did not describe his view in those terms. "A lot of people, unsophisticated readers, would say I'm an environmentalist," he said, though he would not entirely agree with that assessment. "Yes and no," he said. "I believe in land ethics – you have to do this job [environmental reporting] – there's a right and wrong way to treat non-human world." Despite being the most explicitly in favor of environmental advocacy, and there most in line with anti-drilling advocates, James said he received more criticism "from the left" and "more extreme environmentalists" because "they're used to getting what they want."

Industry, meanwhile, was less critical of his work. "As much as they were unhappy with topic, they couldn't deny the reporting and appreciating that I covered them like anyone else," he said. The idea of covering "like anyone else" was central to James' view of his own ideology and his work. Despite his personal views on environmental issues, drilling gas in the Marcellus shale is "not inherently more evil" than other resource extraction industries and so, as a result, "I cover it like other industries," he said. Whether realistically achievable or not, respondents held firm to the belief that their personal views of Marcellus shale were not influencing their coverage.

Bias in Others' Coverage

No reporters interviewed were willing to entertain their own vulnerability to their predispositions, even predispositions they readily and explicitly admitted to having. Those who felt the industry's arrival was a negative believed that view did not impede their ability to objectively cover the industry. What they were able to believe, however, was that someone else's personal views on the industry could compromise their work; they were able to easily see (or imagine) this flaw in their peers. Individual reporters and entire publications were seen to have abandoned objective reporting to some degree, respondents said. In particular, community newspapers with smaller circulations were considered most susceptible to this perception, especially intensely local-focused weekly newspapers because of how closely these publications reflect their audience.

To wit, Adam said he knew of small weeklies "on both sides" that had adopted and advocated a clear agenda: papers located in "drilling areas where it's just totally pro-drilling point of view" and other papers where there was little drilling that "don't have broader, complete understanding of the economics." Scott, meanwhile, felt the problem

was reporters of inferior skill committing acts of journalistic turpitude. In other words, a failure of objective reporting was commonly a part of the overall poor quality of local reporting – and the Marcellus shale was no different. In particular, Scott said he had seen "a lot of [local] officials saying [drilling] is good without a lot of opposition." Because it will not be challenged of vetted, "that's what will be put out," meaning reporters are, perhaps unknowingly serving a pro-industry agenda.

While this type of "stenography journalism" is troubling, respondents felt some journalists went further and actively supported one side of the debate, effectively abandoning objective reporting altogether. "There definitely are some people reporting on these issues who I think have more of a blatant agenda," Scott said. These biased reporters veer "definitely more a bit more toward anti-fracking group," he said. "Not really anyone [who is] pro-industry." There are also niche publications that have arisen to serve the various partisans on the issue with no attempt to provide objective reporting, Rebecca said. "I think unquestionably there are publications that are aligned with either the left or right who have very clear positions on this and reporters who work for them who have very clear positions on this," she said. Rebecca, who works for a major metro newspaper, said she did not see this type of biased coverage coming from "mainstream reporters, especially not local reporters." Joe, on the other hand, works for a medium-sized regional paper and believed that larger national publications had more questionable motivations than local papers did. "Would you trust the *Wall Street Journal* to write objective environmental stories? Would you trust *Rolling Stone* to write objective environmental stories?" he asked. These type of publications have a "brand that they cater to" that would lead to a lack of objectivity, he said.

Individual reporters were sometimes seen as being compromised; particularly those who have covered the environmental beat for some time. These reporters were often seen as "going native," the colloquial shorthand for adopting the positions of an advocacy group after reporting. There is support in the literature for journalists coming to identify and support the views of their sources (Sigal, 1974), meaning journalists who regularly interact with environmental groups may come to share those views. Based on his own experiences, Adam saw this as inevitable when covering an issue like the Marcellus shale. "Everybody goes native," he said. In a moment of introspection, he allowed that he may be included in the "everybody." "I'm sure some people think that about us," he said. "The perception is inevitable." Joe had similar skeptical view of reporters on the environmental beat, believing they lose their ability to maintain objectivity. "You look at some of the environmental reporters, quite honestly I wonder if they're environmentalists," Joe said. James, meanwhile, felt the issue was far larger than environmental reporters. "A lot of reporters" chose to frame their stories through their sourcing, knowingly using a person with clear agenda as an anecdotal lede to start an article to "tailor" it to a particular frame, whether that be positive or negative. Adam offered a similar acknowledgement in the reporter's unavoidable ability to frame stories. "Everything we do is subjective to the point of who you choose to call or why one story versus another story," he said.

Do the Job Well

Sourcing decisions were also impacted by the respondent's internal beliefs about what constituted quality coverage of Marcellus shale topics. The extent and sophistication of sourcing was tied to the reporter's attitude toward what was adequate, what was

expected, and what they see as ideal. In simplest terms, more was seen as better, as having more sources was believed generally to be an indication of more thorough work. While this sentiment was common among most respondents, two respondents in particular, Rebecca and Adam, drew somewhat contrarian but noteworthy distinctions on what kind of sourcing makes a story high quality.

Adam held a particularly countervailing sentiment about how sourcing impacted quality. Adopting a "less is more" approach, he felt simply piling sources into a story did not automatically improve its quality. In fact, it is more likely to be evidence of a reporter's superficial approach to the topic:

> I know I've seen the stories where it's kind of like, there's a whole compendium of experts quoted. The journalist scores more points by quoting broad range of people and as many as they can possibly cram into the story. It certainly demonstrates – the proof is out there that you've made calls, and you've talked to people. But you're on phone with them for couple minutes and say, 'hey, can you give me a quote. Here's the story, can you give me something on this?' You're on and off quickly. That's not very satisfying journalism. You're going in with prescribed view on your story is and you're just trying to assemble some building blocks to put it together and move onto the next piece as opposed to having some conversations with people fitting in the key players with some good quotes that summarize key points of view in fair way.

While all respondents described a preference for quality interviews from sources rather than reductive talking points, Adam was alone in making the case for quality in these terms.

Similarly, Rebecca's approach to improving a story's quality through sourcing was noticeably different from the rest of respondents. For her, the most telling aspect of a story's value was not quantity of sources but quality. In her estimation one type of source was seen as particularly tied to doing good work on Marcellus shale stories: "regular people." The value of the inclusion of these sources was tied to important journalistic principles of serving as a watchdog and providing a voice to the voiceless, she said:

> I think generally journalists want to try to try to do good. I think this is one of
> those stories where it's not always the easiest to discern [how to do that], but you
> do want to try to offer people who wouldn't otherwise have a voice and
> opportunity to participate.

