

CHAPTER 2 HISTORICAL CONTEXT

The Portsmouth Gaseous Diffusion Plant (PORTS) was constructed between 1952-1956 bringing thousands of jobs to southeast Ohio, the heart of the Appalachian region of the state. In 1954, at its peak of construction, more than 20,000 people were employed at the site.⁴ After construction was complete, and the facility began enriching uranium for use in the Department of Defense nuclear weapons program, it remained a major employer in this region that has historically had the lowest population density in the state. Over the years, the plant has created substantial economic and environmental impacts that infiltrate the four county region that includes Pike, Scioto, Jackson, and Ross Counties.

Appendix 1 contains a demographic profile of the region and shows that contemporary population estimates indicate that these four counties are still sparsely populated. Pike County, where the site is located, has a population of about 28,000 people. Ross and Scioto counties account for about 71 percent of the total population in the region (Figure 2.1). These four counties have a combined population of about 213,000 and comprising about 0.7 percent of Ohio's population. For some perspective on population density, the total population in the four counties is about one-fourth of the population of the City of Columbus, although the region is about ten times the size of city of Columbus in land area.

Over the years, the focus of the plant shifted from national defense to energy production and the number of jobs at the site began to decline. In 2001, PORTS stopped enriching uranium and the plant is currently in the process of

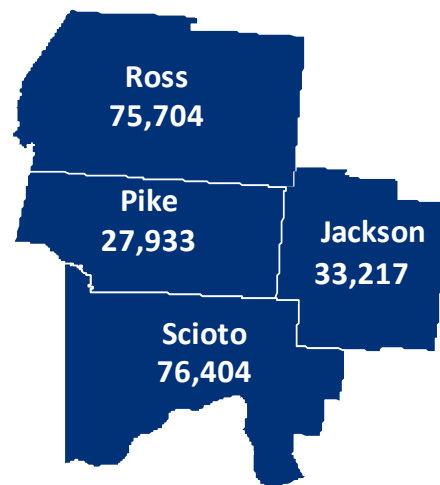
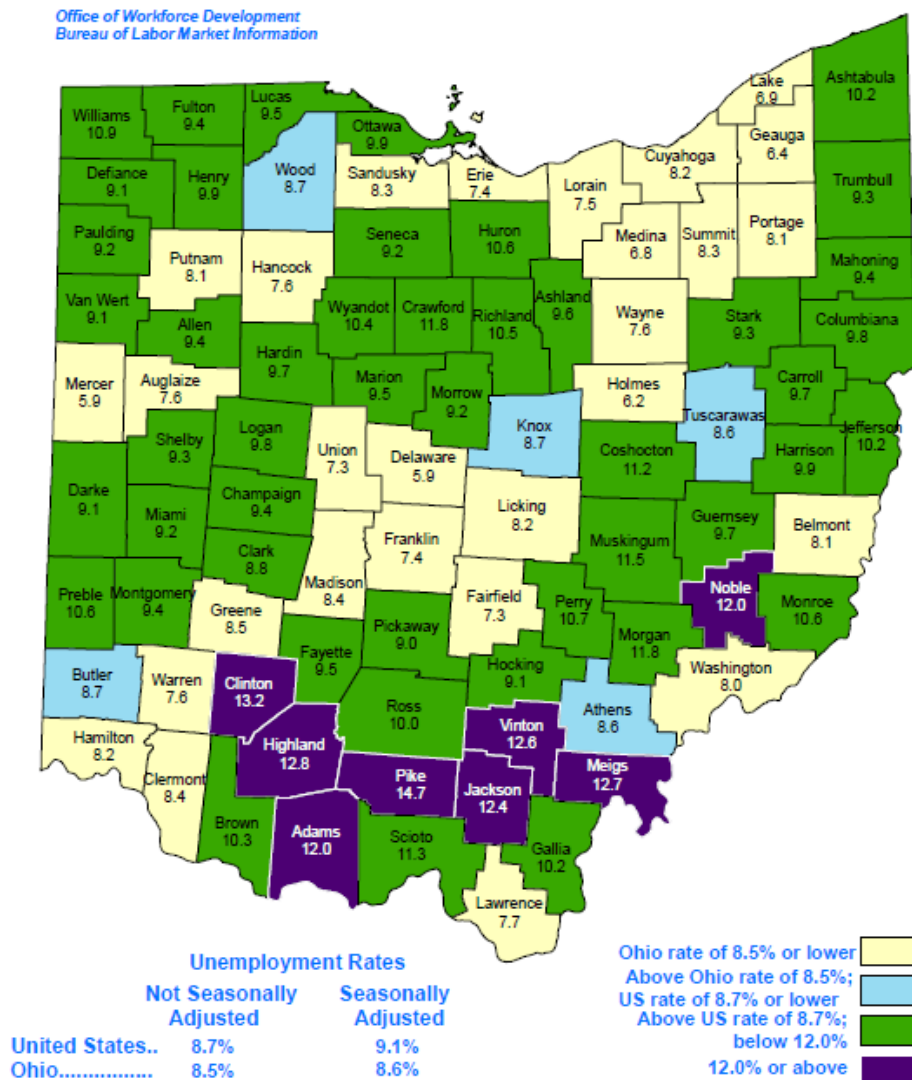


