

2010

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Recommended Citation

Finney, Mark L. (2010) "Salamosa: Examining a Small-Market Newspaper Covering a Local Crisis," *Online Journal of Rural Research & Policy*. Vol. 5: Iss. 6. <https://doi.org/10.4148/ojrrp.v5i6.230>

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Recommended Citation Style:

Finney, Mark L. "Salamosa: Small-scale Newspaper Coverage of Local Crises." *The Online Journal of Rural Research and Policy* 5.6 (2010): 1- 27.

Key words: Crisis Coverage, Small-Market Newspaper, News Framing, Content Analysis, Command Post Point of View, Salmonella, Newsworthiness.

This is a peer-reviewed article.

Abstract

This paper explores crisis coverage in local, small-market newspapers. Comparing relevant theory with the practice of journalism in Alamosa, CO's *Valley Courier*, this content analysis suggests close relationships between media, government and business in small communities, contributing to coverage that veers away from journalism's best practices. The result is coverage that overlooks potentially important information about the crisis' causes and eschews journalism's watchdog and investigative responsibilities, while offering local elite sources significant degrees of power over the shape of the coverage. As national news coverage contracts, situations like this rise in prominence.

Introduction

In March, 2008, citizens of the small, southern Colorado city of Alamosa learned that they were suffering through an environmental crisis, that everyone was at risk of infection, and that many had probably already been exposed. After several days with little official word and much public speculation and fear, it became clear that city's water system was contaminated with salmonella. On March 20, 2008 Hew Hallock and Ruth Heide reported in Alamosa's local newspaper, the *Valley Courier*, that "Alamosa residents have been advised by the state health department to immediately stop using [city] water...for drinking or cooking...until further notice" (p. 1).

Citizens of the somewhat isolated city of about 10,000 were shocked and scared. In the same article, Heide and Hallock reported that thirty-three cases of salmonella had been confirmed and another forty-six were under investigation (p. 1). The city's grocery stores' stocks of bottled water were quickly liquidated. Eventually, the National Guard came to town to provide free, potable water out of gigantic tanks to citizens, who for over a month were warned against consuming and using the city water in their homes.

In order to eradicate the salmonella bacteria, city, state and Center for Disease Control and Prevention officials "flushed" the city water system in three stages, lasting about two weeks. As explained by Hallock, in the *Valley Courier*, in the first stage, the water was treated with 25 milligrams per liter of chlorine. Because of the high concentration of chlorine during this period, residents were advised to "not use city water, except for flushing toilets." In Stage 2, residents

could use the water for washing, but not drinking, as it involved decreasing the concentration of chlorine to 10 mg/l, or “about the level found in a swimming pool.” In Stage 3, residents could recommence the consumption of city water, which would continue to be chlorinated at safe drinking levels (Hallock March 25, 2008, pp. 1, 3). The crisis was finally over after all three stages of the flush were completed and testing determined that the bacteria had been eliminated. Already in the pipeline to combat higher than legal levels of arsenic in the public water system, a new water treatment facility came on-line shortly after the crisis was over.

On April 19th, after the water had been deemed safe to drink, Eric Mullens, writing for the *Valley Courier* reported that “there had been 389 total cases of salmonella reported; 107 of those culture confirmed and 16 individuals hospitalized.” One person died as a result of the contamination (p. 1). Despite the proportionally high numbers of people affected by the crisis, this was a story that was largely ignored by national and state media. A Lexis/Nexis search reveals only about seventy stories about the crisis from mainstream, out-of-state publications, and only about 140 stories from mainstream sources overall. Even the *Denver Post*, Colorado’s paper of record, carried only twenty-three stories on the crisis that imperiled the community for over a month.

The task of covering this story was carried out almost exclusively by the local media; Alamosa’s *Valley Courier* newspaper and KRZA-88.7 FM, community radio. The bulk of the coverage came from the *Valley Courier* and was written by a variety of staff writers, editors and students from Adams State College.

Almost a year later, in March, 2009, Alamosa residents were reminded of the crisis when city faucets city emitted reddish and brown water, which, as the Associated Press reported on March 2, 2009, city officials blamed on new chemicals running through old pipes, “reacting with cast iron pipes, some as old as 100 years.” On November 18, 2009 the Colorado Department of Public Health and Environment released its final report on the crisis, concluding that

although there were several possible causes of the outbreak, our conclusion is that an animal source of fecal contamination entered the Weber Reservoir, and then spread throughout the entire system. The Weber Reservoir is a ground-level water storage reservoir near the Weber Well, which was the primary water well in use by the city, prior to the outbreak. The Weber Reservoir had several small cracks and holes that likely allowed the contamination to enter. These breaches may have existed for a relatively long period of time (p. 1¹).

Alamosa’s salmonella crisis brings to the forefront a series of related conceptual questions that will be addressed in this article. In many ways, the *Valley Courier’s* coverage of the crisis conformed to contemporary models of crisis and natural disaster coverage. However, the coverage differed in a few significant ways, which will be explored in depth. From a critical standpoint, the *Valley Courier’s* coverage of the salmonella crisis opens a window to view its coverage from two related analytical frames: First, the nature of the salmonella contamination suggests it is an appropriate case for the study of crisis coverage, not dissimilar to such natural disasters as the Loma Prieta earthquake in 1989 or Hurricane Katrina in 2005. This avenue of intellectual thought suggests an analysis of the paper’s framing of the crisis, in terms of the selective process of representation, the application of news frames and their agenda-setting

function. Secondly, economic challenges facing large-scale newspapers has forced many to decrease their distribution areas and reporting capacities, as exemplified by the decision by the *Denver Post* soon after the crisis ended to cease its delivery service to the area. This contraction of delivery is related to the need for newspaper corporations to find a new, sustainable economic model. While much academic focus has been focused on mainstream (and influential) newspapers with large distribution areas, there may be increasing value in examining small-scale local newspapers, especially with regards to the close and challenging relationship between a small town daily, the local government, and area businesses during a crisis.

Literature Review

Significant theoretical work on the coverage of crises and natural disasters has focused mostly on news sociology and organizational structures. This stems from observable challenges that news organizations face when covering crises in challenging situations. When Hurricane Katrina struck the United States' Gulf Coast in 2005, for instance, scores of media and government organizations faced extremely challenging circumstances in their struggles to achieve their missions of information dissemination. Investigations into such technological and practical challenges are important areas of inquiry and have yielded much, especially from the perspective of media practitioners.

The details of a crisis scenario are important because, as previous scholarship reveals, significant differences in coverage can result from differing types of crises. For instance, through his comparative analysis of the coverage of the Exxon Valdez oil spill, the Yellowstone forest fires and the Loma Prieta earthquake, Conrad Smith's *Media and Apocalypse* (1992²) provides valuable insight into the "processes by which journalists identified news sources and gathered data, and on the ways in which those values contributed to or interfered with accurate and comprehensive reporting" (p. ix³). Smith cautions readers against overgeneralizing findings about particular types of catastrophes to others:

Because natural disasters are assumed beyond human control, they are reported differently than industrial disasters. Hurricanes, tornadoes, volcanoes, and earthquakes are usually described in terms of damage and victims. Stories of plane crashes, train wrecks, chemical spills, and malfunctioning nuclear plants are told in terms of damage, victims, and who or what caused the accident. News stories about both kinds of disasters sometimes describe the actions of heroes who helped deal with the effects of the disaster (p. 2⁴).

