Agenda Setting and the Asbestos Issue: The Media Role in Issue Definition

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Research on agenda setting suggests awareness of issues, discussion of particular issue topics, and identification of issues of current concern all tend to follow treatment of those issues in the media. Such research also contends that media attention to problems rises and falls independent of the severity of the problem. This study of the asbestos issue examines both the association between media definition of an issue and appearance of the issue on the public policy agenda, and the correspondence between background conditions and media issue attention. Results suggest qualified support for an issue redefinition hypothesis: replacement of one issue definition with another definition by the media is related to changes in issue publicity and issue agenda status. A second, media independence hypothesis, that media attention is only loosely associated with prevailing background conditions, was supported during both the rise and fall of the asbestos issue.

The primary purpose of this project is to examine the relationship between public awareness, media content, and the public policy agenda. Under a democratic government we expect a correspondence between the wants of the people and the deeds of the government: an opinion-policy congruence (Page and Shapiro, 1983). We also expect a demand model of public policy making, where the public's agenda establishes the policy agenda, and the media serves to channel the communication flow between governed and governor.

Agenda setting research suggests that this traditional demand-driven model of public policy agenda setting is supplanted by a media-driven model, wherein citizen agendas are largely set by the media, and neither media priorities nor audience awareness are especially attuned to objective conditions (Nimmo and Combs, 1990). Public awareness of issues, discussion of particular issue topics, and identification of issues of current concern tend to follow treatment of those issues in the media more than they follow from direct observation (Bennett, 1988; Dearing, 1989).

It has also been found that media attention to problems rises and falls independent of the severity of the problem. Background conditions (the prevailing environmental, sociological, and economic conditions associated with the problem) could actually improve prior to their becoming the focus of media attention; or conditions could continue to worsen yet no longer receive media coverage. In addition, when objective conditions and media coverage diverge, public response is consistent with media coverage. It rises and falls with it (Iyengar and Kinder, 1987).

Among the many complex relationships between public awareness, media content, and the public policy agenda, one particularly interesting aspect is the association between the media definition of an issue and the appearance of the issue on the public policy agenda. Although instant public and media attention is sometimes captured when a triggering or focus event such as a major disaster occurs, more often media discovery of an issue follows when powerful symbols are used to portray a problem.

Without media publicity, an issue is unlikely to successfully reach the public policy agenda. Even after media attention is captured, a possible issue redefinition can result in issue substitution or displacement. The substitution of one definition by another changes issue visibility and will affect the likelihood that the issue will gain public policy agenda status. The phenomena of sudden issue appearances and disappearances in the media has been referred to as an issue-attention cycle. Within the cycle, the media publicize an issue when a pre-problem stage is replaced by a stage of alarmed discovery and euphoric enthusiasm. When a stage of cost realization sets in, the media tend to lose interest and the issue goes into a stage of gradual decline (Qualter, 1989). The assumptions are that the media defines the issue for the public, and quite possibly for the policy agenda, and that media attention to the issue is only loosely associated with prevailing background conditions.

The preceding assumptions lead to two research hypotheses: 1) The replacement of one issue definition by another will be associated with changes in issue publicity and therefore in issue agenda status; and 2) Media attention to an issue is only loosely associated with prevailing background conditions and will rise and fall independent of them.

Research Design

In this paper I explore both hypotheses as they operated in one contemporary case: the debate over governmental compensation for asbestos victims. As part of the more diffuse asbestos issue, asbestos victim compensation contains all the necessary elements.

Thirty years ago occupational disability due to asbestos exposure was barely recognized. Disabled employees and their dependents were usually left to

their own resources. Since 1969 Congress has dealt with asbestos as a health hazard and as an environmental contaminant. Every aspect of the asbestos industry has been regulated, from extraction to finished product distribution and consumer product safety. Programs and funding for technical assistance in the identification, containment, and/or removal of asbestos from public and private buildings have been established. Today compensation claims for asbestos-related occupational disability inundate workmen's compensation systems, clog the courts, and are demanded as rights within the American tradition of equity. Yet to date, no Health Hazard Compensation Act has been passed. Thus, Asbestos Victim Compensation is an issue that has undergone alteration and redefinition over time.

