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# Framing Theory and Its Application to the Fracking Controversy in St. Tammany Parish

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FRAMING THEORY AND ITS APPLICATION TO THE FRACKING  
CONTROVERSY IN ST. TAMMANY PARISH

A Thesis

Submitted to the Graduate Faculty of the  
Louisiana State University and  
Agricultural and Mechanical College  
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## **ABSTRACT**

When Helis Oil & Gas Company announced it was interested in drilling for oil in Louisiana's St. Tammany Parish, it ignited a firestorm. The proposed drilling project would use hydraulic fracturing – or “fracking” – causing some residents to voice their concerns for the parish's wellbeing. My thesis looks to framing theory to analyze how local media covered the issue, as well as the effects those frames might have on public policy and the lawsuits that arose out of the proposed drilling operation. I performed quantitative and qualitative content analyses of local media coverage of this issue from April 2014 through December 2014. I found that the media focused the most on the “public backlash” frame. The media coverage showed that public opinion has already had an impact on public policy; it could also influence litigation in this matter.

## I. INTRODUCTION

A few years into the new millennium, Americans began forming strong opinions about hydraulic fracturing. Hydraulic fracturing is also known as horizontal drilling or, more commonly, “fracking.” Fracking allows energy companies to tap into oil and gas deposits in shale formations.

This thesis will use content analysis to assess how the hydraulic fracturing issue is framed in local media’s reports in St. Tammany Parish. The goal of the thesis is to evaluate which frames the local media used prominently, and to draw conclusions about the frames’ effects on public policy and litigation. Finally, I will provide some suggestions for best practices that energy companies could look to when facing a similar scenario.

Although fracking operations have existed in the United States since the 1940s, the current “boom” did not begin until the early 2000s (Charlez, 1997). Hydraulic fracturing enabled the nation’s shale gas industry to grow by 45% per year between 2005 and 2010 (“Shale,” 2012). Public outcry accompanied fracking’s meteoric rise. In 2010, documentarian Josh Fox released *Gasland*, a documentary chronicling the purported environmental and health consequences of fracking in various parts of the United States. *Gasland* featured various Americans who had flammable tap water, giving rise to the dramatic image of people setting water from their sinks on fire. Fox also released a sequel, *Gasland Part II*, in April 2013. Journalist Phelim McAleer responded to *Gasland* in 2013 with his documentary *FrackNation*. McAleer’s documentary aimed to debunk Fox’s claims that fracking involves serious and frequent environmental consequences. For example, according to McAleer, gas

had been infiltrating plumbing decades before fracking operations began in the United States. It is historical contamination, not hydraulic fracturing, that is to blame for combustible water.

Fracking has also caught Hollywood's attention, and the push for stricter regulations has become a popular cause for many celebrities to champion. *Fracknation*'s release coincided with the release of *Promised Land*, a film starring Matt Damon about land men attempting to persuade a small Pennsylvania town to lease land for fracking operations. Even before *Promised Land*'s release in December 2012, energy industry professionals were upset about how fracking would surely be portrayed in the movie (Gilbert, 2012). The energy industry's fears were founded partially on Damon's involvement with other environmental causes, and his vocal support for the Democratic Party, which is generally less amenable to horizontal drilling operations than the Republican party is.

Several celebrities have vocalized their opposition to hydraulic fracturing, including Mark Ruffalo, Scarlett Johansson, Robert Redford, Alec Baldwin, Yoko Ono, and Sean Lennon (Begos and Peltz, 2013). In 2013, a coalition of environmental groups released a series of PSAs starring Hayden Panettiere, Lance Bass, Marisa Tomei, and a cadre of other A-list celebrities. The PSAs play on the vaguely obscene sound of "frack" to chide President Obama and Governors Jerry Brown, Andrew Cuomo, and John Hickenlooper (of California, New York, and Colorado, respectively) for not banning fracking (O'Connor, 2013).

The Western Energy Alliance responded to this campaign with its own PSA, entitled "Celebrities: You Don't Know What You're Fracking Talking About." Kathleen Sgamma, vice president of government and public affairs at Western Energy Alliance, said, "The Hollywood celebrities appearing in the anti-fracking videos are woefully misinformed about hydraulic fracturing,

and merely repeating talking points from extreme environmental groups that are trying to stop American oil and natural gas development” (Richardson, 2013).

In April 2014, the fracking controversy, and the strong opinions it tends to inspire, came to St. Tammany Parish in Louisiana.

Louisiana is abundant in natural resources. The “Sportsman’s Paradise” teems with not only plentiful wildlife, but also ample crops. Agriculture is a major industry in Louisiana.

The state’s natural resources do not stop at ground level, though; below the Earth’s surface lie numerous valuable minerals. Oil and gas, specifically, have been the focal point of Louisiana’s energy industry beginning in 1901, when oil drilling operations began in the Evangeline Salt Dome near Jennings, Louisiana (State Review of Oil and Natural Gas Environmental Regulations, Inc., 2011). Louisiana has more offshore wells than any other state in the country. As of 2013, Louisiana was refining more barrels of oil than any state except Texas (Reeves, 2013).

The unique geography of the state has helped cement its status as a major energy producer. Because the state is positioned at the mouth of the Mississippi River, all the organic refuse from the continent’s longest river comes to rest in Louisiana (Reeves, 2013). Furthermore, Louisiana sits on top of multiple major shale formations, including the Haynesville, Austin Chalk, and Louisiana Eagle Ford formations, as well as the Tuscaloosa Marine Shale, which provides the subject of this thesis.

The first hydraulic fracturing operations in Louisiana occurred in the 1960s (State Review of Oil and Natural Gas Environmental Regulations, Inc., 2011). A significant portion of the state’s natural gas operations occurs in the Haynesville Shale, which is located in the northwestern part of the state and spills over the Texas and Arkansas borders. In 2011, the Haynesville Shale formation contained an

estimated 251 trillion cubic feet (Tcf) of recoverable natural gas, and there were 1,691 permitted wells as of October 2010 (State Review of Oil and Natural Gas Environmental Regulations, Inc., 2011).

Energy has traditionally been a major component of the state's economy. In 2011, the energy industry accounted for 287,000 jobs in Louisiana, \$20.5 billion in household earnings, and \$73.8 billion in sales for Louisiana companies (Griggs, 2014). Energy companies paid almost \$1.5 billion in state taxes and fees and \$410 million in taxes to local governments in 2013 (Griggs, 2014). In 2014, oil and gas producers, refiners and pipeline companies paid residents of Lafayette Parish \$1.4 billion in annual wages, according to economist Loren Scott. Terrebonne Parish and Orleans Parish residents were paid \$558.1 million and \$361.5 million, respectively (Griggs, 2014).

“If you want to know what Louisiana would look like without the energy sector, all you have to do is look one state over to the east,” Scott said at a July 2014 press conference on the fifth edition of the study titled “The Energy Sector: A Giant Economic Engine for the Louisiana Economy” (Griggs, 2014). Mississippi's scant energy industry does not have remotely the national presence that Louisiana's does. Although the two Gulf Coast states have similar demographics, Mississippi ranked 50<sup>th</sup> in the country in per capita income in 2014, in comparison to Louisiana's ranking at No. 32 (Griggs, 2014).

Louisiana is one of the nation's foremost energy-producing states. The backlash toward fracking in St. Tammany is somewhat startling, given Louisianans' historic receptiveness to drilling. Thus, Louisiana, and specifically St. Tammany Parish, presents an interesting test case for studying local media coverage of the hydraulic fracturing issue.

However, the southeastern portion of the state (which encompasses St. Tammany Parish) has generally been the region most reluctant to energy exploration and production. Although the energy

industry flourished in the southeast in the 1950s and 1960s, this area only accounted for 16% of the state's well permits by the beginning of the 21<sup>st</sup> century (Reeves, 2013).

Orleans Parish and the Florida Parishes (which includes St. Tammany Parish) have been especially hesitant toward drilling. From the Louisiana oil industry's birth in 1901 until 2013, these parishes – which include Orleans, St. Tammany, Washington, Tangipahoa, Livingston, St. Helena, East Feliciana, and West Feliciana – have only granted 1,365 wells. Nearby Jefferson Parish, in contrast, has had a total of 2,995 wells (Reeves, 2013). From August 2010 until August 2011, the state Department of Natural Resources only granted five drilling permits in the Tuscaloosa Marine Shale (Roberts, August 21, 2011). During this period, however, mineral leases were on the rise; over 1 million acres of land were leased to energy companies for drilling in the Tuscaloosa Marine Shale, reflecting some degree of openness to drilling on the part of residents in the Florida Parishes region (Roberts, August 21, 2011).

Helis Oil & Gas Co. proposed fracking operations in St. Tammany Parish in order to access natural gas deposits in the Tuscaloosa Marine Shale (Rhoden, April 8, 2014). Since this announcement, many St. Tammany Parish residents have formed organizations opposing the proposed horizontal drilling operations. These residents have voiced their concerns about fracking through commercials, social media, and a powerful presence at a November 2014 public hearing on fracking. St. Tammany Parish and the Town of Abita Springs have also filed separate lawsuits to enjoin Helis from drilling in St. Tammany. The backlash against fracking in St. Tammany is interesting, given that Louisiana has historically been generally receptive to oil and gas exploration and production (Reeves, 2013). However, it is unclear whether the fracking opponents in St. Tammany represent a substantial portion of the population.

The reluctance of state and local public officials to allow drilling in the area encompassing St. Tammany is odd when compared with the generally welcoming attitude toward drilling in the rest of the state.

The public backlash in St. Tammany is also interesting, given the residents' reasons for opposition. Two of the most prevalent allegations against horizontal drilling are that it is harmful to the environment and to public health. These claims have also been repeated among opponents of fracking in St. Tammany (Roberts, June 12, 2014; Roberts, October 8, 2014).

However, Louisiana is not as healthy or environmentally-conscious as many other states. According to *24/7 Wall St.*, Louisiana's residents do not tend to value environmental quality to the extent that other states' citizens do. The Bayou State ranked fourth on *24/7 Wall St.*'s list of the Least Greenest States in 2011. *24/7 Wall St.* cited the state's problems with water contamination and poor energy-saving policies (Sauter, Stockdale, McIntyre & Allen, 2010) Major environmental crises have plagued the state for years, including the 2010 Deepwater Horizon oil spill and a swiftly-eroding coastline.

Some St. Tammany residents have voiced concern about the potential health consequences of fracking. However, Louisiana residents are statistically not as healthy as residents of other states. Approximately 33% of Louisianans are obese, making it the sixth-most obese state in the country (Kaplan, 2014). According to the Centers for Disease Control and Prevention, roughly 20.5% of adults and 11% of children aged 12-17 in the state were smokers in 2011. Perhaps the best example of the low value Louisiana policymakers put on both public health and the environment is "Cancer Alley," the stretch of Interstate 10 between Baton Rouge and New Orleans that is packed with chemical plants.

Hydraulic fracturing has significant implications for the U.S. economy, foreign policy, the environment and public health. Although a myriad of political issues polarize society, few have the potential to affect Americans' lives in this many ways. Moreover, hydraulic fracturing could potentially provide a significant boost to the state and national economy. Just as the benefits could be dramatic, so could the purported consequences. The decisions public officials make about fracking could have serious implications, and it is important to understand the role that public opinion might have in forming those policy decisions. Thus, it is worth evaluating how information about fracking is presented to the public, and whether public attitudes toward fracking affect policy and litigation.

Fracking has clearly defined advantages and drawbacks, albeit largely purported ones. While fracking advocates point to energy independence and job creation, opponents are worried about fracking's environmental and public health implications. There are clear ways to structure the issue, depending on which side a person or entity espouses. Thus, framing theory is an appropriate and effective context within which to study public opinion toward fracking.

This thesis will include both quantitative and qualitative analyses to evaluate how the media, supposedly a neutral source, frame the issue. Some of the information the public receives about fracking comes from major stakeholders: either the energy companies aiming to drill (or who are already drilling), or the environmentalist groups who are opposed to fracking. The media are not stakeholders in the issue and purport to be an unbiased source of information. Thus, they can be crucial in helping individuals to frame the issue for themselves. With that in mind, the first two research questions are:

RQ1: Which stakeholders were featured in media reports about hydraulic fracturing from April 2014 through December 2014?

RQ 2: What frames were applied to the issue in media coverage of fracking during this time period – the environment, the economy, public health, foreign policy, etc.?

Next, I will draw conclusions from the quantitative and qualitative analyses about the framing effects on public policy and litigation.

RQ 3: Has news coverage affected public policy? What can policymakers learn about public opinion from the media coverage?

RQ 4: How might local media treatment of the various lawsuits affect the outcome of those suits?

The next chapter will explore the theoretical foundations for this research. This includes an overview of hydraulic fracturing and its implications, as well as background information on the proposed fracking project in St. Tammany Parish. Chapter II also includes a literature review on framing theory, including its origins, what it hypothesizes, and why it is a good way to measure media effects.

## **II. LITERATURE REVIEW**

### **Introduction**

This chapter will highlight the theoretical framework used in this thesis. Before I provide an overview of framing theory, it is helpful to provide additional context about horizontal drilling and the policy debate it has sparked.

### **Hydraulic Fracturing**

Natural gas, the gaseous form of petroleum, is a major component of the United States' energy industry. The uses for natural gas are widely apparent, as it is used to fuel vehicles and produce plastics; it is also an energy source that many Americans use to heat their homes and generate electricity (Tomain & Cudahy, 1992).

Gas produced from shale formations – commonly known as “shale gas” – has become more prevalent in the public dialogue. In the past, this source of natural gas was largely untapped because of economic constraints. However, due to technological advances such as hydraulic fracturing, engineers are now able to tap into this source. Fracking can also be used to obtain oil deposits in shale formations.

Hydraulic fracturing is also known as “horizontal drilling” or “fracking.” The hydraulic fracturing process consists of injecting large amounts of water, sand and chemicals into the shale to shatter the rock formation and release the natural gas (Tomain & Cudahy, 1992).

Hydraulic fracturing generally translates to myriad economic benefits, on both macroeconomic and microeconomic levels. For example, landowners of areas that undergo hydraulic fracturing will be paid mineral royalties, increasing that household's assets (Lowe, 2009). More readily available natural gas means it will cost less for Americans to heat their homes, fuel their vehicles, etc. (“Fracking,” 2013).

On a larger-scale level, hydraulic fracturing has the potential to create millions of new jobs (Brown, 2013). Currently, hydraulic fracturing has already created about 1.2 million jobs (Howard, 2011).