As Smith notes, the two tasks that academics appear to have taken upon themselves in their examinations of crises are to discern 1) how the content of crisis coverage differs from ordinary news content, and 2) how the processes of covering crises differ from traditional newsmaking.

According to Smith, the cause of the catastrophe can be an important indicator of the way coverage will emerge. A natural disaster, such as an earthquake or a hurricane will be covered differently than an industrial accident or another type of crisis, in which blame or responsibility can be attributed directly to individuals associated with the crisis. Smith explains that natural disasters, like Hurricane Katrina and the Loma Prieta Earthquake, correspond with a different set

of frames in news coverage, wherein blame or responsibility take a back seat to “damage reports, the search for victims, and the reactions of people...” (p. 14⁵).

While Smith argues the details of the crisis scenario contribute to how the story will be covered, it is also important to note that blame and responsibility are frequently attributed in news reports, even in the coverage of natural disasters. Smith acknowledges this seemingly contradictory point through an early discussion of the context of news stories, suggesting that “there is compelling evidence that news reports which focus on discrete events instead of on the context in which those events occur obscure the real meanings of the events and tend to blame them on individuals rather than on political institutions or other systematic causes” (p. 1⁶). Even in cases of natural disaster, there appear to always be ways to lay blame, especially when public officials and contractors can be shown to have ignored or overlooked important details or neglected to account for foreseeable events.

Such an analysis leads naturally to agenda-setting and news frames: the use of media by individuals and communities to learn about important events and information suggest a role for media in the perception of those events on the basis of how they are framed in media representations. As Gaye Tuchman (1978⁷) and others have argued, news organizations exert influence (framing) over news content by centralizing production and through the implementation of journalistic structures (p. 21-23⁸). From the perspective of news frames, how a crisis is defined becomes an important question that must not be overlooked because the definition suggests a set of expectations on the part of news media about its coverage. These frames are then filtered to the public through the agenda-setting function. Smith (1992⁹), for instance, constructs his analysis around comparing events that have human versus natural causes. Although he does not define catastrophe per se, Smith is concerned with the coverage of events that have significant magnitude and effect. It is also clear that Smith is concerned with accidental events, those that bring to light issues of public concern, such as public lands and stewardship, and the role of government (p. xii-xiii¹⁰).

Another earlier method of defining these types of events can be found in *Disasters and the Mass Media*, the proceedings of the Committee on Disasters and the Mass Media Workshop in 1979. Less precise than Smith, the Committee defines disasters in terms of news values and a disaster’s potential to be covered in the news (p. 2¹¹). From an institutional standpoint, focusing on news organizations’ attempts to cover disasters, the Committee writes:

...The parts of that system vary in their abilities to cover disasters according to the degree to which they gather their own news, their frequency of publication or broadcast, their time and space constraints, their vulnerability to disruption, their visual dimensions, and their competition for audience” (p. 2¹²).

Alternatively, Doris Graber, in her text *Mass Media and American Politics* (1997¹³) is much more explicit about her definition of “extraordinary event,” but in so doing, broadens the definition significantly.

Such events happen rarely. They are dramatic and rich in pictures that tug at human heart strings. And they seem salient to the lives of media audiences

because they threaten their shared values and peace of mind and for some, their lives and property. Such events receive an extraordinary amount of sustained media coverage and an extraordinary amount of audience attention because people expect to be informed and to be protected by the appropriate government agencies (135¹⁴).

Graber's expanded definition includes events that go far beyond the scope of this inquiry. She includes both man-made and natural disasters, those that have intentional and accidental causes.

These three sources [not all three are "scholarly"] suggest that how a catastrophe is defined has a definite and significant effect on how it is covered. They are supported by related work about the coverage of public health issues (Signorelli¹⁵, Harraban et al.¹⁶) and terrorism (Swain¹⁷). Smith argues that catastrophes with human causes are covered differently than those without, in part because news frames of crises with human causes implicate a responsible party, whereas natural disasters implicate very different frames, such as heroism and victimization. While this point appears salient, Graber's interpretation has merit as well. If anything can be gleaned from the analysis of such natural disasters as Hurricane Katrina, blame can be and is regularly attributed in news accounts. Someone or some entity can almost always be shown to have been negligent in the onset of a disaster, made poor decisions (or a poor decision) in the recovery effort, or failed to foresee a catastrophic event or change in conditions. Graber's analysis, therefore suggests a role for blame in news frames related to crises and catastrophes, regardless of their origin.

The application of an appropriate news frame to crises is only one part of the work of news organizations covering crises. Another important challenge has to do with what Smith and others have argued is the fundamentally different way newsgathering takes place during a crisis. This phenomenon in news coverage results from changes in journalists' routine activity, "which deal with routine stories covered from fixed locations through standard sources who are contacted again and again," (p. x¹⁸) and the inability to conduct such regular business while covering a crisis. Instead, Smith finds that newsmaking about crises tends to focus on such factors as the economic impact of the crisis and the body count. Similar findings are present in *Disasters and the Mass Media*, wherein

representatives of the print, audio, and visual media, of disaster-related public and private agencies, and of research centers and universities participated in the...Committee's continuing study of the role of the mass media as educational and informational agents for mitigating hazards that could lead to disasters, for promoting disaster preparedness, and for helping in relief and recovery from disaster (p. 1¹⁹).

This edited volume, which predates but supports Smith's findings, goes further to indicate that the problems of crisis coverage are related to challenges in information gathering. They found challenges associated with "the inappropriate use of persons with prestige and expertise but no special knowledge about disasters; the too-frequent use of the same persons as information sources' and the misleading representation of some news persons as experts themselves" (p. 3²⁰).

The Committee goes on to describe how media play a critical role in “educating the general public about the time phases of disasters” (p. 3²¹). In disasters, both the effected and casual citizen turns to news accounts of the crisis, thus elevating the importance of media coverage of the crisis. Reporting errors, according to the Committee, “can generate problems that compound those created by the disaster” (p. 3²²).

Graber (1997²³) uses what she calls “extraordinary events” to discern three stages of media coverage of crises that are predicated on a broader definition of events including such occasions as the Oklahoma City bombing, the Persian Gulf War in 1991, the earthquake in southern California in 1994, and the LA riots in 1992 (p. 135²⁴). While the events Graber used extend beyond those under consideration in this paper, her findings of stages of coverage are relevant.

In the first stage, media announce that a crisis has occurred via uncoordinated messages that describe what is happening on the ground. She explains, “the most important broadcasts at the start of a disaster are messages describing what is happening, directing people to places of safety...” (p. 139²⁵). In stage two, media accounts are concerned to correct previous mistakes that were made in the haste to initially get the story out and to place the story in a longer term context. Stage three continues with this endeavor to contextualize the event, while preparing “people to cope with the aftermath” (pp. 141-142²⁶).