The publicity accorded the asbestos issue will be operationalized through a content analysis based on frequency counts of citations in four media indexes. With between 68 and 80 percent of adults reading a newspaper on an average day, (Jeffres, 1986) it is likely that readers will be either directly exposed to an issue or exposed through a process of information diffusion. Agenda status reflects both legislation introduced and legislation passed. Background conditions include both economic and epidemiologic indicators.

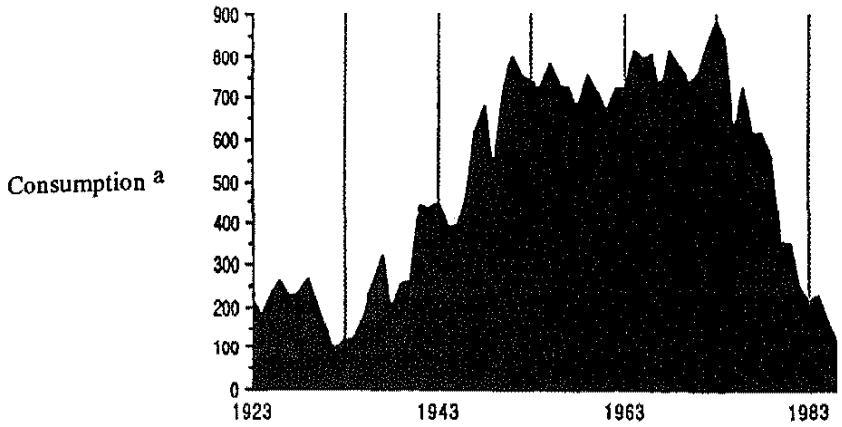
Background Conditions

The general public is well acquainted with asbestos use in consumer products. Daily life in an industrialized society means exposure to asbestos in some form on a regular basis. A naturally occurring mineral with over 3,000 commercial uses, asbestos products have been available throughout the 20th century. As Chart 1 shows, use of asbestos in the United States dramatically increased as a result of wartime mobilization in the 1940's. Following the war, economic prosperity led to its increased use, and asbestos consumption doubled in the 1943 to 1953 decade, peaking in 1973. In that year over 883,000 tons of asbestos were consumed. During the decades following 1973, asbestos consumption dropped at a rate of approximately 100,000 tons a year to the current rate of 71,354 tons in 1988 (U.S. Department of the Interior, 1933-1988). (See Chart 1 p. 19)

There are, however, populations that experience considerably greater exposure levels. Individuals employed in asbestos industries and as end-product users are exposed daily to high concentrations of asbestos dust. It is estimated that between 1940 and 1980 as many as 27.5 million workers were engaged in primary and secondary asbestos manufacturing in shipyards, construction, motor vehicle assembly, and other work that involved significant asbestos exposures (Asbestos Litigation Reporter, 1982, p. 5176). In the 1940's over 4.5 million workers were employed in the wartime shipyards alone (Selikoff, 1981, p. 109). By 1976, just one employee group, the International Association of Heat, Frost, Insulators and Asbestos Workers had a membership of 17,800 (Asbestos Worker, 1976). When

the Johns-Manville Corporation, the largest American asbestos manufacturer, with $2.5 billion in assets, filed for bankruptcy in 1982, it had 25,000 employees, and over 50 factories and mines throughout the U.S. and Canada (*New York Times*, 1982, pp 4-5).

CHART 1. CONSUMPTION OF ASBESTOS IN THE UNITED STATES, 1923-1986



[a] In Thousands of short tons: Production plus imports, minus exports and adjustments in government and industrial stocks.