Hydraulic fracturing could also have positive foreign policy implications, as it would decrease the United States' dependency on foreign gas imports (Brown, 2013).

Also, natural gas is a cleaner-burning fossil fuel than oil and coal (Brown, 2013). Thus, hydraulic fracturing could be advantageous to the environment and public health, in that respect.

Although natural gas is a clean-burning fossil fuel, fracking potentially has serious environmental consequences. Drilling causes increased air emissions of methane and hazardous pollutants; it actually leaks more air emissions than coal (Howard, 2011).

Perhaps the most widely-recognized consequence of hydraulic fracturing is the pollution of groundwater that can occur as a result of injecting chemicals (along with water and sand) into the rock formations. Hydraulic fracturing is believed to have caused more than two dozen cases of water pollution (Howard, 2011). Furthermore, hydraulic fracturing operations are exempt from the 2005 Safe Drinking Water Act, meaning they do not have to disclose which chemicals they use, at least not under federal law (Howard, 2011). State regulations can vary on this point.

Hydraulic fracturing also presents public health and safety problems. For example, it has been linked to several earthquakes, both in and outside of the United States (Howard, 2011). The concern that the process can contaminate groundwater also has implications for public health.

## **Policy Overview**

Regulation of hydraulic fracturing is currently mostly confined to the state and local levels, due to statutory restrictions on the federal power to regulate it (Spence, 2013).

Thus, two common foci among fracking regulations across the country are disclosure of chemicals used in fracking fluids and procedures for handling flowback fluid. Flowback is the fluid that returns to the surface after fracking (“Fracturing fluid,” 2014).

The fluid used in fracking is usually at least 90 percent water; usually this number is much higher, around 98 or 99 percent (Ruth & Williams, 2014). Roughly 8 to 9 percent of the fracking fluid is comprised of sand or ceramic proppant particles, which help to clear channels for the gas to reach the production well. The remaining percentage of the fracking fluid generally contains chemical additives. The type of chemical used depends on the characteristics of the well that is being fractured. For example, biocides prevent microorganisms from growing, and oxygen scavengers prevent metal pipes from corroding. Friction-reducing additives (dubbed “slickwater” in industry speak) are currently popular. They allow fluids and either sand or proppants to be pumped at a higher rate and a reduced pressure (Fracfocus.org, 2014).

According to the Department of Energy, some chemical additives can be potentially hazardous to public health. State policies that require disclosure of these chemical additives do so in order to assist health care professionals in responding to toxic exposure, researchers studying shale gas and public health, regulators who monitor potential groundwater contamination and individuals who live or work near fracking operations. There is currently no federal law requiring public disclosure of chemicals used in fracking fluids (Murrill & Vann, 2012).

However, public disclosure usually has to contend with the competing policy consideration of protecting trade secrets. Although the definition of “trade secret” can vary slightly among jurisdictions, a Congressional Research Service report offered this working definition: “Any formula, pattern, device, or compilation of information that is used in a person’s business, and that gives the person an

opportunity to obtain an advantage over competitors who do not know or use it” (Murrill & Vann, 2012, p. 8).

Another important issue with hydraulic fracturing involves flowback. It is also referred to as “waste,” “waste water” or “E&P waste” (E&P is industry jargon for “exploration and production”). The composition of flowback can vary extensively. Sometimes it is almost entirely fluids that were originally used by the operators during drilling. Other times, flowback contains fluids and minerals that were in the formation. It is often necessary for public safety that flowback be properly disposed of.

However, due to innovative technologies, some flowback can be recycled for further fracking operations; this is especially common in the Marcellus Shale region (“Fracturing fluid,” 2014). Most industry professionals agree that recycling flowback is a resourceful way to conserve water (Scott, 2014). As an alternative water source, it can also be a money saver. A December 2013 article in *The Bakken* magazine, however, posited that the cost of recycling flowback far outweighs any economic value (Geiver, 2013).

In Louisiana, the agency that oversees fracking regulations is the Department of Natural Resources, Office of Conservation.

According to Louisiana law, any entities engaging in fracking must publicly disclose the chemicals they use, in accordance with 29 CFR 1910.1200, which are the OSHA General Industry Standards for hazard communication (La. Admin. Code 43:XIX §118). However, operators do not have to disclose chemicals if they are trade secrets. Furthermore, no confidential business information has to be disclosed (State Review of Oil and Natural Gas Environmental Regulations, Inc., 2011).

Under ordinary circumstances, if operators withhold information about chemicals in fracking fluid, regulators do not have any statutory authority to compel disclosure (La. Admin. Code 43:XIX §118(C)(2)(a)).

Louisiana has recently updated its Administrative Code to encourage flowback recycling (State Review of Oil and Natural Gas Environmental Regulations, Inc., 2011). The Office of Conservation now provides protocol for waste treatment and disposal facilities to recycle the flowback they receive (La. Admin. Code 43:XIX § 313(J); La. Admin. Code 43:XIX § 565).

Louisiana does not have any policies to prevent water contamination from fracking operations, specifically. Still, there are some safeguards: La. Admin. Code 43:XIX §§ 311 and 313 provide standards for soil testing (particularly to monitor salinity levels) to ensure safe groundwater and surface water; La. Admin. Code 43:XIX § 303(C) prohibits water contamination from general E&P waste; La. Admin. Code 43:XIX § 109 contains requirements for setting and testing casing and cement; finally, the Administrative Code requires that flowback be stored carefully, in tanks or lined production pits, so any chemicals in the flowback do not infiltrate nearby water sources.

### **A Timeline of the Fracking Controversy in St. Tammany Parish**

On April 8, 2014, NOLA.com reported that Helis Oil & Gas Co. had proposed horizontal drilling in St. Tammany Parish (Rhoden, April 8, 2014). Helis is headquartered in New Orleans and has offices in Lafayette, Louisiana; Houston; Billings, Montana; and Casper, Wyoming. The proposed drilling site is part of a tract of land leased to Helis that is located north of Interstate 12, approximately one mile east of Louisiana 1088. The proposed drilling site is part of the Tuscaloosa Marine Shale formation.

On September 10, 2014, Helis announced it had filed applications for three permits, including a permit to drill (Chatelain, September 10, 2014).

Since Helis announced its interest in drilling in St. Tammany, some citizen's groups – such as Concerned Citizens of St. Tammany and the League of Women Voters of St. Tammany Parish – have vocally opposed fracking operations in their parish (Rhoden, April 16, 2014; Warren, December 2, 2014). On November 12, there was a public hearing on fracking that lasted eight hours and continued past midnight. Approximately 600 people attended the hearing, and according to Department of Natural Resources spokesman Patrick Courreges, about 130 people requested to speak (Rhoden, November 13, 2014). According to NOLA.com, most of the roughly 50 people who had a chance to speak were opposed to horizontal drilling in St. Tammany (Rhoden, November 13, 2014). The hearing also attracted some celebrity attention. Ian Somerholder, Covington native and star of *The Vampire Diaries*, attending the hearing and has been an outspoken opponent of the proposed drilling operations (Rhoden, November 13, 2014).

In June 2014, St. Tammany Parish filed a lawsuit seeking to enjoin Helis from drilling in the parish. Suit was filed in Louisiana's 19<sup>th</sup> Judicial District Court, in East Baton Rouge Parish, and the Department of Natural Resources and Commissioner of Conservation James Welsh were named as defendants (Rhoden, October 27, 2014). The suit alleges that drilling would violate the parish zoning ordinances, that the Office of Conservation has reached the maximum number of wells it can adequately manage, and that St. Tammany Parish has the authority to prohibit hydraulic fracturing (Rhoden, October 27, 2014).

The state filed a motion to dismiss the suit on the grounds that it encroaches on the Office of Conservation's authority to regulate oil and gas operations (Rhoden, October 27, 2014). On October 27, Judge William Morvant ruled that he would not grant the state's motion to dismiss, and the suit would proceed (Rhoden, October 27, 2014).

The Town of Abita Springs also filed a lawsuit against Welsh and the Department of Natural Resources. This suit was filed on December 1 in Louisiana's 22<sup>nd</sup> Judicial District Court, in Covington. Like St. Tammany Parish's lawsuit, Abita Springs' suit also alleges that drilling on this site violates the parish's zoning code. The suit also claims that drilling would be harmful to the health and welfare of the public (Rhoden, December 2, 2014).

“What good would parish zoning laws be if they mean nothing in the face of this type of heavy industrial drilling activity with a host of negative impacts?” said Abita Springs Mayor Greg Lemons in a news release issued December 2. “Are zoning laws only good for things like how big someone's backyard has to be?”

On December 17, the citizens' group Concerned Citizens of St. Tammany filed a petition to intervene in the St. Tammany Parish's lawsuit against the Department of Natural Resources and Commissioner Welsh (Rhoden, December 17, 2014). Judge Morvant granted the group's petition on January 9, 2015, allowing the organization to intervene in this lawsuit (Pagonis, 2015).

The state's Office of Conservation approved Helis' drilling permit on December 19, under Order No. 1577-1 (Rhoden, December 19, 2014). Helis' ability to drill is contingent upon data from an exploratory well that indicates the presence of oil. According to the permit, Helis must use a “closed-loop” system, which means that the mud and water that rises to the surface from the well must be contained in tanks. Helis cannot use any pits to store mud or flowback. Helis is also not allowed to use any water from private ponds supplied by groundwater wells, and the Office of Conservation must approve all sources before Helis can obtain the water. Finally, Helis must fully disclose all chemicals used in its horizontal drilling; the permit approval does not mention any caveats for trade secrets (Office of Conservation, 2014).

The next hurdles for the oil company to jump are securing a wetlands permit from the Army Corps of Engineers and a water quality certification from the state Department of Environmental Quality (Rhoden, December 19, 2014). Rick Franzo, president of Concerned Citizens of St. Tammany, told NOLA.com on December 19 that he expects Helix will be unable to obtain a permit from the Army Corps of Engineers (Rhoden, December 19, 2014).

### **Theoretical Justification: Framing Theory**

According to framing theory, information outlets organize the facts of a particular issue in order to make certain implications about that issue.

The major premise of framing theory is that an issue can be viewed from a variety of perspectives and be construed as having implications for multiple values or considerations. Framing refers to the process by which people develop a particular conceptualization of an issue or reorient their thinking about an issue.” (Chong and Druckman, 2007, p. 104)

Framing theory has its roots in sociology. Sociologist Erving Goffman developed framing theory – or frame analysis – to examine how individuals use their personal expectations to manage daily experiences and encounters. Goffman used the word “frame” to describe the expectations a person might use to manage a social interaction. Goffman posited that each person is largely autonomous in creating her societal expectations, and humans’ expectations of society are constantly shifting (Baran & Davis 2015).

Framing theory is derived from social constructionism, which Kent and Davis describe as such:

This perspective views social orders as made up of interrelated groups, organizations and social institutions that are constructed and maintained by social agents. Social order has no reality apart from the meanings that individuals assign to it based on their communication with others. (2006, p. 1-2)

Goffman analogized frames (as he used the term) to musical notes (Baran & Davis 2015). When one is learning to read music or play an instrument, he will begin with simple tunes. From that point, he has a foundation upon which to base further learning. Similarly, individuals begin to form societal

expectations with simple, usually lighthearted, interactions. These learned expectations help the individual manage more serious and “socially significant” interactions (Baran & Davis 2015). For example, one reason for the popularity of children’s sports leagues is that they learn values like sportsmanship and hard work early in life. Thus, they can apply these expectations (i.e., “I must treat those I work with respectfully,” or, “If I want to succeed, I must put forth the required effort.”) to a multitude of scenarios in adulthood.

Goffman related his framing theory to the mass media in his books *Forms of Talk* (1981) and *Gender Advertisements* (1979). He posited that advertisements are “hyperritualized representations of social action. They are edited to highlight only the most meaningful actions” (Baran & Davis 2015, p. 320). In *Gender Advertisements*, for instance, Goffman noted that the portrayal of women in advertising largely suggested they were subservient and less serious than men. The ads depicted women as playful, obedient to men, and amenable to sexual advances. The overall effect was that the women in these ads were appealing to men, and they reinforced long-held gender stereotypes (Goffman, 1979).

Kahneman and Tversky were also pioneers in frame analysis. They contended that people assess gains and risks in making decisions. According to their 1979 study, a negatively framed solution could be more persuasive if the alternative solution was framed as risky (Shen, Lee, Slipes & Hu, 2012).

Todd Gitlin and Gaye Tuchman, both sociologists, further expanded Goffman’s framing theory to apply to the mass media. Both found that the media present frames that uphold the status quo. News coverage of social movements that diverge from the social norms vilified the proponents of these movements and criticized their ideas and actions (Baran & Davis 2015).

William Gamson also continued to build upon framing theory in the late 1980s and early 1990s. Unlike Goffman, however, Gamson, agreed with the social constructionists that a select group of elites

can largely control the expectations individuals use to manage various issues (Baran & Davis 2015). However, Gamson also believed that opposing parties can use their own tactics to introduce competing frames to the masses (Baran & Davis 2015).

There are two kinds of frames: frames in thought and frames in communication (Baran & Davis 2015). The mixture of beliefs and values an individual holds comprises his frame in thought on a particular topic. For example, if an individual puts a premium on minimal government intrusion and the ability to defend oneself, he will probably not view gun-control laws favorably. Conversely, if that individual values public safety more than personal autonomy, he will probably have a more positive attitude toward gun-control laws.

Frames in thought offer a strategic means for policymakers and businesses to influence public opinion. If such an entity knows that its target demographic prizes a certain value, messages can be framed to appeal to that value (Jacoby, 2000).

Frames in communication involve the packaging of messages to promote a particular interpretation of the facts (Shah, Watts, Domke & Fan, 2002). Frames in thought concern the frames an individual internally assigns to a topic, whereas frames in communication are provided externally, by some party wishing to influence that individual. The influence a frame in communication has on individuals is typically known as a framing effect (Chong & Druckman, 2007).

Some research on framing theory has focused on the psychological process that leads to framing effects. For framing to be effective on an individual, she must first understand the value that the framed message appeals to. For example, if a message is framed to emphasize free speech, the target individual must understand what freedom of speech implies (Chong & Druckman, 2007). Furthermore, the individual's consideration of that value must be "accessible," meaning that it is likely to be pulled from

her long-term memory. Habitual exposure or recent exposure to communication frames emphasizing that value bolster its accessibility (Chong & Druckman, 2007, p. 109). Of the beliefs that are strong enough to be accessible, the individual must decide whether they are applicable to the issue in question (Chong & Druckman, 2007). Framing can be focused on any of these three stages, “by making new beliefs available about an issue, making certain available beliefs accessible, or making beliefs applicable or ‘strong’ in people’s evaluations” (Chong & Druckman, 2007, p. 109).