Figure 2.1. Population by County, 2006-2008 (Source: American Community Survey, U.S. Census)

⁴ McCaffree, Kenneth M. (1957). Collective Bargaining in Atomic-Energy Construction. *The Journal of Political Economy*, 65 (4), 322-37.

decontamination and decommissioning. This shift from uranium enrichment to cleanup has led to both a decline in numbers and types of jobs at the plant. The declining employment situation at the plant raised serious concerns among residents of the region that has long been the most economically-challenged part of the state. In May, 2011, the unemployment rate in Pike County was the highest in the state with a rate of 14.7% compared to the state rate of 8.5% (Figure 2.2).

Figure 2.2. Unemployment Rates, May 2011



regulations that were implemented during the 1970s and 1980s. Many of these laws required public participation in environmental decision making and since PORTS was exempt, the public was not aware of activities affecting the environment until the early 1990s when Federal Facilities began environmental cleanup activities.

Public involvement became a priority in the early 1990s as the exemption status of federal facilities was lifted by legislation that required compliance with environmental laws and regulations. Since 1990, the Department of Energy (DOE) has attempted to engage the public in decisions about existing activities and future conditions of PORTS.

BRIEF HISTORY OF PUBLIC INVOLVEMENT AT PORTS

Table 2.1 summarizes the public participation milestones at PORTS starting in 1985 with the formation of an Environmental Advisory Board. In 1989, DOE entered into a Consent Decree with Ohio Environmental Protection Agency (Ohio EPA) that focused mainly on waste disposition at PORTS. One requirement of the Consent Decree was for DOE to prepare a Community Relations Plan “for the dissemination of information to the public regarding investigation and cleanup alternatives study activities and results. Opportunities for comment and input by citizen, community and other groups must also be identified and incorporated into the plan.”

Table 2.1. Milestones of Public Involvement at PORTS

1980s	1985:	PORTS Environmental Advisory Committee formed
	1989:	DOE Office of Environmental Management established
	August 29, 1989:	Consent Decree between Ohio EPA and DOE
1990s	May, 1990:	DOE publishes first <i>Environmental Bulletin</i> for PORTS
	January, 1992:	USEPA publishes <i>Community Relations in Superfund: A Handbook</i>
	1992:	Federal Facility Compliance Act (FFCA) Act
	1993:	Federal Facilities Environmental Restoration Dialogue Committee (FFERDC) Interim Report
	February 8, 1993:	Environmental Information Center (EIC) opens in Waverly
	June 1, 1993:	PORTS Community Relations Plan
	September 13, 1993:	Public Participation Plan for PORTS submitted to Ohio EPA
	March, 1994:	DOE surveys local residents about the formation of a Site-Specific Citizen

		Advisory Board
July 22, 1994:		Updated Public Participation Plan submitted to Ohio EPA
May, 1995:		DOE EM publishes first Baseline Environmental Management Report (BEMR)
August 1, 1995:		Southern Ohio Diversification Initiative (SODI) is formed
September 7, 1995:		DOE hosts workshop on the BEMR and future use planning at PORTS
December, 1995:		<i>Future Land Use Process for Oak Ridge Operations</i> summarizes the September 7 workshop
April 1996:		Federal Facilities Environmental Restoration Dialogue Committee (FFERDC) Final Report
September 1996:		Four facility investigation reports issued for public comment; became final in October 1997
May 10, 1999:		Program Community Relations Plan for PORTS presented to Ohio EPA from DOE
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2000s	May 2, 2003:	DOE implements policy related to Public Participation and Community Relations
	April, 2005:	USEPA updates <i>Community Relations in Superfund: A Handbook</i>
	2007:	<i>Politics of Cleanup</i> is published
	2007:	The EIC moves to the Endeavor Center
	May, 2007:	Piketon Initiative for Nuclear Independence produces summary of Community Involvement Activities
	July 2008:	PORTS SSAB is established under the DOE EM SSAB charter
	September 4, 2008:	First PORTS SSAB meeting
	January, 2010:	Ohio University receives grant from DOE to launch PORTSfuture project
	June 8, 2010:	DOE's Community Relations Plan is updated

Several activities took place in the early 1990s that shaped public participation at PORTS. First, USEPA developed a handbook for community relations at Superfund sites.⁵ While PORTS was not on the National Priorities List slated for cleanup under the Superfund program, it is covered under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) which authorized Superfund; as such, DOE developed a Community Relations Plan using

⁵ The Superfund Community Involvement Handbook was updated in 2005 and is available at: http://www.epa.gov/superfund/community/cag/pdfs/ci_handbook.pdf.

this handbook as a guidance document. In 1990, DOE interviewed 30 PORTS stakeholders to assess community concerns that would form the basis of their plan. Also in 1990, DOE published its first *Environmental Bulletin* for the purpose of providing “the public with updated information on the cleanup program” at the plant. This first Bulletin included instructions for people to get on the mailing list to receive additional Bulletins and other materials related to cleanup activities.