Source: U.S. Dept. of the Interior, 1923-1986

In 1984 the Environmental Protection Agency announced the presence of asbestos in over 700,000 government, residential, and commercial buildings (200,000 homes in one California county alone). It also noted the presence of asbestos in over 3,100 schools with approximately 15 million students and some 1.4 million teachers (Brodeur, 1985, p. 68).

Once thought of as a "miracle mineral", the manufacturing, insurance, medical, and governmental health service communities became aware of health hazards associated with asbestos processing at least five decades ago. Beginning in 1914, and with increasing regularity after 1926, medical literature carried articles on asbestos associated diseases and deaths. (See Table 1, p. 22)

There are three specific diseases that have been directly linked with the inhalation of asbestos fibers: asbestosis, an incurable and irreversible pulmonary disease; lung cancer; and mesothelioma, a rare and fatal cancer of the pleural mesothelium. Conclusions drawn from medical data predict the likely incidence rate of asbestosis will exceed 50 percent among those occupationally exposed over 20 years (Selikoff & Lee, 1978). For certain occupational exposures such as shipyard and insulation workers, ten to 18 percent will die of asbestosis, 35 percent of lung cancer, and 15 percent of mesothelioma (Selikoff, 1981, p.109). With estimates of the occupationally exposed population exceeding 27 million, predictions

of asbestos-related disabilities and deaths for that population alone range from 154,000 to 450,000 between 1982 and 2015 (Rand Corporation, 1983, p. 9). Those estimates include between 8,500 to 12,000 excess deaths per year due to asbestos exposure in schools.

Asbestos related disabilities and deaths have been reported in every state, but are not randomly distributed. Counties where shipbuilding or factories producing asbestos products are located are associated with statistically significant increases in mesothelioma mortalities (Connelly et al, 1987, p. 1053).

The number of individuals experiencing asbestos-related diseases, disabilities, and death grew, and by the 1980s affected millions of asbestos workers and their families. Although the National Occupational Safety and Health Act of 1970 identified asbestos as a hazardous substance and in 1978 the Secretary of Health, Education and Welfare declared a national health alert on the hazards of asbestos, disabled workers and/or their dependents were still forced to turn to workmen's compensation, social security, or welfare for financial assistance. Furthermore, benefit application procedures were slow and awards minimal. Less than half of the disabled workers ever received workmen's compensation awards (Selikoff, 1981, p. 67).

Workers filed thousands of product liability lawsuits against the manufacturers of asbestos products. The first third party product liability lawsuit in which a disabled asbestos worker successfully sued an asbestos manufacturer was decided in 1971. The number of similar lawsuits grew steadily, to 16,500 in 1981 and 24,000 by 1982. By 1982 lawsuits had been filed in 48 states, and they were being filed at the rate of 500 per month. By the end of 1982 asbestos manufacturers and their insurers had paid $400 million to claimants (Rand Corporation, 1983, p. vii). In 1983 there were 16,000 pending cases. By 1984 there were 25,000 (*New York Times*, 1984, p 31). By 1990 the number had grown to 90,000 (*Wall Street Journal*, 1990, p C3). The insurance industry expects between 83,000 and 178,000 additional claims by the year 2010. Estimates of industry costs for future compensation payments range from $8 to $87 billion, with the most probable estimate in the range of $38 billion (Rand Corporation, 1983, p. 9).

All objective indicators suggest highly visible background conditions. Millions of American workers were exposed in the work place. Additional millions of Americans consumed asbestos products. Experts warned of the dangers of working with asbestos, living with asbestos, or going to school in asbestos insulated school buildings. Asbestos was repeatedly identified as a hazardous substance. Asbestos removal from public buildings was mandated, spurring a new industry (abatement), and leading to thousands of additional lawsuits for property damages. Lawsuits created a judicial logjam, and resulted in the 1982 bankruptcy of the Johns-Manville Corporation. Whether economic, physical, or commercial, some aspect of the asbestos issue was present in every arena of American life.