Certain characteristics can make framing more effective. The audience is generally more likely to latch on to information they deem as useful or practical (Clare & Huddleston, 2014). Knoblock-Westerwick, Carpentier, Blumhoff and Nickel, for instance, found that fear appeal messages were more successful when the audience perceived them to be useful (2005).

Messages that appeal to deeply-held cultural beliefs also tend to be powerful (Chong, 2000). Lakoff opined that frames reflect cultural values; thus, many individuals are not conscientious of their own frames because their frames are synonymous with their values. “As a result, people accept their frame as true or common sense, while rejecting new frames or the frames of others as false” (Rademaekers & Johnson-Sheehan, 2014, p. 8).

For example, “public health” is a positive cultural value. Messages about fracking that encourage people to place a high value on public health portray fracking supporters as villains who do not value the wellbeing of people who live near drilling operations.

Rademaekers and Johnson-Sheehan posit that when framing is based in deeply-rooted values, it is not easily refuted. “People rarely accept facts and reasoning that go against their pre-existing frames and the frames they hear in the media ... they will assume the facts are flawed in some way or at least ‘open to debate’” (Rademakers & Johnson-Sheehan, 2014, p. 10).

As with most mass-communicated messages, source credibility is of paramount importance (Druckman, 2011).

Framing can encounter various obstacles. An individual's strongly-held beliefs can certainly hinder or even prevent framing effects (Haider-Markel & Joslyn, 2001). Abortion, for example, is one of the country's most polarizing issues. A person might be so staunchly for or against abortion that a message could not possibly be framed to convince him otherwise. However, it is still possible for messages to overcome strong beliefs by using strategic framing. For instance, some anti-abortion activists looking to appeal to women reframe the debate to be about what women "deserve," and not about whether abortion is sinful.

Knowledge about an issue might be another moderator for framing effects. The research is conflicting as to this point. Some studies have found that publics who are not very knowledgeable are more susceptible to framing effects (Haider-Markel & Joslyn, 2001). Others find that framing effects are stronger on more educated individuals (Slothuus, 2008; Chong & Druckman, 2007).

Source credibility is of paramount importance to framing effects (Cole & Greer, 2013). If the audience does not perceive the source to be credible, it is unlikely that any framing technique will have powerful effects. Thus, questions can arise over whether a message is transmitted through effective framing, or whether the credibility the audience attaches to that source gives that message a boost.

Although competition can jeopardize framing effects, it also tends to strengthen them. "Being exposed to opposing sides of an argument increases consistency among decisions taken on specific policies and underlying principles" (Sniderman & Theriault, 2004).

There are a few ways to evaluate framing effects. One such way is to compare the effect of an antithetical frame (Chong & Druckman, 2007). To continue with the gun-control example, a researcher

could compare the attitudes of a group that received a message emphasizing public safety with one whose message stressed personal autonomy. Sniderman and Theriault suggest that a researcher could also explore the correlation between internal values and frames in communication by comparing those of the tested message with those of an alternative frame (Chong & Druckman, 2007). According to Druckman, a third way to gauge framing effects is to compare the group receiving the frame to a control group that receives no frame (Chong & Druckman, 2007). This thesis will focus on the first and second method of measuring framing effects, by comparing the outcomes that different frames have in three diverse regions.

The method suggested by Sniderman and Theriault indicates that a low correlation between a public's preferences and their core values signifies powerful framing effects (Chong & Druckman, 2007). So for example, if Louisianans are adverse to fracking operations despite the state's emphasis on the energy industry, this would indicate that frames in communication disseminated by environmental groups or angry citizens have strong effects.

Although framing overlaps to an extent with other concepts, it is important to distinguish it. Framing, for instance, is not synonymous with persuasion. While framing is concerned with changing the weight an individual assigns to a certain value, persuasion aims to change a person's attitude based on a value (Nelson & Oxley, 1999). With hydraulic fracturing, framing would be aimed at causing individuals to place a higher value on environmental quality or public health. Conversely, framing could also seek to persuade individuals to weigh the economic benefits of fracking or energy independence more heavily.

Rademaekers and Johnson-Sheehan studied framing effects within the context of climate change (2014). According to Rademaekers and Johnson-Sheehan, the energy industry has paralyzed the public

about the economic consequences of not drilling for oil and gas (2014). It isn't that oil and gas companies have denied climate change is happening, or even that they have had a hand in it. Rather, their strategy is to encourage Americans that the country's economic woes are of utmost significance in their lives, and to show that drilling will create jobs and drive down oil and gas prices.

Framing is also frequently discussed alongside priming. Priming involves repeated exposure to a certain issue, so as to change the methods by which individuals evaluate people and ideas (Iyengar & Kinder, 1987).

According to existing research, whether positive or negative framing is more effective depends on the situation. Rothman and Salovey, for example, conducted a study on framing of certain health messages (1997). They found that positive framing – which emphasizes the benefits of taking a certain action – was more effective for preventive actions, like wearing sunscreen (Rothman & Salovey, 1997). Negative (or “loss”) framing – which warns of the drawbacks of not doing something – was more successful in convincing people to take detection measures, like conducting self-breast exams (Rothman & Salovey, 1997).

Framing theory is an excellent way to examine how the major players in the fracking debate could influence public opinion. The major considerations in the fracking debate relate to clear, identifiable values: economic gains during a recession and energy independence (on the pro-fracking side) and public health and environmentalism (on the anti-fracking side). Because framing aims to persuade individuals to allocate more significance to one value or another, it provides a practical context within which to explore fracking, public opinion and policy.

Rademaekers and Johnson-Sheehan studied framing effects and climate change, a topic that overlaps to some degree with hydraulic fracturing (2014). Debates about both climate change and

hydraulic fracturing tend to pit the values of economic security versus environmental quality.

Rademaekers and Johnson-Sheehan argue that most Americans think within a “consumerist” frame, and that this frame clashes with the “sustainability” frame that environmentalists use<sup>1</sup> (2014, p. 10).

“Information that does fit the public’s consumerist frames includes facts and ideas that address their own concerns, such as jobs, health, and security ... People on both sides of the political spectrum may disagree about how we get to those goals, but they all agree that striving for good jobs, their own health, and their own security is a good thing” (Rademaekers & Johnson-Sheehan, 2014, p. 10).

Framing is especially important to individuals in forming their attitudes toward complex topics – such as hydraulic fracturing (Rademaekers & Johnson-Sheehan, 2014). Hydraulic fracturing is not a simple process for those without a background in science to comprehend. Furthermore, some Americans live in parts of the country where there are no fracking operations; thus, it is beyond the scope of their personal experiences. Frames about hydraulic fracturing can be a convenient tool to help people understand fracking – or at least perceive that they do – and form opinions on it.

Moreover, the word “fracking” itself is becoming a tool in framing the issue. As with “Obamacare,” the word has taken on a negative connotation. “In the PR battle over natural gas, the antidrilling ‘fracktivists’ have held the linguistic upper hand since ‘fracking’ carries negative connotations, and even sounds a bit obscene” (Zimmer, 2014). In 2011, Gregory FCA Communications, a Pennsylvania public relations firm, suggested the energy industry abandon the word “fracking” all together (Matusky, 2011). The Marcellus Shale Coalition, a Pennsylvania trade association, launched a campaign in 2014 to rebrand the word “fracking” (Conti, 2014).

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<sup>1</sup> The words “consumerist” and “sustainability” themselves underscore framing tactics used in Rademaekers and Johnson-Sheehan’s paper. “Consumerist” conjures negative images of greed and commercialism, while “sustainability” implies practicality and wellbeing.

### **III. METHODS**

My research for this thesis focused on how the fracking issue was framed in news coverage. To measure this, I performed a content analysis of news coverage of the fracking issue in St. Tammany Parish.

As noted in the introduction, this thesis poses the following research questions:

RQ1: Which stakeholders were featured in media reports about hydraulic fracturing from April 2014 through December 2014?

RQ 2: What frames were applied to the issue in media coverage of fracking during this time period – the environment, the economy, public health, foreign policy, etc.?

RQ 3: Has news coverage affected public policy? What can policymakers learn about public opinion from the media coverage?

RQ 4: How might local media treatment of the various lawsuits affect the outcome of those suits?

Content analysis is a means of drawing inferences from specific textual sources (Krippendorff, 2004). My research focused on the media's framing of hydraulic fracturing. Because this necessarily involves the media's arrangement of information to make inferences about the issue, a content analysis is an effective means of analyzing how the media frame fracking in St. Tammany. "Content analysts infer answers to particular research questions from their texts. Their inferences are merely more systematic, explicitly informed, and (ideally) verifiable than what ordinary readers do with texts" (Krippendorff, 2004, p. 18).

The content analysis covered the period of time from April 2014 through December 2014. The content analysis was originally going to include five news sources: NOLA.com (the online version of

the *Times-Picayune*), *The Advocate*, WGNO (New Orleans' ABC affiliate), WWL-TV (the CBS affiliate in New Orleans) and WWL radio.

These five sources were chosen because they are widely recognized and consumed by Louisianans who live in the Greater New Orleans area, which encompasses St. Tammany Parish. These five sources also offer a diversity of media, with two newspapers (one of which is more widely read online, on NOLA.com), two television stations and a radio station (that broadcasts on both AM and FM frequencies).

However, the websites for the television and radio stations do not allow ready public access to videos of news stories. Therefore, the content analysis was confined to only the newspapers.

I coded for which sources were quoted in the news reports (environmentalists, energy company spokespeople, policymakers, citizens, etc.), as well as how long the stories were. Because I obtained the newspaper reports from the Internet, I measured their length by the word count, instead of in inches.

My coding scheme took into account the primary and secondary frames from each news report. For example, I coded for whether the story had an environmental, economic or legal frame.

My codebook can be found in Appendix A.

It is critical that content analysis be "reliable," meaning that there is a level of objectivity in the approach taken toward the analysis (Krippendorff, 2004). In other words, I needed to ensure that any given researcher besides myself would generally assign the same values to each unit of analysis. Therefore, after I assigned the code values, I enlisted a fellow researcher to analyze a particular unit. If at least 80% of the values we assigned to that unit were identical, I concluded that my coding scheme was reliable.

Originally, one of the variables was whether a news story was written by a staff writer or supplied by a wire service. All of the stories in the sample were written by staff writers. Therefore, I excluded this variable from the quantitative analysis.

I also conducted a qualitative framing analysis of the media coverage.

Qualitative analysis researchers “preserve and analyze the situated form, content, and experience of social action, rather than subject it to mathematical or other formal transformations” (Lindloff & Taylor, 2002, p. 18). A qualitative analysis evaluates the meaning of the text. In contrast, a quantitative analysis measures the frequency and connections between certain attributes of the text. A qualitative content analysis allowed me to examine overarching trends among news stories and frequently-mentioned topics. It involved going beyond an analytic accounting of which sources were quoted or which topics were included to provide the “flavor” of the media coverage.

The process for conducting a qualitative analysis of media coverage is different than it is for a quantitative analysis. Whereas I needed to collect the data (i.e., code) before performing the quantitative analysis, I did the qualitative analysis as I studied the news stories.

Specifically, this qualitative analysis took on the form of a case study. A case study involves analyzing numerous data sources to investigate an individual, organization or event (Wimmer & Dominick, 2000). It is a good way to explore a “contemporary phenomenon within its real-life context” (Wimmer & Dominick, 2000, p. 124).

The case study approach allows the researcher to analyze a vast array of sources (Wimmer & Dominick, 2000). This content analysis was originally intended to include not only stories from newspapers, but also from radio and television. Difficulties with access to broadcast stories prevented that from coming to fruition. Still, the topic of local coverage of the proposed fracking project would

have been enhanced by including more media sources. The case study approach was appropriate for this topic because it encourages studying a diversity of sources.

A case study also helps the researcher identify areas for further research (Wimmer & Dominick, 2000). Because the proposed drilling project is an ongoing issue, one of my goals was to identify topics that future researchers could take on. This is another reason why a case study approach was attractive.

However, there are some limitations to performing a case study. Most notably, a case study lacks scientific precision. It is certainly foreseeable that a researcher's biases or shoddy work might taint the conclusions and findings (Yin, 1994). Pragmatically, case studies are usually time consuming, and they can result in overwhelming amounts of information (Wimmer & Dominick, 2000). "Such studies ... run the risk of revealing more about the mind-set of the researcher than about the content" (Perry, 2000, p. 101). Furthermore, qualitative content analyses are not replicable (Perry, 2000).

Using both quantitative and qualitative analyses allowed me to examine the fracking controversy in St. Tammany more comprehensively. There is a recent movement among researchers to integrate quantitative and qualitative analysis. "With the use of multiple methods, the strengths of one could shore up the deficiencies of another. Thus, what is truly needed is not the greater use of qualitative research methods, but the use of both qualitative and quantitative methods and multiple forms of each ... so that the two research traditions can together provide a fuller understanding of the communication process" (Bryant & Cummins, 2007, p. 10).

## IV. RESULTS

### Quantitative Analysis

#### Variables Tested

The quantitative analysis included the following variables: whether the story appeared in the *Advocate* or on NOLA.com (“News Source”); in which month the story ran (“Month”); the length of the story, measured in four different categories of word count (“Length”); whether a spokesman from Helis, or another energy company, was quoted (“Company”); whether an environmental activist is quoted, either individually or on behalf of an organization (“Activist”); whether a policymaker at any level of government is quoted (“Policymaker”); whether a current St. Tammany citizen is quoted (“Citizen”); whether the story mentions fracking’s effect on any aspect of the state economy, whether macro or micro (“State Economy”); whether the story mentions fracking’s effect on any aspect of the national economy, whether macro or micro (“National Economy”); whether the story speculates that fracking can contaminate groundwater (“Groundwater”); whether the story speculates that fracking can cause earthquakes (“Earthquakes”); whether the story speculates that fracking can cause any other environmental concern (“Other Environment”); whether the story mentions any U.S. foreign policy aimed at safeguarding American energy interests (“Foreign Policy”); whether the story mentions the relationship between the United States and another country within the context of energy (“Foreign Relations”); whether the story speculates that fracking could adversely affect public health (“Health”); whether the story speculates that fracking could have adverse effects on infrastructure concerns, such as traffic or noise (“Infrastructure”); whether the story mentions the backlash among St. Tammany residents toward the proposed drilling operation (“Backlash”); whether the story mentions any lawsuits that have been filed or proposed as a result of the proposed drilling operation in St. Tammany

(“Litigation”); the most prominent frame in the story, as measured by sentence count (“Primary Frame”); the second-most prominent frame in the story (“Secondary Frame”).