While Graber makes pains to discern discrete stages in the coverage of extraordinary events, she cautions readers that the stages “merge almost seamlessly and often overlap” (p. 139²⁷). And while it is clear that common themes can be discerned among media accounts of crises, it is also clear that not all media operate on the same basis in crises or in the same capacity. For instance, the Committee on Disasters and the Mass Media (1979²⁸) uncovered another wrinkle that is of considerable importance in this research: the relationship between local and national coverage of a crisis. In a chapter on the “state of the art in mass media disaster reporting” (p. 75²⁹), James F. Larson notes that the threshold of newsworthiness is much greater on the part of the national media than on local media, suggesting that many stories of local import often do not get national coverage (p. 86-87³⁰). While this assertion may appear as a critique of national media and their unwillingness to attend to important, yet localized crises, it points to importance of local coverage of crises.

In addition to Larson’s assertion that local news is more likely to carry the water in crises that do not make the national newsworthiness standard, he argues that local media have “a special burden...[of] warning, impact, and immediate post impact periods” of a crisis (p. 86³¹). In addition, Larson argues that local coverage, as opposed to national coverage when it occurs, is more detail-oriented than national coverage (p. 87³²). He also writes that local and national coverage will differ to the “extent and dimension of such coverage across all of the major time phases of a disaster” (p. 88³³). Local coverage, in addition to being more detail oriented, tends to cover a crisis longer, through more of the crisis’ stages, and to be more comprehensive than national coverage, which is more apt to hit only upon the major points of the story.

Larson looks to E.L. Quarantelli’s 1975 article “The Command Post Point of View in Local Mass Communications Systems” for guidance to explicate the subtleties of local newsmaking. Quarantelli’s article, which details the work of the Disaster Research Center at The Ohio State

University, and was intended to contrast “professional ideals and the dominant journalistic ideology” at the time, which was that “mass media outlets are...only transmission belts reflecting whatever is going on in the society at large” (p. 2³⁴). In doing so, Quarantelli suggests that local media operate in much more of a patterned way, in which “local mass media groups are rather selective in their reporting of major community crises,” (p. 3³⁵) “from the perspective of the formal social control agencies in the community and thus from a command post point of view” (p. 4³⁶).

According to Quarantelli, the command post point of view favors not just particular types of information, but also ways of seeing such information. Quarantelli argues that this approach, which permeates local news coverage of extraordinary events, emphasizes a law-and-order perspective that favors the short-term restoration of normalcy. This is compared to the long term “conditions that generated these problems” (p. 5³⁷), and “leads to explanations that are couched in personal rather than structural terms” (p. 6³⁸). This perspective favors the maintenance of the structural hierarchy and eschews the critical examination of structures. It protects those in power and in so doing, overlooks important factors that may have contributed to the problem in the first place.

Quarantelli suggests a variety of reasons for the command post point of view, including that journalists, especially local media, tend to rely on a particular and narrow set of officials, especially police, as sources and that these sources have a vested interest in propagating particular perspectives to the public. In addition, he argues that local media tend to be generalists who do not have the kind of specialized knowledge that might counterbalance the accounts of officials (p. 8³⁹). Furthermore, reflecting the findings of other mass media scholars, such as Herbert Gans (1979⁴⁰) and Mark Fishman (1980⁴¹), Quarantelli argues that while a crisis may be a short-term event, the relationships between journalists and officials is long-term, and positive relations must be maintained. Journalists therefore have a disincentive to question or contradict official accounts without incontrovertible evidence to the contrary (p. 10⁴²).

Methodology

Reports about the salmonella contamination began to appear in news sources on March 19, and ran through about April 20. In order to insure inclusivity, the period under study in this research runs from March 15 to April 31, 2008.

The research paper will focus exclusively on the coverage of the crisis in the *Valley Courier*, for a number of related reasons. First, the *Courier* covered the crisis at least twice as much as any other source. In addition, the *Courier* was distributed to far more homes in the affected area than any other print news source that covered the crisis. The *Valley Courier* reported that in the 81101 zip code (which encompasses the affected area) it distributed newspapers to 5,800 households daily. By contrast, the second most read paper in the area, the *Denver Post*, reported that it (and the *Rocky Mountain News*) delivered to only about 500 households daily (circulation numbers fluctuate between weekday, weekend and Sunday only service). These factors, added to the research presented previously that emphasizes the importance of local news during crisis situations, and the paucity of data from national media sources covering the salmonella crisis suggest that the most important sources for affected citizens were local.

Unfortunately, while the community radio station, KRZA contributed to the coverage with regular updates and news briefs throughout the crisis period, KRZA does not archive its material, making post-hoc analysis impossible. Another factor complicating the research is that the *Valley Courier* does not keep comprehensive electronic archives of their work. Analysis is therefore based on paper copies of the *Valley Courier*, assembled with the assistance of Amanda Lovitt, an undergraduate research/teaching assistant at Adams State College.

This research was designed to compare the coverage in the *Valley Courier* to the theoretical conceptions presented in the literature review. Specifically, it focuses on the application of news frames and agenda setting via the *Courier's* use of sources, the representation of stages in the coverage, the breadth of the coverage in terms of long v. short term, and explanation of blame and responsibility. These themes evolved into a series of broad and related research questions:

1. Sources: Who were the sources used by the *Valley Courier*? What relationship did sources have to the crisis? What explanations were offered by sources and to what degree were sources' explanations represented in media without contest?
2. Timing: Did the coverage focus on short-term events or long term problems and solutions? How was the beginning of the crisis described in the coverage? Were there discernable stages in the coverage of the crisis and what (using Graber's findings as a guide) did those stages contribute to the coverage?
3. Responsibility: How was responsibility or blame attributed in the coverage? To what degree were individuals or institutions labeled as responsible for the crisis occurring? In terms of the crisis' resolution; how was responsibility levied?
4. Coping: An undercurrent of all the theoretical perspectives presented above is that media provide guidance to affected citizens as to how they can deal with the crisis in which they're involved. What coping strategies were represented to readers? Are there discernable relationships between the coping strategies presented and the sources who presented them?

Coding categories were created and articles analyzed on the basis of the presence or absence of the categories in each story. The following list represents the coding categories that were present in the coverage, their definitions and a rationale for their examination:

1. There's a problem: Stories in this category do more than discuss effects and efforts related to the salmonella contamination; they discuss the fact of contamination explicitly as a central issue and that it affected city water and the population. This category corresponds with RQ2 as related to the timing of the crisis. One would expect, on the basis of Graber's findings, that this category would appear prominently at the outset of the crisis and then fall off as awareness increases.
2. Schools: Much was made during the crisis of the problems associated with children being in schools, exposed to city water, and cafeteria food cooked using city water

(especially at the college, where many residential students eat most of their meals in the dining hall). This category denotes stories that focused on schools dealing with and overcoming the problem, as well as students and parents making choices about sending students to school. This category corresponds with RQs 1, 3 and 4. As potentially dramatic sites of contamination, schools and school officials become important sources for news media. In addition, responsibility, in terms of protecting citizens after the crisis has already begun includes representing schools and school administrators as responsible for keeping students healthy. Finally, how schools cope with the contamination is an important issue to parents and other community members.