In 1992, the Federal Facilities Compliance Act (FFCA) was passed to require federal facilities to comply with all federal hazardous waste laws. FFCA also included requirements for public involvement in decisions regarding waste treatment at these sites. FFCA applied to all DOE and Department of Defense facilities and one of the major provisions of the Act was the waiver of sovereign immunity from enforcement by state agencies, including the mandate for fines and penalties for noncompliance.

In the early 1990s, the U.S. Environmental Protection Agency (USEPA) addressed the lack of public participation in decision making at federal facilities by developing the Federal Facilities Environmental Restoration Dialogue Committee (FFERDC). This committee included representatives from all of the agencies that housed federal facilities that might be contaminating the environment. In 1993, FFERDC published an interim report, also known as the “Keystone Report,” that focused on enhancing the role of local communities in cleanup decisions at these facilities. The Keystone Report was authored by the Keystone Center, a nonprofit center for science and public policy headquartered in Colorado, which was contracted to facilitate the FFERDC and develop a final report.

The FFERDC followed the interim report with a final report in 1996 that formalized recommendations for engaging the public at federal facilities.⁶ The 1996 report summed up a serious problem with public involvement in its opening pages

Historically, approaches to public involvement associated with federal facilities have created significant mistrust among stakeholders, particularly those in communities of color, low-income communities, and local government agencies.

⁶ *Final Report of the Federal Facilities Dialogue Restoration Committee: Consensus Principles and Recommendations for Improving Federal Facilities Cleanup*, available at: www.epa.gov/fedfac/pdf/fferdc.pdf

One of the key recommendations from the FFERDC in both the interim and final reports was for federal agencies to develop citizen advisory boards as a mechanism for stakeholder involvement. As a result, DOE developed Site Specific Advisory Boards (SSAB) for many of their facilities. In early 1994, DOE took steps to establish an SSAB at PORTS beginning with a survey of individuals about the formation of such a board. DOE mailed a survey to 300 people on March 22, 1994; these people either lived within a 2-mile radius of the plant or were part of a PORTS Community Relations mailing list. DOE received 25 completed surveys, and determined that there was support for establishing an SSAB.

Prior to the survey and creation of the SSAB, DOE opened an Environmental Information Center (EIC) in Waverly in February of 1993. This center is open to the public and serves as a document repository for both technical and public involvement materials related to PORTS. In 1999, the EICS moved from downtown Waverly to a trailer complex on the plant site. In 2007, the EIC moved from the trailer complex to the Endeavor Center in Piketon. The Endeavor Center is a business incubator that was funded as part of the economic assistance provided to communities that were being affected by the downsizing and/or closure of the U.S. DOE facilities.

In 1995, DOE published its first *Baseline Environmental Management Report* (BEMR). This annual report was part of the Congressional mandate that created the DOE Office of Environmental Management. PORTS was listed as one of seven facilities in Ohio that would require significant investment for cleanup. The BEMR recommended that local stakeholders participate in discussions about future uses for DOE sites in order to ensure that cleanup would be completed in the most cost-effective and publicly-acceptable way.

As a result of the BEMR, DOE hosted a workshop related to future use planning at PORTS in the fall of 1995. Some of the ideas that were generated by the 38 participants at this workshop for future uses of the site are identified in Table 2.2.

The overall outcomes of this workshop were summarized in *Future Land Use Process for Oak Ridge Operations*, and included the following statement:

Consensus of the workshop participants was to continue utilizing the Portsmouth

plant in an industrial land use within the perimeter road and explore mixed land uses for areas outside the perimeter road area such as a combination of commercial/industrial and recreational uses. Concerns were expressed by some stakeholders that contamination at the site be contained and remediated to ensure that any on-site workers are adequately protected. The primary emphasis was a preference to retain the jobs and economic benefits associated with the current land use practices.

