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**ANTICIPATORY DEMOCRACY:  
THE INFLUENCE OF THE IMAGINED PUBLIC ON SAFETY REGULATION**

**BY**

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**THESIS**

**Submitted in partial fulfillment of the requirements  
for the degree of Doctor of Philosophy in Political Science  
in the Graduate College of the  
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**UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN**  
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ANTICIPATORY DEMOCRACY: THE INFLUENCE OF THE IMAGINED  
\_\_\_\_\_  
PUBLIC ON SAFETY REGULATION

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**Anticipatory Democracy:  
The Influence of the Imagined Public on Safety Regulation**

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**A B S T R A C T**

To consider whether, and if so how, public opinion affects public policy, this dissertation searches for public opinion effects on regulation. More specifically, this dissertation examines a twenty-two year (1975-1996) span of policymaking in two federal agencies associated with the regulation of risk, the Consumer Product Safety Commission and the Federal Aviation Administration, for public opinion effects on rulemaking and other administrative actions.

The dissertation considers mechanisms for bringing public policy into correspondence with public opinion. It compares the standard accounts of this mechanism, "textbook democracy," with an alternative account, "anticipatory democracy." In brief, elite perceptions of public opinion – developed in a variety of ways – appear to shape public policy not only through channels of political control but also through the demands and practices of interest groups that are themselves subject, in varying ways, to the influence of public opinion.

## Acknowledgments

Quite clearly, I could not have completed this dissertation without a great deal of help from a great number of people. Most immediately, I need to acknowledge the assistance of my dissertation committee and, especially, my principal dissertation advisor, Paul Quirk. Although I was interested in studying regulatory agencies when I came to graduate school, he suggested that I look at the relation of public opinion to their work. That topic has proven enormously interesting, and for that suggestion and other assistance I am grateful. Scott Althaus taught me much about the mass media, the perception of public opinion, and the assessment of reliability. On these topics, I hope I learned a little, and I thank him. Professors Robert Rich and Michael Krassa in different ways provided me with thoughtful assistance and encouragement. Nancy Lind, a colleague at Illinois State University, also commented on an earlier draft of the introduction, and for her assistance, I am grateful.

This dissertation concerns the study of two agencies. Early in my investigations, Edmund Preston and Anthony Broderick with or formerly with the Federal Aviation Administration met with me. Amy Tersky, the librarian at that agency's Technical Library guided me through the its stacks, and the rulemaking docket clerks tirelessly retrieved documents and other materials. David Schmeltzer at the U.S. Consumer Product Safety Commission met with me, and Sandra K. Bradshaw of the Freedom of Information Act Office at that agency made available for my review and provided me with copies of stacks of documents and microfilms.

I also worked at this dissertation at a number of libraries at the University of Illinois; Illinois State University; Western Illinois University; the Catholic University of America; and the Northwestern University Transportation Library.



I thank the many librarians at those institutions who assisted me in retrieving information. Angela Bonnell, the Government Documents Librarian at Illinois State University was especially helpful in obtaining copies of government documents for me – sometimes on the day they were released.

I practiced law before attending graduate school in political science. I learned many things from my colleagues at the bar, and I should note that I had a peripheral role in representing two individuals injured using all-terrain vehicles. I leave to readers the task of deciding how much influence my work at the bar has had on the analysis to follow.

I have presented portions of this dissertation as conference papers. I thank the discussants on panels at those conferences for their advice and suggestions, and I thank the many people who stopped at my poster presentations for their comments and encouragement. The titles of the papers, the conference at which they were presented, and the date and place of those presentations are as follows: “What’s the Story? Government Influence on Reporting About Air Transportation Safety,” Annual Meeting of the Midwest Public Opinion Association, Chicago, Illinois, November, 2001; “Third-Person Effects on Interest Groups And Other Policy Actors: The Case of Tris,” Annual Meeting of the American Political Science Association, San Francisco, California, September, 2001; “The Media, Public Terror and Aviation Safety Inspection,” Annual Meeting of the Midwest Political Science Association, April, 2001, Palmer House Hotel, Chicago, Illinois; “Containing Public Opinion: Regulation of All-Terrain Vehicles by Consent Decree,” Annual Meeting of the American Political Science Association, September, 2000, Washington, D.C.; “Through the Network: How Agencies Learn About Public Opinion: The Case of the Commuter Safety Rule,” Annual Meeting of the American Political Science Association, September,

1999, Atlanta, Georgia; "What Flies and What Won't: Public Opinion and the Regulation of Commuter Airlines, 1977-1996," Annual Meeting of the Law and Society Association, May, 1999, Chicago, Illinois; "Public Opinion about Tris: A Case of Narrow Public Opinion Driving Agency Policy," Annual Meeting of the Illinois Political Science Association, November 13-14, 1998, Springfield, Illinois.

I am hardly the first person to write on the connection between public opinion and public policy, but as I write, I realize my peculiar relation to the many who have written on this topic before. Stacey Schiff, in writing about the relation of later biographers to earlier biographers put the matter rather nicely. Calling the task "faintly patricidal," she noted the tension, "On the one hand," she observed, "you hoist up your antecedents as paragons of scholarship; on the other, you must point up their insufficiencies, their biases, their out datedness, at least enough to justify your existence—at least in your own mind." Putting the matter more directly, she asked, "Do you tip your hat, do you press your lips firmly against the pedestal, or do you aim directly between the eyes?"<sup>1</sup>

Although I understand Schiff's sentiment, my answer depends on what others have written before and what my own research finds. My dissertation mounts a challenge to the conventional wisdom on the correspondence between public opinion and public policy, but I would still hold my references to proponents of the textbook model are closer to "tipping the hat" than "aiming between the eyes." Certainly, I could not have written this dissertation without a well-developed alternative point of view, and at times, I find the conventional wisdom persuasive. Given the tenor of the chapters that follow, I ought to make my reverence for this other research on this topic clear at the outset.

Finally, I must concede that my completing this dissertation has taken a long time. In that regard, I must acknowledge the patience, the many kindnesses

**and the encouragement of my former girl friend, later fiancé and now loving wife, Lisa.**

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## Chapter One: Introduction

This dissertation asks whether, and if so how, public opinion affects regulatory policy. It addresses these questions in two ways. First, it considers nine cases of policymaking, over the years 1976-1996, by two federal regulatory agencies. Five cases come from the Federal Aviation Administration, and four are from the Consumer Product Safety Commission. All nine cases are filled with the regulatory details usually left for decision to government agencies and private interests. At the same time, all the cases involve regulation of activities or products posing risk of bodily harm to members of the public. On such matters, expert and mass perceptions of risk diverge. As public opinion develops on such regulatory matters, the direction and extent of regulatory change – away from the proposals or status quo settled upon by experts and toward policies more strongly favored by the mass public – is an indication of public opinion influence on public policy. The nine case studies are a vehicle to develop and, in some small measure, test ideas about whether and how public opinion influence on public policy takes place.

Second, this dissertation looks for systematic public opinion effects on regulatory enforcement. By quantitative study of administrative enforcement staffing, this dissertation examines aviation safety inspection from 1975 to 1996. Together, the case studies and the quantitative study offer real prospects for answering questions about the effects of public opinion on regulatory policy.

Answers need to make reference to two competing but, in many ways, complementary accounts of public control over regulatory policy: For

convenience of reference, these accounts are dubbed here “textbook democracy” and “anticipatory democracy.” Anticipatory democracy is an idea developed at length in this dissertation. Textbook democracy is a simplifying term of reference. It is the conventional wisdom about the association of public opinion with public policy. As a composite idea, not the work of any single author, it does some small violence to the details in the work of many writers.

As asking about public influence on public policy has been an important task of modern political science, the operation of the textbook account is familiar: Public opinion shapes public policy because public officials translate the opinion of the mass public into the details of suitable government policy. Less familiar in contemporary research on the linkage of public opinion to public policy is the account of anticipatory democracy offered here: Public opinion – as perceived by bureaucrats, economic interest groups and their members – shapes public policy when it leads to “voluntary” changes in private provision of services, product design or industry standards and those procedures, designs or standards are codified into law.

A good deal of evidence supports claims of correspondence between public opinion and public policy,<sup>2</sup> and for the most part, explanations of this correspondence rely on some version of the textbook account of policymaking. Nevertheless, the textbook view places unwieldy and unsustainable informational burdens on both the public and policymakers. It holds the public learns the basic facts of arcane public policy matters through the mass media. More significantly, it assumes policymakers know both what the public wants and how to craft policy that yields what the public wants. Doubts about the empirical foundations of these assumptions, however, have not prompted a re-examination.

The alternative account of how public opinion shapes public policy is “anticipatory democracy.” Instead of assigning elected officials and elections the central role in explaining the correspondence of public opinion and public policy change, this new account argues adjustment to public opinion takes place in substantial part through diffuse market and social processes. Government officials do play a role in facilitating adjustments of private conduct, but these adjustments are privately chosen rather than a consequence of a public official’s independent response to public opinion. These voluntary adjustments become the basis for new regulations. The title of this work, *Anticipatory Democracy*, reflects this policy adjustment outside the textbook democratic process. Anticipatory democracy is democratic in the sense that the mass public shapes public policies and in the leading role often played by public officials in facilitating these policy changes. It is anticipatory because the bulk of the process for adjusting policy to public opinion takes place outside of the institutions of democratic governance and in substantial measure before those institutions act.

The difference between the textbook account and the one offered here hinges not so much on the predicted outcomes, but more on the path to those outcomes. There is no good reason public influence on government policy could not work through both paths at the same time. But, they are distinct. The tasks for the remainder of this introduction are laying out a framework for assessing the differences between the textbook and anticipatory views, and identifying the cases chosen for this study.

### **Alternative Accounts of Regulatory Change Responsive to Public Opinion**

The alternative accounts of policy responsiveness to public opinion have causal paths that differ in five material respects: the information about policy

available to the public; the manner of perceiving public opinion; the responses to public opinion; the relation of private responses to subsequent regulations; and the manner by which enforcement of government regulations takes place. For ease of reference, each of these differences and a summary of the view each account offers on those differences is set out in Table 1-1. Each merits some further discussion as well as some proffer of the discussion to follow in subsequent chapters.

*Information About Policy* The textbook and anticipatory accounts of information about policy available to the public both assert that information about public policy comes to the mass public from the mass media. In the textbook view, that information comes to the public with no important bias. This view is evident in even a cursory review of both classic and modern work in political science. For example, in their path breaking study of voting, Bernard Berelson, Paul Lazarsfeld and William McPhee note simply, "the news columns . . . were not particularly one-sided."<sup>3</sup>

V.O. Key concludes his discussion of news service bias by quoting the assurance of the Board of Directors of the Associated Press. "'The thriving existence of the Associated Press,'" both Key and the Board assure readers, "'guarantees that the public will have access to honest news, free of bias, free of domination by political or economic interest groups, and free of taint from selfish interests.'"<sup>4</sup>

More recently, in a study on public policy deliberation in the mass media, Benjamin I. Page concluded that, although not perfect, the mass media is "largely successful" in providing "the best available information and ideas about public policy, in ways accessible to large audiences of ordinary citizens."<sup>5</sup>

This textbook view on information available to the public is in turn built into theories about the responsiveness of public officials to public opinion. Anthony Downs and John Geer have offered elaborate theoretical accounts connecting public opinion to the behavior of elected officials, but these accounts depend on the public's receipt of unbiased information. Downs observes the selection principles used for news by publishers might be different from what consumers want, he and suggests that those principles might inure to the benefit of high income individuals. However, he concludes his discussion by noting the matter is difficult to consider without empirical investigation.<sup>6</sup> Nevertheless, he illustrates the process of becoming informed by suggesting a rational voter will sample a series of newspapers such as *The New York Times*, *The Daily Worker* and *The Chicago Tribune*.<sup>7</sup> Although conceding the process is imperfect, Downs never really considers the possibility that the mass media *as a whole* present a systematically biased sample of information.