3. How to: This category corresponds with RQ's 2 and 4. In addition to the crisis stages suggested by Graber, the city undertook a multi-stage treatment plan, making "how to" an important issue, complicated by changing instructions in different stages. Articles focused on what citizens should be doing with contaminated water, during the various stages of systemic flushing and after the flushing was finished. The correspondence with RQ4 has to do with the continual focus on how to avoid contracting salmonella. Further, there may be at least a tangential correspondence with RQ 3 through this category because the focus on what citizens should be doing shifts the perception of responsibility for contamination from those responsible for maintaining the water treatment system to those who are potentially affected by it.
4. Commerce: Businesses (especially restaurants) suffered loss of commerce during the crisis as tourism fell and locals chose not to eat out. Stories in this category focused on businesses and owners, their troubles and sometime solutions. This category helps explicate RQs 1, 3 and 4. The sources for these stories ranged from consumers to business owners/employees and city officials. Explanations for the crisis and coping strategies differed among the various constituents employed as sources.
5. Government Activity: City, county, state and national government played significant roles in assessing the crisis, determining the source of the outbreak and, ultimately, resolving the problem. These stories focused on the activity of these government entities. This category corresponds with all four research questions. The role of government, in this instance as authoritative voice and responsible party (in terms of both cleanup and contamination), suggests significant data can be collected on sources used and perspectives represented, the assertion of responsibility, the importance of timing, message control, and coping.
6. Citizens' Activity: Citizens and other victims of the crisis; health issues, death, medical bills, etc. Many citizens from Alamosa and from other locations pitched in to help out during the crisis. This coding category corresponds well with all four research questions because of citizens' direct role in coping and timing, as well as the potential role citizens can play to counterbalance official sources.
7. Long Term Effect: While the crisis was over in about a month, the consequences, in terms of water treatment, cost, etc., persisted. There is a direct correspondence between this category and RQ 2. In addition, there is the potential for at least tangential

correspondence of this category with RQs 3 and 4. Prevention of future crises should be an important issue to affected citizens, thus implicating responsibility as city officials plan ahead. In addition, though most affected citizens were rehabilitated quickly from the virus, others struggled harder and for a longer time with the crisis.

8. Cause: Did the story discuss what might have been the cause of the contamination (e.g., the route by which the city's water was contaminated)? This category corresponds with RQ1 in terms of the various answers that are given to this question based on who is being questioned. It also corresponds with RQ3 with regards to the nature of the cause and potential to lay blame for the contamination.
9. Fault: Did the story discuss who or what was at fault for the contamination? This category corresponds most directly with RQ3, responsibility. In terms of Quarantelli's findings, this category examines the representation of responsibility for the crisis. There is at least the potential for this question to implicate RQ 1 as well, as responsible sources deflect and deal with their role in the crisis, its resolution and aftermath.

Data was collected for this research using a coding spreadsheet including every story that was printed by the *Valley Courier*. The principle researcher did coding with reliability assured via a simple joint probability of agreements method using two additional coders, in which the variables that each coder observed in a random sample of four stories was compared. This measure established a reliability probability of 89%. While this measurement does not take into account the probability of chance agreement, the simplicity of this measurement is justified by the way the data collection scheme was created for this project. Whereas reliability is generally achieved by establishing agreement on a set slate of variables, this research calls for the judgment of the researcher in determining which of several variables were present and the potential inclusion of multiple variables in any given case (story). A more robust method like Cohen's Kappa, for instance, will produce unexpectedly low reliability on the basis of total agreement in some cases (i.e. a story in which 3 of 7 variables were present produces an inaccurately low agreement because negative observed agreement corresponds with high chance agreement).

Inter-Coder Reliability Worksheet

Story	Coder	Variable								
		1	2	3	4	5	6	7	8	9
1	1	x		x		x				x
	2	x		x			x		x	x
	3	x		x		x				x
2	1				x		x			x
	2				x			x		
	3				x	x	x			x
3	1				x					
	2				x					
	3				x					
4	1					x	x			
	2					x	x			
	3		x							
% Agreement		100	91.5	100	100	66	75	91.5	91.5	91.5

Total Observed Agreement: 89.66

Findings

A Lexis/Nexis search reveals that there were 146 stories written about the crisis during the crisis period by major news sources (including newswires and news transcripts). Colorado’s largest daily, the *Denver Post*, carried twenty-four stories on the crisis, but the story was not present in any of the top five circulation papers in the country: *USA Today*, *Wall Street Journal*, *New York Times*, *Los Angeles Times* or *Washington Post*. Members of the mainstream electronic media picked up the story briefly, with CNN (n=7), NPR (n=2) and once on each of the three networks (excluding Fox).

While the coverage of the crisis in the national and regional media was scant, the local coverage was extensive and long-lasting. During the period, Alamosa’s regional daily, the *Valley Courier*

took the lead in covering the story, with nearly daily coverage, carrying almost 50 stories (n=49) on the crisis. Although the *Valley Courier* was a day late to the coverage (beginning March 20), the *Courier* carried almost twice as many stories about the crisis than any other news source.

Of the 49 stories published by the *Valley Courier* during the period under study, only five, all at the beginning of the crisis, focused on the “there’s a problem” angle. This category was only present in the *Courier’s* coverage from 3/20-3/25, when the story was new. Schools were only a major element in four of the stories, or 8.3%. Unlike the There’s a Problem category, Schools were present deeper into the crisis, especially around the days that the city school system and Adams State College decided to suspend classes.

How To was one of the more prevalent categories in the coverage. Present in 33.3% of the stories, how to was an important component of the coverage in which readers were schooled in proper hand-washing techniques and, most importantly, what they should and should not do with tap water during the three stages of chlorine flush. Numerous articles throughout the coverage prominently warned citizens of the flush stage and the different restrictions and allowances involved in each. This information was also communicated to residents via fliers, delivered to affected households as each phase of the flush commenced.

Commerce was present in 31.25% of the coverage. Many stories were dedicated to explaining how area restaurants, hotels, and dry cleaners were experiencing drops in commerce and revenue. Many area businesses stayed open during the crisis, using sometimes extraordinary measures to clean and prepare food, while others closed their doors to the public, choosing instead to wait the crisis out.

Government Activity was the most prevalent category in the coverage showing up in 72.9% of the coverage. This prevalence is due to the extensive coverage explaining and describing the flush as well as the finding that most of the sources used in the coverage were members of city government (of 55 sources, 34 were government and 21 private). Additionally, sources who were quoted most often were affiliated with government (71 quotes by government, 25 by private).