Table 2.2. PORTS Future Use Ideas From 1995 Workshop

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- **Science/research park**
 - **Chemical treatment facility**
 - Wayne National Forest extension
 - Electric generating station
 - **Within the perimeter road—low impact industrial park, outside perimeter road-recreational**
 - National lab on site; energy research and development and industrial diseases research
 - Commercial waste treatment facility
 - Environmental research facility
 - Commercial business
 - **Industrial production park—private**
 - **Advance Vapor Laser Isotope Separation (AVLIS) facility**
 - **Hi-tech incubator**
 - Training facility for specialized training or retraining
 - **Technology transfer facility**
 - **Portion of the site set aside to study impact of the plant on wildlife through several generations**
 - **Organic farm**
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The first update to the PORTS Community Relations Plan (CRP) was finalized in May, 1999. As mentioned earlier, this plan was based on USEPA's guidance for community involvement in Superfund sites and focused on public participation in decisions related to waste management

activities at the site. Interviews that were conducted in 1990 laid the foundation for the concerns that DOE sought to address in the plan. The plan included the following elements of public outreach:

- Providing news releases to the local media
- Providing community newsletters
- Preparing fact sheets
- Conducting public meetings
- Designating an information contact
- Conducting plan briefings and tours
- Soliciting speaking engagements
- Developing presentation materials and skills training
- Using existing communication systems
- Establishing information resource center
- Establishing an administrative record
- Maintaining emergency response communications

DOE had already implemented many elements of the 1999 Community Relations Plan, including the information center and producing fact sheets. DOE hired a contractor to coordinate public outreach efforts which included developing the newsletter, the *Environmental Bulletin*, which was first published twice a year, and then became an annual publication. The Bulletin was mailed to everyone in a 2-mile radius of the plant and those who had signed up to be on the mailing list. The Bulletin summarizes public participation activities at PORTS which have included briefings and tours, environmental fairs with local schools, and speaking engagements. The last issue of the Bulletin was published in 2008 and there are currently 439 people on the mailing list.

In addition to the *Bulletin*, a series of Fact Sheets were produced summarizing significant activities and events at the plant. Since 1991, there have been approximately 60 Fact Sheets distributed to interested members of the public and a list of these Fact Sheets can be found in Appendix 2.

As required by the agreement between DOE and Ohio EPA, the Community Relations Plan has been updated several times since 1993, and the most recent update occurred in June 2010.

For the 2010 update, DOE interviewed 20 stakeholders to assess the effectiveness of current approaches to public involvement and identify opportunities for additional approaches. Some of the ideas that emerged during these interviews are identified in Table 2.3.

- Create more and better public meetings that are less top-down and involve more input and listening with more dialogue and interaction

Table 2.3. Public Participation Ideas for PORTS, 2008

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- Hold public update meetings on a more regular schedule
 - Use local bulletin boards to announce meetings and post information, such as at Post Offices; libraries, grocery stores, and YMCA
 - Arrange for more site tours so that stakeholders better understand the site
 - Arrange for public participation training for staff and other key stakeholders that can assist with public participation
 - Greatly increase the DOE presence at the site and create stronger involvement in the community
 - Create an email listing for those with email access
 - Improve the web site and provide more basic information in easy to understand formats
 - Create simple brochures in plain language
 - Attend and distribute information at local fairs and events
 - Keep and expand the use of postcards
 - Establish communication partnerships with key stakeholder groups such as local and state governments, educational institutions, and faith communities
 - More coverage in local papers and on local radio and television
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In 2005, DOE issued a policy directive related to Public Participation and Community Relations. This directive included the following goals:

1. DOE will actively seek to identify stakeholders, consider public input, and incorporate or otherwise respond to the views of its stakeholders in making its decisions.
2. The public will be informed in a timely manner and empowered to participate at appropriate

stages in DOE's decision-making processes. Such processes will be open, understandable, and consistently followed. Managers will define clear access points for public input from the earliest stages of a decision process and will provide adequate time for stakeholders to participate.

3. Credible, effective public participation processes, including active community outreach, will be consistently incorporated into DOE program operations, planning activities, and decision-making processes, at Headquarters and in the field. Employees within the DOE complex will share responsibility for promoting and improving public participation and community relations.
4. DOE will conduct periodic reviews of its public participation and community relations efforts.

The 2005 policy directive combined with changing activities at PORTS that included cessation of uranium enrichment and cleanup, laid the foundation for a renewed emphasis on enhancing and prioritizing public engagement in decision making at the plant. Challenges with public participation during cleanup processes were highlighted in the 2007 report *Politics of Cleanup*. This report was prepared by the Energy Communities Alliance in response to a Congressional request to identify lessons learned during cleanup of complicated federal facilities. The Energy Communities Alliance is a consortium of organizations that are affected by DOE facilities and membership includes local governments, community reuse organizations, and other impacted stakeholders.

One of the main messages in the *Politics of Cleanup* report was that community values should be incorporated into clean-up goals and future uses of federal facilities. In addition, the report reminds DOE that public perception of risk sometimes does not align with technical estimates of risk. This suggests that the most impacted community must be defined and their values and perceptions should be identified prior to decisions that affect the end state and future site use. A significant recommendation that arises from the report is that DOE should do more than the minimum required for public engagement. While there are numerous regulations and directives such as those discussed previously, the *Politics of Cleanup* suggests that, only when DOE exceeds these requirements will they be successful in building the trust and confidence that are critical to ensuring effective remediation that is acceptable to the community.