The classic work of Anthony Downs still retains a good deal of importance in explaining how elected leaders respond to public opinion. Yet, the translation of information into reported news is still regarded as only mildly problematic. John Geer, in writing about democratic leadership, for example, chooses to ignore the role of the mass media in politics.<sup>8</sup> In discussing this choice, he acknowledges the importance of the media in some accounts of politics, yet he pleads theoretical necessity in placing this institution on the sidelines.<sup>9</sup>

By contrast, the view of media in the account used in this dissertation draws on an alternative line of media research. Walter Lippman, Douglass Cater, Leon Sigal, Stephen Hess and many other researchers on the mass media have all persuasively argued the media's constant need for news and its arrangement into "beats" affects the way they collect information and the news

they report. Information from government sources and well-organized interests dominate the news. This role for the media is developed more fully in Chapter Two, but the importance of bias in media coverage only becomes apparent as the argument progresses: Elites make their judgments about the state of public opinion by examining the news in the mass media and guessing about the effects of that news on the public.

Given the focus of this dissertation on policymaking for aviation and consumer product safety, Chapter Two asks: How well does reporting on safety offer suitable cues about existing policy? The answer is not very well. Media studies indicate the rate of reporting on aviation or consumer product fatalities vastly exceeds the incidence of those causes of death as compared to that rate for other causes of death. That disproportionate emphasis on fatalities stems from the media's disproportionate reporting on moderate or high fatality accidents. Moreover, reporting on safety is also influenced in part by partisan divisions in government.

Examination of the cases suggests media attention is associated most strongly with efforts to garner media attention. In three of nine cases of this study, the level of media attention received by the case itself became a matter of media, political and/or scholarly interest. Other cases receive briefer attention, but most have some indications for suspecting some media savvy on the part of at least some participants. These results pose a theoretical challenge to the textbook account's assumption of unbiased news coverage, and they serve as a starting point for understanding anticipatory democracy.

*Perceiving Public Opinion* The textbook and anticipatory accounts of policymaking differ in accounting for elite perception of public opinion. The textbook account centers on the perception of public opinion by public officials.

This area enjoyed recent interest in political science. Lawrence Jacobs, individually<sup>10</sup>, and with Robert Shapiro and others,<sup>11</sup> Bruce Russett<sup>12</sup> and Theda Skocpol<sup>13</sup> have all written on how polls or other information about public opinion have shaped policy or, at least, presentations of policy at the highest levels of the national government. In these works polls guide official decisions or at least official's talk about those decisions. These studies do appear to offer empirical evidence for the theoretical underpinnings about perception of public opinion in the textbook account, and their work joins an extensive collection of work by and about presidential pollsters on the importance of their polling in the conduct of national policy.<sup>14</sup>

In a sense, matters might conclude here. Yet these accounts of public opinion monitoring leave much unexplained. For example, courts,<sup>15</sup> and totalitarian regimes<sup>16</sup> – like democratic institutions – are also reported to be responsive to public opinion. A logic predicated on electoral incentives or a detailed review of surveys, however, could hardly explain apparent attentiveness to public opinion by these types of governments or governmental institutions. Unelected public officials lack any electoral incentive to care what public opinion is, and they do not routinely have the resources available to conduct extensive public opinion polls.

Moreover, a series of studies on how unelected public officials perceive public opinion casts some doubt on the importance of surveyed opinion for decision making. Bernard Cohen, in a series of studies on bureaucratic monitoring of public opinion,<sup>17</sup> and Susan Herbst, in a book on monitoring of public opinion by state officials and other elites,<sup>18</sup> also investigated the perception of public opinion. These public officials report taking the measure of

public opinion by asking friends and family for their views; by watching the news; by reading the mail and by talking to interest groups.

The rub is this: The results of these studies fit poorly with the conventional wisdom on the correspondence between public opinion and public policy. Perceiving public opinion by talking about what the public thinks is dramatically different from the careful measurement of public opinion at the core of textbook accounts. Instead of using information about public opinion as a fairly private means for optimizing election strategy, coming to judgment about the state of public opinion is a shared venture of an entire policy community – one that includes not only elected officials but also bureaucrats and interest groups. This central finding of the literature: That stakeholders in policymaking jointly develop and disseminate a shared understanding of public opinion is a touchstone of anticipatory democracy. Moreover, it is at odds with assertions that elected officials gather information about public opinion largely by looking at the results of polls.

Chapter Three concentrates on a single case to examine how bureaucratic policymakers and policy stakeholders monitor and perceive public opinions, and it assesses that monitoring and perception in light of a variety of objective indications about public opinion. More general examination about perceptions of public opinion for each of the two policy areas, consumer product and aviation safety, corroborates the basic finding: Policy stakeholders rely on a variety of sources apart from surveys to make judgments about the state of public opinion. Among other things, they look to data on sales of goods or services, the array of interest group opinion and mass media coverage as indications of public opinion.



*Responding to Public Opinion* Textbook and anticipatory accounts of policy responsiveness to public opinion vary in their accounts of the actors who are responsive to public opinion. Textbook accounts emphasize the responsiveness of elected officials; by contrast, the anticipatory account stresses the responsiveness of interest groups. The intuition is this: as a citizen, a member of the public worried about airplane or product safety might write a Member of Congress to express concerns about safety, but, as a consumer, he or she might instead simply fly another airline or buy a different brand.

Textbook assertions explaining the well-studied correspondence between public opinion and public policy have taken two major forms: associating changes in policy to the replacement of former public officials with new ones or regarding the matter as unproblematic because of the electoral incentives of high government officers. Each merits a few words.

A.V. Dicey, writing almost a century ago, asserted that law is brought into line with public opinion by the generational replacement of office holders. As new office holders – elected and otherwise – replace old ones, they change the policies they administer. Each new generation of elected officials carries into office the latest sense of the public's opinion. This sense of public opinion then works through elected officials as they select or approve appointed officials. New office holders tip the status quo policies in a direction favored by the public. Thus, this account goes, public policy corresponds to public opinion because officials with fresher views of public opinion replace officials holding old views of what the public wants.<sup>19</sup>

Work in this vein appears most recently in the methodologically elegant work of James Stimson, Michael MacKuen and Robert Erikson. Using very broad measures of public mood and public policy, they find a large measure of policy

responsiveness to public opinion comes about through the turnover of public officials. Drawing on other work, however, they also find a good deal of that responsiveness also comes about through a continuous translation of public opinion into public policy.<sup>20</sup>

This second approach to the matter of public opinion-policy correspondence has deep roots in political science. It defers consideration of how public opinion is perceived by elected officials by pushing consideration of public opinion into the electoral process. As Morris P. Fiorina summarized a variety of studies on mass behavior, he concluded citizens are “non-ideological to the point of intellectual disorganization, uninformed about government policies and the parties positions vis à vis those policies [and] oblivious to congressional politics . . .”<sup>21</sup> Citizens, he argued, make retrospective judgments about candidates, not prospective choices about policies.

This focus on a candidate rather than a policy orientation in the public is mirrored in analysis of public officials. When David Maythew asserted the behavior of elected officials should be studied as if they were “single-minded seekers of re-election,” he argued their calculations are predicated less on questions about policy and more on the standing of potential challengers.<sup>22</sup> Making judgments about potential challengers is not the same as ascertaining public opinion on a particular policy.

In the textbook view, to the extent public opinion is mediated in part by the actions of businesses or interest groups, that effect is quite small. As V.O. Key conceded, even business is “manipulated by a public opinion beyond its control.” Yet, he explains, the “artistry” of public relations can not, “make a business managed by scoundrels smell sweet.” Thus, to have good public relations, firms need to have a genuine solicitude for smaller competitors, for

labor, and for production processes. Key cautions, however, “It would be absurd, of course, to make too much of the sensitivity of business to public opinion.”<sup>23</sup>

Anticipatory democracy suggests a somewhat greater role for public opinion in the deliberations of business - deliberations that lead to modification in the behaviors of interest groups or their member firms. Drawing on a variety of literatures, Chapter Four explores all cases in this study. It suggests that businesses and interest groups respond to public opinion in terms of classical economic models, but also by changing product design, service delivery or voluntary standard setting. These are real responses to public opinion, but they take place without changes in the governing regulatory regime. They are labeled “voluntary,” but the work of markets, agencies and the courts gives those changes much of the force of compulsory regulation.

*Relating Private Responses to Public Action* Textbook and anticipatory accounts of policymaking also diverge on the role of interest groups in developing regulatory policy. As a group, in textbook accounts, the key steps of policymaking always take place in or close to government. Older accounts assign interest groups a quasi-governmental role. Avery Leiserson, E. Pendleton Herring and David Truman, for example, all described the role of interest groups in governance. Each wrote on the assumption of public functions by interest groups;<sup>24</sup> the increasing use of interest groups in the routine of government administration;<sup>25</sup> or the resort of such groups to the government to “stabilize” their relationships.<sup>26</sup> Publicity policed interest group activity related to governance. When interest groups deviate from the rules of the game, they were exposed, and this exposure reduced their access to key government officials.<sup>27</sup> In

these accounts, the flow of ideas on how private interests should manage their own affairs moves from public officials to members of industry.

Drawing on the work of E.E. Schattschneider,<sup>28</sup> Christopher Bosso, and later John Mark Hansen, argued that public opinion worked through interest groups to change public policy in a somewhat different sequence. Policymaking, they argue, takes place in diffuse policy networks. Through these networks, advice moves from interest groups to elected officials. The number of interest groups participating on an issue, Bosso observed, increases with the level of public attention brought to bear on an issue. As the number and variety of interest groups change, the mix of information available to decision makers changes. Bosso argued that on the basis of new information, key decision makers change policy.<sup>29</sup> Hansen added a wrinkle. The information offered to decision makers, he argued, offered them valuable clues about the wishes of the electorate that they served.<sup>30</sup> Thus, Bosso and Hansen join an electoral incentive argument to analysis of the pluralists. But these clever arguments still centralize the development of policy in or close to high government officials.

Principal-agent accounts of regulatory activity take a similar course. For example, in a widely cited article on political control of agencies, Matthew McCubbins, Roger Noll and Barry Weingast argue that the point of administrative structure and procedures is to assure the development of policy *in government agencies* in accord with the preferences of the dominant elected officials at the time organic legislation is adopted.<sup>31</sup> Interest groups wanting to shape policy attend government agencies like supplicants attending a courtier charged with dispensing royal favor.

Anticipatory democracy works differently. Drawing from the work of John Sutton, Frank Dobbin, Lauren Edelman, Steven Breyer and others writing

on the sociology of law, this account places the key policy decisions outside the immediate control of government. Here, the argument is that when the government decides to change formal regulations, it does so in substantial measure by codifying already existing industry practices into law. Self-imposed voluntary standards and private practices or designs – developed and undertaken for business reasons – which standards, practices and designs are, effectively the status quo policy, become the starting point for new government regulation. In this view, private designs, practices and standards – fabricated and adopted outside the government – become structural basis on which new regulations are established. To the extent new *public* regulations embrace private designs, standards and practices already shaped by *private* responses to public opinion, bureaucratic adoption of new regulations reflects public opinion in its policy.

Chapter Five uses all the cases in the study to ask: How close or how far are the terms of the public opinion-influenced, private standards or practices from those subsequently adopted by regulation or other government proclamation? To the extent new government regulations are close to prevailing designs, practices and standards, the empirical support for anticipatory democracy is bolstered. The most important findings of Chapter Five are that when private firms and industries make a substantial response to public opinion, in large measure, the terms of that response become the basis for new regulations. To be sure, a good deal of governmental effort may go into fostering a “voluntary” response, but it is the private response to public opinion that becomes the basis for new regulations on private conduct. When industry makes more modest responses to public opinion, those adjusted designs, practices or standards have a much more modest influence on new government regulations.