Asbestos Issue Visibility

As noted above, asbestos issue visibility will be measured by frequency counts of citations referencing the subject "asbestos" in four media indexes. The four indexes chosen reach both specialized and general interest audiences, the reading and the viewing public. Frequency counts of citations in an index provide a measure of the publicity accorded an issue, and are a reasonable approximation of public awareness of an issue (Donnelly, 1982, p. 14). A dramatic increase in the number of citations indicates a corresponding increase in issue visibility.

This study used data for the years 1900 through 1989 for a number of reasons. Methodologically, it provides a sufficiently broad time frame across which to test the hypotheses. Thus, the period since 1900 was a time of rapid industrial expansion which includes that of the asbestos industry, as well as a major expansion of "scientific" medical knowledge about asbestos hazards. Further, the issue of asbestos victim compensation both appears and recedes during this period.

Members of the medical community were among the first to identify a possible asbestos problem, and the professional journals in which they published were regularly monitored by the media as possible sources for news stories. To measure the level of publicity the asbestos issue received in the professional and scientific press, the *Cumulated Index Medicus* was examined[1]. As can be seen from Table 1, there were only four citations between 1900 and 1926. The number of citations, although more numerous, remained consistently low until 1960. During the 1960's the number of citations began to run in double digits every year: the medical community had discovered the asbestos issue. The citation count remained consistently high, running into triple digits during the 1970's and 1980's. (See Table 1, p. 22)

The concept of an elite press wielding considerable influence is widely recognized (Jeffres, 1986; Parenti, 1986) and one, *The New York Times*, has been shown to have a strong agenda setting effect (Donnelly, 1982; Gandy, 1982; Kawar, 1989). It has a weekday circulation of 1,038,829 (Editor & Publisher, 1989), is read by an audience that includes a disproportionate percentage of educated professionals in both private and public sector positions, and by one account was read by 67 percent of U.S. Senators and Congressmen, 83 percent of newspaper editors nationwide, and 96.9 percent of the Washington press corp (Lichter and Rothman, 1981). It is also regularly monitored by other print and broadcast media as a source for news stories. To gauge the amount of publicity the asbestos issue received in an elite press, *The New York Times Index* was examined for the period 1900 through 1989[2]. Results of *The New York Times* citation count appear in Table 1. As can be seen from the table, the number of these citations was consistently low for the period 1900 through 1969 (annual mean 3.53), increased between 1970 and 1976 (mean 15.14) as well as 1977 through 1981 (mean 27.83) periods, and peaked with a count of 74 citations in 1982,

Table 1. Asbestos Citations Appearing in Media Indexes 1900-1989

Year	NYT	Reader's Guide	Index Medicus	Year	NYT	Reader's Guide	Index Medicus	TV
1900	0	1	0	1945	3	2	1	
1901	0	0	0	1946	2	2	1	
1902	0	0	0	1947	5	1	4	
1903	1	0	0	1948	9	1	2	
1904	1	1	0	1949	6	1	0	
1905	0	0	0	1950	6	0	5	
1906	0	0	0	1951	8	1	5	
1907	0	3	0	1952	4	0	2	
1908	2	0	0	1953	6	1	7	
1909	1	0	0	1954	3	1	5	
1910	0	1	0	1955	11	2	8	
1911	0	1	0	1956	8	1	9	
1912	0	1	0	1957	7	2	9	
1913	2	1	0	1958	0	1	5	
1914	1	0	2	1959	3	2	4	
1915	0	0	0	1960	0	0	15	
1916	3	2	1	1961	1	1	26	
1917	1	0	0	1962	3	0	22	
1918	1	0	0	1963	3	1	24	
1919	2	2	1	1964	0	3	33	
1920	1	2	0	1965	0	0	47	
1921	2	1	0	1966	3	0	82	
1922	7	1	0	1967	1	0	44	
1923	3	0	0	1968	1	1	63	0
1924	8	0	0	1969	2	1	61	0
1925	1	0	0	1970	10	1	75	1
1926	4	0	0	1971	14	3	74	0
1927	7	3	4	1972	15	4	104	6
1928	4	0	2	1973	12	3	112	5
1929	5	1	6	1974	29	3	101	1
1930	7	2	9	1975	23	6	87	4
1931	11	0	20	1976	22	3	177	10
1932	7	1	7	1977	34	2	138	15
1933	5	2	0	1978	30	10	131	18
1934	7	1	6	1979	32	7	124	6
1935	5	2	2	1980	31	8	236	0
1936	6	1	3	1981	21	11	280	6
1937	4	1	2	1982	74	14	150	7
1938	6	1	1	1983	71	5	236	5
1939	4	1	4	1984	72	10	292	9
1940	6	0	4	1985	41	17	227	7
1941	4	0	2	1986	42	24	252	5
1942	8	1	0	1987	29	11	225	5
1943	7	1	0	1988	33	13	210	1
1944	7	1	0	1989	36	11	301	7
1945	3	2	1					