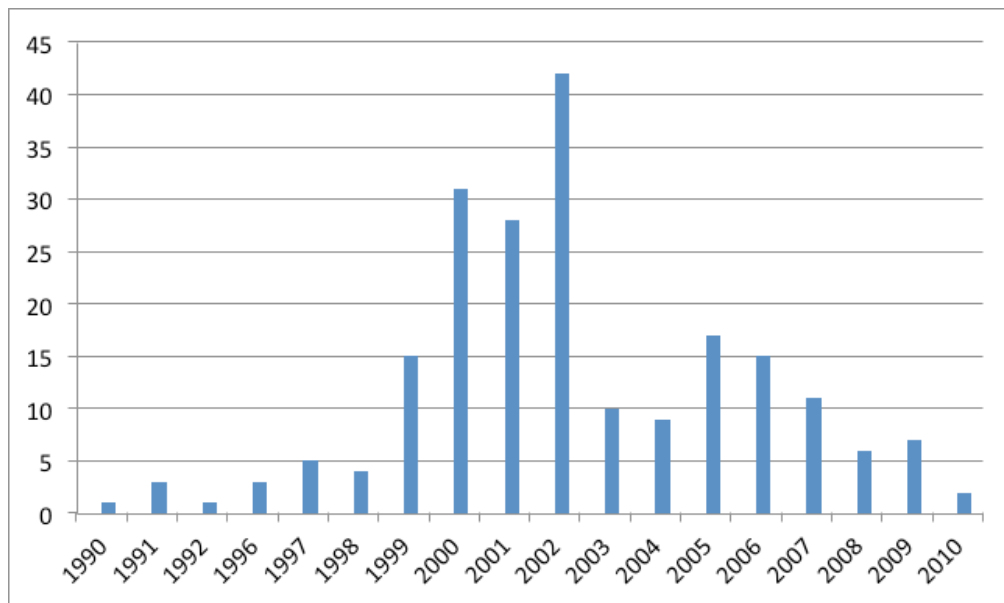
The Ohio University PORTSfuture Project signifies the efforts of DOE to use the results and recommendations from the *Politics of Cleanup* to significantly engage the community in decision making about the future of the Portsmouth Gaseous Diffusion Plant. One of the major goals of PORTSfuture was to compile community values and one way to begin this identification process was to examine how activities at the plant are discussed in the local media.

HISTORICAL MEDIA COVERAGE

Early in the PORTSfuture project, key stakeholders were asked how regional residents received news about the plant. A consensus emerged that the most common source of news in the region are the daily and intermittent newspapers. Since the media can serve a significant role of framing issues that are important to the public, several local newspapers were reviewed as one source of historical information about PORTS. Along with previous public participation activities, news stories also lay the foundation to begin to identify community values related to the plant.

An extensive search of local newspapers using terms associated with the plant was employed to identify a sample of articles during the 20-year period of 1990-2010 (June). The search produced 224 articles from three local and two regional newspapers. The newspaper that contained the most articles was the Portsmouth Daily Times (PDT) which has consistently followed activities at the plant. Figure 2.3 shows the number of articles in this sample by year of publication. Most of the articles that we examined were published between 2000 and 2004.

Figure 2.3. Number of Local Newspaper Articles Related to PORTS by Publication Year



The headlines between 2000 and 2004 include:

- “Cuts begin at A-plant” (*Portsmouth Daily Times*, 6/30/2000)
- “Judge has sharp words for uranium plant privatization” (*Portsmouth Daily Times*, 3/17/2001)
- “Final Proposals Submitted for USEC Facility” (*Community Common*, 11/13/2002)
- “Bechtel Jacobs Company ready for another safe, successful year” (*Portsmouth Daily Times*, 3/28/2003)
- “DOE plans DUF6 Groundbreaking” (*Community Common*, 7/25/2004).

Since the purpose of reviewing the media was to explore public perception and community values related to PORTS, the articles were examined for content related to major topics and values. After an initial review of the articles, 11 major topics emerged including the economy, environment, health, and radiation; definitions of the topics are found in Table 2.4.

Table 2.4. Major Topics Identified in Local Newspaper Articles

Health	This term may appear as part of a list of terms with no comment, or be designated as the ‘overall condition’ of the majority of employees.
Economy	Can refer to global economy or the economy of the immediate community. Refers to money, jobs, housing, and welfare.
Politics	Elections, politics, elected officials.
Environment	Environmental impact, environmental damage, or any talk of emissions, ground water, and/or wildlife.
Risk	Any risk including health and environmental.
Benefits	Health benefits for employees or benefit of the plant for the community.
Cost	The cost associated with working at the plant in the context of worker health and safety or the costs of other plant activities.
Jobs	Any reference to jobs.
History	An historical analysis of the plant.
Cancer	Any type, lung, liver, etc.
Radiation	Exposure to, levels of, danger of, etc.