To be sure, generational replacement, electoral responsiveness and anticipatory democracy are complementary accounts capable of explaining the adjustment of public policy to fluctuations in public opinion. In any of these accounts, public officials and the industries they regulate communicate back and forth on new regulations. Expectations about future regulations may play a role in shaping private responses to public opinion. But, the cases in this study take place in much less than a generation. They all concern fairly fine-grained matters of regulatory detail unattended by even the most well-informed media commentators. Thus, although not conclusive, the link between the private and public rules appears to cut against generational or electoral accounts of policy adjustment and in favor of anticipatory democracy.

*Enforcing Government Policy* Finally, the textbook and anticipatory accounts differ in how they see public influence on enforcement of government policy. Textbook accounts present government agencies as agents of and closely attentive to elected officials. For example, the political control literature, by “McNollgast” and others, models agency action as a function of Congressional or presidential power. Any relation of detailed direction is quite weakly connected to public opinion.

V.O. Key, in the concluding chapter of *Public Opinion and American Democracy*, observes that even when public opinion is “fairly well crystallized room may remain for choice among a variety of specific actions.” He adds, “[T]he translation of opinion into actions of electoral punishment or reward is a tortuous and uncertain procedure. The predictability of electoral response to a particular action remains so uncertain that the avoidance of a sensible decision because it will lose votes is usually the work of a man whose anxieties outweigh his capacities of prediction.”<sup>32</sup>

Taking its cue from the findings of earlier chapters on the role of the mass media as an indicator of public opinion, anticipatory democracy suggests an influence for public opinion on policy outside electoral channels – a direct connection between public opinion and agency action such as enforcement or staffing. To compare the textbook and anticipatory accounts of regulatory democracy, Chapter Six modifies the standard political control model. That model argues that government agencies are best understood as agents of the Congressional committees that oversee their work as well as the President.<sup>33</sup> The chapter modifies that now standard model by adding a variable for mass media attention as a surrogate for perceived public opinion. By doing so, Chapter Six asks about systematic public-opinion related influences on aviation safety enforcement. It reports a regression analysis linking media attention on aviation safety to changes in administrative staffing levels. While not a test of the particular sequences of regulatory influence outlined in the earlier chapters, this systematic, quantitative examination of regulatory policy seconds the earlier conclusions on both the importance of media attention and private responses to government action in assessing governmental policy change.

*Putting Differences in Perspective* This section has emphasized the differences between the collection of works loosely grouped as “textbook democracy” and the proposed “anticipatory democracy.” Each of the next five chapters, in some sense, may be read as a modular critique on one aspect or another of the textbook account. As a whole, however, my interest is less in offering a root and branch critique of the textbook account and more in suggesting an overlooked explanation for the correspondence of public opinion to public policy.

Before continuing, a few words on the similarities of the two accounts may be helpful. Self-interested action is an integral part of both; institutional structures and procedures matter in both. Anticipatory democracy does not deny the authority of elected officials to manage governmental agencies for political ends, and there are no reasons why the mechanisms of both textbook and anticipatory democracy can not work at the same time. The difference is on the way public opinion instantiates itself into government regulations.

### Assessing The Different Paths

Tracing the influence of public opinion over regulatory policy is a strategy for judging between the accounts of textbook and anticipatory responsiveness offered here. The success of that tracing depends on adequate definitions of the concepts, a means of separating the influence of the public from that of experts and a suitable selection of cases. Each matter merits attention.

*Definitions of Concepts.* A central task in assessing these alternative accounts of public opinion influence over public policy is setting out suitable definitions of public opinion and public policy. Moreover, because the development of policy also turns on examining expertise and interests, some attention to issues in defining these terms is also in order.

Public opinion is a distribution of beliefs in the mass public. It can be discovered by examining the aggregated responses of individuals to “the right question” on a survey. The same question may not be “the right question” for all stakeholders, and moreover, capturing all pertinent contextual clues in the right question may prove extraordinarily difficult in practice. Nevertheless, public opinion exists in this sense of distributed beliefs regardless of whether a survey actually ascertains it. Other evidence of public opinion besides survey results



includes uncoordinated mass behaviors or descriptions of public opinion by politicians, interest groups or reporters.<sup>34</sup>

Public policy means a course of governmental action or inaction calculated to bring about or allow to persist a specified state of affairs outside the direct control of the governmental decision makers having authority to decide the matter. It includes both commands and decisions to allow others to decide a matter. Thus, it can be evidenced by formal declarations of policy such as regulations, orders or decrees, or by a pattern of sanctioned behavior.

This view of public policy is somewhat different from other conceptions of public policy used in research on the relation of public opinion to public policy. Instead of seeing policy only as commands emanating from a single and central source, the definition used counts as policy a choice to extend governmental recognition and sanction to rules already in force throughout society.<sup>35</sup> In addition to courts and legislatures, rules are made by custom and by commercial practice. This idea of distributed rulemaking authority has currency in work on private standard setting,<sup>36</sup> but its intellectual roots extend at least as far back as Max Weber.<sup>37</sup> In this sense, law or public policy not only commands society but also allows society to command itself. It does so by empowering individuals and groups to make their own decisions on binding rules.

Second, this definition of public policy emphasizes development of policy through time. Public opinion researchers have tended to seize on snapshots of policy, such as statutes, or expenditures as the measure of policy. Policy researchers, for the most part, have taken a different view. They study policy as it unfolds over time.<sup>38</sup>

Generally speaking, new policy comes from ideas generated by experts and demands for changes raised by interest groups and, sometimes, actors inside

the government.<sup>39</sup> This dissertation asks whether it also stems from public opinion. However, the pivotal role of experts and interest groups in developing public policy requires some attention to the definition of both. Defining expertise is no straightforward matter. In writing about professionals, Andrew Abbot has offered two ideas helpful for understanding this difficulty. His first insight concerns the relationship between the specialized knowledge of a professional and the work he or she does. Professionals gain authority in the workplace and elsewhere, Abbot argues, by the manner in which they undertake and accomplish particular tasks or make predictions pertinent to their work. Only professionals work or make accurate predictions by reference to an abstract system of knowledge. It is use of and reference to an abstract system of knowledge, open but largely inaccessible to non-experts, that is the hallmark of a professional<sup>40</sup> – and, in this study, an expert.

Abbot's second, and perhaps most important insight, is that different professions compete with one another. When professions overlap in their capacity to address a matter, they compete for the authority to do work as they see fit. In this sense, an expert is someone with independent authority to do work as he or she sees fit to do it according to professional standards. But as Steven Brint has observed, economic interest is often tied to assertions of expertise. This linkage means that judgments about expert advice, competition between different types of experts and interest group demands have to turn on the context of the cases.<sup>41</sup>

An interest group is an organized collection of individuals or social groups. Interest groups undertake to influence government action at least sporadically. These groups may have other functions, and they may be little more than a front or proxy for one or more of their members. This

understanding of interest groups is akin to others commonly though not universally used in political science.<sup>42</sup>

*Separating Public from Elite Influences.* Usually, divisions in mass public opinion on matters of public policy follow divisions of experts and elites. That is, liberal citizens adopt the positions of liberal experts and conservatives subscribe to the advice of conservative experts.<sup>43</sup> Research on risk, however, suggests a different pattern in divisions between elite and mass opinion. This difference offers leverage for tracing the influence of public opinion on public policy.

Because experts and members of the mass public tend to perceive and develop opinions about risk in quite different ways, in their evaluations of risk, experts and the lay public are often on opposite sides of an issue. Economists explain differences in opinion on risk between experts and non-experts in terms of the relative amount of information available to each as opinions develop;<sup>44</sup> psychologists explain this difference in terms of the effects of an expert's specialized training or education on his or her opinion formation.<sup>45</sup> Other disciplinary perspectives offer other views.<sup>46</sup> Exactly why this elite-mass public difference in risk perception occurs is a matter of theoretical dispute. What matters in this study, however, is that *there is a difference* between elite and mass perceptions of risk. Public opinion in cases concerning risk is something other than an echo of elite debates. Thus, in looking at cases concerning the regulation of risk, mass public opinion effects on policy – as distinct from expert opinion effects on policy – should be far easier to discern than in other types of cases.

*Selection of Cases.* This exploratory study examines nine cases of administrative policymaking where experts or interest groups voiced concerns that policy decisions were not being made on the merits – as perceived by experts and interest groups – but instead on the basis of actual or potential

public concerns. This selection strategy exploits the divergence of elite and mass opinion on matters of risk. Within this context, the aims of case selection were producing an assortment of cases that were: observable over a sufficiently long period of time for both public opinion and public policy about a case to develop; from agencies with different institutional configurations; possessed of real differences in opinion between policy experts and the mass public; and varied by differences in overarching institutional arrangements and political eras. Each of these points merits some further comment.

Duration of the Study. Recent work, most notably by Benjamin Page and Robert Shapiro, reports that public opinion has long periods of relative stability.<sup>47</sup> At the same time, unconnected work on public policy by Frank Baumgartner and Bryan Jones suggests policy has long periods of only incremental change punctuated by periods of intense activity.<sup>48</sup> Hence, to examine effects of public opinion on public policy, a study must take place over a long enough period that public opinion on a matter has a full opportunity to develop as the context in which public policy takes place changes. Moreover, because the object of this study is explaining policymaking, and not particular decisions, the period of inquiry needs to be long enough for policy to manifest real change rather than, for example, only changes in rhetoric.

Although sometimes an insufficient amount of time has passed to gain perspective, the availability of information about recent events relative to earlier ones makes studies of the recent past preferable to studies of other times. Choosing a recent period for study is always a somewhat arbitrary choice. Regulatory issues do not always divide neatly into time. Nevertheless, this study considers the period from end of the Ford Administration to the end of Bill Clinton's first term as President. This period encompasses twenty-two years, ten

Congresses and five presidencies. It encompasses much of the period since economic deregulation of the airline industry as well as a good deal of a new era in consumer product liability laws. *A priori*, that period ought to be long enough for real changes in both public opinion and public policy to take place. As matters turned out, action and interest on many of the cases had a duration much shorter than the full period of the study.

**Choice of Agencies.** Many federal agencies regulate risk, and among the candidates for study, as with the choice of a time period for study, the choice of one agency instead of another is somewhat arbitrary. The Federal Aviation Administration (FAA) and Consumer Product Safety Commission (CPSC) are both important federal agencies. Both regulate industries producing goods or services associated with risk of death or bodily injury. The FAA is an executive agency. It regulates a single group of related industries concerned with air transportation. The CPSC is an independent agency, and it regulates multiple, unconnected industries involved with the production of all sorts of consumer goods. By choosing two such widely differing agencies, to the extent that similar patterns occur in cases from both agencies, the idiosyncracies of the institutional configuration associated with each of these agencies can be excluded as a factor in any public opinion - public policy dynamic.

**Within Agency Case Selection Strategy.** After the choices of time period and agencies are complete, the next task of case selection is choosing particular cases of regulatory policymaking within these two federal agencies. Often, studies of public opinion effects on public policy are indifferent to the quality or level of actual or potential public opinion on a matter. They study policies that became the subject of a question asked on a survey.

**This study uses a different approach. To select cases, trade journals reporting on each agency's operations were examined with an eye to identifying cases – irrespective of outcomes and the actual level of media attention – where experts and interest groups voiced concern that policy decisions would not be or were not being made on the technical merits of a question. That is, the policy decisions were being affected, in part, because of actual or potential public concerns. This criterion both assures that public opinion is not merely an echo of elite debates and that public opinion had attained a quality or level sufficient to threaten to affect outcomes.**

**Additional Considerations. Potential case selections were narrowed with a view to ensuring a variety of outcomes, the likely availability of information, and balance throughout the period of study. The array of cases chosen is depicted summarized on Figure 1-1. The figure presents the identity of the cases chosen, the years during which the cases were under active consideration, and the final disposition of the case. Inspection of the figure demonstrates that all of the years of the study are covered by at least one of the cases. In those years, there were several varieties of unified and divided government. The coverage of the cases means that any overall results cannot be dismissed as a mere by-product of some particular arrangement of presidential or Congressional control.**

**Moreover, the range of final dispositions considered in this study – from voluntary action and withdrawn proposals to new final rules, repeal of old rules and modification of existing rules in the course of litigation – covers the full range of regulatory rulemaking dispositions. This range means that any results in this study may not be dismissed as a consequence of a truncated choice of outcomes.**

In addition, cases are discussed for the whole period of their activity. The lengthy period of the study means that outcomes are not a by-product of arbitrary case beginnings and endings points.