A preference for the underdog was a common trait in journalists, she said. "I think we tend, and I'm – this is probably true of me – I think we tend to speak sympathetically of those voices that otherwise wouldn't be heard." This leads her and, she believes, other journalists to have "skepticism" of industry claims that contradict with homeowners:

> I tend to believe that a company with huge financial stake in something has a
> huge reason to be more disingenuous than a landowner who honestly believes
> their water wasn't orange yesterday and it's orange today and the one thing new
> that they see in their lives in drilling. That's not to say that I equate the opinion on
> that with the water test results or the scientists interpreting it but I don't believe
> — some people have accused [complaining homeowners] of being greedy and
> wanting the companies to pay for them or to sue the companies in order to
> become rich. I don't believe that's the case.

This stance – and a willingness to talk to homeowners who believe they've been wronged – has led Rebecca to being accused of being "anti-industry," she said. While she denies that is the case, it does support her stated preference for a journalistic role of accountability and watchdog reporting as what constitutes quality work on Marcellus shale stories. Not only did regular people have the ability to describe the lived experience of Marcellus shale, since a number of logistical reasons made these sources difficult to find and access, she also felt their inclusion was effectively a synonym the reporter's effort on a given story. This effort was needed on a story for this complexity, she said:

> I make an effort to reach out to a landowner to get those voices in there. You
> don't hear them often even though that's where all the impact is happening. It
> really carries home the message that in Pennsylvania this is a very local issue, as
> well as a very national and globally important issue. It's still in people's
> backyards and so I try to make that part of stories. As many stories as I can.

For both Rebecca and Adam, their sourcing decisions were driven in part by what they believed to be the right way to cover a Marcellus shale story. Though the specifics and approach differed, each sought to source the story in a way that would not produce the fastest or the most popular article, but the highest quality. This suggests their internal views do drive the decisions they make when sourcing Marcellus shale stories. The concluding chapter attempts to understand the way this and other factors influence the phenomenon of sourcing stories on this controversial topic.

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CHAPTER V

DISCUSSION AND CONCLUSION

Summary

Untold amounts of time and ink have been devoted to parsing the work of journalists, particularly when that work is covering controversial topics. Whether by academics, members of the public, or those in the pundit and political classes, there is always a great interest in the way journalists convey information about divisive issues. Some attempts are overly reductive accusations of bias – oftentimes offered by those who disagree with the facts of the journalist's work – yet many are thoroughly considered and carefully crafted examinations of framing and the media's impact on audiences. What is often lacking from many of these instances – of both the admirable and the anemic variety – is any attempt to understand why the article was constructed in the manner it was. In other words, most efforts to analyze the work of media simply pay attention to just the article's finished state. Agenda building studies, however, do the opposite, seeking to better understand the pre-publication activity of journalists in order to have a more thorough appreciation of their finished work. In particular, this study continues to expand research into the sourcing decision making process of journalists, which play a significant role in determining the shape of the finished article as part of the media agenda.

In order to investigate the phenomenon of sourcing practices employed by newspaper journalists in covering a controversial subject, this study is situated within agenda building theory with a focus on the factors respondents felt influence their decisions about sourcing. While agenda building theory is closely tied to agenda setting

theory, this study was not intended to explore the impact of the media agenda on the public, as agenda setting studies seek to do. Agenda building research attempts to understand the process by which journalists make determinations over what is included in the media agenda presented to the public and what is excluded or marginalized. This process is labyrinthine but it is understood that sourcing practices play a central role (Dearing and Rogers, 1996). As such, this study sought to better understand the lived experience of sourcing practices of journalists, specifically Pennsylvania newspaper reporters who cover the Marcellus shale, to extend agenda building literature.

Thus a phenomenological approach was utilized with a goal of revealing the lived experience of sourcing in order to identify the essence of a phenomenon (Creswell, 2012). In light of agenda building theory and the importance of understanding the process of how news is constructed, phenomenology was used to investigate three areas of inquiry:

1. What is the process by which Pennsylvania newspaper journalists say they make sourcing decisions when covering the Marcellus shale industry?

2. What internal factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry?

3. What external factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry?

Data collection consisted of seven in-depth interviews that allowed journalists' own words to enrich the understanding of the phenomenon and situate patterns therein as

revealing meanings behind their experience. In-depth interviews are not a broadly targeted methodological approach and therefore did not permit a large sample, but what interviews did produce was far more substantive investigation of the phenomenon, which Geertz, (1994) called thick description.

The sample was drawn from a population of newspapers purposefully selected to ensure potential respondents had experienced the phenomenon being examined. By utilizing the Pennsylvania Newspaper Association membership guide, the researcher invited participants from newspapers in counties where drilling was prevalent. Reporters were recruited from seven newspapers located in Bradford, Washington, and Susquehanna counties, which at the time of the study included at least 1,000 active natural gas wells each, the most in the state. Also invited to participate were reporters from seven newspapers in the three counties with more than 500 active wells: Lycoming, Greene, and Tioga counties. Participants were also sought from newspapers in the most densely populated counties in the state, Allegheny and Philadelphia, though they do not feature high natural gas drilling activity. These counties are, however, home to the largest newspapers, which cover the entirety of the state in their role as major metro newspapers and thus likely employed reporters who had experienced the phenomenon.

Newsrooms were contacted via email to identify reporters who had covered the Marcellus shale. Once applicable reporters were identified, they were contacted via email and invited to participate in the study. A snowball sampling effort was also undertaken to allow respondents to suggest other applicable reporters to invite to participate; this resulted in a journalist from outside the eight targeted counties listed above to be included in the sample. Seven respondents were recruited in this manner, which is within

Polkinghorne's (1989) typical sample size for phenomenological interview studies of between 5 and 25 participants. The recruited journalists represent newspapers located in or with coverage in Bradford, Washington, Tioga, Greene, Philadelphia, Allegheny, and Lackawanna counties. Newspapers of various circulation sizes were represented, with at least one respondent from each of the following categories: small daily (under 10,000), medium daily (under 30,000), large daily (under 50,000), and major metro daily (over 100,000). One respondent was employed by a small weekly (under 5,000).