In addition to the 11 topics, 8 values surfaced often in the articles. The values that are summarized in Table 2.5 are different than topics in that they are not the main focus of the article, rather they are included in quotes and comments throughout the articles.

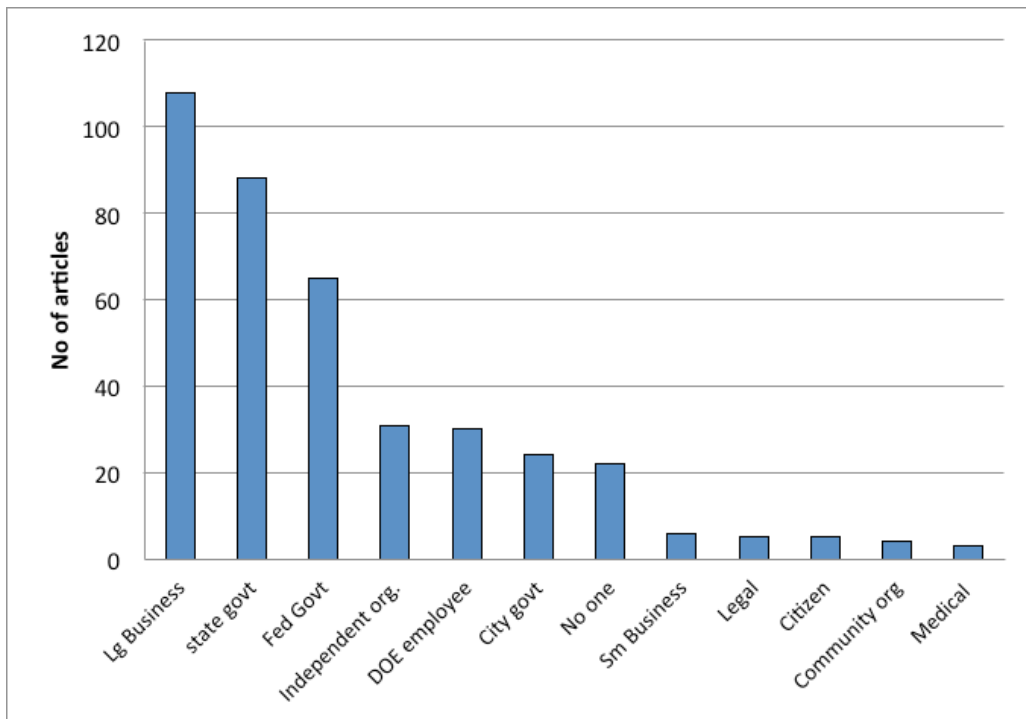
Table 2.5. Dominant Values Identified in Local Newspaper Articles

Freedom	We have the right to choose our leaders, speak out for those things we believe in and against those we do not. The right to read, watch, and listen to what we want. The right to choose.
Equality	Reflects American sense of justice, regardless of race, income, physical or mental ability, or treatment under law.
Opportunity	All of us have the right to pursue ideas, education, employment, to compete for the good life.
Fairness	Extends on equality in that the basis is that people should get what they deserve for the efforts they put forth. All should be treated evenhandedly but not make special allowances for a lack of effort.
Achievement	Based on work ethic, hard work pays off and the accomplishments of the individual should be rewarded.
Patriotism	American superiority loyalty to the USA and our concept of democracy.
Individual Accountability	Being a responsible citizen, taking care of one’s own health.
Community	Collective welfare. The belief that we should work together to accomplish things.

Before summarizing the presence of topics and values in the articles, some additional information was gathered, including the source of information for the articles. Sources can be