On the other hand, the issues in this study were chosen for actual or potential interest of the public. Therefore, in this sense, they are *not* typical of issues that are usually thought of as reserved for regulatory agencies. Moreover, the case studies consider only regulatory rulemaking activity, other regulatory activities may or may not work in quite the same way.

To recap, the case selection strategy began with a review of trade journals for cases where experts or interest groups complain of or intimate unwarranted mass public interference in policymaking. This case selection strategy does two things. First, it increases the likelihood that there was public opinion in a meaningful sense. That is, some view was diffused throughout society and held by individuals not policy experts and not associated with an interest group or policy stakeholder. This is an important prerequisite for further analysis. The political competency literature argues that for the most part, the public is oblivious to the details of policymaking.<sup>49</sup> Without public opinion, talking about public opinion effects on public policy is pointless.<sup>50</sup>

Second, the case selection strategy puts this account in line with other explanations of the public's role in policymaking. Unless one or more of the participants want to and is able to mobilize public opinion, the public will have a limited say in policy. As Walter Lippman observed, without leadership, the public has a limited repertoire of actions. It can migrate, boycott, strike, applaud or hiss.<sup>51</sup> But the mass public does not write regulations, design products or develop organizational protocols. At best, the public can align itself "to favor the action of individuals who may compose the situation."<sup>52</sup>

The array of cases finally chosen comes only from agencies concerned with regulating risk of bodily harm. In these cases, there is both unusual fascination with possible harms and the specter of tort liability. Although the same processes described in this study may well be at work in cases of regulating other types of risk – or even other types of public policy – the data examined in this study are quite obviously limited.

On the other hand, the strategy for selecting cases offers some particular advantages. First, the focus on regulatory agencies removes the investigation at least one step from control of elected officials. If public opinion has effects on public policy outside of electoral effects, those effects should be more apparent in a study of regulatory policy than in a study of work by elected officials. Second, the level of public attention or the threats of “going public” in these cases offer real prospects for testing expectations about the development of public opinion, and for examining its influence on policy as both public opinion and public policy develop.

#### **Identity, Time Covered and Description of Cases Selected**

The prior section has outlined the procedure to select cases for this study. The study might well precede through by presenting a case by case analysis, yet such a discussion would obscure the broader theoretical claim on the process of policy adjustment to public opinion. To make the presentation as lucid as possible, the findings of this study are offered in a thematic framework. This thematic treatment, however, runs some risk of sweeping dissimilar cases together, and it makes reflection on alternative explanations for the outcomes of the cases difficult. Therefore, an overview of each case may be helpful in



evaluating the overall argument of this work. After this case by case overview is a summary of the more systematic, quantitative evidence to be presented.

*Tris-treated children's pajamas, 1976-1981.* When added to fabrics used to make children's pajamas, Tris prevents the pajamas from catching fire. In the mid-1970s, a period when the public was concerned both about new causes of cancer and toxic chemicals, claims that this flame retardant chemical also caused cancer were made. Amidst extensive publicity – at least in comparison with other matters handled by this agency – the CPSC issued an interpretative rule declaring Tris-treated pajamas already banned by a statute prohibiting use of “hazardous substances” in items intended for use by children. This interpretation immediately outlawed sales of Tris-treated pajamas, but it also triggered provisions in the hazardous substances statute requiring a repurchase of the pajamas.

Courts heard challenges to the agency's interpretation of the statute. A Washington, D.C., District Court required the agency to amend its interpretation and extend its ban up the line of distribution and production. This extension, thus, moved the brunt of repurchase obligations from retailers and apparel manufacturers to textile mills. The Court of Appeals for the District of Columbia Circuit vacated this order after the Commission agreed to extend its interpretation of the statute on the strength of its own authority instead of extending it by virtue of the District Court's order. A South Carolina District Court, at the behest of a textile manufacturer, voided this interpretative rule altogether. This new ruling would have made the sale of Tris-treated children's pajamas once again lawful.

However, after a suggestion – in the Fourth Circuit Court of Appeals – that the District Court's ruling would not preclude suits against individual

retailers for selling Tris-treated children's pajamas, the agency elected to bring such suits wherever necessary to halt sales of these pajamas. Irrespective of the legality of selling Tris-treated children's pajamas, as rulemaking and judicial proceedings were underway, manufacturers and sellers removed from the chain of production and distribution: the chemical Tris itself; thread and fabrics made or treated with Tris; and children's pajamas made with such fabrics. The agency's actions in adopting an unlawful ban and then pressuring retailers to halt sales by lawsuit or threat of lawsuit— even after its ban had been declared unlawful — elicited substantial criticism. Early in the Reagan Administration, Congress adopted legislation to indemnify firms that had stopped selling the improperly condemned garments.<sup>53</sup>

*All-Terrain Vehicles, 1984-1991.* All-terrain vehicles are three- or four-wheeled motorcycles. Of all the CPSC cases, this one garnered the greatest amount of media attention. Compared to coverage of aviation safety, however, media coverage of this case was quite small. Nevertheless, policymakers, ATV users and other stakeholders perceived a good deal of media attention.

After a sharp increase in vehicle-related deaths and in the face of one commissioner's request for information — a request that read like a press release — the CPSC began proceedings to regulate these vehicles. The Commission held hearings on ATV use throughout the country, and it had an internal task force study the vehicle, its use, and its safety record. Instead of continuing with rulemaking, CPSC voted to have the Department of Justice file a suit on the agency's behalf to ban and recall all ATVs. As publicity about ATVs increased, sales of all-terrain vehicles — especially three-wheeled vehicles declined.

After extensive negotiations with the industry, CPSC settled its claims against ATV distributors in return for a regulation-like consent decree. The

decree stopped the sale of three-wheeled ATVs, imposed new advertising and educational requirements as well as requiring use of some design standards eventually worked out after adoption of the initial decree.<sup>54</sup>

*Lawn Darts, 1988-1989.* Lawn darts are a throw toy that were often sold in sets with other picnic games. A regulation inherited by CPSC from the Food and Drug Administration restricted the manner and location in which these toys could be sold. After a little girl was killed with a lawn dart, her father brought the matter to the attention of the media and the Congress at the end of the 1980s, and regulating these items developed some political importance. At least part of this attention assumed importance because Democrats pointed to the agency's failure to ban lawn darts as an example of Republican indifference to public health and safety regulation. Republicans – denying such indifference – eventually capitulated and allowed adoption of a lawn dart ban.

As the controversy on lawn darts unfolded, the agency reviewed its enforcement policy, and it suggested new regulations governing the sale of lawn darts. The major provisions of these regulations had been worked out in meetings with and among manufacturers of lawn darts. Unsatisfied with the resulting proposal, Congress passed a bill all but requiring the agency to ban lawn darts. At this direction, the agency abruptly reversed its course, and it adopted a regulation banning lawn darts as the bill became law.<sup>55</sup>

*Drawstrings on Children's Outerwear, 1994-1995.* Drawstrings are the cords used to tighten the fit of coats and fasten hoods about the head. From time to time, children are strangled when these strings tighten about the neck or body as they are caught on playground equipment or dragged to their death when the coat strings are caught in school bus doors. At the prompting of a grieving mother, in the mid-1990s, CPSC convened meetings of children's clothing

manufacturers and retailers. At those meetings, retailers voiced concern about “going public” with concerns about safety. As there are many ways of fastening clothing, industry members agreed to end the use of drawstrings in children’s clothing. This agreement was embodied in a new, formal voluntary industry standard. As a result, the agency did not issue a new regulation although it did issue a press release about its role in bringing about this change. It also published guidelines on coping with the danger of drawstrings. The matter received almost no media attention, and as the matter was quickly resolved, the presence of any real public opinion is doubtful.<sup>56</sup>

*The Commuter Rule, 1976-1978.* Economic deregulation of the airlines became a national issue in the mid-1970s although aviation safety was not then as pressing a public concern as it later became. Part of the assurances offered by public officials to secure economic deregulation of airlines was that this deregulation would not impinge on safety. As technological changes had changed the nature of commuter operations, commuter aviation was expected to have a major role in the deregulated air transportation system. Thus, the promises of undiminished safety required new rules on commuter operations.

The FAA delivered on these promises, in part, by adopting as the Airline Deregulation Act was adopted, a new regulation: The Commuter Safety Rule. The FAA adopted the rule after an extensive study of large commuter airline practices by the National Transportation Safety Board (NTSB) and a thorough and well-regarded listening session. This new regulation comprehensively revised the rules governing commuter operations by adopting as requirements many of the best practices noted in the study by NTSB. The final rule was loose enough to allow continued use of the work-horse planes already in commuter

airline fleets, but at the same time tightened record-keeping, maintenance and operational procedures.<sup>57</sup>

*Regulation by Objective, 1982-1983.* This FAA rulemaking proposal was made early in the Reagan Administration. As part of efforts to require government regulations to meet criteria of economic efficiency, this proposal called for ending historically derived distinctions in regulations. These included, for example, economic distinctions in air carriers, (*e.g.*, scheduled versus supplemental); airplane-based distinctions of size (*e.g.*, large versus small) or engine type (*e.g.*, turbine versus reciprocal); and operations (*e.g.*, air-taxi or commuter). Instead, new regulations would provide a series of somewhat fewer and less restrictive safety “objectives” applicable to all air carriers, aircraft and operations. By giving airlines more flexibility in meeting safety standards, the proposal, at least its proponents argued, would reduce economic inefficiency.

The FAA withdrew this proposal amidst nearly universal criticism from the aviation community, partisan inquiry from Congress, and predictions of public outrage if the proposal were adopted. At the time of its consideration, media attention on aviation safety was somewhat lower than it had been in preceding years, but the mood of the public was significantly more conservative and anti-regulation, than at other times over the course of this study.<sup>58</sup>

*Federal Air Marshals, 1985.* The hijacking of TWA Flight 847 to Beirut and the related murder of a U.S. serviceman created a media spectacle that reflected poorly on aviation security and led to widespread public concern about terrorism. One White House proposal advanced in this context called for strengthening the “Skymarshals” program. Skymarshals were federal peace officers employed by the FAA “to ride shotgun” on airline flights. The White House proposal led to the adoption, by emergency rule, of a regulation requiring

airlines to carry federal marshals when and how directed by those marshals. It was adopted.<sup>59</sup>

*Thermal Neutron Activation Explosive Detection Systems, 1989-1994.* Thermal neutron activation (TNA) is a technology that can be used to detect explosives. Before the bombing of Pan Am Flight 103 over Lockerbie, Scotland, the FAA had placed orders for five experimental baggage scanning machines to test this technology under operational conditions. The bombing generated a significant amount of public attention and, indeed, helped to push Pan Am into bankruptcy.

After the Lockerbie bombing, Congress adopted legislation requiring the agency to adopt rules mandating immediate use of this experimental technology. As the agency considered rules requiring extensive use of this new technology, airlines and airports complained. They objected to TNA's cost, the operational delays in baggage handling that scanning by this machine would bring about, and, most importantly, its ineffectiveness in detecting explosives. Still, the agency adopted the required rules, but with an extended phase-in period.