### Inter-Coder Reliability

Reliability was tested by giving a coder 15 stories from the sample to code, which is 11.81% of the sample. My threshold for reliability was 80%. The overall reliability for all of the variables was approximately 81.21%, based on Scott’s pi. Some of the variables had 100% agreement. These included, not surprisingly, “Month,” “Writer,” and “Length.” “Policymaker” and “Earthquakes” also had 100% agreement. Intercoder reliability varied for the following: “Citizen” (80% reliability); “State Economy” (80%); “National Economy” (~87%); “Groundwater” (80%); “Foreign Policy” (~93%); “Foreign Relations” (~87%); and “Health” (~93%).

Eight variables did not meet the threshold to be considered statistically significant, in terms of reliability: “Company” (66%); “Activist” (66%); “Other Environment” (~73%); “Infrastructure” (60%); “Backlash” (~53%); “Litigation” (~73%); “Primary Frame” (~53%); and “Secondary Frame” (~33%). I proceeded to do quantitative analyses on these variables, as I did with the ones that had acceptable intercoder reliability. Moreover, I included these variables in my qualitative analysis, as there are numerous salient and interesting conclusions that can be drawn from the sample concerning these variables. However, it is crucial to bear in mind while reading the research that quantitative analysis for these four variables is based on data collected with low intercoder reliability, which means the numbers provided are purely descriptive.

The complexity of some of these variables might explain their low intercoder reliability. For example, the primary or secondary frame of a story could easily be interpreted to be different things. The primary and secondary frames were determined by the number of sentences. If a sentence covered

more than one of the possible frame choices, it could be difficult for a coder to determine whether that sentence should count toward one or all of those choices. Specifying how to proceed in these situations in the codebook might have helped avoid some confusion.

“Infrastructure” is another variable that is somewhat ambiguous. Infrastructure is something of a catchall term that could encompass a variety of concerns. For example, some might say that pollution is an infrastructure issue, while others would disagree.

Additionally, some of the variables with low intercoder reliability could be somewhat subjective. For instance, some news stories quoted or mentioned one citizen who was unhappy with the proposed drilling operation. Does one unhappy citizen constitute “backlash”? Some coders might say it does, others would code that variable otherwise.

### Single Variables

As part of the quantitative analysis, I used SPSS software to run frequencies to determine the distribution of each variable across the sample. There were broad discrepancies among the sample for some variables, while other variables were distributed more equally.

Most of the stories in the sample were between 301 and 600 words; this category was 33.86% of the sample. Stories that were 601-900 words comprised the second-largest category. By far, more stories were featured in May of 2014 than in any other month, at 28.91% of the sample. The second-highest number of stories ran in June 2014, at 11.72%.

Of the entire sample of 128 stories, 39 came from the *Advocate* (30.5%), and 89 were from NOLA.com (69.5%).

Table 1 and Graph 1 show the distribution of stories by month, broken down into *Advocate* and NOLA.com stories.

Table 1: Distribution of Stories by Month

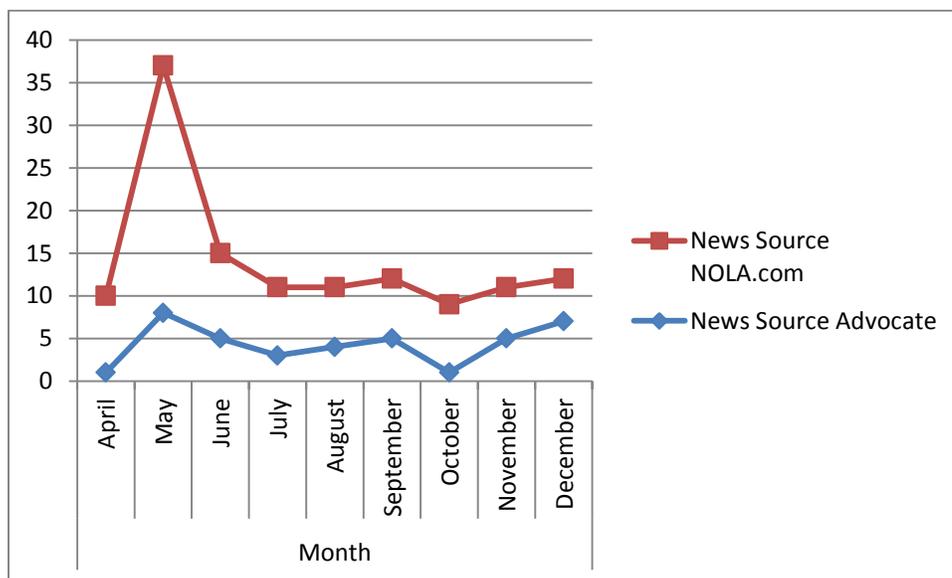
	<i>The Advocate</i>	NOLA.COM
April 2014	1	9
May 2014	8	29
June 2014	5	10
July 2014	3	8
August 2014	4	7
September 2014	5	7
October 2014	1	8
November 2014	5	6
December 2014	7	5

Table 1 shows the distribution of stories by month, broken down into *Advocate* and NOLA.com stories.

Both publications had the highest number of stories related to fracking in St. Tammany in May 2014. This is not surprising, since there was an overall spike in the number of fracking-centered stories in May 2014. December was the month with the least number of stories on NOLA.com about fracking in St. Tammany. April and October tied for the lowest number of stories in the *Advocate* about the proposed drilling project.

Another quantitative finding, shown in Graph 1, was that the two publications generally featured the same pattern in the rise and decline of stories about fracking as time went on. There is an interesting

distinction, however. After May 2014, fracking stories on NOLA.com sharply plunged, and the number of fracking stories generally remained low through December 2014. While the number of fracking-related stories in the *Advocate* also declined after May 2014, there was a relatively high spike in these stories in December 2014. Indeed, December had the second-most number of fracking stories for the *Advocate*. This anomaly can possibly be explained by the court rulings and suits that were filed in late November and December. All litigation is in Louisiana’s 19<sup>th</sup> Judicial District, which is East Baton Rouge Parish. Therefore, it could be that these stories were of more interest to the *Advocate* (which is based in Baton Rouge) than to NOLA.com. Also, the Office of Conservation approved Helis’ drilling permit in December 2014. This office is in Baton Rouge, which is also the state capital. Perhaps because the permit approval occurred in Baton Rouge – and because it involves the state government, and not just the people of St. Tammany – these stories had more relevance to the Baton Rouge area than New Orleans.



Graph 1 shows the distribution of stories by month, broken down into *Advocate* and NOLA.com stories.

Table 2 shows the distribution of stories by length, broken down into *Advocate* and NOLA.com stories.

Table 2: Distribution of Stories by Length

	<i>The Advocate</i>	NOLA.com
300 or fewer words	3	16
301-600 words	7	36
601-900 words	14	22
901+ words	14	15

Table 2 shows the distribution of stories by length, broken down into *Advocate* and NOLA.com stories.

Most of the *Advocate* stories were either 601-900 words, or more than 900 words (with 14 stories in each category). The highest number of NOLA.com stories were in the 301-600 words category (36 stories).

The content analysis was entirely conducted using the online editions of the *Advocate* and the *Times-Picayune* (which is NOLA.com). It was unknown whether the stories were on the front page or otherwise displayed prominently. However, a story's length does provide some indication of how prominently it was featured. Thus, it is possible that the stories about fracking in St. Tammany that appeared in the *Advocate* were more visible and prominent than those in NOLA.com. This is because most *Advocate* stories were in the two highest categories for word count, while the highest number of NOLA.com stories were in the second-lowest word count category.

My quantitative analysis measured how frequently stories mentioned a number of different topics. Table 3 shows the frequencies for these dichotomous variables.

Table 3: Frequencies of Variables in News Stories

Variable	Frequency
Company	43%
Activist	18%
Policymaker	52%
Citizen	44%
State Economy	30%
National Economy	5%
Groundwater	65%
Earthquakes	~1%
Other Environment	75%
Foreign Policy	~1%
Foreign Relations	5%
Health	25%
Infrastructure	30%
Backlash	~90%
Litigation	53%

Table 3 shows the frequencies with which the dichotomous variables were featured in the news stories.

RQ 1 of this thesis asked which stakeholders in the fracking issue were quoted in local media coverage. The quantitative analysis revealed that policymakers were quoted more often than the other

stakeholders: energy company spokespeople, environmental activists, and St. Tammany citizens. Environmental activists were by far quoted the least frequently of any of these stakeholders.

It was highly more common for a story to not quote an environmental activist; only approximately 18% of the stories featured an environmentalist.

The number of stories that quoted an energy company spokesperson, a policymaker, or a St. Tammany Parish citizen were almost evenly distributed. Approximately 43% of the stories quoted an energy company spokesperson, and approximately 44% quoted a St. Tammany Parish citizen. At approximately 52% of the sample, slightly more stories quoted a policymaker than those that did not.

The frequencies with which these stakeholders were quoted also has implications for RQ 3 – what can policymakers learn from the local coverage of the fracking issue?

Of all the stakeholders, policymakers potentially have the least at stake. Energy company representatives' careers depend on their ability to disseminate messages on behalf of their company. Activists are involved in environmental causes for the protection of the planet, and all the ramifications that entails (like public health and protecting wildlife). The residents call St. Tammany home. Many have been there for generations, and some send their children to Lakeshore High School, which is near the proposed drilling site. The ultimate outcome of this fracking controversy is naturally of great consequence to these residents.

Policymakers have, at most, their office at stake. To be sure, this could be a significant hindrance to many public officials. They have usually invested exorbitant amounts of time and money into getting elected, and they generally want to stay in office as long as possible. However, most public officials are trained in some other field and had another career before being elected. Many continue working in that field while in office. In other words, their entire career is not at stake (in most cases).

Also, it is unlikely – though possible – that an official’s reelection would be decided solely on this solitary issue of fracking. Moreover, if a policymaker were to lose reelection because of the fracking issue, they generally have substantial influence within the community and more resources to find another job than the average ousted employee.

Despite the fact that policymakers arguably have the least to lose because of the fracking issue, the quantitative analysis showed that they were quoted more often than energy company spokespeople, environmentalists or citizens. The fact that over half of the news stories quoted a public official represents a manifestation of the press’s “watchdog” function. The sample featured a substantial number of quotes from policymakers, and public officials can take this to mean that the press will hold them accountable for what they say, as well as the decisions they make. Subsequently, their actions are on a public stage for constituents to read about and debate.

Another, more pragmatic, explanation, is that public officials are more accessible than the other stakeholders. Policymakers make public comments at public meetings, and those who are outspoken about a certain issue are generally willing to speak with the press. In contrast, many citizens – even if they are passionately opposed to the proposed drilling – might be reluctant and unwilling to be quoted in a news story. Leaders of environmental groups can be difficult to reach, as many do not have offices. Energy industry representatives would probably be the most difficult stakeholder group for the media to reach. During a public relations issue such as this, they are presumably sought for comment by many people and entities. Also, considering that Helis’ public relations strategy has generally been to meet with small groups of citizens, instead of the public at large at parish meetings, company spokespeople would probably be somewhat reluctant to speak with the media. In contrast, policymakers are generally accessible and willing to speak with the press.

The frequencies for “Primary Frame” and “Secondary Frame” help to address RQ 2.

The public backlash to the proposed fracking project was the most popular primary frame, at approximately 33% of the sample. Moreover, backlash was also the most popular secondary frame, at approximately 25% of the sample. Backlash was also by far the variable most commonly mentioned in the news stories, at approximately 90% of the sample.

The environment and public policy were the next-most frequently used primary frames (after backlash), with public policy being slightly more popular than the environment. They were also the next-most popular secondary frames, with the environment comprising approximately 24% of the sample, and public policy making up approximately 23% of the sample.

Another quantitative finding was that most stories did not mention the economic ramifications of hydraulic fracturing. Approximately 30% commented on the economic implications within Louisiana. At 95% of the sample, the vast majority of stories did not mention the effects of fracking on the national economy.

The environment was a popular topic in many of the news stories. Approximately 65% mentioned the effects (whether proven or speculated) of fracking on groundwater, and approximately 75% cited other environmental concerns, such as air pollution. However, only one story in the entire sample mentioned earthquakes.

Foreign policy and foreign relations were scarcely discussed in the stories. Only one story mentioned foreign policy that could affect hydraulic fracturing. Only 5% of the sample discussed fracking’s implications for American energy independence or the United States’ relationship with other countries as that topic relates to fracking.

The potential effects of hydraulic fracturing on public health and infrastructure were not commonly cited in the stories. Only approximately 25% of the sample talked about public health issues that could be caused by fracking, and approximately 30% of the sample discussed infrastructure issues that could be linked to fracking (such as traffic and noise).

The number of stories that discussed litigation (or planned litigation) were almost equal to the number of stories that did not. Approximately 53% of the sample mentioned litigation.

#### Pearson Product (Correlation) for Dichotomous Variables

As part of the quantitative analysis, I ran a 2-tailed Pearson Correlation test in SPSS on all dichotomous variables (i.e., those which were coded “0” or “1”).

Table 4 shows the correlations that were statistically significant. Correlations were statistically significant if the p value was less than or equal to either 0.05 or 0.01. This means that there was only a 5% (or less) or 1% (or less) probability of observing that effect purely because of chance. In other words, there was only a 5% (or less) or 1% (or less) probability that the relationship is due to chance or random error (Wimmer & Dominick, 2000).

Table 4: Correlations Between Variables

Variable 1	Variable 2	Pearson Correlation	p value (significance)
Company	Other Environment	.214*	.015
Company	Health	.347**	.000
Company	Infrastructure	.238**	.007
Company	Litigation	.182*	.040
Activist	Citizen	.197*	.026
Citizen	Foreign Relations	-.199*	.025
National Economy	Foreign Policy	.344**	.000
National Economy	Foreign Relations	.706**	.000
Groundwater	Other Environment	.462**	.000
Groundwater	Infrastructure	.188*	.035
Other Environment	Health	.258**	.003
Other Environment	Backlash	.301**	.001
Relations	Other Environment	.400**	.000
Health	Other Environment	.258**	.003
Infrastructure	Health	.184*	.038
Backlash	Citizen	.288**	.001
Litigation	Citizen	.194*	.028

Table 4 shows the correlations between the dichotomous variables.