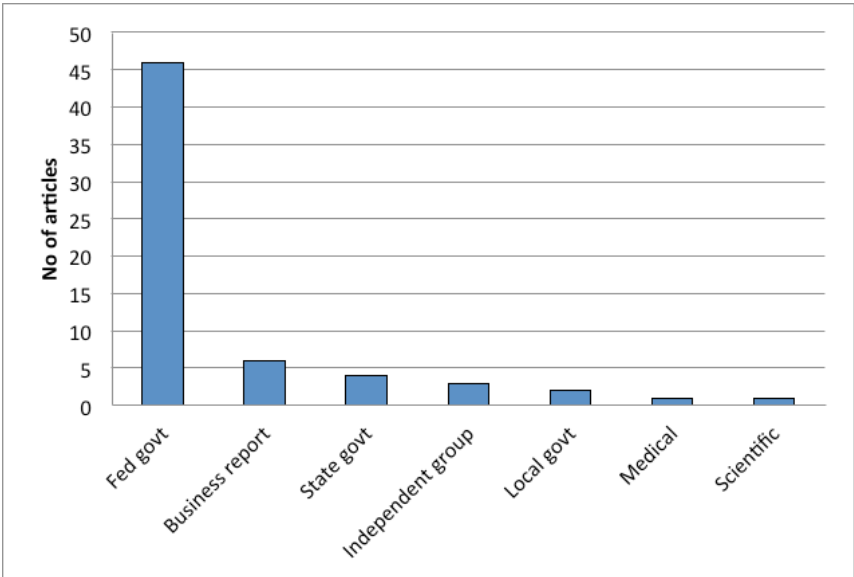
either people or documents. As Figure 2.4 shows, the most common spokesperson cited in articles was a representative of large business such as USEC and more than 65 percent of the articles had either a quote from or a reference to a spokesperson from business as a major source of information. State and federal government officials were the next most frequently cited individuals, with state government representatives noted in 39.1 percent of the articles and federal government representatives in 28.9 percent.

Figure 2.4. People and Organizations Cited in Articles



Documents used by reporters in these newspapers include government regulations, business reports, and scientific studies (Figure 2.5). Even though the majority of the articles (65.8 percent) did not reference any document, federal government documents were noted in 20.5 percent of the articles. Other documents such as those from state and local governments, community organizations, and scientific groups comprised only a small portion of the documents cited in the articles.

Figure 2.5. Documents Cited in Articles



The frequencies for the values and themes are presented in Figures 2.6 and 2.7. The values that were most often present in these articles focused on the community and universal opportunities. There were five topics that appeared in more than 50 percent of the articles: community, history, Department of Energy, jobs, and cost. On the other hand, the topics of economy, environment, radiation, and cancer were found in less than 50 percent of the articles.

Figure 2.6. Frequency of Values Identified in Articles

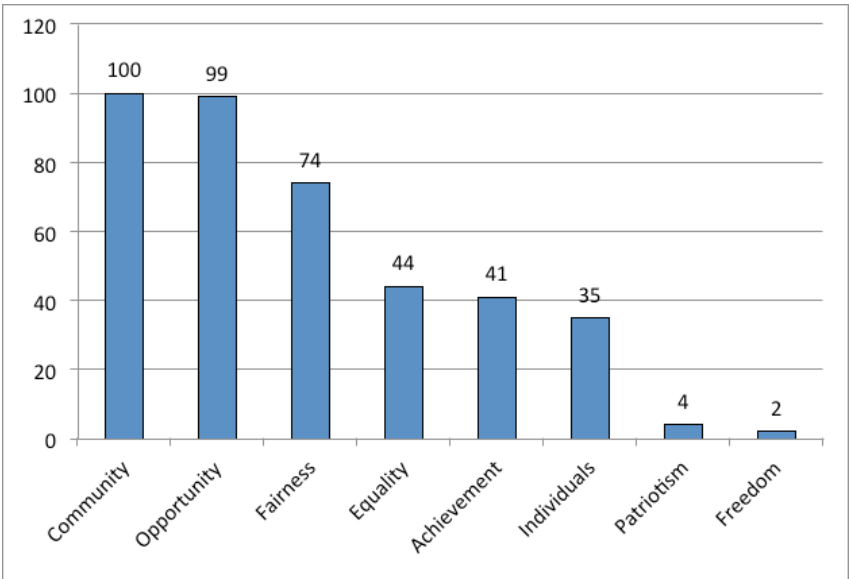
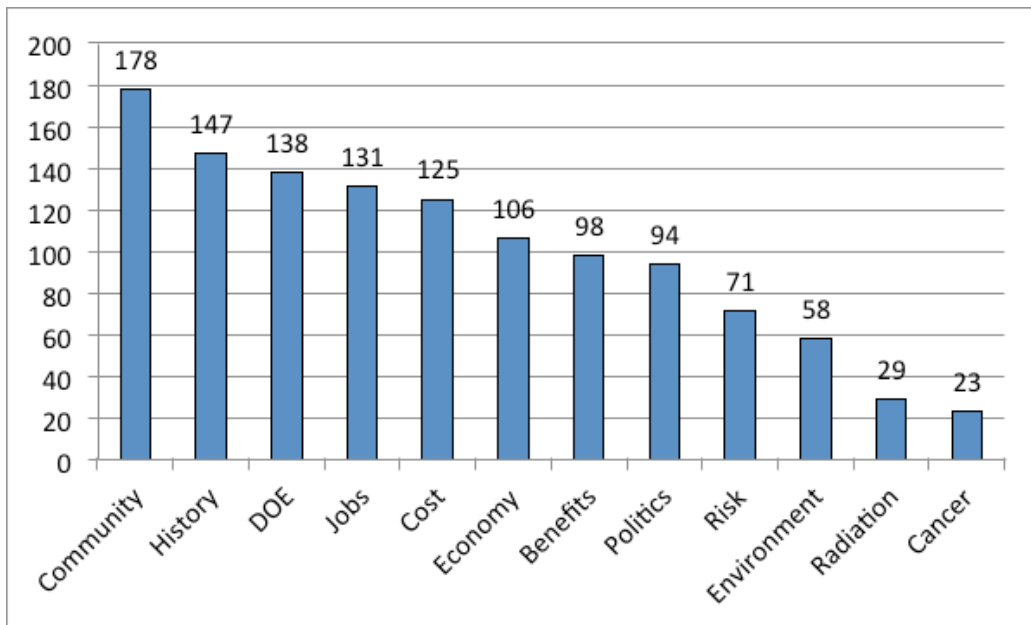