A presidential commission examining aviation security after the Lockerbie bombing agreed with many of the criticisms made against TNA explosive detection systems. Although it also recommended a substantial restructuring of FAA security operations, the Commission concluded that the advantages of TNA had been oversold. On its recommendation, the law requiring TNA machines was repealed, and Congress substituted a new law requiring new FAA regulations on use of explosives detection systems only after successful operational testing and approval of those systems.<sup>60</sup>

*Commuter Safety Initiative, 1994-1996.* Promised by the Secretary of Transportation at the scene of a commuter airline accident in 1994, this comprehensive regulation, like the earlier Commuter Rule, revised the rules

governing the operations of commuter airlines. In large measure, however, the terms of the rule incorporated changes in operational practices and the results of safety studies made over the prior twenty years.

The rule embraced a new “One Level of Safety” philosophy advocated by the Air Line Pilots Association. All air carriers, including those commuter air carriers integrated into the operations of major trunk carriers, would now have to meet a common level of safety regardless of the air carrier’s type of operations. The rule was adopted after extensive hearings and as media interest and public attention to commuter aviation was growing.<sup>61</sup>

#### Quantitative Examinations of Evidence.

A portion of the argument in this dissertation is readily susceptible to systematic, quantitative analysis. In particular, much of the argument turns on the association between the occurrence of tragic, policy-relevant events and the reporting of those events in the news media. To a lesser extent, the argument presented here also contemplates enforcement of existing government policy as well as development of new policy. Study of both topics may be enriched by some quantitative evaluation.

*Reporting on Aviation Accidents.* Aviation accidents offer an excellent perspective from which to examine the production of news. Aviation deaths are disproportionately reported, and although many studies have reported the domination of government sources in the production of news, no study has considered the association between the arrangement of governmental institutions, the incidence of aviation accidents and the reporting of those accidents in the news. To examine this relationship, this dissertation will develop and present a negative binomial regression model predicting the

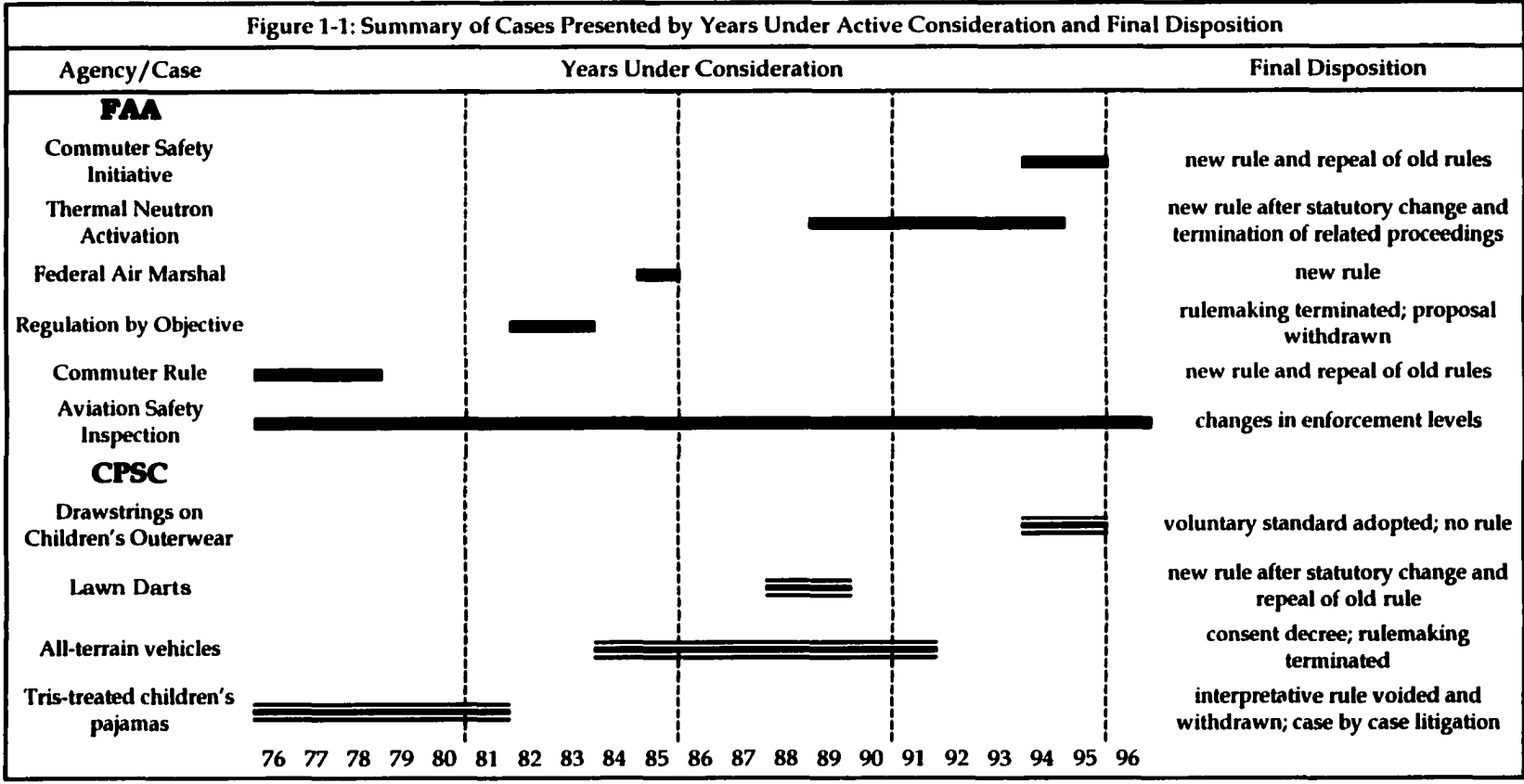
incidence of reports on aviation safety in major news magazines. More important than those predictions, however, are findings linking the production of news to the extent of partisan control over national political institutions.<sup>62</sup>

*Enforcement of Aviation Policy*. Empirical investigation of the principal-agent model of political control over a government agency – a by-product of the rational choice literature – has set out an excellent starting point for investigating patterns of regulatory enforcement. This literature reports an association between measures of political control such as interest group ideology scores and measures of enforcement activity such as the number of enforcement cases brought by an agency. To this basic framework, this dissertation adds a measurement of media attention.

The idea of media coverage as a gauge of public interest comes from the interviews reported in chapter three. Using regression analysis, this study relates the number of aviation safety inspectors employed by the FAA to measures of media attention to aviation safety. In this case, measures of media attention outperform indicators of political control.<sup>63</sup>

With this summary of the argument and the research design, this introduction is complete.





<b>Table 1-1: Summary of Major Differences in Accounts of Public Opinion, Public Policy Linkage</b>		
	<b>Textbook Democracy</b>	<b>Anticipatory Democracy</b>
<b>Information about policy</b>	All pertinent information is available in the press.	Catastrophic events, government sources, promotions of media campaigns systematically over-reported. Other information neglected.
<b>Perceiving public opinion</b>	Government policymakers perceive public opinion using surveys of public opinion.	Policy stakeholders draw conclusions about public opinion from a variety of indicators including asking friends and family for their views; by watching the news; by reading the mail and talking to interest groups
<b>Responding to public opinion</b>	Absurd to make too much of private response to public opinion. Any responses to the public are filtered by generational change of elected officials or their electoral incentives.	Substantial private response to public opinion. Driven by profit and other motives, interest groups and affected members use voluntary action including withdraws from the market, procedure or product design changes and private standard setting.
<b>Relating private response to public action</b>	Interest groups fill a quasi-governmental role by providing information, and driven by electoral incentives, elected officials and their subordinates command policy change.	Changes in rules largely reflect changes in conduct already made by voluntary action of private firms and others. Rule changes serve public officials by offering opportunities for "credit claiming," but they are in large part only codifications of "best practices."
<b>Enforcing government policy.</b>	Electoral and ideological concerns of high government officers are paramount in enforcing existing regulations. Public opinion effects are moderated through these officials.	Public opinion, as measured by media coverage, has a direct effect on agency enforcement.

## Chapter Two: The News on Risk

### Introduction

The question for Chapter Two this: To what extent does reporting about the safety of air transportation or consumer products reflect their risks? The answer matters because, presumably, the mass public learns about risk chiefly through the mass media.<sup>64</sup> On this basis, the public makes judgments about the necessity for any reforms of policy<sup>65</sup> Thus, the news on risk both shapes public opinion and is a prerequisite for the public's action on public policy.

Chapter Two examines reporting about risk by drawing on media studies, by studying the role of governmental institutions in shaping coverage of air transportation safety, and by looking at interest group efforts to use the institutional routines of the press to garner media attention in three of the nine cases of this dissertation. This examination yields three findings. First, the incidence of mass media reporting on aviation or consumer product-related deaths vastly exceeds the incidence of deaths attributable to those causes in society. At the same time, however, this reporting has almost no association with the incidence of aviation or consumer product accidents. Second, media reporting is better understood as a consequence of institutional mechanisms and processes of the media than as a mirror of social conditions. Finally, individuals and groups interested in altering regulatory policy use those mechanisms and processes to bring matters to the attention of the mass public.

### **Systematic Exaggeration in Reporting.**

The first task in understanding media coverage on aviation and consumer product risk is offering a summary of what is reported. Drawing on studies in the literatures of public health, psychology, communications and the sociology of law, this study assess reporting on risk in two ways. First, it considers reporting on deaths from aviation or consumer product related causes relative to the incidence of such deaths. Second, it presents information on reporting of safety and security incidents relative to their occurrence. By either standard of reference, reports in the media appear to have little *direct* connection to the condition of aviation or consumer product risk.

*Reporting on Accidental Deaths Relative to Their Incidence.* Accidental deaths and injuries related to aviation or consumer products are over-reported in the mass media relative to deaths due to other causes. This recurring finding has been re-discovered in a variety of literatures. Karen Frost, Erica Frank and Edward Maibach examined reporting on deaths during 1990 in *Time*, *Family Circle*, the *Readers' Digest* and *USA Today*. They measured the square centimeters of mortality-related text for a sample of each periodical. Then, they compared that measure of news coverage to mortality rates. These public health researchers reported, "substantial disparities between the actual causes of death and the amount of coverage given those causes in the media."<sup>66</sup>

Barbara Combs and Paul Slovic had undertaken a similar study using two regional newspapers in 1975. They too found, "In general, amount of coverage given to a particular cause of death was not closely related to its statistical frequency of occurrence." Moreover, "[V]iolent, often catastrophic events such as . . . all accidents stood out as being over reported. Whereas diseases took 16 times as many lives as all accidents, there were more than three times as many

articles about accidents in which almost seven times as many deaths were noted."<sup>67</sup>

Eleanor Singer and Phyllis Endreny also conducted an extensive study comparing media reporting on hazards in 1960 to that in 1984. In the 1984 portion of their study, they examined articles on hazards appearing between September and December in *The New York Times*, *The Daily News*, *Time*, *Newsweek* and a variety of other sources. They found that reporting on "energy hazards," *e.g.*, plane, train and automobile crashes, exceeded reporting on all other types of hazards. More to the point, during the four months of their study, they found 120 stories about air and space transportation accidents. At that time, they report the associated death rate was 0.5 deaths per 100,000 people.<sup>68</sup>

To put this finding in perspective, a comparison with a more frequent cause of death may be helpful. Heart disease is a common cause of death in Americans. In the 1984 portion of their study, Singer and Endreny found 26 stories on heart disease and reported an associated death rate of 323.5 deaths per 100,000 people.<sup>69</sup> This ratio of news stories to death rates is almost three thousand times greater for accidental deaths due to air and space transportation than that for deaths due to heart disease.

Singer and Endreny did not specifically indicate mortality related to consumer products. Their report does indicate several categories of deaths that might be relevant for determining the relationship between assessing consumer product injuries and news reporting. These appear in Table 2-1. As with aviation injuries, these types of injuries are dramatically over reported. The ratio of reporting to death rate incidence ranges from 8 to 1186 times the comparable ratio of reporting to deaths for heart disease.