The interviews were semi-structured in design, allowing for flexible discovery while maintaining some commonality between respondents (Tracy, 2012). Six of the interviews were done remotely over teleconference software. One was conducted in person. Each interview was recorded for transcription purposes. The researcher utilized Oakley's (1981) friendship model of interviewing, which suggests the importance of building rapport with interview subjects as people rather than objects and allows the researcher to interact dynamically with the respondent. The respondents' interviews resulted in a total transcription of 24,271 words. Using Graneheim and Lundman's (2004) procedures, concepts, and definitions for qualitative content analysis, this transcription was evaluated as a whole before efforts were made to identify "significant statements." These statements, as defined by Moustakas (1996), contain how the individuals feel they are experiencing the phenomenon. Related statements were grouped into emergent meaning units and then abstracted and labeled with a code. Fifteen coded meaning units were identified and included commonalities in the manifest and latent content of respondents' answers. As detailed in Chapter 4, these meaning units were condensed into five themes. Descriptions of these themes utilized pseudonyms and altered potentially

identifying details and anecdotes in an effort to protect the anonymity of interview subjects. In total, Chapter 4 includes a textural and structural description of the respondents' experience using their own words, following the schema of Moustakas (1994). In the following section the researcher will summarize and interpret these descriptions to attempt to understand the essence of the phenomenon.

Interpretation of the Findings

Understanding the process by which sources are included in a story and why they are included allows insight into the final shape of the article. This is important because when journalists rely on sources to provide the information required to write stories it allows those sources to shape the tenor and tone of the article (Zoch & Molleda, 2006). The interviews revealed a number of commonalities across the respondents – despite their differing backgrounds, education, geographic location, and size of outlet – that shed light on how and why sources are selected for Marcellus shale stories. When considering what influenced their sourcing, respondents experiences were organized into five themes: the impact of unique characteristics of the Marcellus shale beat, considerations borne out of perceptions of the three categories of sources, and expectations for source credibility, as well as external forces and respondents' internal worldview and biases. The conclusions drawn from these themes are described below.

Unique Characteristics of the Marcellus Shale Beat

Respondents felt covering the Marcellus shale was fundamentally different than other stories they had covered, particularly because of the inchoate nature of the industry, which meant no institutional knowledge was available to guide their decisions. Respondents were among the journalists pioneering coverage of the industry in

Pennsylvania, which meant they were encountering this challenge with little to no newsroom or peer guidance to draw from or help prepare them to tackle such an abstruse topic. In practical terms, this meant that during the early days of the industry's arrival, reporters' sourcing was admittedly maladroit. Respondents who covered the industry from the beginning discussed how little they knew or understood about the industry and its practices in the early days. This suggests that one key aspect of sourcing Marcellus shale stories was surmounting the formidable learning curve presented by a new industry with complex and intersecting impact. In most other stories, effective methods of sourcing particular types of stories have been built up over time and are part of the institutional knowledge in a newsroom. Respondents could not rely on any such structural advantage when sourcing shale, meaning the decisions they made were far more susceptible to the individual's predilections than almost any other topic. Moreover, the complexity of the topic meant there were no easy answers as far as whom to source and to what extent that sourcing should be taken. The sheer size and diversity of the topic's impact meant this issue presented unique challenges to reporters. This also meant the lack of individual comprehension on the topic had far more impact on stories than most news topics where editors or other reporters could identify flaws or inconsistencies. This was in line with research suggesting there are challenges to sourcing with a limited understanding of the topic (Schoenfeld, 1980; Freidman, 1991) and a lack of experience has been found to drive sourcing decisions (Lacy & Matustik, 1984). With no newsroom structure to fall back on, these findings in the literature that suggest sourcing is skewed by journalist's inexperience were likely compounded in this case. Simply put, for those journalists covering the Marcellus shale, the level of difficulty and dearth of help to

tackle it meant it was an experience unlike any other they faced.

Perceptions of Governmental, Industry, and Environmental Sources

Respondents divided sources into three broad categories: governmental, industry, and environmental. Though each type of source fulfilled ostensibly the same function in the writing of an article about the Marcellus shale, respondents viewed them quite differently. There were commonalities across the categories however. Perhaps unsurprisingly for a topic so divisive, the most common consideration for respondents was a source's agenda – no matter the type of source – and its potential to impact the story. Access was also an important factor in whether a source was considered for inclusion in a story. In general, respondents felt every category of source was not accessible enough. Some of these views aligned with previous research into sourcing practices while others seemed to contradict that understanding.

Expectations of governmental sources was one case where respondents had divergent experiences compared to other journalists addressed in the literature. Far from the reliable and trusted sources depicted in previous studies, respondents found several reasons to be skeptical of governmental sources, particularly those at the DEP, when covering the Marcellus shale. These included perceptions about political influence by the governor and a frustrating lack of access to government sources and records. Respondents described beginning a story a month before publication because lack of access meant they would have to waste weeks waiting. In practical terms, respondents were changing their approach to the topic – some said they even gave up on daily stories on Marcellus shale – because they could not rely on expediency of governmental information. This was in direct contrast with studies that have found access as a reason

why governmental sources were seen as preferable to other sources (Sigal, 1974; Powers & Fico, 1994; Lacy & Coulson, 2000). Respondents did, however, agree that governmental sources could be trusted – political issues in the first few years of the industry notwithstanding. Mike captured this inherent trust in the authority of governmental sources when he said he printed DEP responses "almost verbatim" and that he did not "look for information to dispute them." This is in line with literature that suggests that governmental sources are seen as less self-serving than other sources and therefore more trustworthy (Cameron, Sallot, & Curtin, 1997; Curtin, 1999; Pincus, et al., 1993; Turk, 1985). Sourcing stories with governmental voices may have been more frustrating for respondents than in most stories, but they still utilized them as expected.

Industry sources were seen by respondents as inherently flawed by their self-serving agenda. Most industry claims were treated with skepticism as respondents suggested industry sources were "always spinning you." Scott epitomized this, explicitly stating he did not find industry sources trustworthy. This is consistent with the literature, which suggests industry sources are considered the least credible type of source (Detjen, Fico, Li, & Kim, 2000) and that journalists distrust sources that actively seek to shape the story to their benefit (Cameron et al, 1997). These feelings of distrust, however, were mostly in the abstract. When it came to the individual industry sources that respondents worked with, the feeling was quite different. If a reporter had established a relationship with an industry source, particularly a public relations practitioner, they were more likely to be considered one of "the good ones" that could be trusted. This supports other findings that individual business or industry public relations sources are often viewed much more highly than the field as a whole (Cameron et al., 1999).

While access was a point of concern for governmental sources, it was perhaps the most crucial element in respondents' sourcing the industry. Accessible sources were preferred and likely to appear in an article. It appears that this was almost entirely a result of the need to efficiently gather news by deadline. A good source "knew where we were coming from" and helped reporters fill those journalistic needs, Scott said. Respondents did, however, complain that industry sources available to them were most often public relations practitioners rather than actual experts or engineers from a company.