Citizens’ Activity appeared as a major theme in 56.25% of the coverage (though it existed as a sub-theme or assumed fact in nearly every story). This category of coverage focused on three areas:

- 1) Citizens who were physically affected by the salmonella bacteria – such as those needing hospitalization, those who were evacuated from the valley, or the single person who sued the city.
- 2) The hardships that citizens were suffering as a result of the crisis, such as not being able to drink city water, having to purchase or acquire bottled water, bathing, etc.
- 3) In addition, much of the coverage in this category focused on the work of citizens to help. County residents (not on city water) helped city residents by offering showers and

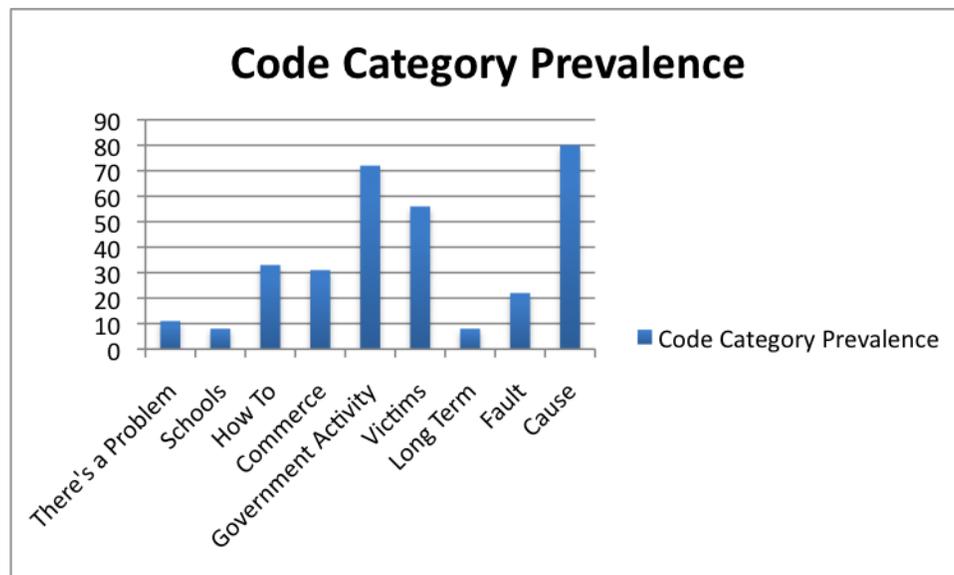
water to take home. City residents helped to distribute water and other activities that aided emergency responders.

Long Term Effects only made up 8.3% of the coverage. Principally, this category was taken up in terms of the new water treatment facility, which was already planned. Long term effects were almost always discussed in the positive, as in the April 4th story, "Alamosa Water will Never be the Same," in which Alamosa Public Works Director Don Koskelin was reported to be planning "to improve the [water] system within the next three years to the point where it will be one of the best in the state."

City water being the source of the contamination was present in 79.6% of the coverage. It was clear that the city water was contaminated within about a week of the outbreak's entrance into the news. While initial testing suggested that "the city's water supply seemed to be a common denominator in the cases," until official, CDC test results were in, the *Valley Courier* was careful to explain that the "water has not been determined to be the cause" (Hallock, Heide VC 3/20 p. 1, 3). After these tests were completed, as reported on March 25, the *Courier* took the finding for granted, not always printing so explicitly.

The final category, Fault, which was designed to explicate how the bacteria made its way into the city water system, was not prevalent in the coverage. Present in only 11 stories (22%), this category mostly went only as far as reprinting the statements of officials, who repeatedly explained, as Mayor Farris Bervig did in the April 12th edition, that "we might never find the source" (Heide 4/12 p. 3). Other references to Fault offered readers the three most prevalent theories about how the water became contaminated: "cross contamination" between sewage and clean water, cracks in aging underground pipes, and contamination at one of the city's various reservoirs (Heide, 3/29 p. 3).

Chart 1.



Displays the frequency of each code category in the *Valley Courier's* coverage of the crisis

Analysis

High-level statistical analysis carries only so much validity with a data set of fewer than 50 cases, especially when cell sizes drop below five. Even with cases where statistically significant relationships exist between categories, analysis revealed that there were few enough cases to offer limited validity in terms of generalization. For instance, the seemingly significant finding that fault was found in 25% of stories about schools is diminished by the fact that this occurred only once in the data (1 of 4 stories). However, there are some significant statistical relationships and while only limited success was achieved through high-level statistics, the code categories appear to have borne some analytical fruit.

RQ1: Sources – Post hoc analysis revealed that well over half of all sources for the *Courier's* stories on the crisis were government officials of one form or another (34/55) and nearly three-quarters of all quotes were by government officials (71/96). What is striking about those government sources is that more than two-thirds of them were political (either elected or appointed), compared to scientific, technical or bureaucratic in terms of their job affiliation. Further, 70% of government sources were local.

These findings suggest a strong relationship between the principal sources used in the *Courier's* coverage of the crisis and responsibility for the crisis itself (in terms of responsibility for both fault and aftermath). Code categories 4, 5, and 8 directly relate to this research question and the data suggest a unity between the use of government sources and representation of the issues and activities related to the crisis. Government sources and activity significantly outpaced other sources and issues in the coverage. Though prevalent, commerce was represented in the coverage less than half as often as government activity. These findings implicate the representation of code category 8 – fault. Since Alamosa's water system was administered by city government, it should come as no surprise that coverage that focused so strongly on positive government activity during the crisis and used government sources so prevalently would implicate fault in less than 25% of the coverage. Presuming that the elected and appointed officials responsible for the crisis preferred that their responsibility not be prominently represented to voters, they would have no interest in the *Valley Courier* pursuing that line of inquiry.

A deeper reading of the *Courier's* use of sources suggests that when scientists, technicians or others with knowledge of the bacteria or the water system were used in the *Courier*, they often were presented in a soft news fashion. For instance, on April 8th, the *Courier* carried a story about Jhoanna Aquino and Beth Ingal, the two microbiologists at the San Luis Valley Regional Medical Center who were alerted by an unusually high number of salmonella cultures in samples they processed. This piece, however, was soft news, praising the work of the two scientists and describing the processes by which salmonella is identified in stool samples.

Stories like this represent another trend in the coverage; congratulation and thanks. Though not coded for specifically, praise was offered to city, state and other officials for their previous or ongoing work was present throughout the coverage. On March 27 – just seven days after the news broke and two days into the chlorine flush, the *Courier* printed a story entitled Officials Commend Emergency Efforts, in which the author details the swift and effective work of various

local and state offices when confronted with the crisis. The story goes on to detail the previous day's county commission meeting in which the various environmental and health offices were lauded by commissioners who said of their work "they have played a yeoman's job running the problem down...doing everything needed." The article goes on to describe the praise being offered to the county administrator for his leadership (Heide, 3/27, p. 3).

RQ3: Responsibility - In the *Valley Courier*, sources were strongly connected to government, local government in particular. These government officials were praised throughout the coverage for their work in resolving the conflict. The implication of the way sources were presented relates directly to RQ3, dealing with how responsibility and blame were attributed in the coverage. There were eleven stories in which the question of fault is mentioned, although most of these restate official proclamations about their uncertainty about the source. Significantly, this statement was neither confirmed nor repudiated in the coverage, neither was it pursued. While the question of how the water was contaminated was present in almost 80% of the coverage—other than the presentation of the theories about how the water became contaminated and a single article featuring a representative of the Colorado Department of Public Health and Environment, who calls the search a "puzzle" (Heide, 3/28, p. 1)—the only information about the actual source of the contamination was that offered by Mayor Bervig and other city officials who stated that the cause may never be known.