All three of the preceding studies have compared the *rate of reporting* deaths to the *rate of their incidence* in the general population. Judging the rate of reporting on accidental deaths by reference to the incidence of deaths, all three studies yield the same conclusion. Reporting on accidental deaths is disproportionate to the number of deaths caused by accidents. Of course, this comparison of reporting deaths to the incidence of deaths implies that each death is or ought to be equally newsworthy. Perhaps, this view is unwarranted because the pertinent policy concern is with accidents rather than fatalities. The next part examines reporting on consumer product and air transportation matters relative to their occurrence.

*Reporting on Fatal Accidents and Security Incidents Relative to Their Incidence.* Instead of judging reports on death relative to their incidence, a study might consider the reporting of accidents relative to their incidence. There is no central registry, however, for *all* types of accidents, but some limited inquiry is possible. There are extensive data on a wide variety of air transportation incidents,<sup>70</sup> and these transportation data can be assessed relative to articles on aviation safety or security. The lack of a central registry is a more significant impediment to understanding reporting about consumer product accidents. There are, however, limited studies of jury verdicts in product liability cases and reporting of those cases in the media.<sup>71</sup> This section considers this reporting on accidents relative to their incidence in two ways: by reference to existing literature on consumer product accidents and by a study done specifically for this dissertation on aviation accidents and incidents.

**Consumer Product Accident Reporting.** Judgments about reporting on consumer product accidents have to be constructed from a reading of unrelated studies: one on claims for accidents and another on reporting on trials for

product liability claims. Few accidents lead to lawsuits, and even fewer lawsuits lead to trial. A study led by Deborah Hensler of the RAND Corporation reported that only 10% of all accident victims sought any compensation from third parties for their injuries. Of people injured in non-work, product-related accidents, only 2% took any action to recover compensation and only 1% went as far as consulting a lawyer.<sup>72</sup> These results mean the relationship between accidents and jury verdicts is bound to be quite modest. Moreover, selection bias is a very serious problem in trying to understand the relationship between accidents and media reporting.

Yet because courthouses are a regular news beat, jury verdicts should have a somewhat greater likelihood of being reported than most accidents. In addition, to a far greater degree than reflected in traditional accident statistics, the causal relation between use of a product and an injury is established in litigated product liability claims. Thus, it seems that a proportionate under-reporting of civil verdicts in product liability cases is a good indication that product-related accidents are also under-reported.

Steven Garber and Anthony Bower examined media reporting of product liability actions brought against the manufacturers of light trucks and cars.<sup>73</sup> They found most jury verdicts in product liability cases are not reported in the mass media at all. In examining cases brought against automobile manufacturers, Garber and Bower considered products—cars and light trucks—of apparent interest to much of the public. The defective products are ones on which the media might be expected to report. Thus, reporting on these cases should be higher than that for most product liability cases. Using a litigation reporter of verdicts, Garber and Bower compiled a twelve year list of trials stemming from use of these claimed defective products. They then searched for

reports of those cases in *The Wall Street Journal*, *The New York Times*, and the Dialog newspaper database. Only 8.5% of all verdicts were reported.<sup>74</sup> When an accident involved a fatality, the likelihood of the verdict's being reported increased only 1.4%.<sup>75</sup>

On the basis of existing studies about reporting on product liability verdicts and on the relation between accidents and verdicts, it is probably fair to conclude that media reporting on consumer product accidents is unrelated relative to their incidence. Only 8.5% of cases *tried* are reported and less than 1% of the cases even prompt an accident victim to seek legal assistance. Because of the product studied in the Garber and Bower study, it seems any bias in this conclusion would result in an *overstatement* of the amount of reporting on product-related accidents. As this conclusion requires coupling unrelated and dissimilar studies, some caution is in order. Still, it seems that these studies point up the lack of a very strong relationship between product-related accidents and media attention.

**Air Transportation Incident and Accident Reporting.** The careful investigation of hijackings, bomb threats and aviation accidents makes them better objects for a study on the reporting of accidents. If each type of hijacking, bomb threat or aviation accident is equally newsworthy, there should be an association between the number of these incidents to the number of news stories about them. To study reporting on aviation safety and security, a count was made of articles on "aviation safety" or "aviation security" indexed in *The Readers' Guide to Periodical Literature*. The details of the search headings, the removal of duplicate entries, and the strategy for avoiding variation due changes in indexing practices, as well as other pertinent information, as for the prior section, are set out in the Appendix.<sup>76</sup>



Obvious concerns are the reliability and validity of these counts as measures of media activity. To test the reliability of the coding, that is, of the numerical value assigned to each entry for each variable, a sample of five hundred entries was selected from the population of all entries. Two coders, both with graduate degrees in fields other than political science, evaluated each of the entries in the sample. There was no training or coder interaction on this coding; their only instructions were to follow the written directions. For articles coded as dealing with aviation safety, the average level of agreement between the coding done by the author and that produced by independent coding was 85.3%. The coders were much more likely than the author to find articles implicating aviation safety concerns. Although somewhat lower than optimal, these statistics indicate a reasonably high level of reliability.

In brief, examination of the pairwise correlation coefficients between incidents and news coverage yields stark results. There is no statistically significant association between the number of hijackings or bomb threats and the number of articles on aviation security. Moreover, there is no such relationship between aircraft accidents (by major or commuter carriers) and the number of articles on aviation safety.

These interesting findings, however, merit two caveats, one substantive and one methodological. The methodological caveat turns on the problem of the null hypothesis. Strictly speaking, the inability to establish a statistically significant association between the number of accidents and the number of news articles offers no substantive insight. It means only that the data do not support a claim that the true correlation is different from zero within generally accepted, but arbitrary standards of statistical significance. Errors of measurement, of

specification, and so on, might well conceal the presence of a relationship where a correlational analysis indicates that there is none.

The substantive caveat turns on expectations about the production of news. A *naive* expectation about the production of news is that news reports mirror objective events. An alternative interpretation of these data is that the relationship between events such as accidents and reporting of those events is somewhat more complex. The next section presents a somewhat more sophisticated analysis of media coverage – one predicated upon the institutional processes of the mass media.

Some readers may be incredulous that media reports of accidents are *not* associated with reporting on aviation safety. Parts of the aviation community share similar concerns. A study by the U.S. National Transportation Safety Board of major air carrier accidents from 1983-2000 reported that 95.7 percent of the passengers involved in such accidents *survive* the accident. At the same time, the report suggested that perceptions on the survivability of such accidents may in fact be quite different. It added that those perceptions themselves have real safety consequences because believing air transportation accidents may not be survived, passengers do not attend to pre-flight safety briefings and other safety information.<sup>77</sup> Thus, quite apart from the theoretical interests of this dissertation, the matter of news coverage on aviation has immediate and substantive consequences.

The two parts of this section have argued media reports misstate the risk from air transportation and consumer products. Reports of deaths from air transportation or consumer products vastly exceed the incidence of those deaths in the population. Moreover, reports of consumer product or air transportation incidents or accidents appear to have little direct relation to the actual incidence

of those accidents. Admittedly, the hunt for correlations in this section seems somewhat shallow, and a more informed assessment of media practice might lead to a better understanding of media coverage about consumer product and air transportation risks.

#### **Institutional and Governmental Bias in Reporting.**

The prior section offered two descriptive findings: media reporting exaggerates reports of death from aviation or consumer-related causes, but at the same time, it bears little relation to the incidence of accidents. This section seeks to explain those findings by exploring the literature on the mass media as an institution and on the government's dominance of that institution. To bring this matter to a fine point, this section concludes with a study on how governmental institutional processes affect the reporting and non-reporting of news.

*Made for Media Events.* Repeated studies of the media offer a starting point for understanding news coverage about risk. The events that receive the most attention in the mass media are those designed for media use. These events include actions such as: the distribution of press releases, the convocation of press conferences; and especially, the release or presentation of statements or opportunities to take photographs. The dissemination of information from government officials through these channels is so routinized that media researchers call the Washington Press Corps "an institution"<sup>78</sup> or "The Fourth Branch of Government."<sup>79</sup> The centerpiece to this institutional orientation is exploring what former press secretary, Douglass Cater, called the "business of publicity." He said, more than forty years ago, "As anyone who spends time in Washington surely comes to learn, the business of publicity is no more automatic nor free from artifice than the business of government itself."<sup>80</sup>

Understanding the business of publicity involves answering three questions. First, why do media organizations search for news? Second, where do those organizations send reporters to look for news? Finally, how do government officials with news to distribute make sure that reporters looking for news find it?

Made-for-the-press events garner media attention because news organizations must constantly produce news. For them, news sells advertising. Media critic Ben H. Bagdikian makes this point about newspapers with picturesque eloquence. He observes that they buy boiled wood chips, the raw stuff of newsprint, at a cost one-third *more* than the price at which they sell finished newspapers. In this peculiar business, the final product is sold more cheaply than its raw materials. The profit comes from advertising.<sup>81</sup> For the mass media, profit does not come in searching for or supplying hard to find bits of information. It comes from reproducing what institutions supply to the press.

The constant pressure to produce news leads to reliance on official sources. Leon Sigal explained:

The reporter cannot depend on legwork to satisfy his paper's insatiable demand for news. He looks to official channels to provide him with newsworthy material day after day. To the extent that he leans heavily on routine channels for news, he vests the timing of the disclosure, and hence, the surfacing of news stories, in those who control the channels.<sup>82</sup>

News produced in this way has a double value for the press. First, the substance of what is said in routine channels, for example, that an air accident has happened or that a product is dangerous, is noteworthy.<sup>83</sup> Second, what a public officer thinks or what the government is doing is news quite apart from any intrinsic news value of an accident.<sup>84</sup> Thus, in the present study, for

example, what a CPSC Commissioner or an FAA Administrator thinks about an accident and the agency responses to that accident are also news.

Media organizations carefully plan to report made-for-the-media news. To cover the news efficiently, news organizations send their reporters to collect information on beats. For the most part, beats are geographic locations, buildings such as: The Capitol; the White House; the Pentagon, and so on.<sup>85</sup>

Knowing that reporters situate themselves at these locations, government officials with information to distribute, distribute that information at these locations. Because they want information disseminated, they distribute it in a form readily useable by news organizations (press releases). Or, they make themselves accessible to reporters at these locations (press conferences). Or they do both. Government press or information officers are responsible for coordinating the efforts of their agency to release information that meets both the needs of reporters for news and the needs of their organization for spreading its message. Making news available to the media in a readily digestible format is a subsidy that encourages the media's presentation of the government's view of the news.<sup>86</sup>

Although not free from controversy,<sup>87</sup> claims are even sometimes made that policy discussions are shaped by their news value. James Fallows, for example, quoted a White House official as saying, "There is no such thing as a substantive discussion that is not shaped or dominated by how it is going to play in the press. You could have a president who started out with clear, good idea of what he wanted to do. But it would end up just being driven by the spin of each day's news."<sup>88</sup>

One way of judging the importance of official sources for the production of news is to ask members of the press or public officials in Washington about

the relationship between official action and press coverage. Studies of the Washington Press Corps, as well as memoirs of reporters and of public officials, tend to corroborate the emphasis on routine patterns of behavior in news reporting. They tell of "spin doctors" or others concerned with media coverage as taking charge of policy. For example, William Greider, a former *Washington Post* editor, writes, "[E]ven second string reporters and editors cannot escape feeling powerful because they are constantly approached, beseeched, and inundated with appeals for their attention."<sup>89</sup>

Disputes about whether or not the press is an institution are beside the point of this analysis. Quite clearly, the processes and standards for production of the news are sufficiently well-marked, described and understood that their existence is not open to question. What remains is asking about biases in the kinds of information that enters into those processes, and how those biases subsequently shape the news.

*Government Dominance Over Reported News.* In examining studies on the institutional aspects of the press, there is some danger of exaggeration. Reporters, public officials or scholars studying them might all be inclined to exaggerate their own importance in shaping or producing the news. Probing the danger of exaggeration calls for a second way of assessing the influence of the media and of official sources. One widely used way of examining government influence on the mass media is inspecting the content of the news.