In light of the importance respondents placed on access, a particularly acute part of the experience of sourcing Marcellus shale stories was defined by industry sources' reluctance, or outright refusal, to participate in the process of newsgathering. Lack of access exacerbated the skepticism respondents felt for industry sources' claims. This was a worsening trend, as those respondents who had covered the industry since its arrival were able to recount the dramatic shift in openness from the industry as controversy around it grew. In practice, respondents often felt hindered in their ability to complete even basic sourcing utilizing industry sources because of their closed-off nature. Many times industry sources refused comment, leaving respondents to write an unbalanced story. Tension between sources and reporters is nothing new, but some respondents suggested that spilled over into open antagonism with industry sources seeking to discredit or surveil their journalistic efforts. Fundamentally, the experience of sourcing industry voices for Marcellus shale stories was one of mutual mistrust and frustration, with access as the fulcrum for discord.

Environmental sources, a category that included activist anti-drilling groups and homeowners, were not treated with so much outright skepticism as outright dismissal.

Activist groups or anti-drilling voices were derided for being "hysterical" or hyperbolic by respondents. While respondents were more likely to express having a personal view that was at least partial anti-industry, this did not result in trust of environmental voices. This marginalization is in line with literature that suggests environmental reporters do not favor environmentalists in their coverage (Lacey & Coulson, 2001). When utilizing environmental sources, respondents did indicate they avoided the extremes of the debate in favor of "finding people who are reasonable" who were able to discuss the industry without reflexive opposition. Like industry sources, a self-serving agenda meant environmental sources were treated skeptically. Therefore, environmental sources that "aggressively" sought inclusion in the media agenda were distrusted most. Environmental sources were by far the most likely of the three categories to be considered completely unusable due to bias or lack of credible claims. When respondents did find environmental sources credible it was because they either did not seek the spotlight or were able to articulate nuanced views of drilling. This suggests that respondents held environmental sources to a different standard than that of governmental or industry sources. It seems much of this distinction can be drawn from the fact that the latter two groups are almost exclusively made up of employees who have experience dealing with the press while environmental voices were far more likely to be non-professional sources unaccustomed to speaking with journalists.

Evaluation of Source Credibility

Even when accounting for the differences in perceptions between types of sources, respondents suggested there were three primary criteria used to determine a source's credibility, and thus likelihood of inclusion in an article. Credible sources did

not unduly push a particular self-serving narrative, offered a worthwhile addition to the article, and were available to the reporter in a timely fashion. Sources that did not do one or more of these were more likely to be seen as untrustworthy. Subsequently, respondents indicated they were unlikely to use these types of sources, which conforms to previous findings on the intersection of source credibility and article inclusion (Detjen et al., 2000; Gans, 1979; Goldenberg, 1975). Specifically, respondents believed that nearly all sources used in Marcellus shale stories had some form of agenda. Assessments of source credibility hinged on determining if he or she could offer a tempered view the issue or avoided aggressively pushing a self-serving frame. The more highly partisan the source, the less likely they were to be seen as credible. In practical terms, this meant respondents avoided the most strident voices or those most actively seeking inclusion in the media agenda.

Sources could also be deemed credible if they offered a highly valuable contribution to the construction of an article. Quality contributions could include a sense of context, a first-person perspective, a pithy remark, a succinct explanation of a complex issue, or a nuanced evaluation of conflicting sides. Sources offering only low-quality information – particularly hyperbolic and overly reflexive critiques or talking points and "canned statements" – were deemed to not be credible. A shortcut for respondents to determine a source's credibility was also if they had expertise or "credentials," which could include their background, position, or education. "Official" sources were assumed to be credible by nature of their representing a company or agency. Credentialed sources were trusted because they were believed to have expertise enough to support their claims, and official sources had the backing and the institutional weight of whomever they

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represented. In each case, being able to offer clear explanation of the topic was seen as valuable, which has been seen as a key component in credibility (Fico, 1984).

Finally, the logistical concerns of access played a substantial role in respondents' judgment of sources. Respondents preferred sources who facilitated the newsgathering process, which supports previous findings on accessibility (Sigal, 1974; Conrad, 1999). Access was often a point of frustration for some sources and considered a part of the appeal of other sources. Respondents admitted that sometimes sourcing decisions come down to simply who is available, especially on deadline. Deadline pressure was often a mitigating factor in sourcing in that it made access tantamount for a source to be considered. Again, this conforms to previous findings (Fico, 1985). The importance of access was also evident when discussing repetition of previous sources. Sources with whom respondents had developed a relationship were more likely to be available and more likely to be considered credible. Taken as a whole, respondents' actions indicated credibility judgments are far more weighted to practicalities of the news gathering process than journalistic principles or ideals of what constitutes quality coverage.

External and Internal Factors of Sourcing

Respondents indicated that external factors shaped their experience of sourcing, while other influences were driven from within. External factors are considered those outside the respondent's control or sphere of influence, like deadline pressure, other employees of the newspaper, or readers and sources. Internal factors consider how respondents' belief in journalistic norms, their attitude toward the Marcellus shale industry, and how they perceive quality work shape their sourcing. A key external factor for respondents was their direct supervisor, the editor. Editors were not seen as pushing a

particular frame to benefit one side of the drilling debate. Editors did, however, enforce

deadlines and often were seen as a threat to redirect reporters to other topics if they did

not produce Marcellus shale articles on a particular timetable. Deadlines, therefore, were

seen by respondents as the biggest obstacle they faced. Practically, this meant sourcing

decisions were made because they were expedient, not because they would result in the

highest caliber of work. For a topic as complex and controversial as Marcellus shale, the

pressure to not only produce quickly but also produce constantly meant shortcuts had to

be made and promising efforts abandoned. Including homeowners' voices, for example,

was rare because of the time commitment that discovering them required.

Another external factor from editors was the ever-present threat to be shifted to

another story that needed covering. Despite serving as the lead on Marcellus shale stories,

respondents described often being sidetracked to cover other areas when editors required

it. Perhaps most interesting and surprising of the ways editors were seen as an influence

Marcellus shale stories was editors' preference for stories depicting industry in a negative

light. Respondents were clear this was not a result of anti-industry belief or

environmental bias, but rather because, as one respondent put it, you don't win awards

for nuanced takes on industry's impact, "you win awards for how industry destroyed a

community." This was the most explicit way respondents felt they were directed toward a

particular frame on the story. Respondents also described feeling external pressure as a

result of opinion pieces published within the op/ed pages of their newspaper, when

columnists or editorials would stir passions on one side of the debate or the other.