Sources: New York Times Index, 1900-1989
Reader's Guide to Periodical Literature, 1900-1989
Cumulated Index Medicus, 1900-1989
Vanderbilt Television News Index and Abstracts, 1968-1989

dropping off during the rest of the decade.

To measure the amount of publicity the asbestos issue received in the general readership print media, the *Reader's Guide to Periodical Literature* was examined. As can be seen from Table 1, the number of citations is consistently low from 1900 through 1977 (annual mean 1.11). There is a noticeably higher citation count per year between 1978 and 1986, and the citation count peaked at 24 in 1986.[3]

To estimate the visibility of an issue to the mass audience, measures deriving from the broadcast media are a more appropriate instrument, and television reaches the broadest possible audience. Over 98 percent of American homes have at least one television (Statistical Abstract, 1990, p. 544). On an average weekday, 84 percent of the adult population watches some television, and 67 percent watch one or more news programs (Jeffres, 1986, p. 123). As the agenda-setting literature demonstrates, television may not influence what an individual thinks about an issue, but it certainly influences which issues an individual thinks about (Qualter, 1989, p. 140).

The *Vanderbilt Television News Index and Abstracts*, measures television news programming, providing abstracts and subject heading citations of news on the three national networks: NBC, ABC, and CBS. The *Vanderbilt Index* was examined for the period 1968 (the first year for which it was available) through 1989.[4] As can be seen from Table 1, the asbestos issue received very limited television news coverage. However, even limited publicity in such an immediate medium with a mass audience will serve to increase issue visibility.

Comparing the individual indexes indicates a similar pattern of asbestos issue visibility increase. In the three print media indexes there were relatively few asbestos citations appearing between 1900 and 1959. In 1961 the count in *Cumulated Index Medicus* showed a sharp rise not found in either *The New York Times Index* nor the *Reader's Guide*, and its citation count remained consistently higher than those in the other print media indexes. Asbestos citation counts in the other three indexes began to increase in the 1970s, and remained mostly higher for the duration of the period under analysis. Examination of the combined asbestos citation count data presented on Table 1 suggests the asbestos issue was considerably more visible to the audience of the professional and scientific press throughout the period than it ever became in the elite, general readership, or television media. The citation count pattern of *The New York Times Index* more closely parallels the professional and scientific press than do either the general readership or television data.

Media Issue Definition

To examine the issue redefinition hypothesis, media content was determined by a content analysis of *The New York Times Index* citations for subject

heading "Asbestos". All citations for the years 1969 through 1989 were included in the analysis. This provided a sample of 673 citations for analysis. Further, a classification scheme was developed which included eight subject categories in two groupings.[5]

Analysis of *The New York Times Index* citations by subject category reveals a clear pattern of issue redefinition. (See Table 2) In 1969 and before, references to asbestos occurred as Business Information. In 1970 when what was to become the asbestos issue first received increased publicity, all symbols used to portray asbestos were symbols associated with Health. The asbestos issue continued to be portrayed as a Health issue between 1970 and 1976, and coverage of the asbestos issue increased significantly in 1974.