If official sources matter in the production of news, their use should be manifest in news articles. Table 2-2 presents the results of nine different studies of mass media content.<sup>90</sup> Depending on the media source used, the precise topic being studied and other factors, official sources appear in as few as 9% to as many as 78% of top news stories. Most studies report between one-third and

two-thirds of news stories identify government officials as a source. These systematic studies also affirm the observations of media insiders: Official sources matter in the production of news.

Moreover, the studies of newspaper content may *underestimate* the full extent and importance of government sources in the production of news articles for two reasons. First, most of the studies consider front page or headline news. As Sigal noted, these stories are the most important news. They should be the most extensively researched and reported. In such stories, the use of government sources should be at a minimum as reporters try to obtain independent confirmation. Less important stories inside a newspaper may simply repeat the pronouncement of a made-for-media source.<sup>91</sup>

Second, as Steven Hess observed, the sources cited in a story may not accurately reflect the story's origins. He notes for example, "The best stories about the White House come from Congressional sources. . . . This is a well known secret in the press corps. *Washington news is funneled through Capitol Hill.*"<sup>92</sup> The use of sources in non-governmental stories may follow a similar pattern.

The studies reported in Table 2-2 reflect the work of a number of researchers looking at the question of official sources on a variety of issues using a variety of media at widely different times. Unquestionably, any fair review of these studies indicates that statements by government sources are an important component of news coverage. Yet, studies examining the contents of reported news ignore the role of government officials in defining, legitimating or deligitimating events as newsworthy. Such activities are, however, perhaps the most important aspect of governmental influence over the media since such influence shapes what the public comes to know or not to know about the

conditions of society through the media. Although the appearance of governmental sources in media reports may be taken as a measure of media influence, a better measure might explore how governmental circumstances shape the non-reporting of particular kinds of events.

*Government Dominance Over News Not Reported.* The difficulty in assessing governmental influence over reporting – or non-reporting – of news comes from the want of a consistent and objective standard for judging newsworthiness. Put another way, the difficulty is making a convincing case about the baseline rate of events becoming news. After establishing such a rate, assessment of any putative government influence may be accomplished by assessing how far any putative governmental influence changes this base-line rate.

Although not a comprehensive standard of newsworthiness, a fatal airline accident seems an event obviously worthy of news coverage. As reported in the previous section, some research has reported on the incidence of articles about deaths in airplane crashes relative to other causes of death, and the recurrent conclusion is that deaths from this cause are over-reported relative to their incidence as a cause of death. Thus, accidents on air carriers causing one or more deaths is a fairly well-defined and, judging from the literature, an over-reported event. Thus, it presents a good case for studying the reporting and non-reporting of news.

Moreover, the study of accidents offers a unique window on how power arrangements in the society or the government affect the routine production of news. Because accidents, by definition, are non-routine, their occurrence introduces variation in routine – and domination of that routine – not otherwise found.<sup>93</sup> Because air transportation is pervasively regulated, nearly all



accidents invite some scrutiny of the administration of air safety regulations. Given the high salience of governmental sources reported in studies of media content, an obvious question is asking how governmental influence affects the production of news stories. In a separated system such as the United States has, one way of asking that question means is asking: Do divisions in government affect the willingness of the media to take up this invitation to scrutinize administration activity?

The short answer is that yes, the presence or absence of divided government does appear to affect the rate at which news stories on aviation safety are reported. The remainder of this section addresses this question in multiple parts. The first part situates this question in the context of the broader literature on divided government. Subsequent parts describe how data to address this question were collected and present results of quantitative analysis. The analysis to follow not only implicates concerns about divided government, but it also sheds light on the production of news and public perceptions about aviation safety.

**Divided Government.** Divided government is a split in party control over the United States government: One party controls the Presidency and the other major party controls at least one house of the Congress. A wide variety of governmental policies and institutional outcomes have been associated with the presence or absence of divided government. While the matter is not free from doubt, divided government is blamed, *inter alia*, for budget volatility,<sup>94</sup> for large deficits,<sup>95</sup> for presidential legislative success<sup>96</sup> and a variety of other outcomes and pathologies. On the other hand, the presence or absence of divided government appears unrelated to the initiation of major investigative proceedings or the adoption of major legislation.<sup>97</sup> Although Kernell notes that

the strategy choices to go public may be driven by divided government,<sup>98</sup> there does not appear to be a systematic study of media in relation to the presence or absence of divided government.

Why would the presence or absence of divided government affect media reporting on aviation accidents? Any accident in an area pervasively regulated by the government offers an opportunity for both scrutiny and criticism of government operations. When control of the government is divided, the incentives for public criticism in the mass media are somewhat different from those when government is unified. Quite apart from ideological criticism the non-presidential party might levy against the executive branch, an airline crash invites non-partisan expressions of concern about the safety of air transportation and, more significantly, it may call into question the competence of a president's administration in assuring such safety. As Anthony Downs observed, "The simplest opposition strategy is adoption of a program . . . identical with that of the incumbents' in every particular."<sup>99</sup> This "maneuver" forces a vote on the incumbent's performance – a winning strategy when planes are falling from the sky because of real or imagined governmental incompetence.

When the President and his party may be made to appear incompetent, the incentives of political competition imply a suggestion to that effect will not be wanting from an opposition party. Control over one or more of the houses of the Congress gives an opposition party an institutional vantage from which to secure information about the operation of the government. This material can form the basis for a news story. Of course, accounting for governmental influence over news reporting by divisions in government is almost the crudest imaginable measure of governmental influence on the mass media. For many readers, a more persuasive account might trace stories on aviation safety from the first

suggestions of concern about safety to a published story. Yet this measure of governmental influence allows for systematic study of news reporting practices at different times, even when more precise accountings of the sources suggesting news stories may not be possible. The remainder of this section sets out this crude test of governmental influence over the media and reports the results of that test.

**Measuring Media Coverage of Air Transportation Tragedy.** In this study on the relationship between media reporting, the occurrence of air transportation accidents and government influence, the key methodological tasks are developing suitable measures for each of these variables and selecting an appropriate statistical model for assessing their covariation. Each matter deserves some comment.

The same count of media stories used in the prior section will suffice as a starting point for the measure of media attention. The dependent variable used in analysis for this study is the count of unique entries appearing in a month with the following characteristics: the article described by the entry pertains to aviation safety; it does not pertain to military aviation; and it appeared in a major news magazine. The appendix offer some comparison of these data to similar data from other sources, and it discusses the reliability of the data collection and coding.

To undertake this study, two other sorts of measurements are required: a measurement of the events of interest, air transportation accidents, and a measure of governmental conditions, divided government. To measure the occurrence of air transportation accidents, this study uses the annual list of air transportation accidents published by *Flight International*.<sup>100</sup> Using this data as the measure of accidents has three advantages over other sources of such

statistics. First, it is outside governmental control – an important advantage in a study aimed at assessing governmental influence over the media. Second, it has a world-wide scope rather than one limited to a single country. Finally, the information allows for minimal coding as to accident characteristics, such as the number of fatalities, the name or country of the air carrier or the place of the accident.<sup>101</sup> To summarize, then, the variables with summaries of accident characteristics are counts of accidents with particular identified characteristics occurring within a given calendar month.

To measure the influence of divided government, this study uses combinations of dichotomous variables. One variable marks the presence or absence of divided government, that is any situation other than a President and a majority in both houses of the Congress of the same party. A second variable marks the presence or absence of a division in the control of the Congress. Quite obviously, divisions in government may be measured in a variety of ways, but majority control over one branches or the houses of Congress seemed to be the most important aspect of the division for the argument outlined above. Majority control of one house of Congress means that house has the authority to compel production of all necessary information from the government or other sources.

Regression Analysis. Counts of the number of articles appearing over the course of a month calls for a regression technique appropriate to event count data. An event count is the number of times that a particular event, such as the printing of a news story, occurs during some interval of time. Many positive values close to zero makes regression analysis of such data using an ordinary least squares approach inappropriate. Instead, Gary King and others have suggested using Poisson or negative binomial regression.<sup>102</sup>

**Results: The Production of News on Air Transportation Safety.** The results of the regression analysis are presented in Table 2-3 and Figure 2-1. Table 2-3 presents the results of seven different negative binomial regression models aimed at disentangling the relationship between the appearance of news articles on aviation safety, the occurrence of air transportation accidents and divided government. More specifically, the table shows the regression coefficients, statistical significance for those coefficients, and the marginal effect on the number of articles of a one-unit change in a given independent variable with all other variables held at their mean. Figure 2-1 shows both the actual data and the predicted values of the data in the final version of the regression model. Judging the regression models presented requires attention to three issues. They are: assessing the functional form of the regression model; establishing whether the independent variables in the model – as a group – improve on the null prediction; and interpreting the coefficients and results. The fine points of functional form and goodness of fit are reviewed in a note.<sup>103</sup>

Figure 2-1 shows the final model as somewhat sluggish in its predictions compared to actual data. For most of the period, the prediction forms a nearly straight line of predictions solidly above zero. Thus, the regression model contains a strong element of a “dumb” prediction. Moreover, the predictions of the model miss many of the very high peaks of 1979 and the late 1980s.

On the other hand, the periods of unified government in the study – during the Carter Administration and the first portion of the Clinton Administration – reveal a markedly lower number of articles about civilian aviation safety. At the same time, there are quite obviously elevated levels of news articles on civilian aviation safety toward the later part of the Reagan and Clinton Administrations and the Bush periods – periods of divided government.

Although the fit of the regression models might be better, the goodness of fit statistics and a visual inspection of the data invite more examination of the particular coefficients so as to explore the substantive matters of interest.

Inspection of Table 2-3 reveals much about the production of news stories on aviation safety. The most noteworthy findings concern the effect of institutional configurations and accident characteristics and aviation safety reporting. Each merits a few comments.

Quite clearly, reporting on aviation safety in news magazines is event oriented. Perhaps more informative than a review of model coefficients is an estimation of their marginal effects. Very high fatality accidents, fifty or more deaths, involving U.S. air carriers or occurring on U.S. soil, garner a good measure of media attention. In months of such accidents between two and three articles appear in major news magazines. For moderately high fatality air carrier accidents, ten or more deaths, on U.S. soil, only about one accident in four led to a safety article in a major news magazine. By contrast, the number of fatalities in a given month is not associated with the number of news articles.

For many readers these results may be striking in two respects. First, as noted above, many readers may believe most airplane accidents are catastrophes in which no one survives.<sup>104</sup> The findings here proffer some explanation for this disparity between public perceptions and reality. Reporting in the mass media is influential in shaping perceptions about risk.<sup>105</sup> Here, the reporting is disproportionately about larger, unsurvivable accidents. If people do make judgments based on what they read in the mass media, those judgements about risk will be biased toward believing what they read: that air carrier accidents routinely lead to large numbers of fatalities.

Second, these results suggest a substantial event orientation to reporting in news magazines. It is the count of particular kinds of high fatality events - not the numbers of fatalities or accidents that accounts for news coverage. As compared to other types of mass media, Diana Mutz observed, news magazines are "less episodic" and "more thematic" in their coverage,<sup>106</sup> yet still these periodicals exhibit a great deal of event orientation.

Consistent with the explanation offered in the preceding section, accidents with a higher number of fatalities elicit media attention because they require government action to clear bodies from and guard the accident site, to assist or supervise the investigation of the accident or to oversee other related matters. As government officials report on their activities, they put information into the institutional processes of the mass media.