There was one story, however, that is especially intriguing. As mentioned previously, there were thought to be three potential culprits for the contamination: Cracks in the pipes, cracks in the reservoirs and cross contamination, which is when sewage gets into clean water. On April 11th, in a story about the expectation that clean water tests would be delivered by the CDC, the *Valley Courier* covered Ron Falco, Drinking Water Program Manager for Colorado's health department

[who] said cross connection containment devices are required in the state regulations and while some [city] commercial enterprises have them, some do not. He added that some entities have such devices but have not had them annually tested as required by state regulators Heide, 4/11 p. 1).

The article goes on to explain that as officials were evaluating how the system could have been contaminated, they came across seven businesses with backflow problems the public works director labeled as "urgent," another 57 that were "medium hazard" and 22 that were "low priority" (Heide 4/11, p. 1). Some of these businesses, as suggested by the above quotation, had no backflow systems at all, meaning that their untreated waste could have been flowing back into the clean water system. While this is not the only story in which the *Valley Courier* reported on the possibility that backflow could have caused the problem, it is the only story in which the *Valley Courier* contemplates the possibility that one theory of the contamination may be more valid than another. This theory, as reported in the *Valley Courier* was dismissed by Alamosa Public Works Director Don Koskelin as "not a high probability" (Heide 4/11, p. 1). This assertion was not substantiated and the *Valley Courier* did not follow it up.

Identifying responsibility for the cause of the crisis was not a part of the *Valley Courier's* coverage. Instead, the coverage focused on the work of officials to resolve the crisis, offering praise and accolades to those who did superlative jobs at getting the word out, organizing relief

and preparing the flush that ultimately made the drinking water safe again. In this way, the definition of responsibility was shifted. Rather than meaning “responsible for keeping the water clean” or “responsible for causing the crisis,” responsibility was applied in the *Courier’s* coverage to mean “responsible for resolving the crisis.”

RQ2: Timing - Timing was therefore another important research question because, as evidenced above, the focus of the coverage throughout was on the immediate, positive steps that were taking place to resolve the crisis. Very little coverage was dedicated to explaining how the crisis occurred (how could they, when the source of the contamination remained unknown and unknowable?), but a similarly small amount of the coverage was dedicated to explaining the long-term consequences of the crisis. Only four stories (8.3%) covered the long-term consequences of the crisis. These were almost universally positive, describing how the new water treatment facility would rival the best systems in the state. This element is of particular interest given the red/brown water that city taps emitted less than a year later, in March 2009. Officials stated that it was a consequence of new chemicals flushing out old pipes, but the notion that there may be drawbacks or that all would not be right after the flush was completed did not surface in the coverage of the salmonella crisis or the flush in 2008.

Although the coverage focused on the immediate and took a positive tone, the data related to timing corroborates Graber’s three stages in crisis coverage. In the beginning of the crisis, the There’s a Problem category was high in the coverage, but fell off after about five days. Similarly, although there were only four instances total, evidence of the category Long-Term Effects was slightly more prevalent in the second half of the coverage than in the first.

Chart 2.

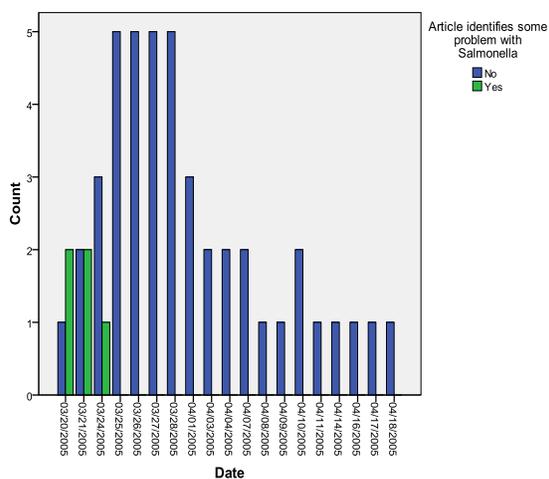


Chart 3.

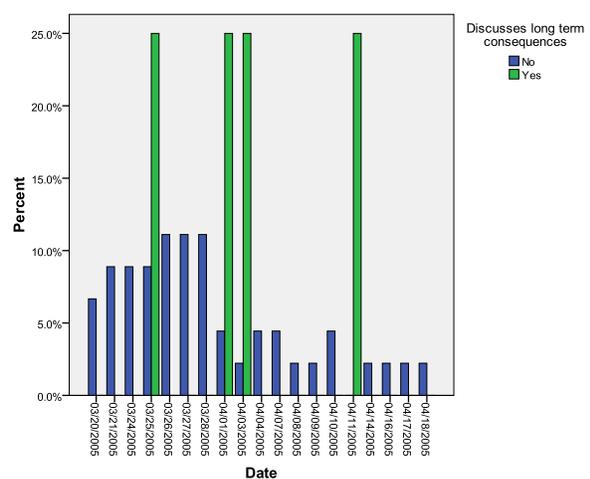


Chart 2 displays the finding that code category #1 There’s a Problem was present in the coverage only in the first several days of the crisis. Chart 3 shows the continuing presence of code category #7 Long Term Consequences.

Whereas Graber suggests that crisis coverage stages, though muddled, tend to be distinct, this was not the case in this crisis. Though spiking in the first week of the coverage, the *Courier*

directed readers toward safe activities and to locations where they could acquire safe water throughout the crisis. While Graber might consider this type of information a principally first-stage activity, it was a constant feature of the coverage because how residents could safely use water changed depending on the stage of the flush. Graber also asserts a sort of scramble, in the initial stages of a crisis, leading to the dissemination of inaccurate information. On its face, this should be less of a factor with newspapers, which tend to be less constrained by timing than, for instance, 24-hour television news. In the case of the *Valley Courier*, there wasn't so much misinformation in their rush to publish, as there was an emphasis on what Quarantelli would have called the Command Post Point of View.

Chart 4.