Table 2: New York Times Index Citations by Subject Category 1969-1989[4]

	Health		Economic						
Year	Health	Schools	Buss Info	Lit	Costs	Bankr	Uses	Vict Comp	Total
1969			2						2
1970	10								10
1071	13		1						14
1972	15								15
1973	12								12
1974	27		2						29
1975	21		1	1					23
1976	21		1						22
1977	18	7	8			1			34
1978	13	10	6		1				30
1979	26	5	1						32
1980	11	5	3	6	4				31
1981	13			6	2		1		21
1982	10	2	3	12	5	40		2	74
1983	15	8	2	11	9	25		1	71
1984	17	37		8	3	7			72
1985	9	4	1	8	7	12		1	41
1986	12	10	2	5	3	9	1		42
1987	7		3	10	4	4	1		29
1988	8		8	4	3	10			33
1989	10	4	6	5	3	2	3	3	36

[4] See Appendix for standardized group and subject categories.

In 1977 citations in the category Schools appeared and the category Business Information increased dramatically. The two categories Business Information and Schools received equal attention; their combined count equaled the attention the category Health received. Between 1977 and 1979 the asbestos issue continued to be predominantly portrayed as a Health issue, with a more regular inclusion of Business Information regarding the asbestos industry. In 1980 coverage which falls into the categories Litigation and Costs increased. When combined with Business Information, the three economic subject categories soon exceed Health in portraying the asbestos issue. Between 1977 and 1981, as issue redefinition occurred, asbestos issue coverage remained at a fairly constant level

(mean 19.6), but the asbestos issue was transformed from primarily a health issue to an issue in which the coverage of health was shared with the economic issues of liability claims (Litigation) and financial costs (Costs). The subject Asbestos Victim Compensation appears only infrequently.

Public Policy Agenda

To measure the presence of the asbestos issue on the public policy agenda, the *Congressional Information Service Index* for the subject heading "Asbestos" was examined. All legislation proposed and passed during the 1969 through 1989 period that either directly or indirectly addressed asbestos was included for analysis.

As can be seen from Table 3, legislation that was enacted into public law between 1969 and 1981 was mostly defined as a health issue. From 1983, most such legislation addressed the economic aspects of asbestos. On the legislative agenda concern for asbestos in the schools took a distinctly economic form, resulting in programs designed specifically for asbestos removal from schools and public buildings.

The issue of compensation for asbestos victims was initially viewed as a

Table 3. Public Policy Agenda for the Asbestos Issue 1969-1989

Year	Status*	Subject Category**	Year	Status	Subject Category
1969	I	H	1979	I	VC
				I	S
1970	P	H		I	L
	P	BI		P	VC
	P	H			
	P	H	1980	I	VC
				P	S
1971	I	H			
			1981	I	VC
1972	I	H		P	H
1973	I	H	1982	I	VC
	I	H		I	VC
				P	VC
1974	I	VC			
	I	VC	1983	I	S
				P	VC
1976	P	H			
	P	H	1984	I	S
	P	H		P	S
	I	VC		P	S
1977	I	H	1985	I	VC
	I	VC		P	VC
1978	I	S	1986	I	BI
				P	S
			1987	P	S
			1988	P	BI
				P	S

Source: Congressional Information Service Index, 1969-1989

*I=Legislation Introduced P=Legislation Passed

**H=Health
BI=Business Information (Economic)
VC=Victim Compensation (Economic)
S=Schools (Health and Economic)
L=Litigation (Economic)

matter to be dealt with under existing workmen's compensation programs, despite extensive evidence of the inadequacies of the workmen's compensation systems. Over the period 1974-1985 victim compensation was on the public policy agenda. Asbestos workers were included in the National Worker's Compensation Standardization Act passed in 1979, but no legislation creating a program specifically for compensating asbestos victims resulted.