\* Correlation is significant at the 0.05 level.

\*\* Correlation is significant at the 0.01 level.

The quantitative findings in Table 4 tell us that even when the correlations were significant, there were no substantially strong relationships between these variables. The strongest connection in Table 4 was between National Economy and Foreign Relations, at .706. This means that if a story mentioned the National Economy, it was 70.6% likely to also mention Foreign Relations. While 70.6% is a fairly strong correlation, it is crucial to bear in mind that incredibly few stories mentioned either topic (see Table 3).

None of the other statistically significant correlations even had a Pearson correlation higher than .500 (which would indicate a 50% probability that if one variable was included in a story, the other would as well). The second-highest Pearson correlation was .462 (between Groundwater and Other Environment). This means that if Groundwater was mentioned in a story, it was 46% likely that the story would also discuss another environmental problem. Forty-six percent is not a high indicator that there is any kind of correlation between these two variables.

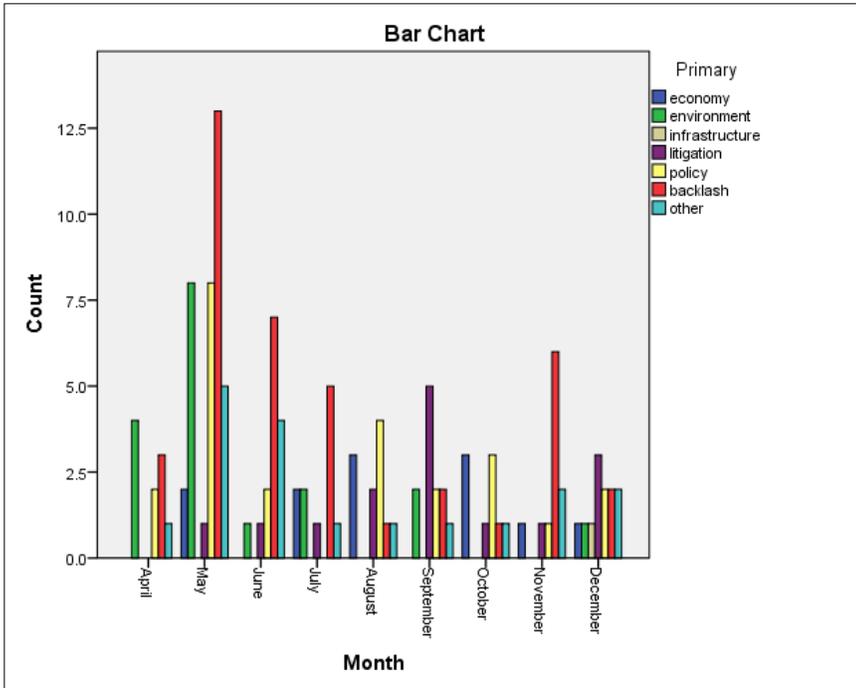
Even looking beyond the statistically significant correlations, none of the correlations were strong. There were also no Pearson coefficients that surpassed .500 in the entire analysis of dichotomous variables, except, again for the .706 correlation between the National Economy and Foreign Relations. This one outlier aside, this quantitative finding means that the presence of any dichotomous variable is a small indicator – if it is an indicator at all – that a story would include any other variable. This means that the writers generally did not group or bundle topics together. For example, if a writer mentioned an infrastructure concern associated with fracking, it was virtually baseless to say that he would also talk about the public health implications of fracking, or its effect on the environment. Thus, while writers might make strong assertions about fracking's effect (whether good or bad) on one variable, this did not indicate they would also discuss fracking's impact on any other variable that was tested.

RQ 2 asks which frames the local media were inclined to use in their reporting. This quantitative finding could mean that the reporters generally kept the frames hermetically sealed from each other. In other words, it might be the case that just because a writer discussed the positive economic impacts of fracking (for example) did not mean that he balanced it with a discussion of the environmental or infrastructure concerns with fracking. Also, discussing one positive or negative aspect of fracking did not indicate that the writer would provide further arguments for or against fracking. For instance, if the writer mentioned the infrastructure concerns associated with fracking, this was no indicator that he would mention that there were also environmental or health problems linked to fracking.

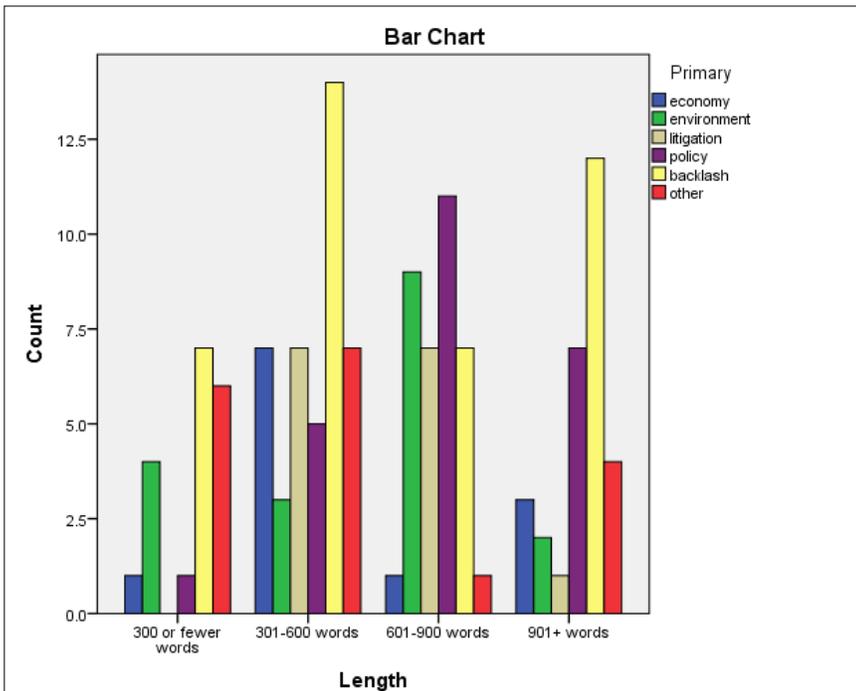
#### Pearson's r for Categorical Variables

Running a test for Pearson's r in SPSS allowed me to examine the potential correlations among categorical variables, which included Month, Length, Primary Frame and Secondary Frame.

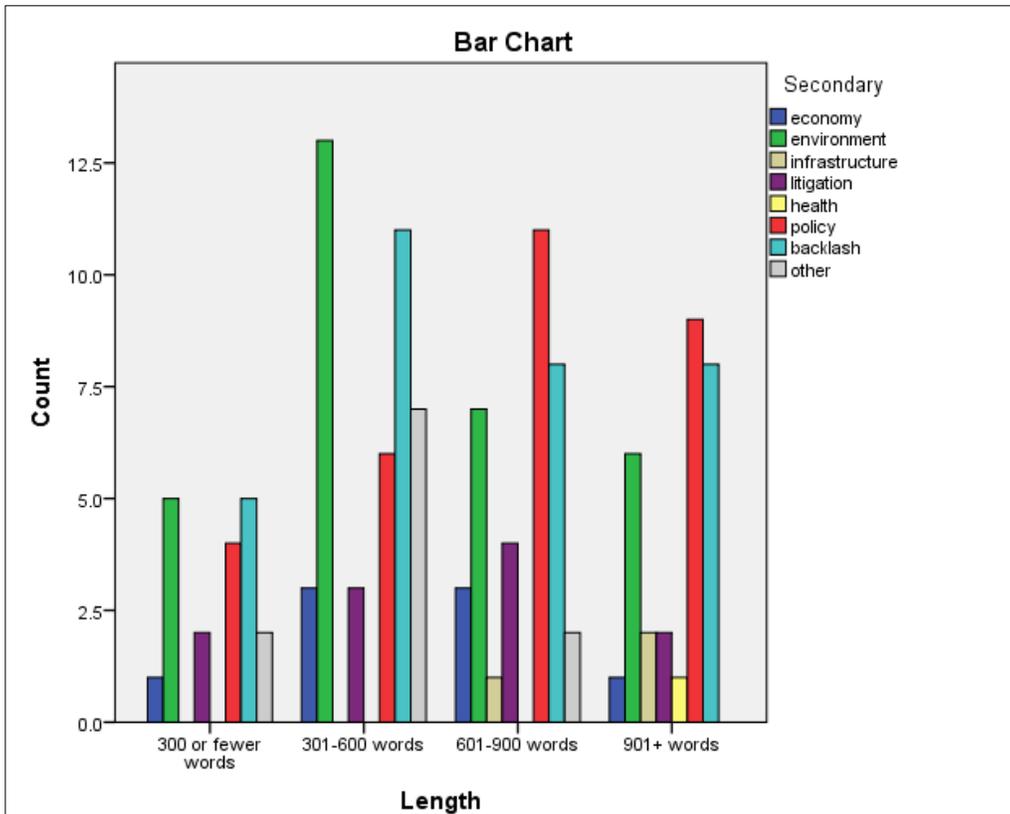
This part of the quantitative analysis showed there is no correlation between the length of the stories and their Primary or Secondary Frames. Nor do the bar graphs for assessing these variables, shown below as Graphs 2 and 3, show any overarching patterns.



Graph 2 shows the distribution of the primary frame topics by month.



Graph 3: Distribution of primary frame topics by story length.



Graph 4 shows the distribution of secondary frame topics by story length.

## Qualitative Analysis

The local media coverage of Helis’ proposed drilling operation featured some overarching themes and recurring motifs.

### Public Opinion’s Effect on Public Policy

A major theme was that public opinion has had a real effect on policy and the permitting process. By providing examples of public opinion’s influence on policy decisions, this finding helped to answer RQ 3.

For example, it is remarkably rare for the Department of Natural Resources to hold any kind of public meeting regarding a potential drilling project, such as the November 12<sup>th</sup> town hall-style public hearing at Lakeshore High School.

The holding of the public hearing was highly unusual. The Office of Conservation normally handles permit applications administratively, and no one at DNR could remember ever holding a public hearing on a drilling permit, an agency spokesman said. Because of the uproar in this case, DNR decided to hear from the public, he said.” (Rhoden, November 12, 2014)

The news articles support the perception that the public backlash was also influential to the Office of Conservation attaching several conditions to its approval of Helis’ permit. According to a December 22<sup>nd</sup> article from the Advocate, these conditions included mandatory chemical disclosure; pre-approved water sources; and monitoring of groundwater, air, and noise levels.

Patrick Courreges, a spokesman for the Office of Conservation, said it’s unusual to have so many conditions attached to a permit, but the decision to conduct a public hearing on the request – also rare – enabled the agency to attach those requirements. Helis must meet them in order to be in compliance with its permit, he said, and the conditions are a direct response to concerns raised by residents at the hearing. (Rhoden, December 22, 2014)

A December 19<sup>th</sup> article on NOLA.com also noted the public influence behind the permit approval’s numerous conditions. “The conditions include various points that were made at a public hearing DNR hosted November 12 at Lakeshore High School north of Mandeville, including water and air testing, (Office of Conservation spokesman Patrick) Courreges said ... The questions about the air and water testing and fluid containment were brought up by attorneys representing the town of Abita Springs and the group Concerned Citizens of St. Tammany, who oppose the project” (Rhoden, December 19, 2014).

The public’s concern also inspired state representative Tim Burns (R-Mandeville) to file a bill concerning fracking, according to an April 23<sup>rd</sup> NOLA.com story.

Oil and gas companies that want to perform fracking in a parish where it has never occurred would have to advertise their intentions in newspapers and notify the parish governing body, municipalities and legislators under a bill approved Wednesday ... by a House committee. The measure, a substitute bill by state Rep. Tim Burns, R-Mandeville, is a reaction to a company's proposal to drill a hydraulic fracking well in search of oil and gas in St. Tammany Parish ... The plan caught citizens and public officials off guard, with Parish President Pat Brister saying last week that "it came suddenly out of the blue. (Pagones, December 22, 2014).

An August 2<sup>nd</sup> opinion piece from the *Advocate* speculated that public officials would face serious consequences if they did not comply with residents' requests to interfere with the drilling process. "If one message from Thursday's meeting is that residents want parish government to find a way to act, another is that voters will hold local pols accountable if they don't" (Grace, 2014).

#### An Odd Setting For an Anti-Fracking Movement

Another theme revealed through the qualitative analysis – and one that sparked the initial interest in this subject – was the oddity of a predominantly Republican in an oil and gas state opposing a drilling operation. Many Republican politicians – and the constituents who vote for them – are generally supportive of the energy industry. St. Tammany Parish is a historically Republican area in a politically conservative state. The backlash to a proposed oil drilling operation might seem more natural in a more politically liberal area than Louisiana. Moreover, oil and gas has historically been a major component of Louisiana's economy. St. Tammany is considered a suburb of New Orleans, an oil and gas hub, and many residents of St. Tammany Parish work in the oil and gas industry.

It is possible that because of St. Tammany Parish's affluence, the economic advantages of fracking are not as important to its residents. St. Tammany is a wealthy, suburban parish. Many residents are probably more concerned with preserving the cleanliness and environmental integrity of the parish than they are about the new jobs that fracking can create.

The oddity of the backlash within this context has not been lost on the local media.

The *Advocate* first noted this observation on May 13<sup>th</sup>: “Industry observers and others said it’s surprising that so much opposition to drilling has arisen in St. Tammany, a generally conservative, pro-business area where many people who work in the oil industry live” (Thompson, 2014).

Helis project manager Michael Barham discussed the cognitive dissonance of the public backlash in a July 1<sup>st</sup> article on NOLA.com:

“To me, personally, the scale of it surprised me because we are in Louisiana,” Barham said, noting that many people in St. Tammany are directly employed by or associated with the oil and gas industry. “The oil and gas industry in Louisiana is the driving industry for the economy of this state. I’m unclear if the opposition to us has a mandate of the people of St. Tammany Parish or is it just a vocal element. I don’t know.” The Helis representatives pointed out that those who oppose the project enjoy a lifestyle made possible by oil and gas. St. Tammany is a larger net user of energy, with probably more long-distance commuters than any other parish in the state, said Greg Beuerman, a public relations consultant who has represented Helis for many years. “It’s troubling that many residents of the parish don’t feel like St. Tammany should do anything at all to help mitigate the energy that its own residents are using.” Charlotte Batson, a consulting technical expert for Helis, said cellphones have parts from 160 countries that have to be transported for manufacture. High-end food stores have food imported from across the globe. “A high quality of life is a very energy-intensive life,” she said. “There’s a huge disconnect between quality of life and opposition to the oil and gas industry.” (Rhoden & Chatelain, 2014)

In a July 29<sup>th</sup> article, NOLA.com writer Robert Rhoden noted that nearby Tangipahoa Parish has embraced horizontal drilling.