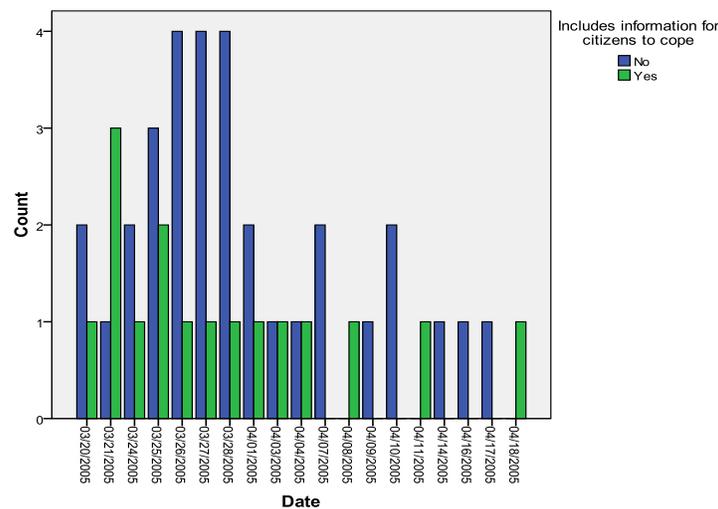
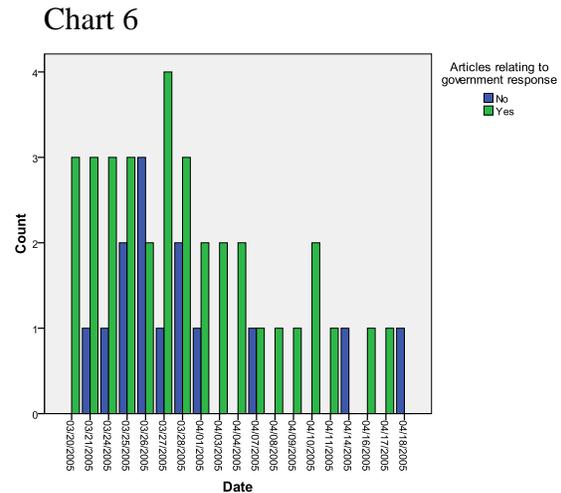
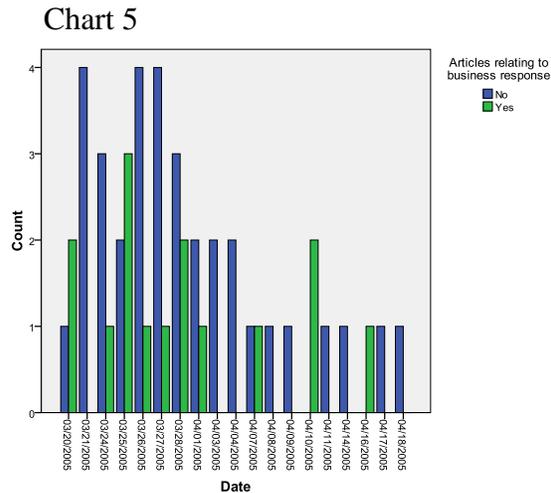


Chart 4 displays the continuing presence of code category #3 How To in the *Valley Courier's* coverage

Throughout the coverage, the *Valley Courier* relied on the statements of officials, those employed by the city in particular, to make up the bulk of their coverage. As Quarantelli suggests, the coverage tended to focus on short-term fixes to the problem, explanations of success that focused on individual achievement, and the protection of power.

Missing from the coverage is any investigation as to how salmonella contaminated the city water system. Stories reported on what city officials said about the contamination. But no independent reporting occurred, despite the opportunity to explore some of the theories about the contamination by interviewing CDC, state or other scientists and officials, or by reviewing their own records with regards to the report (to be discussed below) regarding a 1997 inspection of one of the city's reservoirs. "We may never find the source" was the only explanation. This supports Quarantelli's Command Post Point of View, in that those most powerful in the community (city officials and local businesses) successfully got their perspectives across through the *Courier's* coverage, without having to submit to challenging questions or contradiction.

RQ4: Coping – While the research presented in this paper is inadequate to address the question of how residents actually coped with the crisis something can be said about how the *Courier* represented coping, the community’s reaction and how the crisis evolved toward resolution. As mentioned previously, the *Courier* maintained a focus throughout the crisis on what residents should do to stay healthy. In addition, the *Courier* consistently represented the work and trials of local businesses and government.



Charts 5 and 6 represent the sustained presence and prevalence of code categories #4 Commerce and #5 Government Activity throughout the coverage.

Interestingly, coverage of schools coping with the situation was much more prevalent in the initial stages of the crisis. This reflects, at least in part, both Adams State College and the public school system closing for one week, beginning on March 26th. However, both entities re-opened before the crisis was resolved. The *Courier* covered the re-opening, but after that the category Schools did not reappear.

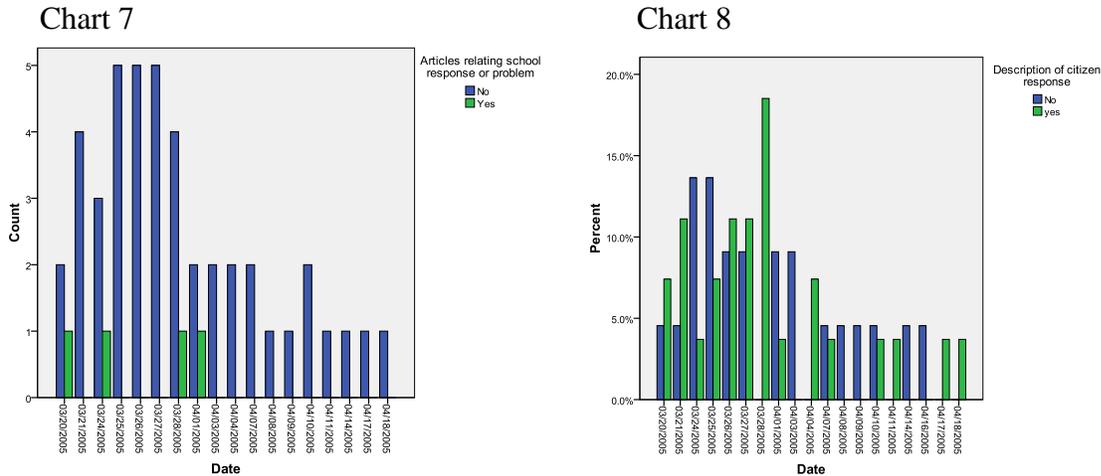


Chart 7 represents the limited coverage dedicated to code category # 2 Schools. Chart 8 depicts the sustained presence of code category # 6 Citizens’ Activity.

However, the category of Citizens Activity did appear throughout the coverage. This category, which was originally created to cover the lengths to which residents went to keep safe and healthy turned out, in practice, to correspond more closely with activities done by citizens that were helpful or extraordinary lengths to which citizens went to help others cope. For instance, while the National Guard came to Alamosa to distribute water, local volunteers routinely manned the water stations. Another example is that while city residents struggled with the contamination, residents of the county generally did not. Many in the county opened their homes to city residents for showering or filling bottles to bring back into the city.

Discussion

The Colorado Department of Public Health and Environment’s November 2009 report on the salmonella contamination was a comprehensive analysis of the crisis, from before the outbreak to its conclusion after the flush. Detailing the decisions that were made during the crisis and identifying areas of concern, the report outlines two alarming findings. Reviewing historical data about Alamosa’s water system, the report determined that

the most recent inspection of the [Weber] reservoir was in 1997 by a professional inspection firm. According to the July 9, 1997 inspection report, the reservoir’s roof, exterior wall surface and foundation were in satisfactory condition; however the inspector noted that the exterior corners were in poor condition and the exterior walls and foundation had some cracking, spalling, and exposed aggregate. The same inspection report also indicated that the interior condition of the tank was generally good, with minor exposed aggregate and sediment an average of one inch deep on the floor of the reservoir. The only specific recommendations made by the inspector at the time were to clean the reservoir and inspect it every three to five years. There is no evidence that the recommendation to routinely clean and inspect the reservoir was addressed by the city in subsequent years (p. 40⁴³).

The report also determined that the clean-up crews began system flush at the Weber Reservoir and that “the positive sample from the Weber Reservoir effluent is a strong indication that the Weber Reservoir was the location where the contamination originated” (p. 24⁴⁴). Though the report falls short of conclusively stating that the Weber Reservoir was the source of the contamination, their report finds it was the most likely source.