Effectively, however, respondents said they ignored the impact of the critiques these

opinion pieces raised. Respondents also ignored critiques of their own work, dismissing

partisans on either side who took umbrage with how they covered the topic. The feeling

was that most of the readership held a middle-of-the-road approach to drilling and

therefore the extremes that were likely to complain about a given article did not prompt

any change in the respondents' approach. Criticism from sources was considered more

carefully because of the likelihood that it could impact future efforts to source stories.

While some external factors could be ignored, respondents were unable to avoid

the influence of internal drivers. Belief in journalistic norms and principles were seen as

impacting respondents' sourcing practices, particularly balance and objectivity.

Commitment to these ideas was axiomatic and the influence was seen in all areas of their

sourcing decisions. The antipathy toward sources with clear agendas, for example, was

essentially an outgrowth of an internal desire to produce objective reportage.

Respondents also acknowledged choosing to include or exclude sources with stated

agendas specifically to address questions of balance and needs of a particular story. These

created seeming contradictions where sometimes a source with an explicit agenda was an

asset and other times something to be avoided, depending on what was seen as balancing

the story. The journalistic duty to serve as a watchdog and protect the vulnerable also led

reporters to feel compelled to seek out ordinary voices of landowners and residents to

ensure that these often voiceless groups were heard from. This also drove skepticism of

the powerful, particularly industry claims. Sources in government, a group that is often

included in journalistic accountability efforts, were not considered targets of watchdog

efforts on Marcellus shale stories.

This journalistic worldview of afflicting the powerful likely contributed to

preference for antagonism to the industry that editors sought. Personally, however,

respondents denied their own worldview included a preferred side of the Marcellus shale debate. This is likely driven by the journalistic principle of unbiased reporting, which suggests reporters do not hold opinions on the topics they cover. In practice, this is considered impossible, as no reporter can truly bracket out their beliefs and unconscious prejudices, and the literature suggests reporter's worldview and ideology impacts the newsgathering process (Litcher & Rothman, 1986; Shoemaker & Mayfield, 1987). Despite claims of neutrality, respondents expressed indicators of their personal views on the Marcellus shale debate, with most being more willing to outwardly critique the industry than offer support for it. This can also likely be attributed more to journalists' tendency to be skeptical of the powerful and support the underdog then it is an expression of particularly pro-environmentalist or anti-drilling sentiment. While self-assured that their own biases would not impact their reporting, respondents indicated many of their peers do produce work that is shaped by preference or ideology. While respondents were unwilling to admit or recognize it, it is suspected that these beliefs or predispositions also affected their news decisions. This is in line with literature suggesting reporters' internal views shape coverage (Starck & Soloski, 1977; Kepplinger et al., 1991).

Professional and Theoretical Contribution

This research contributes to the literature on agenda building by providing a rich and nuanced investigation into a crucial step in that process: selecting sources. The importance of this understanding is grounded in research that suggests sources exert major influence on the media agenda (Weaver & Elliot, 1984), which itself impacts the public agenda (McCombs & Shaw, 1972; Gandy, 1982; Dearing & Rogers, 1996). While the present study is not intended to be generalized, with a better understanding of the

external and internal factors shaping the process to select those sources, the ways that influence on the media agenda is facilitated become clearer as well. Moreover, by focusing on the pre-publication construction of an article, this study adds richness to numerous studies of newspaper articles' content and form. Studies of framing (e.g., Len-Rios et al, 2009; Kiousis et al, 2007; Pan & Kosicki, 2001) can be enriched by the present study's investigation into how the sources that pushed frames were chosen. Moreover, quantitative examinations of source diversity or source frequency in finished articles can draw on the present study for insight into why those findings came to be. While the newspaper is an oft-researched media artifact, far less attention is paid to how it is created. This study is a small part of expanding the research in that area.

Professionally, the implications are numerous. The deep understanding of the experience of sourcing stories on the Marcellus shale is not generalizable to other areas of reportage, but still relevant to reporters and public relations practitioners, as well as educators of both groups. Public relations practitioners can attempt to develop better placement strategies based on a greater insight into how journalists make sourcing decisions. By better manipulating the ways journalists gather news from sources, the better these practitioners can frame news for their clients. Journalists and journalism educators, meanwhile, can draw from the experiences of these journalists to address the ways in which external and internal factors shape the construction of coverage. Some factors, like deadlines, are well understood and addressed in journalism training. Editors would be well served to realize, however, just how their focus on productivity is leading to shortcuts in reportage. Educators, meanwhile, can attempt to train journalists to be more aware of their internal predispositions and account for them, rather than

encouraging them to ignore the existence of internal factors. As the present study suggests, conditioning journalists to the importance of absolute objectivity is ill preparing them for the messy nature of reality. This study can perhaps prompt reflection on how journalism training is conducted.

Conclusion

As mentioned above, this study sought to investigate the following areas of inquiry. 1) What is the process by which Pennsylvania newspaper journalists say they make sourcing decisions when covering the Marcellus shale industry? 2) What internal factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry? 3) What external factors influence Pennsylvania newspaper journalists when they make their sourcing practice decisions when covering the Marcellus shale industry? Upon reflection, the data suggests the following takeaways:

1. Pennsylvania journalists believe they are objectively finding sources to create balanced coverage out of a commitment to journalistic principles rather than fear of criticism from either side. They acknowledge that logistical concerns of deadlines and access play major roles in who is included in their stories. Sources without credentials, nuanced views, or demonstrable value to an article are considered untrustworthy and are passed over in favor of other more credible sources. Overt agendas are expected and accounted for; though most often these extreme views mean sources are ignored or marginalized. In general, governmental sources were frustrating, environmental sources were dismissed, and industry sources were often unwilling to participate in their newsgathering

efforts. In the end, they admit the work being done is not as good as it could or should be. Getting access to sources, especially under deadline, hindered their efforts to produce ideal reportage. Put simply, they feel they are doing the best they can, even though they sometimes fall short.