In stark contrast to St. Tammany Parish – where opposition to a proposed oil well near Mandeville has sparked staunch opposition, anger and tears from many – Tangipahoa has mostly welcomed the industry with open arms ... This has all happened without the emotional public meetings, recall petitions and legal action that have punctuated this issue in St. Tammany in recent months in response to Helis Oil & Gas’ proposal to drill and frack a well along Interstate 12 northeast of Mandeville. (Rhoden, July 29, 2014).

In describing how a proposed fracking operation in Texas has become a model for fracking opponents in St. Tammany, the *Advocate*’s Faimon Roberts pointed out both states’ history with the energy industry. “Both Texas and Louisiana rely heavily on the energy industry to prop up their economies, and both have historically been friendly to oil and gas interests” (Roberts, June 12, 2014a).

The qualitative analysis showed that the local media marveled at the novelty of a predominately Republican parish council championing a fight against an oil company. For example, a June 11<sup>th</sup> NOLA.com article highlighted an opinion piece from the *Hayride* that maligned the parish council for betraying the energy industry (Rhoden, June 11, 2014).<sup>2</sup>

An April 16<sup>th</sup> article on NOLA.com noted that Rick Franzo, the outspoken president of Concerned Citizens of St. Tammany, is a Republican. “ ‘I’m a conservative. I’m a Republican,’ [Franzo] said. ‘But I have a problem when I look at the return on investment versus the liability. One accident ... and you’re talking about a disaster in St. Tammany Parish’ ” (Rhoden, April 16, 2014).

#### Dichotomous Depictions of Helis

Some of the media coverage tended to depict Helis in one of two ways: as either making conciliatorily conceding to public pressure, or acting separate and distant from residents. A June 12<sup>th</sup> *Advocate* article took the former view:

Helis already has made some concessions to what was, for it, a surprisingly strong outcry against its project. The company first agreed to delay the unitization hearing by one month from its original May 13<sup>th</sup> date. The company also said it would drill the well in phases, first drilling a vertical well and testing samples before deciding if the well would be commercially viable. If the samples were positive, the company then would drill the horizontal portion of the well. (Roberts, June 12, 2014b)

Several news stories similarly framed Helis’ decision to do test samples before drilling as a concession (Roberts, May 23, 2014a; Roberts, May 28, 2014b). However, it is industry custom for operators to first drill a vertical well in order to test whether it would be profitable to continue with the project (Lowe, 2009).

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<sup>2</sup> The *Hayride* article is entitled “A Fracking Ban ... in Louisiana? Gutless Republicans turn green in a deep-red state.”

Other news stories have adopted the latter depiction of Helis. For instance, a May 28<sup>th</sup> *Advocate* article described the energy company as “largely invisible, not sending representatives to the various public meetings” (Roberts, May 28, 2014c).

One interesting qualitative finding involved two news stories from the same writer and the same outlet that appeared on the same day. Two different news stories from the same day (May 23<sup>rd</sup>), the same author (Faimon Roberts) and the same outlet (the *Advocate*) made strikingly different depictions of Helis. Roberts described the company as complying with public pressure:

Responding to requests from St. Tammany Parish leaders, Helis Oil & Gas – which plans to drill an oil well in the parish – has agreed to a 30-day delay of a scheduled May 13 hearing before the state commissioner of conservation . . . Helis agreed to the delay to give parish leaders more time to research the proposal. (Roberts, May 23, 2014a)

However, Roberts also depicted Helis as being aloof about the public’s concerns in another article from the same day:

Helis had been asked to send a representative to Monday’s meeting, (Parish Councilman Jake) Groby said, but the company instead sent a statement from President David Kerstein that read in part, “We will continue to communicate with the St. Tammany community through mechanisms and venues that do justice to this important subject in a way that is both respectful and cooperative.” A May 1 statement from Helis also attempted to allay residents’ fears about the project . . . To many in the crowd, however, such assurances didn’t seem to matter. Hunter Montgomery and Stephanie Houston Grey, who started the two Facebook pages opposing the proposed well, said they felt the company isn’t being completely forthcoming. (Roberts, May 23, 2014b)

### Unequal Coverage of the Perils and Advantages of Fracking

A multitude of articles specifically enumerated common concerns associated with fracking, such as pollution, groundwater contamination and noise. However, these potential drawbacks were not frequently balanced by a correspondingly specific description of some of the benefits of fracking, except to say that it allows operators to tap into previously inaccessible oil and gas reserves. As reflected in the quantitative analysis, the speculated economic and policy advantages were not given nearly the attention

that the environmental issues were. For example, a May 28<sup>th</sup> article by Faimon Roberts from the *Advocate* included this description of hydraulic fracturing:

At the center of the debate is the method by which Helis intends to extract oil from the site. “Fracking” is shorthand for hydraulic fracturing, a method by which water, sand and chemicals are pumped into the ground and used to create fissures in deep rock formations. Oil and natural gas are able to move through the fissures and are pumped to the surface. Fracking is a relatively new process and has been controversial in other parts of the country, where it has been blamed for health and environmental problems. Those potential problems have been the chief focus of local opponents of the process, who warn that any damage to the aquifer that serves St. Tammany Parish could have devastating consequences. (Roberts, May 28, 2014a)

This excerpt was followed by a paragraph saying that energy industry spokespeople maintain that fracking is safe. While this does give some attention to the pro-energy side of the debate, this is by no means an enumeration of some of the potential benefits of fracking. Instead, the pro-fracking contingent was presented as reactive, not proactive. Instead of plainly laying out the speculated benefits of fracking – as he did for the drawbacks – Roberts only presented the pro-fracking side as defensive.

Interestingly, the qualitative analysis revealed that some news stories said fracking could be bad for the economy. These stories speculated that hydraulic fracturing would lower property values in the area. An April 16<sup>th</sup> NOLA.com story by Robert Rhoden featured this concern in its lead: “Fears of plummeting property values and pollution were at the forefront among a standing-room-only crowd that gathered Wednesday night ...” Rhoden proceeded to quote a resident concerned with property values:

Brandon Campbell, who lives in the Forest Book subdivision near Mandeville a couple of miles from the proposed drilling site, asked who would pay restitution if property values in the area go down. “Who is going to pay us that loss? The common homeowner is getting screwed here,” he said to applause from the crowd of about 130 people at the Paul Spitzfaden Community Center. (Rhoden, April 16, 2014)

Rhoden quoted another citizen’s fears about property values:

Kay Fallon of Covington, who said she was in the real estate business for many years, said consideration should be given to property values before any permits are issued. She suggested that everyone read news stories and reports about property values falling at fracking sites in other states. “Our property values will drop,” she told the crowd. “We

won't be able to sell our properties because we won't be able to get mortgages on them. What is this going to do to the major (home building) industry in this parish?" (Rhoden, April 16, 2014).

Rhoden did not mention any advantages to fracking, economic or otherwise.

RQ 2 asks which frames the local media used in covering the proposed drilling project.

Although this finding does not get at specific frames (the environment, the economy, etc.), it does address the overall tone of the news stories. Many of the news stories took the angle that hydraulic fracturing is heavily criticized, with the onus being on proponents to disprove the allegations made about it.

#### Stumbling Blocks Are No Cause for Concern

The qualitative analysis revealed that in speaking with the media, both sides of the debate tended to sound unsurprised and unfazed when discussing potential hurdles. For example, in July the U.S. Army Corps of Engineers and the state Department of Environmental Quality told Helis to consider alternative drilling sites. Helis spokesperson Greg Beuerman told the *Advocate's* Faimon Roberts that this was expected.

But despite the apparent seriousness of the concerns in the letters, representatives from the Corps, Helis and DEQ said Monday that such letters are a normal part of the process of acquiring a wetlands permit – which the company needs before it can begin construction on its planned 13,000-foot-deep well. “There is nothing unusual about the request. This is a routine part of the process,” Greg Beuerman, a spokesman for Helis, said Monday. “It doesn't represent a delay in the process.” (Roberts, July 22, 2014)

Rick Franzo, president of Concerned Citizens of St. Tammany, seemed similarly unfazed when the state Office of Conservation approved Helis' drilling permit in December.

Rick Franzo, president of Concerned Citizens of St. Tammany, which opposes the project, said he was disappointed but not surprised by the decision. He described the Office of Conservation as a ‘rubber stamp agency’ and said his group never thought the permit would be denied. (Pagones, December 22, 2014)

## Limited Geographic Focus

As with the quantitative analysis, the qualitative analysis also showed there are few references to hydraulic fracturing outside of Louisiana. Articles that did mention other states mostly discussed problems with fracking that have arisen in those states. “The process has been controversial. Municipalities in New York, Texas, Pennsylvania and Colorado, among others, have tried to ban it with varying degrees of success” (Roberts, September 24, 2014).

The narrow geographic focus of the sample helps to answer RQ 2 (how did the media coverage frame the issue?) Instead of depicting the issue as something that occurs all over the country – or only in distant places – the local media largely presented fracking as a local concern. Of course, it is understandable that local media will focus mostly on the fracking issue as it relates to South Louisiana. Still, the infrequency with which the local media mentioned fracking elsewhere in the country (or the world) further emphasizes the proximity of the matter, which adds an extra layer of urgency to the debate.

## Litigation

RQ 4 asked what the news coverage’s potential effect on litigation could be.

A central theme regarding litigation is the balance of power between the state and local governments. This question forms the foundation of the lawsuits filed by the St. Tammany Parish Council and the town of Abita Springs. Some of the news stories examined in the qualitative analysis delved into this pre-emption issue. In a June 12<sup>th</sup> article from the *Advocate*, Faimon Roberts compared the proposed drilling operation in St. Tammany to a similar controversy in Denton, Texas. “Both states also have a doctrine of pre-emption, which prevents local governments, like cities and counties or

parishes, from enacting rules that infringe on areas the state regulates, such as oil or gas drilling” (Roberts, June 12, 2014a).<sup>3</sup>

Some news stories also questioned whether the lawsuit is essentially a constitutional issue, as opposed to an oil and gas one. This was somewhat a point of contention at a May 2014 parish council meeting.

... the council was taking up several items related to the proposed well, including a proposal by Councilman Jake Groby to hire a lawyer specializing in oil and gas issues to represent the parish’s interests ... Councilman Steve Stefancik’s amendment also called for removing from Groby’s resolution the requirement that the lawyer specialize in oil and gas; he said the parish may need a lawyer who specializes in constitutional law. Stefancik’s amendment passed 9-4, drawing jeers from the crowd gathered in the room. Before she was removed, (audience member Amanda) Fisher urged the council to approve the hiring of a lawyer with oil and gas experience, which she said is needed to guard the parish’s interest. Cheers greeted her remarks. (Roberts & Pagonos, 2014)

Although the news coverage does not probe more into this matter, Stefancik was presumably concerned with getting a constitutional lawyer because of the potential “takings” issue. According to the constitution, the government cannot “take” private lands without due process of the law. If there is a legitimate public purpose in taking the land, the state must offer “just compensation” to the landowner.

The May 14<sup>th</sup> *Advocate* article drew attention to another controversy that arose with litigation: how much money the Parish Council should allot to its attorneys.

Members of the council debated (Councilman Steve) Stefancik’s proposed spending cap, saying it would be difficult to hire a lawyer with the necessary qualifications for \$25,000, especially when Helis’ first hearing before the state is only 12 days away. “I think it’s a mistake to set a \$25,000 cap,” Councilman Gene Bellisario said. “Who do you think you are going to get?” He said the need is too urgent to impose a low payment cap. After passing Stefancik’s amendment, the council approved Groby’s resolution 12-1. Bellisario cast the only no vote, saying he could not vote for a measure with a \$25,000 cap. (Roberts & Pagonos, 2014)

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<sup>3</sup> However, the state was unsuccessful in getting the suit dismissed in November based on that argument (“Fracking lawsuit goes forward”).

The council also did not increase its litigation budget at a meeting in July. “Councilman Richard Tanner voted against considering the measure, complaining that he had not seen itemized bills from (law firm) Blue Williams and had not been kept up to the date on what the attorneys were doing” (Rhoden, September 5, 2014). However, on August 4<sup>th</sup>, the Parish Council voted unanimously to increase the budget for the legal fight to \$125,000 (Rhoden, September 5, 2014).

It would be somewhat advantageous to the plaintiffs to frame the proposed drilling operation as a “taking.” The protection against governmental takings without just compensation is conferred upon Americans by the Fifth Amendment. In order to take private property, the government must prove that doing so is “rationally related” to a “legitimate public purpose” (*Kelo*, 2005).

However, the government does not owe landowners any compensation for the mere regulation of private property (*Lingle*, 2005). Furthermore, government regulation that decreases the economic value of the property is not a taking, provided that the government leaves an “economically viable use” for the property (*Penn Central Transportation Co.*, 1978). Thus, the “takings” issue is only truly useful to the anti-fracking contingent if it can prove that approving the permit constitutes a “taking.”

The pre-emption issue is a strategic frame for the Department of Natural Resources to espouse. According to the doctrine of pre-emption, local governments cannot interfere with areas that are regulated by the state, which includes oil and gas.

The media coverage of the fracking controversy could have a significant cumulative effect on litigation. News coverage of an issue that is the subject of ongoing litigation helps to bolster the legitimacy of that legal action (Mather, 1998, p. 914). Furthermore, keeping the issue on the public’s agenda can have some effects. For example, if the case is tried by a jury that has been exposed to copious media coverage of the issue, there is more of a risk of having a biased jury. Most attorneys

would ask during jury selection if the potential jurors can be unbiased, regardless of the media coverage. However, even if the jurors vow to be impartial, and even if they have the best intentions, they might still be biased (whether that is toward the pro- or anti-fracking persuasion) by the media coverage. There are some ways to address this problem, though, such as a change of venue (Bell & Odysseos, 2002).

An issue that is prominent on the public's radar might also mean that judges know there could be political consequences for them because of the trial. High-profile cases could mean "that the long-term effects of court actions may depend less on the judicial decision itself than on the nature of political opposition it generates" (Mather, 1998, p. 914).