Proposals for a national program specifically to compensate asbestos victims were introduced in 1977 as the Asbestos Health Hazard Compensation Act, and reintroduced every year through 1982. Each time the bill died in committee. A revised bill, the Occupational Health Hazards Compensation Act was introduced in 1982 but it also died in committee. In that same year, however, Congress did pass Joint Resolution 621, declaring Asbestos Victims of America Day. And in 1985 The Asbestos Worker Recovery Act was introduced and hearings were held, but no further action was taken and the bill died in committee. That year the Occupational Disability Compensation Act passed. It included limited provisions for certain asbestos workers, but was not comparable to the earlier asbestos victim legislation packages. Since then, the legislative agenda on this subject reflects only the economic aspects of the asbestos issue.

Conclusion

Examination of both objective indicators of asbestos background conditions and of the media data suggest that the assumption of independence between background conditions and media coverage of those conditions is supported for the asbestos issue.[6]

As a comparison between Chart 1 and Table 1 shows, when asbestos consumption was at its highest levels (about 1950-1973), there were few references to it in the media. Even as the issue became increasingly visible in the media, asbestos consumption plummeted: public visibility of the issue grew as the reason for it declined. Further, with one minor exception, elite media "discovery" of asbestos litigation occurred roughly a full decade after the judicial precedent was established. (Table 2)

One final piece of evidence. Media attention to the asbestos issue was not the result of investigative journalism, or some disastrous triggering event. The media did not invent a conceptual framework within which to interpret the multiple indicators existing in the world around them. They publicized information that was initially thrust upon them by activist doctors who had available the increasing amount of evidence published in the specialized sources cited by the *Index Medicus*.

Between 1979 and 1981 the asbestos issue was transformed from a health to an economic issue. When the "explosion" in publicity concerning the asbestos issue occurred in 1982 it was a major corporation that captured headlines. The

immediate economic costs of bankruptcy, litigation, court settlements, abatement, etc. replaced the potential costs of health impairment and loss of life in the media lexicon.

For most media the 1980s were the period of highest visibility of the asbestos issue. As Table 1 indicates, while *Index Medicus* coverage of asbestos issues began to increase in the 1960s, and again from 1972, and yet again from 1980, *New York Times* coverage did not begin to grow meaningfully until the 1970s, when health was a major concern (Table 3), peaking during 1982-1984, and then declining. *Reader's Guide* citations in the low double digits (with one exception) only began in the 1980s, reaching a high point in 1986, while television citations only reached as high as the low double digits from 1976-1978.

The public policy issue agenda followed the media portrayal. With the exception of one year, legislation concerning asbestos was introduced annually from 1969 to 1988; further, a cluster of bills was passed in 1970 and 1976, and others were approved more gradually in each year between 1979 and 1988 (Table 3). Asbestos was described as a hazardous substance in 1970 legislation. The Secretary of HEW declared a national health alert for it in 1978, the high point of television coverage of the asbestos issue, but prior to the peaks reached in the three print media indexes. (Table 1)

The growth of lawsuits and the increase in *New York Times* coverage of the economic aspects of the asbestos issue (Table 2) was accompanied by related federal laws and regulatory standards addressing many of the economic matters publicized in the media. Legislation addressed the issues of the reform of bankruptcy and product liability laws, revised judicial jurisdiction for product liability lawsuits, mandatory inspection of public buildings for asbestos exposure and mandatory asbestos removal, public funding for asbestos removal from school buildings, and numerous rules governing asbestos abatement including requirements that abatement contractors have sufficient insurance coverage to avoid future liability claims. (Table 3)

Although asbestos victim's compensation legislation was introduced annually between 1977 and 1985, during those eight years the only media references appeared in 1982, 1983, and 1985, when the issue of asbestos victim compensation was portrayed primarily as a private-sector economic matter not as an issue for public policy. And, as Table 3 indicates, while many health hazard compensation bills were introduced in Congress, none specifically for asbestos victims ever passed.

With the passage of regulatory legislation, the asbestos manufacturer bankruptcies in litigation, and modifications to the workmen's compensation system undertaken, media visibility of the asbestos issue began to decline. After 1984 the asbestos issue was significantly less visible in all but the professional/scientific media. (Table 1) The issue attention cycle had apparently run its course.