2. Sourcing decisions are shaped most overtly by the internal beliefs of journalists as to the way a journalists ought to cover a story. Commitment to industry norms and professional principles drove journalists as they sought the asymptote of the journalistic ideal. This then led them to seek out high-end yet difficult-to-access sources and avoid flawed but accessible ones. It also fueled the desire to ensure sources with credibility were used and that underrepresented viewpoints were addressed. They viewed all sources skeptically, in line with the journalistic discipline of verification. Their personal views and predispositions also likely influenced them, though they were loath to acknowledge even having views on the topic. They were most willing to admit to critical thoughts about industry as a whole and certainly individuals and companies within it, though they were quite willing to critique governmental and environmental sources as well. Much of this focused on frustrations borne out of the newsgathering process. The natural gas industry, it should be noted, was critiqued for its impact on the state, in addition to difficulties it posed for reporters in their professional capacities. Journalists were unwilling to entertain that these feelings altered their sourcing decisions. In their self-evaluation of their reporting efforts, they were unaffected by these feelings.

3. Deadline pressures played the largest acknowledged role of external factors shaping journalists' sourcing practices. Editors' attempts to speed the process or

divert journalists' attention to other stories also truncated or altered sourcing efforts. Editors also drove them to anti-drilling frames out of a belief that it would produce noteworthy journalism – and/or awards. Opinions expressed on the op/ed pages caused them frustration, as it led to criticisms from readers and sources and perceptions that journalists shared the op/ed pieces' views. These criticisms were not seen as leading to any changes in their sourcing or reportage. In a similar vein, journalists dismissed most critiques from readers about their own work, not deigning to feel it altered the sourcing of future stories. However, critiques from sources did carry more weight because of the chance it could close off sources in the future. In sum, their belief in themselves as unfettered by external forces was only impinged when those forces were from within their own newsroom.

Taken as a whole, sourcing a story as controversial as the Marcellus shale is far more tangled and confounding than most clear-cut principles of journalism would suggest. Writing an objective and balanced story is easy in the abstract, but far from prescriptive in the field. Encapsulating the experience was difficult, as sourcing is a messy and multifarious process, akin to if Salvador Dali had renovated Daedalus' famous labyrinth. The many interconnecting elements and circuitous processes meant a simple examination – or explanation – was impossible. In a way perhaps befitting the complexity of the topic they tackled, respondents' experience in sourcing the Marcellus shale was an amalgamation of forces and influences.

Limitations

The study of sourcing as a practice is a challenging one. This study's stated goal is to investigate something far more ephemeral than simply counting the number of sources that appear in a finished work, for example. This may explain why far more time is spent analyzing the finished product of newsgathering rather than the effort of gathering it, the process itself is difficult to observe and measure. That is not to say the investigation of sourcing practices is not without benefit, however. It does mean, though, that this study includes a number of limitations that merit attention.

In order to study the factors influencing sourcing practices, this study relied on in-depth interviews, a central method of data collection in the phenomenological tradition (Moustakas, 1994; Kvale & Brinkmann, 2009). Interviews, however, are only as useful as the responses they elicit and the truthfulness of those responses. Essentially, research utilizing interviews must account for the same self-reporting issues that can plague survey research or other data collection methods that entrust the respondent to accurately, truthfully, and wholly participate. Since the present study relies on respondents' self-reporting of those factors that shape their decisions, the data could be skewed by respondents' lack of introspection, desire to save face, or unconscious biases.

Respondents may also misrepresent their experience, describing an approach to sourcing that does not align with reality. While worth considering, these are common concerns for studies utilizing self-reported data (Kvale & Brinkmann, 2009). While it is impossible to completely account for fundamental self-reporting errors, the researcher attempted to address topics that are most likely to elicit a skewed response through repeated and strategic questioning. By varying questions and approaches on sensitive

topics, the researcher attempted to collect data that could be triangulated in order to unveil the true response. Moreover, the researcher avoided phrasing questions in a way that would be most likely to result in a defensive response. One tactic was to ask reporters to address their view of their peers on these issues rather than themselves, under the expectation that respondents unwilling to admit to being biased would be more willing to project their views on the other. Still, despite the researcher's best efforts, it is possible that some of the respondents' answers are misrepresentations. By seeking commonalities between respondents' experiences during data analysis, it decreases the likelihood that respondents' face-saving efforts marred the study's overall findings. It is also worth considering that some topics investigated in this study, like the internal deliberations reporters undertake, are impossible to verify empirically. For these reasons, to those who discount data collected through self-reporting, this study will seem limited.

Another area of concern is the present study's limited scope. By focusing only sourcing within the pre-publication process of reporting, the study does not address other aspects of agenda building that occur. Story generation, for example, is an important aspect of agenda building that is not addressed in this study, nor is the impact of sources on the eventual frame of the article. These and other approaches would investigate important aspects of the agenda building process. However, due to the multifarious nature of newsgathering, and the Gordian complexity of sourcing itself, to attempt to encompass the entirety in a single study, even one of dissertation length, would be logistically prohibitive. Moreover, the goal of the present study is to conduct a phenomenology, deeply diving into the experience of sourcing, and so widening the scope to include the entire agenda building process would be self-defeating. There is, however, a great deal

that could be gleaned from further inquiry into each element of how the media agenda is built. To do so was simply beyond the scope of the present endeavor.

Another limitation is that only one case was studied, and investigating more cases might produce different results. The specificity of the phenomenon – one controversial topic in one state covered by one type of media – is necessary for the study's aims. Altering those key variables might produce drastically different results. Studying the coverage of Marcellus shale in Pennsylvania by television reporters, for example, would likely find a lived experience unlike what is found in these pages. The conclusions drawn here are not intended to be generalizable, which can be seen as a potential limitation. While the present study is a deep dive into this particular phenomenon it is only one instance in a sea of possible permutations. That is not to diminish the importance of the study's aims, but an acknowledgment that further exploration may find other similar phenomena that conform or contradict these conclusions.

Suggestions for Future Research

The results of this study suggest several possible avenues for future research. The most obvious need for future research would be further phenomenological study of sourcing along different cases. Investigating any number of other coverage beats could uncover interesting commonalities and patterns that would add to the literature on sourcing. These could be exploration of controversial issues or more routine ones, or those unique to one area or incredibly widespread. The present study looks at a news topic that is geographically tied to the shale formation the industry taps. A deeply sourced exploration of local crime coverage, the "cop beat," for example, could provide valuable insight into a type of journalism done at nearly every newspaper across the country.

Being able to contrast and compare sourcing on highly controversial topics and the more mundane topics might also be illuminating.