## V. DISCUSSION

The quantitative analysis of each variable individually showed that the public backlash to Helis' proposed drilling operation, as well as the environmental implications of fracking, were popular topics.

The public backlash to the proposed drilling was the focal point for many of the stories. One quantitative finding was that approximately 90% of the stories discussed the backlash, and backlash was both the most popular primary frame and secondary frame. Therefore, it is likely that any given story selected at random would have the backlash as its primary or secondary frame, or would at least mention the backlash.

Both the quantitative and qualitative analyses showed that most stories made no mention of the positive effects hydraulic fracturing can have on the economy (either state or national) or the United States' relationship with foreign oil suppliers. However, it was also uncommon for stories to discuss other potential hazards associated with fracking, including public health and infrastructure problems. Although there are some potential public health and infrastructure issues with the proposed drilling in St. Tammany, the local media largely framed this issue as an environmental one (as opposed to an economic, health, foreign policy, or infrastructure one).

The economic ramifications of fracking were largely absent from local media coverage. One explanation for this finding is that St. Tammany is a wealthy parish. A well-heeled suburb, St. Tammany provides a home base for many of New Orleans' most prosperous professionals. According to the U.S. Census Bureau, St. Tammany was the richest parish in 2013, with a per capita money income of \$30,363. In comparison, the per capita money income for the entire state was \$24,442. St. Tammany was also among the wealthiest parishes in the state in the years before 2013. From 2009-2013, the

median household income in St. Tammany was \$60,799, compared to the state average of \$44,874. Only 10.6% of St. Tammany residents lived below the poverty line from 2009-2013; this number is 19.1% for Louisiana's total population. 78.0% of St. Tammany residents owned a house during the period from 2009 to 2013; this number of 67% for the total state population. Furthermore, the median value of owner-occupied housing in St. Tammany from 2009 to 2013 was \$194,500. This figure is substantially higher than the state median value of owner-occupied housing, which was \$138,900 (U.S. Census Bureau).

St. Tammany residents are more educated than most other Louisiana parishes: at least 30.1% had a bachelor's degree or higher from 2009-2013, compared to 21.8% for the entire state (U.S. Census Bureau).

Also, most St. Tammany residents are white – 84.4% as of 2013, according to figures from the U.S. Census Bureau. This number is well above the state average. In 2013, 63.5% of the state's total population was white.

The economic prosperity of St. Tammany's residents might explain why the economic impacts of fracking were not discussed frequently in local media coverage. The vast majority of the parish's residents do not live in poverty. Most residents live comfortably and do not have the same worries as many other Louisianans, such as where their next job – or meal – will come from. Thus, it is presumably not as important to many St. Tammany residents that fracking has the potential to create numerous jobs, or that it could decrease the price of oil and gas by increasing the supply.

A threat to the parish's cleanliness is likely to be more provocative. Many St. Tammany residents chose to live in suburban St. Tammany over New Orleans because of the byproducts of city life – pollution, noise, traffic, etc., all of which can greatly affect the quality of life. A quick perusal of

the parish's official website makes clear that St. Tammany boasts numerous outdoor recreational activities to residents and visitors. It is true that Louisiana is generally receptive to oil and gas exploration and drilling. However, drilling could easily lose its appeal in an area that is not struggling economically and is proud of its environmental quality and infrastructure.

St. Tammany's affluence might also explain why the local media have given such attention to the opposition to the proposed drilling.

Louisianans in the path of the Morganza spillway were not given the same degree of airtime in 2011.

In May 2011, the Mississippi River rose to near-record levels. It became apparent that other preliminary measures, such as opening the Bonnet Carre Spillway outside of New Orleans, would not be enough to keep the river from overflowing. Thus, state officials opted to open the Morganza Spillway, located north of Baton Rouge, in Pointe Coupee Parish. This would divert the flow of the Mississippi River and flood the Atchafalaya Basin area between Baton Rouge and Lafayette, Louisiana. It would be the first time the Morganza Spillway had been opened since 1973 (Rioux, 2011).

Opening the Morganza Spillway endangered the lives and wellbeing of many Louisianans in the Atchafalaya Basin, including residents of Iberia, Iberville, St. Landry, St. Martin and St. Mary Parishes. Although residents knew there was a risk of flooding when they purchased property in this area, the spillway had not been opened in 38 years as of 2011, so the threat of flooding was not always imminent or even foreseeable.

However, relatively little media attention was given to their fears and grievances about being in the path of the Mississippi. Searches for "Morganza resident" and "Morganza residents flooding" on the *Advocate's* website yielded few results (55 and 25 stories, respectively). Of the search results for both

searches, there were no stories from the *Advocate* that reported on any kind of backlash or disapproval from Atchafalaya residents. A search for “Atchafalaya residents flooding” yielded more results (140), however virtually none of these had to do with residents’ feelings toward opening the spillway. Interestingly, the only somewhat relevant story was about the relief of citizens in Butte La Rose (in St. Martin Parish) that they did not suffer any serious flood damage (Sills, 2011).

In contrast, a search for “St. Tammany residents fracking” on the *Advocate*’s website yielded 230 results. There were several stories covering the public’s backlash to Helis’ proposed drilling operation on the first page of search results alone.

Of the parishes in the Mississippi’s path after Morganza was opened, only Iberville had an average median household income above the state average for 2009-2013. The average median household income for the entire state was \$44,874 from 2009 to 2013. This figure was slightly higher for Iberville Parish, at \$45,368. Iberia, St. Landry, St. Martin and St. Mary all had average median household incomes lower than the state average: \$44,262, \$35,503, \$42,186 and \$41,571, respectively (U.S. Census Bureau).

Additionally, nearly all of these parishes had a lower percentage of white residents than the state average, which was 63.5% for 2009-2013. During this time period, that statistic was 62.9% for Iberia Parish, 49.7% for Iberville, 56.7% for St. Landry and 61.8% for St. Mary. Only St. Martin Parish has a higher percentage of whites than the state average, at 66.7% of the parish’s population (U.S. Census Bureau).

The flooding from the Morganza Spillway affected a larger number of people and a broader geographic area than the fracking in St. Tammany would. Also, while even the worst consequences of fracking are only speculative, it was virtually inevitable – even assumed – that opening the Morganza

Spillway would cause flooding in the Atchafalaya. Indeed, this was essentially the point of doing so (to flood these areas instead of having the Mississippi overflow into other areas). However, unhappy citizens in St. Tammany have been more visible in local media than Atchafalaya residents. There are some pragmatic explanations for this. The rising of the Mississippi and the opening of Morganza were quickly-developing news stories; coverage began and ended over a period of weeks. In contrast, the proposed drilling in St. Tammany first became news in April 2014, and it continues (and likely will continue) to be an issue for a long time to come.

However, the socioeconomic statistics of St. Tammany and the Atchafalaya area are likely not pure coincidence. These statistics support the idea that the media might give St. Tammany's residents such a loud voice because of their affluence.

Louisiana's "Cancer Alley" offers another example of this hypothesis. Most of the parishes between Baton Rouge and New Orleans are heavily speckled with chemical plants. These parishes are often called the "River Parishes," and they include St. Charles, St. James and St. John the Baptist Parishes. This area has been dubbed "Cancer Alley" or "Cancer Corridor" because of the public's fear that the plentiful petrochemical plants present a threat to public health (Tsai, Cardarelli, Wendt & Fraser, 2004).<sup>4</sup>

A search for "River Parishes residents cancer" yielded many search results, but none covered residents' fears that they would become sick from the growing number of chemical plants in their area.<sup>5</sup>

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<sup>4</sup> According to Tsai, Cardarelli, Wendt & Fraser, the incidence of cancer in residents of "Cancer Alley" is not significantly higher than that of the rest of the state. Still, even assuming this is true, there remains a public perception that the high number of chemical plants is dangerous. Also, this study only encompassed the years from 1970 to 1999. Moreover, three of the authors of this study are affiliated with Shell Oil Company.

<sup>5</sup> This search actually showed multiple news stories about the backlash among St. Tammany residents to the proposed fracking operation.

The River Parishes are fairly economically stable, according to data from the U.S. Census Bureau. None had an average median household income lower than the state average for 2009-2013 (U.S. Census Bureau).<sup>6</sup>

However, this area has a lower portion of white residents than the state average, which was 63.5%, according to the U.S. Census Bureau. Though St. Charles Parish has a higher percentage of white residents than the state average, that number for St. James and St. John the Baptist Parishes is 49.4% and 42.7%, respectively (U.S. Census Bureau).

Again, the idea that the problems of wealthy and/or white people are covered more frequently – and thus more a part of the public conversation – is a potential explanation for this finding.

Both the qualitative and quantitative analyses made it clear that news stories tended overwhelmingly to focus on the local effects (whether negative or positive) of fracking, as opposed to fracking's implications for the country as a whole. This finding is not unexpected, since the sample was comprised entirely of local media, and all of the stories were written by a staff writer.<sup>7</sup>

While it is true that only about half of the stories mentioned litigation efforts, according to the quantitative analysis, it is important to keep in mind that no suits were filed until July (although the Parish Council did hire a lawyer in May in an advisory capacity). Therefore, stories before that point only discussed litigation in a speculative manner, if at all.

Most of the statistically significant correlations from the quantitative analysis did not indicate a strong relationship. There was only one very strong positive correlation between dichotomous variables: the relationship between the National Economy and Foreign Relations, which had an  $r$  value of .706.

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<sup>6</sup> The proliferation of major petrochemical companies might explain this statistic.

<sup>7</sup> As opposed to coming from a wire service.

This finding is not surprising – it makes sense that stories which mention the effects of fracking on the national economy would be likely to also mention foreign relations (as they concern energy).

The correlations between the following variables were somewhat strong: Groundwater and Other Environmental Concerns (.462), Other Environmental Concerns and Foreign Relations (.400). The correlation between Groundwater and Other Environmental Concerns being mentioned in a story indicates that journalists often “bundled” a host of environmental ramifications together in covering the fracking issue. So, the proposed drilling project was depicted as not only threatening, say, water quality, but also air quality.

One-third of these statistically significant Pearson coefficients reflected either no correlation, or a negligible one: Company and Litigation had an  $r$  value of .182; Activist and Citizen (.197); Citizen and Foreign Relations (-.199); Groundwater and Infrastructure (.188); Health and Infrastructure (.184); and Litigation and Citizen (.194).

It is interesting to note that, although it suggests a negligible correlation at best, the relationship between Citizen and Foreign Relations was the only statistically significant negative correlation. This means that the more likely a story was to quote a St. Tammany citizen, the less likely it was to mention fracking’s implications for foreign relations (although, again, only slightly so, if at all). This quantitative finding underscores the overall finding that the local media have generally kept the St. Tammany drilling issue hermetically sealed from discussions of fracking’s implications across a broader geographic scale.

The overall finding of the Pearson’s  $r$  tests for the categorical variables (Month, Length, Primary Frame and Secondary Frame) was that none were statistically significant. Thus, no solid conclusions can be drawn about the relationship between Month/Length and Primary/Secondary Frame. However,

the bar graphs did show one interesting quantitative observation: there was a spike in the number of stories that featured Backlash as either their Primary or Secondary Frame during the month of May 2014. In contrast, stories with a Primary or Secondary Frame of Backlash were relatively low in the preceding and following months of April and June 2014. Because this quantitative finding is not statistically significant, we cannot draw any conclusions about the strength of the relationship between this particular month of May 2014 and stories with Backlash as their Primary or Secondary Frame. However, this early spike in stories that focused on Backlash could have had serious effects on public opinion of the proposed drilling project. The local media's focus on community backlash could have served as a catalyst for the anti-fracking movement in St. Tammany.

The qualitative analysis revealed an overall tone that is generally sympathetic to the St. Tammany leaders and residents who oppose the proposed fracking operation. The quantitative analysis showed that possible advantages of fracking are not mentioned as frequently as the potential consequences. Furthermore, the qualitative analysis revealed that oftentimes the "pro-fracking side" was presented as reactionary and defensive, and only existing in response to the arguments raised by anti-frackers.

According to the qualitative analysis, the media coverage tended overwhelmingly to depict Helis as either spinelessly bowing to public pressure by making "concessions," or as being out of touch with public opinion and largely oblivious to what residents want. Neither is a flattering portrait.

The media coverage largely took on the role of the opposition's cheerleader. Many of the news articles studied during the qualitative analysis told a classic "David and Goliath" story, with the "little guys" (the St. Tammany citizens) taking on the "big guys" (Helis). Media coverage rarely pointed out

the possibility that not all St. Tammany citizens are on board with the vocal opposition to the fracking or the lawsuit. The local media empowered residents who oppose the potential drilling operation.

The news stories also focused overwhelmingly on just the local ramifications – whether negative or positive – to fracking in St. Tammany, rather than providing a more comprehensive idea of how fracking has impacted communities across the country. Maintaining a local focus helps to keep the issue on the public agenda in Louisiana. Doing so tells readers that this is not some issue that affects people in faraway places like South Dakota or Pennsylvania. Instead, the proximity lends a sense of urgency to the subject.

Returning to the research questions posed at the beginning of this thesis, the findings from the content analysis were helpful in addressing all four.

RQ 1 asked which stakeholders were quoted in local media coverage of the fracking issue in St. Tammany. Specifically, the quantitative analysis measured the extent to which energy company representatives, environmentalists, residents and policymakers were heard in the news stories. Although all four categories of stakeholders had a substantial voice in the local coverage, the policymakers were by far quoted the most in local media coverage. This is especially interesting, given that policymakers arguably have the least at stake of all these stakeholders. This could be a natural byproduct of policymakers' status as public figures – that they will appear in the media more often. Still, this finding could indicate that the focal point of the issue is on public policy and how this situation might change the drilling and permitting processes in Louisiana. Indeed, one of the findings of the qualitative analysis was that media frequently mentioned the effect public opinion has had on the permitting phase of drilling.

The quantitative analysis revealed that environmentalists were quoted the least often out of all of the stakeholders. However, writers mentioned environmental topics (groundwater and other environmental concerns) frequently.

RQ 2 asked which frames the local coverage used. By far, backlash among St. Tammany residents was the most popular frame in the news stories, according to the quantitative analysis. This is an interesting finding, given that policymakers were quoted more frequently than citizens.