Figure 2.7. Frequency of Topics Identified in Articles



The year of publication appears to have an impact on the topics that are emphasized in each article. As Table 2.6 shows, community, history, DOE, jobs and cost emerge most frequently in the articles. Community and jobs are found in articles most often during the 1995-1999 timeframe and least prevalent during the most recent time period (2005-2010).

Table 2.6. Amount and Percent of Topics Noted in Articles During 5-year Intervals

<i>Year</i>	<i>1990-1994</i>	<i>1995-1999</i>	<i>2000-2004</i>	<i>2005-2010</i>
Jobs	3 (60%)	21 (78%)	78 (65%)	38 (35%)
Environment	4 (80%)	12 (44%)	22 (18%)	17(29%)
Benefits	3 (60%)	12 (44%)	63(53%)	18 (28%)
Community	5 (100%)	25 (93%)	99 (83%)	39 (67%)
Politics	2 (.40%)	12 (.44%)	59 (.49%)	14 (.29%)
Risk	4 (80%)	11(41%)	30 (25%)	20 (35%)
Economy	2 (40%)	9 (33%)	66 (55%)	20 (35%)
Cost	2 (40%)	12 (44%)	73 (61%)	28 (48%)
Cancer	1 (20%)	5 (19%)	13 (11%)	3 (5%)
History	4 (80%)	21 (78%)	75 (63%)	36 (62%)
Health	2 (40%)	7 (26%)	23 (19%)	16 (28%)
DOE	4 (80%)	18 (67%)	72 (60%)	40 (69%)
Radiation	1 (20%)	5 (19%)	14 (12%)	8 (14%)

Public Perception and Community Values

In the articles reviewed for this study, the most commonly cited spokespeople were identified as having “large business” interests. The overwhelming frequencies at which large business representatives were cited, compared to other sources, could lead to either positive or negative public perception about the plant. Regardless of the impact that the source had on perception, it is likely that relying on business perspectives as the major source has and will continue to contribute to an association between newsworthy events at the plant and the economy.

Just as important as who is cited the most in the articles, is who is cited the least. In this regard, perspectives of members of the public were only noted in 5 (2.2%) of the articles; this corresponds to the “person on the street” interview. In addition, community organizations defined as “a community organized group working together for a cause,” such as environmental groups, were noted as sources in only 4 (1.8%) of the articles. The absence of perspectives from local community groups could affect public perception of these groups in several ways. First, for those who are aware of these groups, the public may perceive them as irrelevant

because representatives are rarely asked for opinions about the plant. Second, for those members of the public who do not know about the groups, they may never be aware that there are views about the plant that are contradictory to business and governmental interests.

A final point about the exclusion of viewpoints from community groups is the potential effect that this could have on the community groups. Often these groups argue that they are marginalized in environmental decision making and their perceived lack of influence could be enhanced by the dearth of articles that cite them as a source of information. Assuming that the content of the media reflects the important stakeholders, then this analysis suggests that community groups are not considered equal stakeholders. If this is the case, the consequences could affect efforts at public participation.

The keys to understanding how the media has framed the stories surrounding the plant are found in looking at the topics and values that are represented in the articles. According to the sample used in this study, the plant is framed as a community issue that has economic implications. Even though there was evidence of a human dimension to some of the stories, the human health risks, including exposure to radiation and cancer, were not as important a topic as economic issues. These findings are not surprising considering the demographics of the region and the focus on bringing jobs and creating economic opportunities in the area.

In the 20 years of this analysis, environmental issues did not emerge often as the topic in these articles. The fact that there is a distinction between economic and environmental topics suggests that continued discussion about the plant could lead to debates about the tradeoffs between environmental protection and economic development. As plans for the future of the site continue to be developed, this could lead to communication challenges across all stakeholder groups.

Even though the local print media can frame the debate about environmental and economic issues, the impact of local media may not be as important in the region as more informal communication with neighbors and local elected officials. In a sparsely-populated region such as this, it is likely that face-to-face communication will be a very important communication tool.