Similarly, a study could be undertaken using much of the same methodology listed here but sampling television reporters instead of interviewing newspaper journalists, or those reporters covering a different divisive topic. Again, the findings could extend the literature on sourcing in order to create a more nuanced and grounded picture of one of the most fundamental activities of journalism. Another recommendation for future research would be to focus on another step in the agenda building process. For example, a deep exploration of the role sources play in the story generation process would suggest compelling findings, as it has been suggested that the initiator of a story has a powerful impact on its framing (Curtin, 1999; Zoch & Molleda, 2006). In a similar manner to the present study, an investigation of the factors that lead reporters to pursue story topics proffered by sources could offer insight into the agenda building process. Since self-reported insights drawn from interviews may be a concern, further research could alter the methodological approach in an effort to ameliorate the concerns of self-reported data. For example, a mixed methods study could be undertaken to combine interviews with reporters about their approach to source selection with a subsequent content analysis of their reportage. This might allow a researcher to seek connections between a reporter's attitudes toward certain sources and their frequency in coverage. In addition, if the lack of generalizability is seen as a limitation of phenomenology, future research could investigate the topic using a survey distributed to a broader sample of reporters. This would not have the same depth of an interview-based approach, however.

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Appendix A

Sample Identification Email

SUBJECT: Request: Marcellus shale coverage

My name is Brandon Szuminsky. I am a doctoral student at Indiana University of Pennsylvania and I am writing to request your help in completing my dissertation research.

I am conducting a study that will examine how and why Pennsylvania newspaper journalists determine what sources they use for stories about natural gas drilling in the Marcellus shale. Since your newspaper is located in an area where the industry is quite active, I'd like to include someone from your newspaper in my study.

Could you please tell me the name of the reporter who most often covers the natural gas industry in your newsroom? I would like to invite him or her to participate in my study, which would involve participating in an interview via Skype.

If you'd like to know more about the study, I have attached an information sheet with further details.

Thank you so much for your time and assistance,
Brandon

Brandon Szuminsky
Doctoral Candidate
Department of Communications Media
Indiana University of Pennsylvania

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730).

Appendix B

Sample Recruitment Email

SUBJECT: Marcellus shale study

My name is Brandon Szuminsky and I am contacting you because XXX passed along your name and contact information to me. I am a doctoral student at Indiana University of Pennsylvania and I am writing to request your help in completing my dissertation research.

In recent years, the Marcellus shale has become a major news topic in Pennsylvania. I am conducting a study that will examine how and why Pennsylvania newspaper journalists determine what sources they use for stories about natural gas drilling in the Marcellus shale.

This project is specifically interested in the decision making process of source selection for this particular news story. You are invited to participate because XXX identified you as a journalist who covers stories about the Marcellus shale.

This research will involve an interview concerning how you make decisions about sourcing when reporting these stories. If you decide to participate, your time commitment will be approximately one hour. Please note that you must be at least 18 years old in order to participate in this study.

Participation in this research is entirely voluntary. Should you decide to participate, you may withdraw from participation at any time and without penalty. There will be no compensation or remuneration for participation. However, at the conclusion of the study, you will be offered a copy of the completed research.

The information collected from this research project will be kept confidential. To protect your anonymity, this research will not identify your interview responses in any way that would connect to you.

I attached a copy of an informed consent document that explains the study in more detail and outlines your voluntary agreement to participate as well as your rights and responsibilities as a participant. On the date of the interview, you will be asked to sign a consent document indicating your agreement to participate.

If you are interested in participating, please respond with dates that you would be available to conduct an interview via Skype.

Thank you for your time and I hope to speak with you soon,
Brandon

Brandon Szuminsky
Doctoral Candidate
Department of Communications Media
Indiana University of Pennsylvania

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730).

Appendix C

Information Sheet

Information Sheet

Name of Principal Investigator
Brandon Szuminsky, doctoral candidate
htzr@iup.edu

Name of Organization
Indiana University of Pennsylvania

Name of Faculty Supervisor
Dr. Zachary Stiegler, associate professor of Communications Media and Instructional Technology
stiegler@iup.edu

Before participation, you will be given a copy of the full Informed Consent Form

Purpose of the research
The purpose of this study is to investigate the decisions that lead to whom newspaper journalists use as sources for stories about a controversial environmental issue, namely Marcellus shale drilling in Pennsylvania.

Type of Research Intervention
This research will involve an interview about the process of determining sourcing for stories about the Marcellus shale. The interview will be recorded for later transcription.

Participant selection
This project is specifically interested in Pennsylvania newspaper reporters who have covered the Marcellus shale. You are invited to participate because of your employment at a Pennsylvania newspaper and your coverage of the Marcellus shale.

Voluntary Participation
Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Should you decide to participate, you may withdraw from participation at any time and without penalty.

Duration
Your participation in the research project will last approximately one hour from start to finish.

Risks
Participating in this study will have minimal risks to you as a participant beyond what is normal for discussing the process of journalism in an interview setting. The study is attempting to gauge reporters' feelings, attitudes, and beliefs as to what influences sourcing decisions. As such, you may experience some discomfort, such as is common when engaged in introspection.

Compensation

This research project is voluntary and there will be no compensation or remuneration for participation.

Confidentiality

The information that we collect from this research project will be kept confidential. To protect your anonymity, this research will not attribute any interview responses that would connect in any way to you. In the study, pseudonyms or general identifiers (i.e., "a rural newspaper reporter") will be used to differentiate between respondents but will not include any identifiable characteristics. Research data, including recorded interviews, and consent documents will be password-protected and maintained for three years and only accessible by the researcher.

Sharing the Results

The information gathered from this study will be used for a doctoral dissertation and may be presented to the higher education community through publication or conference presentation. There will be no ties to your personal information and only the aggregate or summary data will be distributed without individual subject level information. You will be offered a copy of the final study once it has been completed.

Right to Refuse or Withdraw

This is a reconfirmation that participation is voluntary and includes the right to withdraw. You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730).

Appendix D

Informed Consent

Indiana University of Pennsylvania
www.iup.edu

Department of Communications Media   **P 724-357-2492**
Stouffer Hall, Room 121   F 724-357-5503
1175 Maple Street   *www.iup.edu/commmedia*
Indiana, Pennsylvania 15705-1058

Informed Consent Form

This informed consent form is for newspaper reporters who cover the Marcellus shale who are participating in a study of sourcing practices.

Name of Principal Investigator
Brandon Szuminsky, doctoral candidate
htzr@iup.edu

Name of Organization
Indiana University of Pennsylvania

Name of Faculty Supervisor
Dr. Zachary Stiegler, associate professor of Communications Media and Instructional Technology
stiegler@iup.edu

This Informed Consent Form has two parts:
- **Information Sheet (to share information about the research with you)**
- **Certificate of Consent (for signatures if you agree to take part)**

You will be given a copy of the full Informed Consent Form

PART I: Information Sheet

Purpose of the research
The purpose of this study is to investigate the decisions that lead to whom newspaper journalists use as sources for stories about a controversial environmental issue, namely Marcellus shale drilling in Pennsylvania.