Backlash might have been such a popular topic because of its news value. A local controversy will generally be newsworthy. Pragmatically, fewer expenses and less time is generally involved with reporting on residents' reactions to a controversy. In contrast, it could take more time and money to track down an energy company executive to weigh in on the subject, or a legal scholar to interview about the permitting process and the ensuing litigation. The environment was also a popular frame. I conclude that the environment frame was frequently used as a mechanism for supporting the backlash frame: "St. Tammany residents are unhappy about the proposed drilling, and it is because it could harm the environment."

The quantitative analysis showed that public policy pertaining to or affecting fracking (for example, the permitting process) was another popular frame. This finding underscores the idea that one of the media's foci was the effect this situation might have on the future of energy law in Louisiana.

RQ 3 focused on the impact of the fracking controversy on policymakers. The qualitative analysis of the news stories showed that the public backlash has already affected policy in some ways. For instance, the Department of Natural Resources held a public hearing about Helis' drilling application – which is almost never done within the context of drilling permits.

The media's fixation on the novelty of Republican policymakers opposing a gas drilling operation is intriguing. This qualitative finding further demonstrates the power that public opinion has had. Many Republican policymakers were initially reluctant to take a harsh stand on the fracking project, but later changed their minds as the opposition grew vocal. For example, after the Parish Council did not take a sufficiently strong stand against the proposed drilling project, some residents circulated a petition to recall all of the members of the Parish Council in May 2014 (Chatelain & Rhoden, 2014). In June, the Parish Council allocated \$25,000 to hire attorneys to use the court system to stop the proposed drilling (Rhoden, June 5, 2014). The Parish Council earmarked another \$100,000 for the legal fight against Helis in September (Rhoden, September 5, 2014).

Finally, RQ 4 inquired about the potential impact of the media coverage on litigation. In an ideal world, media coverage would have no bearing on lawsuits. Judges and jurors would be completely impartial when hearing cases and making decisions. Alternatively, the means of addressing the media's influence on impressionable jurors would be more pragmatic. Though sequestering jurors or changing venues might solve the problem of juror bias, these are not easy or practical measures.

The news reports were generally careful to specify that these suits were filed by government actors (i.e., St. Tammany Parish, the Town of Abita Springs, etc.), not by individual citizens. This gives the suits a boost of legitimacy (apart from the merits of the suits). Many people are wary of individuals who appear to be litigious and "sue-happy," especially in a conservative state like Louisiana. However, a public entity spending money to file suit could add an extra layer of legitimacy to the suits.

The qualitative analysis showed that the local media focused to an extent on the central issue in this suit: pre-emption, or whether a parish government can establish policies that interfere with oil and

gas (which is regulated by the state in Louisiana). Discussing this legal question is likely a positive thing, as it can lead to a more educated readership – and potentially more informed jurors.

However, the news coverage of the fracking controversy and the litigation could also result in biased jurors (whether they support the fracking project or not). The frequent coverage probably makes many Louisianans feel that they should have a personal opinion on the topic – after all, it is an important local current event that is frequently in the news. It can be difficult for jurors to divorce their personal feelings from a case they are deciding, no matter how noble their intentions. In contrast, most other cases are not frequently featured in the newspaper (with exceptions, of course). For instance, a juror for a case involving an automobile accident that was briefly reported on one time is less inclined to form an opinion on what happened than a juror whose case is about an incident that frequently appeared in the media.

Because of the media coverage and public attention given to the fracking controversy, there could also be a potential judge bias, particularly among state court judges who are elected (and these lawsuits will be heard in state court). Because the topic has stirred up controversy, judges know there could be political consequences for them, depending on how they rule.

However, this will probably not be an issue in this case. All lawsuits have been filed in the 19<sup>th</sup> Judicial District Court in Baton Rouge (because this is where the defendants, the state and the commissioner of the Department of Natural Resources, are domiciled). If a judge's ruling on this matter has any influence on residents of Baton Rouge, it would probably only be a negligible one.

## VI. CONCLUSION

### **Best Practices**

Best practices suggestions for energy companies who want to pursue drilling projects in similar situations differ depending on whether the concern is public opinion or litigation.

The local coverage examined in this thesis suggests that Helis has not been very visible throughout this process. Helis did not send representatives to a local meeting until November 2014 (Rhoden, November 12, 2014). Helis' public relations strategy has largely been to meet with residents individually and in small groups.

It is true that Helis might draw attention to an issue that people were not previously aware of, thus making it a bigger issue than it was before. If people were not already aware of the potential problems with fracking, Helis could potentially hurt itself more than help by being vocal.

However, if most St. Tammany residents not only know about fracking and its potential problems, but are concerned about them, then Helis needs to have a more visible presence by addressing these issues. Not attending parish council meetings can seem cowardly, as though they have something to hide.

Helis should take advantage of the fact that it is a Louisiana company. Emphasizing its local ties – and stressing that it is not a colossal oil company from out of state – might help residents feel a sense of connection and even loyalty to Helis.

If the concern is more legal in nature, Helis is probably handling the backlash in the best way. Admitting that there are potential flaws in the fracking process – or that there could be serious

consequences – could be admissible in court, should there be future lawsuits filed against Helis for any adverse effects from drilling. The plaintiffs would likely argue that because Helis conceded that fracking has been known to cause problems, that it was reasonably foreseeable that similar problems could occur here.

### **Limitations and Suggestions for Future Research**

The content analysis was hindered by the lack of ready access to broadcast news stories on local television stations in St. Tammany and the surrounding areas. The content analysis was originally going to include television and radio stations, in addition to local newspapers.

The quantitative analysis of the stories from the *Advocate* and NOLA.com showed that May 2014 had the highest number of stories on the proposed drilling. This was early in the timeline of the controversy. A more comprehensive content analysis that included radio and television would have shown if the amount of news coverage tapered off in those media, as well.

The content analysis was also limited in the sample size of 127 news stories. Because the analysis was confined to local media only, it is not unexpected that the sample size is small. However, a larger sample size might have led to stronger conclusions.

Future research could extend past December 2014. This is an ongoing issue; it would be a natural continuation of this thesis to study trends in the media coverage over the entire span of time of this controversy.

Another future research question could be whether local media coverage of proposed fracking operations in other areas similarly excludes discussion of fracking throughout the country.

Future research could also conduct public opinion research (in the form of focus groups, surveys, questionnaires, etc.) of St. Tammany residents to determine their opinions on the proposed fracking operation. This would allow the researcher to analyze whether the media's depiction of widespread public backlash to fracking corresponds with reality.

An incidental finding of this research was that the local media gave the generally wealthy and white residents of St. Tammany a larger platform for their grievances than it has for other Louisianans. This finding was not originally within the scope of the research; however, it could merit its own study. Future research could further examine the link between media coverage of problems pertaining to wealthy, white populations and those that have more of an effective on poorer, non-white, and/or rural populations.

## **Conclusion**

In general, the local coverage of the fracking issue was empowering to the residents of St. Tammany. Although the environment was a popular topic in the news stories, it was mostly used to bolster the opposition to drilling. Though the news stories do not overtly say whether fracking is good or bad, the stories rarely portray the citizens as anything but heroes, leaders, or concerned citizens who want to safeguard their property.

This is an important finding because the research also showed that public opinion can have a serious effect on policy and the decisions that public officials make. It is important for policymakers – as well as judges – to be conscientious of the role that the “little guy” plays in public policy decisions.

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## APPENDIX – CODE BOOK

- A. News Source:
- 1 = The Advocate
  - 2 = NOLA.com
  - 3 = Baton Rouge Business Report
- B. Was the story written by a staff writer, or by a wire service? A “staff writer” is a person who is employed by that publication to write news stories. A wire service, such as the Associated Press (AP) is an organization that writes news stories and then distributes them to subscribing news outlets for publication.
- 1 = staff writer
  - 2 = wire service
- C. In what month was the story published?
- 1 = April
  - 2 = May
  - 3 = June
  - 4 = July
  - 5 = August
  - 6 = September
  - 7 = October
  - 8 = November
  - 9 = December
- D. Length:
- 1 = 300 words or fewer
  - 2 = 301 – 600words
  - 3 = 601 – 900 words
  - 4 = 901+ words
- E. Is an energy company spokesperson quoted? An “energy company spokesperson” is defined for these purposes as a person, employed by any company engaged in the discovery and/or production of oil, gas, and/or other energy sources, who informs the public as to that company’s operations in an effort to cast the company in a positive public light. Such spokespeople who are quoted in the sampled media are probably from Helis Oil & Gas. However, this item should be assigned a value of “1” if the story includes a quote from another energy company, including –

but not limited to – Exxon, Shell, Chesapeake Energy Corporation, Anadarko Petroleum Corporation, etc.

0 = no

1 = yes

- F. Is an environmentalist quoted? An “environmentalist” is a person who speaks on behalf of any cause that implicates the environment (for example, water pollution). An environmentalist can speak on behalf of an organized group, or on his own as a concerned citizen. An environmentalist may or may not receive any financial compensation for his participation in an environmental cause.

0 = no

1 = yes

- G. Is a policymaker quoted? A “policymaker” is defined as a person who makes decisions that impact public policy as a part of some governmental entity. Some examples of policymakers can include – but are not limited to – governors, members of the U.S. Congress or the state legislature, parish council members, mayors, etc.

0 = no

1 = yes

- H. Is a citizen of St. Tammany quoted? A “St. Tammany citizen” is any person who is quoted in the story who is identified as living in any part of St. Tammany Parish, including – but not limited to – the cities of Mandeville or Covington. A “St. Tammany citizen” will not, for these purposes, include a policymaker from St. Tammany who is acting/speaking in his official capacity.

0 = no

1 = yes

- I. Does the story mention the state economy? The topic of the “state economy” for this purpose includes any discussion of the effect of hydraulic fracturing on the manufacturing, design, production, marketing, selling, and/or consumption of a product that occurs in Louisiana; income generated by Louisianans; and/or the amount of debt the state of Louisiana has. A story that mentions the state economy can involve Louisianans as individuals or as business entities; it can involve the state of Louisiana, parish of St. Tammany, or any of the municipalities therein as political entities; or it can speak generally of the state and/or St. Tammany Parish as a whole.

0 = no

1 = yes

- J. Does the story mention the national economy? The topic of the “national economy” for this purpose includes any discussion of the effect of hydraulic fracturing on the manufacturing,

design, production, marketing, selling, and/or consumption of a product that occurs in the United States; income generated by Americans; and/or the amount of the debt the United States has. A story that mentions the national economy can involve Americans as individuals or as business entities; it can involve the country as a political entity; or it can speak generally of the country as a whole.

0 = no

1 = yes

- K. Does the story mention groundwater contamination? “Groundwater contamination” is defined for these purposes as the infiltration of water coming from underground sources by chemicals or any other potentially hazardous material (such as radioactive materials) that is caused – or speculated to possibly be caused – by hydraulic fracturing.

0 = no

1 = yes

- L. Does the story mention earthquakes? “Earthquakes” are defined for these purposes as a release of energy below the Earth’s surface that is caused – or speculated to possibly be caused – by hydraulic fracturing.

0 = no

1 = yes

- M. Does the story mention any other environmental concern? Such other “environmental concerns” could include – but are not limited to – air pollution, the health of animals, fire hazards, etc. This item should be assigned a value of “1” if the story states that the problem (or alleged problem) is caused– or speculated to possibly be caused– by hydraulic fracturing.

0 = no

1 = yes

- N. Does the story mention foreign policy? “Foreign policy” is defined for these purposes as any creation, amendment, or repeal of a public policy that pertains to the United States’ interactions with a foreign country in order to safeguard the country’s energy interests.

0 = no

1 = yes

- O. Does the story mention the relationship between the United States and foreign country? For purposes of this content analysis, “American relationships with foreign countries” include any alliance or tension with any foreign nation, whether ongoing or resolved, that is centered on energy sources. Examples include – but are not limited to – the United States’ dependence on a foreign country for an energy source, the United States’ independence as to an energy source,

another country's dependence on the United States for an energy source, and/or any war, conflict, or agreement provoked by energy needs.

0 = no

1 = yes

- P. Does the story mention a public health issue? For purposes of this content analysis, a "public health issue" is a problem, whether proven or speculated, which can potentially affect all people exposed to it. A "public health issue" for these purposes has some link, whether proven or speculated, to hydraulic fracturing. Examples include – but are not limited to – air pollution, water pollution, and/or sanitary conditions.

0 = no

1 = yes

- Q. Does the story mention an infrastructure issue? For purposes of this content analysis, an "infrastructure issue" is any condition related to the organization and/or planning of the state of Louisiana, the parish of St. Tammany, and/or any municipalities therein. Examples of "infrastructure issues" include – but are not limited to – roads, traffic, water supply, crime, etc. This item should be assigned a value of "1" if the "infrastructure issue" that is mentioned is stated to be caused – or speculated to possibly be caused – by hydraulic fracturing.

0 = no

1 = yes

- R. Does the story mention any public backlash to Helis' proposed drilling operations in St. Tammany Parish? "Backlash" will mean any negative public reaction to the proposed drilling operations on the part of anyone who is a citizen of St. Tammany. This includes both individual and organized group responses.

0 = no

1 = yes

- S. Does the story mention litigation? For purposes of this content analysis, "litigation" includes any lawsuit filed by a political entity, a business entity, and/or an individual that pertains to Helis Oil & Gas' endeavors to drill in St. Tammany Parish.

0 = no

1 = yes

- T. What is the primary frame of this story? The "primary frame" of a story is an issue or angle that is discussed in a higher number of sentences than any other issue or angle.

1 = the economy (national, state, or local)

2 = the environment

3 = infrastructure (national, state, or local)

- 4 = litigation
- 5 = public health
- 6 = public policy (national, state, or local)
- 7 = public backlash
- 8 = other

U. What is the secondary frame of the story, if any? The “secondary frame” of a story is an issue or angle that is discussed in the second-highest number of sentences.

- 1 = the economy (national, state, or local)
- 2 = the environment
- 3 = infrastructure (national, state, or local)
- 4 = litigation
- 5 = public health
- 6 = public policy (national, state, or local)
- 7 = public backlash
- 8 = other

## VITA

Lindsay C. Rabalais, a native of Lafayette, Louisiana, received her Juris Doctor from Louisiana State University in 2014. She also graduated with a Bachelor of Arts in Mass Communication from Louisiana State University in 2011. She was sworn in to the Louisiana State Bar in October 2014, and she is currently a practicing attorney working in the areas of public policy, personal injury, maritime law and criminal defense. Ms. Rabalais will receive her Master's degree in Mass Communication in May 2015 and plans to pursue a career in public policy.