Although examination of this data is far from conclusive, it does provide

support for both the issue redefinition and media attention hypotheses. The data revealed a distinct association between issue redefinition and issue success on the public policy agenda. Substitution of economic themes in the place of health themes affected asbestos issue visibility and policy passage. Higher levels of media attention to economic issues is consistent with prior findings that the news media reports on the actions of those on top of economic, political, social and cultural hierarchies (Parenti, 1986). The appearance of the asbestos issue as a major health issue in 1970 would also be consistent with observations that in a hierarchy of political cognition, those symbols most directly associated with emotions of fear and anger will be at the top of the hierarchy. (Edelman, 1985)

Unfortunately, during the entire time frame of this analysis, there were no public opinion poll data on the subject of asbestos. Thus it is impossible to determine the association between public awareness of the asbestos issue and the public policy issue agenda, or public awareness with the media agenda.

The available data do suggest an association between the media agenda and the public policy agenda. The nature of the association is, however, uneven. Within the scope of this study, it is impossible to determine if the media agenda led the public policy agenda, or whether the media was responding to political elite activities. What is clear is that the agendas do coincide, particularly when the issue is defined in terms that are traditionally construed as being within the public jurisdiction, i.e., protection of the public welfare (health) and concern for the economy.

APPENDIX

Standardized Subject Category Designations for Table 2

HEALTH CATEGORIES:

HEALTH Health effects. Diseases caused by asbestos. Hazard. Injury. Danger. Disease. Causes. Disability. Cancer. Asbestosis. Mesothelioma.

SCHOOLS Asbestos in school buildings, asbestos exposure in, monitoring in, exposure of schoolchildren, inspection for, removal from school buildings, abatement programs for.

ECONOMIC CATEGORIES:

BUSS INFO Business Information: Price information, price changes, stock sales and values, mergers, acquisitions, sales, etc. Non-issue related business activity.

LIT Litigation: Lawsuits brought. Personal injury. Product liability. Damage suits. Court proceedings, judicial proceedings. Indictments.

COSTS Costs of claims against manufacturers, empoloyers. Settlement expenses. Damage awards. Liabilities. Abatement expenses.

BANKR Bankruptcy: Corporation filing for bankruptcy. Chapter 11. Reorganization. Filing for protection.

USES Substitute substances. Alternative products.

VICT COMP Victim Compensation: Financial help. Aid. Worker relief. Compensation.

NOTES

1. *Cumulated Index Medicus* indexes articles appearing in 2,784 biomedical journals, and is the definitive reference source for biomedical journal literature. Citations appearing under subject headings "pneumoconiosis," "asbestosis," and "asbestos" were examined for the years 1900 through 1989. During the period 1900 through 1927 references to "asbestosis" were subsumed under the subject heading "pneumoconiosis." Only those citations under "pneumoconiosis" which referred specifically to asbestosis have been included in the citation counts.
2. Citations appearing under the subject heading "asbestos" along with cross referencess were examined. Cross references that directly referred to asbestos (i.e., air pollution, cancer, etc.) and that were not duplications of citations previously listed were included in a citation count.
3. The exact size of the audience reached by the general readership press is extremely difficult to estimate. *The Reader's Guide to Periodical Literature* currently indexes 182 publications , and circulation figures alone do not provide an accurate estimate of audience size. While total magazine circulation may exceed 300 million copies, approximately 40 percent of magazines have circulations under 150,000. The most comprehensive information regarding magazine readership estimates that in an average month, 94 percent of adults read at least one copy of a magazine.(Dominick, 1987)
4. Citations for the subject heading "asbestos" and only those cross references dealing directly with asbestos and which did not duplicate a prior citation were included.

5. Each subject category represents a distinct issue definition. These subject categories and groupings are defined in the appendix.
6. Note again, however, the relatively greater coverage in Table 1 for the *Index Medicus*.

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