The second striking passage from the report has to do with the city’s responsibility to monitor its water system for contamination and its seeming failure to do so. In the above quotation, this is suggested in the statement that the city had ignored the recommendation that the reservoir be inspected every three to five years. The report goes further however, suggesting that

in the case of Alamosa, the city operates the public water system and has the responsibility to monitor drinking water quality at least as frequently as required by state and federal regulations...The Alamosa outbreak was identified initially by [the routine surveillance of certain diseases reported by laboratories and medical providers to a network of local, regional and state health departments]. Before water quality testing indicated risk of an outbreak, cases of disease already were being reported through the epidemiologists. (p. 12⁴⁵)

While this may not imply negligence on the part of city officials and water management, it does suggest that the city may not have been as proactive about water safety as was necessary.

The coverage of the salmonella crisis earned the *Valley Courier* two awards from the Colorado Press Association in 2008, and while its coverage of this crisis was almost single-handed and nearly constant, as demonstrated in this research, there were important omissions in the coverage, and glaring deviations in the practice of journalism. That the *Courier* surrendered its investigative duty to public officials, though fitting with Quarantelli’s model, is still surprising, especially given that evidence suggesting concrete explanations for the crisis were available. Further, although the crisis can be seen to have been as much an industrial crisis as it was environmental, the coverage eschewed the pursuit of responsibility and strongly played up the environmental perspective. The *Valley Courier*’s coverage left out any attempt to explain how this may have happened, what officials or businesses may have played a role in the development of the crisis or even how it may be prevented in the future, (except that the chlorine that now resides in the system should eliminate any contaminates). Its presentation of public officials largely centered on their exemplary efforts to resolve the crisis after it had been discovered. Its representation of local businesses focused on their efforts to cope with water restrictions and loss of commerce.

It is surprising that the *Valley Courier* accepted the city’s “we may never know” response to the question of how the water was contaminated. To a journalist, “we may never know” is a non-answer, akin to a refusal to respond. It is unusual that any journalist would accept this response without corroboration and, while they may have sought and received corroboration elsewhere, there is no evidence of that in the coverage. Instead, the *Valley Courier* relied almost exclusively on local officials to make and support the assertion and did not demonstrate that they had independently verified it or had sought alternative sources or points of view.

These findings conform to Quarantelli's conception of the Command Post Point of View in local reporting and suggest that the *Valley Courier's* framing of the crisis conformed to local officials' perspectives. Throughout the coverage, the frame focused readers' attention on what local government (and others) did to fix the problem in the short term, on the basis of the crisis already existing. For local officials, businesses or others concerned that their names not be associated with causing the crisis, this kind of coverage could only have been helpful. Further, by focusing on what officials, businesses, etc., were doing in the aftermath of the crisis, the *Courier* effectively shifted the definition of "responsibility" from something like "responsibility for maintaining the water system" or "responsibility for keeping residents safe" to "responsible for fixing the problem." This shift in definition, which was evident in the consistently positive representations of what was being done to clean the system, provide safe drinking water to residents, and the stories covering city meetings in which officials patted each other on the backs, went a long way toward suggesting that officials were acting properly, when in fact, as evident by the state's report, they had not acted properly to prevent the crisis from happening in the first place.

While Larson, Graber and others have suggested the importance of local news coverage in local crises, it is important to acknowledge that there are significant limitations inherent in local coverage that can change the coverage and, potentially, the trajectory of the crisis. Quarantelli's command post thesis appears to be represented clearly in the *Valley Courier's* coverage, especially with regard to the *Courier's* representation of responsibility, short-term perspective and reliance on local officials. So while local coverage may carry the water in situations that larger news organizations ignore, it is equally important to acknowledge the limitations that appear to be inherent in local journalism.

Some local officials complain that national news coverage is intrusive, "drive by," and conflict oriented. However there are significant advantages to audiences that can be offered by larger, less localized news sources covering local crises. As evidenced by the coverage of Hurricane Katrina for instance, national news coverage professional news values, an investigative spirit, and perhaps most importantly, fewer and weaker relationships with local officials. This last feature appears to have real significance for the coverage of local crises. There is, of course, an incentive among local officials to keep themselves clear of negative responsibility in a crisis. This becomes easier to do when there are ties to the local media that enable them to advance their perspective in news coverage. The need, in this case, to counterbalance local official accounts appears to have real salience.

At the same time, the threshold for the coverage of local crises is much greater for national news sources. The insignificance of this crisis on the national stage was evidenced by the lack of coverage in the nation's large-circulation dailies and electronic media. The state's leading newspapers, the *Denver Post* and *Rocky Mountain News* carried just over half the number of stories as the *Valley Courier*; outside the state, the story barely existed.

Three important conclusions can be drawn from these findings. First, that the tie between local government and local news is a strong one that appears to be sustained by mutual trust and a disinclination on the part of local media to question officials. The apparent scrutiny that is

brought to bear by national news sources was absent in this instance of local media coverage, even when evidence suggested it was warranted. This conclusion is not new, but the extent to which it was sustained in this crisis suggests the need for further research to determine the limits of this relationship. Second, and predicated on the first, for the coverage of a crisis akin to what occurred in Alamosa to benefit from the healthy mistrust of public officials, such as what exists in national news coverage, the story must be of sufficient interest to the national media. The findings from this research did not address the threshold for that attention from national media. But the small size of the population, the isolation of the community and fact that only one fatality resulted from the crisis suggest reasons why the national media might not have been interested in the story.

Thirdly, the data suggest that the distinctions made by Graber and Smith regarding the differences in coverage on the basis of various types of crises applied little in the case of the *Valley Courier*. The industrial/environmental distinction had little bearing on the attribution of blame or the investigative nature of the coverage. In fact, those who were most directly responsible (in terms of their responsibility to monitor and maintain the city water system) were the principle sources for the coverage. Given these findings, one is led to question the viability of these distinctions. Graber and Smith both indicate limitations to their assertions such as, for instance, that blame can almost always be attributed, no matter the type of crisis being covered. This finding also suggests the need for further research: in what scenarios, for instance, would it be methodologically or conceptually significant to draw this distinction between environmental and industrial crises with regards to responsibility? Have things changed so significantly since Smith and Graber (who wrote about crisis coverage in the 1990s), that the distinction is no longer meaningful?

The significance of this research – and further research like it – lies in the changing news media landscape and the contention among some scholars and practitioners that indicate an increasingly important role for local media. As big, metropolitan papers fold, contract (in terms of both reporting capacities and circulation), or merge with one another, the small town daily may take on new prominence. If the data on the *Valley Courier's* coverage of the salmonella crisis is any indicator, there may be significant methodological and substantive peculiarities in the practice of journalism at the local level. These peculiarities must be analyzed more deeply if, as suggested, the local newspaper is coming to prominence. If, as the findings in this paper suggest, the ties between local media, government and business are close enough to affect the quality of the coverage, then the substantive changes that may also be taking place with this shift, must also become part of our scholarly and practical considerations.

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