Type of Research Intervention
This research will involve an interview about the process of determining sourcing for stories about the Marcellus shale. The interview will be recorded for later transcription.

Participant selection
This project is specifically interested in Pennsylvania newspaper reporters who have covered the Marcellus shale. You are invited to participate because of your employment at a Pennsylvania newspaper and your coverage of the Marcellus shale.

Voluntary Participation

Your participation in this research is entirely voluntary. It is your choice whether to participate or not. Should you decide to participate, you may withdraw from participation at any time and without penalty.

Duration

Your participation in the research project will last approximately one hour from start to finish.

Risks

Participating in this study will have minimal risks to you as a participant beyond what is normal for discussing the process of journalism in an interview setting. The study is attempting to gauge reporters' feelings, attitudes, and beliefs as to what influences sourcing decisions. As such, you may experience some discomfort, such as is common when engaged in introspection.

Compensation

This research project is voluntary and there will be no compensation or remuneration for participation.

Confidentiality

The information that we collect from this research project will be kept confidential. To protect your anonymity, this research will not attribute any interview responses that would connect in any way to you. In the study, pseudonyms or general identifiers (i.e., "a rural newspaper reporter") will be used to differentiate between respondents but will not include any identifiable characteristics. Research data, including recorded interviews, and consent documents will be password-protected and maintained for three years and only accessible by the researcher.

Sharing the Results

The information gathered from this study will be used for a doctoral dissertation and may be presented to the higher education community through publication or conference presentation. There will be no ties to your personal information and only the aggregate or summary data will be distributed without individual subject level information. You will be offered a copy of the final study once it has been completed.

Right to Refuse or Withdraw

This is a reconfirmation that participation is voluntary and includes the right to withdraw. You do not have to take part in this research if you do not wish to do so. You may also stop participating in the research at any time you choose. It is your choice and all of your rights will still be respected.

To verify that you understand your rights to withdraw, please initial here. _____

PART II: Certificate of Consent

I have read the foregoing information and I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction. *By signing, I acknowledge that I am 18 years of age or older and I consent voluntarily to participate as a participant in this research.*

Print Name of Participant_____

Signature of Participant _____ **E-mail** _____

THIS PROJECT HAS BEEN APPROVED BY THE INDIANA UNIVERSITY OF PENNSYLVANIA INSTITUTIONAL REVIEW BOARD FOR THE PROTECTION OF HUMAN SUBJECTS (PHONE 724.357.7730).

Appendix E

Interview Protocol

The following is to be read before beginning the interview:

In recent years, the Marcellus shale has become a major news topic in Pennsylvania. I am conducting a study that will examine how and why Pennsylvania newspaper journalists determine what sources they use for stories about natural gas drilling in the Marcellus shale.

This project is specifically interested in the decision making process of source selection for this particular news story. You are invited to participate because you have been identified as a journalist who covers stories about the Marcellus shale.

This research will involve an interview concerning how you make decisions about sourcing when reporting these stories. If you decide to participate, your time commitment will be approximately one hour. Please note that you must be at least 18 years old in order to participate in this study.

Participation in this research is entirely voluntary. Should you decide to participate, you may withdraw from participation at any time and without penalty. There will be no compensation or remuneration for participation. The information collected from this research project will be kept confidential. To protect your anonymity, this research will not identify your interview responses in any way that would connect to you. Thank you for your willingness to participate.

Initial Questions

1. How long have you been a journalist?
2. What kind of training or journalism education have you had?
3. How long have you covered environmental stories?
4. Have you had any specific training or education for covering those types of stories?

5. When you started covering environmental stories, did you have someone in the newsroom you could ask for advice?

6. Can you walk me through a recent story about the Marcellus shale and describe how you covered it?

7. When covering stories about the Marcellus shale, how do you decide what sources to use?

8. Does the process by which you decide on sources differ when covering the Marcellus shale as compared to other stories?

9. What is important to you when finding sources for a story on the Marcellus shale?

10. How do you know when you've found the enough sources/right sources?

11. How do you evaluate whether a source should be in your story or not?

12. Does that change when the source is a public relations practitioner?

13. How often do you use press releases during your reporting?

14. Are you more willing to use some kinds of press releases over others?

15. To what extent do you think the industry is active in your area?

16. What are your feelings on environmentalism and conservation in general?

17. How would you sum up the attitude of people in your readership area to the Marcellus shale industry?

18. Do you hear more from people who like the industry or dislike it?

19. Does the attitude of your readership area impact the way you go about doing your stories?

20. Have you ever gotten feedback on how you've covered a Marcellus shale story? If yes, has that changed the way you've looked at future stories?

21. Have you ever included a point of view in a story about Marcellus shale to avoid hearing from readers?

22. Personally, do you think that the Marcellus shale has helped or hurt your readership area?

23. Do you think most readers share that opinion?

24. Have you ever run into a reader who really disagreed with how you covered the industry?

25. Some say fracking is dangerous, do you think the Marcellus shale poses an environmental threat?

26. The industry talks up the economic benefits of the industry, do you agree with their assessment?

27. Do you know anyone who has directly benefited from land leases or mineral rights?

28. Stories like Marcellus shale often have conflict with multiple sides. How do you try to balance to make sure all sides of the story are represented?

29. Do your editor(s) give you much direction on covering Marcellus shale?

30. Do you think that input from editor(s) is more or less than an average news story?

31. Has an editor ever specifically told you to talk to a source for a Marcellus shale story?

32. What do you think your editor(s)' opinion of the industry is?

33. Has your editor(s) ever stressed getting "both sides of the story" when covering the Marcellus shale?

34. Do you feel that your editor(s) favor one side or the other – either explicitly or implicitly?

35. Does your newsroom have any policies or procedures in place when covering controversial stories?

36. Are you aware of your newspaper owner's or publisher's opinion on the Marcellus shale in your area?

37. Have you ever felt pressure from your publisher/owner – directly or indirectly – to cover Marcellus shale stories in a certain way?

38. Has your newspaper's editorial board commented on the Marcellus shale industry?

39. Have those editorial comments impacted the way sources and readers interact with you during your reporting?

40. Do you feel pressure from other members of your newsroom to cover certain aspects of the Marcellus shale?