The most interesting finding in the study is the fairly strong relationship between the operation of divided government and reporting on civilian aviation safety in news magazines. For every two years of divided government, about ten more articles appear above the number that might be expected if government were unified under the control of one party. By contrast, the presence of a divided legislature - when government is otherwise divided - has no statistically significant effect. Thus, it is the presence of an opposition in the Congress positioned to levy criticism that matters - not an institutional capacity of one branch to affect the other - that explains the production of news. As suggested above, the presumed explanation for this higher rate is the one-sided political benefits of raising the real or imagined short-comings in an Administration's oversight of air transportation safety.

The results here merit consideration in light of three obvious challenges. First, besides being the nation's capital, Washington, D.C., along with New York

and Los Angeles, is now a major media city. One challenge to the institutional argument presented here might turn on the proximity of major airports to media centers; that is, a few accidents in these major cities dominate the media coverage. However, as the coefficients on Table 2-3 show, aviation accidents within 100 miles of one of these major media cities were reported - other things being equal - *less* often than other accidents. It would seem that, in media cities, news of an aviation accident must compete with other sorts of news.

A second possible objection mixes substantive and technical grounds relating to the production of news stories in prior months. The substantive objection is that news in the current month depends in part on what counted as news in prior months. Reporters, for example, read each other's work, and that work offers new ideas for news stories. The technical objections are the conventional ones associated with a time series. Either way, the response to these objections are the same: inclusion of a lagged dependent variable.

Table 2-3 presents an array of models. They merit two points. First, the coefficients of the left three models (1-3) are nearly identical to the right-side models (4-6) but for the inclusion of a lagged dependent variable. Although the lagged variable is statistically significant at conventional levels, the magnitude of the effect is quite small. This lagged measure is the influence of news stories in a prior month on news stories in the present month. The small size of this influence stands in contrast to the robust effect of moderate sized accidents in a prior month on news stories in the current month. Prior accidents have an effect three to four times larger than prior stories do. This finding suggests that news magazines do indeed work to put events in perspective, but this perspective comes less from a study of prior accounts in other news periodicals and more from reflective investigation of events. As this point is tangential to the matters



of interest in this study, this lagged endogenous variable is omitted in the final model on grounds of parsimony.

This second point concerns the robustness of the results. Not only does the inclusion of the lagged news stories variable have only a modest effect on changes in the dependent variable, it has only slight effects on other independent variables as well. Correlograms of the standardized residuals appear in Figures 2-2 and 2-3. They display no significant autocorrelation or moving average process in the final model. Thus, the potential time series issues do not negate the central findings of this study.

Although the period of this study is quite extended, a third challenge to the findings of this study might assert the results are a product the unusual circumstances of air transportation in the era of airline deregulation: The catastrophic DC-10 crashes of 1979, the Professional Air Traffic Controllers Organization strike of the early 1980s, the labor strife involving Frank Lorenzo, Texas Air, and especially, Eastern Air Lines, or the various safety crises of the late 1980s and early 1990s all made air transportation a unique public issue. The point is not without some merit, yet it overlooks the strong role of media specialists, public officials and unions in linking or uncoupling these events to accidents or safety concerns. Those high attention media stories were not ready made. At least some of them were a consequence of well-executed media strategies designed to bring a matter to or divert a matter away from public attention. This issue takes up the bulk of the next section and so further discussion of this point must await a fuller and more theoretical presentation of the problem.

Perhaps, this third challenge to the results here has some merit, yet to assert a pattern of reporting – at least one evident across five different

presidential administrations— is unique is quite a strong claim. Because little other research has considered reporting and non-reporting of events<sup>107</sup> making an assessment of the generality or uniqueness of the findings presented here is not possible.

Over the course of this section, the description of media structure and news gathering processes laid the predicate for understanding which information about product and aviation safety is presented to the mass public. Study after study reports the presence of government sources in news that is reported. The study of air transportation accident reporting in this section establishes governmental influence over reporting in a second way: by showing how the presence or absence of divided government affects the rate of reporting on a particular class of well-defined events.

Taken together with studies suggesting mass media influence on public opinion, these studies intimate that public perceptions on risk are in part a product of governmental influence on the mass media. To be sure, this influence on the media is not univocal, and, moreover, at least part of that apparent governmental influence stems from conscious plans to garner media attention. The importance of using mass media to capture public interest is quite conspicuous in three of the nine cases, and strongly suggested in several of the other cases. The next section considers these matters at some length.

#### **Media Strategies in Regulatory Policymaking.**

Although the routine of news gathering favors governmental sources, reports coming through official channels are certainly not the only sources of news. A study by Lucig Danielian and Benjamin Page explored the effects of interest group organizations on media coverage. It examined the extent of

interest group influence on the mass media by examining the coverage of 80 different policy issues on network news over the years 1969 to 1982. As other studies have found, this study too reported that government sources dominated media attention. But it also reported references to interest groups in 14.4% of the network news stories covered. Highly organized groups received a disproportionate share of the coverage. For example, the twenty most covered groups in the study had an average of 248 staff employees as compared with an average of 101 staffers in the 20 least covered groups. Business interests and citizen action groups each had around one-third of the appearances, and organized labor had somewhat less than half that amount.<sup>108</sup>

In reviewing the literature on public relations and the production of news, Glen Cameron, Lynne Sallot and Patricia Curtin report that "25% to 50% of news content is influenced by public relations . . . with some estimates running as high as 80%." They also report the view of some researchers, "the influence of public relations on news reporting " is "so great . . . that issues suffering poor news coverage are those with 'unskilled or no public relations.'"<sup>109</sup>

The usual method for assessing public relations "influence" is tracing the contents of an article to a press release. But as Sallot notes, this technique understates the true importance of public relations in shaping news.<sup>110</sup> It overlooks, as Alice Mundy reports for example, the way public relations specialists can shape news stories by "putting" news "in the right mouths," by having sympathetic experts "plant" news stories, or by threatening ad hominem attacks on reporters.<sup>111</sup>

This body of public relations research does not distinguish the publicity efforts of private organizations from those of government agencies. Indeed, good private media relations may well succeed by placing a government

imprimatur on a private story. Using the institutional routines of the media, much as the government does, non-governmental sources may convey their message to the media. Well-established, respected organization can disseminate information to the media much as government sources do. For less well-organized groups, information may go to the media through sympathetic or concerned government officials. These officials legitimate the news of these less-well organized groups. The officials, of course, use the channels of information open to all government officials. The importance of well-defined pathways for the dissemination of information to the media is illustrated by the cases in this study.

Three cases show marks of conscious steps to facilitate news coverage, and the magnitude or tenor of that coverage itself spawned a secondary investigation or debate on the media aspects of the case. This interest in media was quite apart from interest in the policy matter at issue. Other cases in this study also suggest some media planning or, at least, some steps to influence media coverage. In each of three cases, there was evidence of a plan for dissemination of information to the media, a noteworthy atypicality in the amount of coverage generated, and some expectation for domination of news coverage by official sources and actions. The cases are: CPSC's efforts at regulating Tris; all-terrain vehicles (ATVs); and the 1985 hijacking of TWA Flight 847 to Beirut, which led to adoption of a new federal air marshal emergency rule. A final part reviews literature on media coverage of air transportation and offers a few words on media strategies in the other cases of this study.

*Coverage of Product Safety: Tris.* Tris [(2,3 dibromopropyl) phosphate] retards the spread of a flame across a fabric. After the Department of Commerce raised the flammability standards for children's pajamas, fabric weavers and

yarn spinners began using this flame retardant to manufacture cloth capable of meeting the new standards.<sup>112</sup> Tris had been patented in 1951, and underwent some toxicity testing prior to its use in children's clothing.<sup>113</sup> Prior to CPSC's interest in the chemical during the mid- and late 1970s, the National Cancer Institute had placed it on a list of chemicals for study as a possible carcinogen.<sup>114</sup> In late 1975, CPSC began receiving information that Tris could cause mutation in bacteria.<sup>115</sup> The information about the potential carcinogenicity of this chemical widely used in children's pajamas did not garner media attention until there was a petition for rulemaking filed with CPSC by the Environmental Defense Fund (EDF).

The petition used the CPSC's offeror process. This unique rulemaking procedure was a regulatory innovation engineered into the organic statute of the CPSC.<sup>116</sup> Using this process, members of the public or public interest lobbies such as the EDF could initiate rulemaking and demand that the CPSC begin work on a regulation. When the EDF initiated this process by petition, "The CBS Evening News" reported the petition that day,<sup>117</sup> and *The New York Times* reported the story the following morning.<sup>118</sup> Consumer advocate Ralph Nader wrote to Senator Warren Manguson, Chair of the Senate Commerce Committee asking for hearings on Tris.<sup>119</sup> Until the petition, there was little governmental activity to oversee or information to collect. Hence, there was no publicity.

After the petition, there was a good deal of publicity. According to the 1977 Annual Report of the Environmental Defense Fund, "'Tris,' the carcinogenic chemical flame retardant used in children's sleepwear, spearheaded EDF's efforts to gain regulation of all such flame retardant chemicals."<sup>120</sup> The report called 1977, "the most successful in EDF history in terms of outreach." It boasted of dozens of interviews on network television and with major news media.<sup>121</sup>

Indeed, one CPSC Chairman announced that he had a hard time taking the EDF's petition on Tris seriously because it arrived with a press release.<sup>122</sup>

As compared to aviation safety topics, Tris received scant media attention. From 1976 to 1979, the *Reader's Guide* notes only 10 articles on Tris.<sup>123</sup> *The New York Times* over the same period paid somewhat more attention to the topic. It has 24 entries over the same period. Figure 2-4 depicts the number of entries in *The New York Times Index* on Tris. It also shows which of those entries reflect articles on governmental action or the comments of governmental officials.

At the outset, it is obvious that virtually all of the articles concerned official actions or comments by government officials. Confirmation of this point comes in two ways. First, the entries indexing these stories refer to official comment or government action. Second, the timing of the articles corresponds to official action. A brief recitation of the key steps in the efforts to ban, undo the ban, and enforce the ban on Tris illustrates this second point.

Prior to the commencement of the rulemaking action, any danger that Tris might have posed to the public was not a news item. Tris had been available for more than twenty years, but this chemical was not news. It became news when proposals to regulate Tris, by placement of warning labels and then by a ban, were initiated.<sup>124</sup> As proceedings on Tris went forward, there were stories on CPSC's steps toward banning Tris, stories on Congressional hearings critiquing the agency's action on Tris,<sup>125</sup> and stories on several court actions brought to enforce the ban on Tris or challenge its legality,<sup>126</sup> as well as legislation to indemnify manufacturers harmed by the "unlawful" ban of Tris and a presidential veto of that legislation.<sup>127</sup>

The case of Tris illustrates three points. First, Tris was not news until it was placed on a government agenda for action. Second, it was placed onto that

agenda and publicized by a non-governmental group's clever use of official filings and by advance preparations for media coverage. Finally, although made newsworthy by actions of EDF, governmental actions and officials dominated the news coverage. Without government attention, information about Tris was not news.

*Coverage of Product Safety: All-Terrain Vehicles.* Media coverage surrounding CPSC's regulation of all-terrain vehicles (ATVs) also illustrates three important findings in the literature about newsmaking. Reporting on deaths and accidents is not related to their incidence. News reporting depends on deliberate efforts to generate coverage, and official sources tend to dominate news reporting. In the case of all-terrain vehicles, the extent of news coverage itself became an important and subsidiary issue.

ATVs are "small motorized recreational vehicles with three large, soft tires and are designed for off-road use on a variety of terrains."<sup>128</sup> In early, 1984, CPSC noticed a large increase in injuries, deaths and accidents associated with use of ATVs reported in its National Electronic Injury Survey System.<sup>129</sup> This stream of deaths, injuries and accidents was not news until a government report made it news. Put differently, as ATV deaths increased, there was no concomitant increase in news stories on ATV safety. This finding is evident from an inspection of Figure 2-5. This figure presents CPSC data on the number of ATV related deaths and injuries, by year, 1980 to 1992. Using a different metric, it also shows the number of articles on all-terrain vehicles indexed in *The New York Times* and *USA Today*. Deaths associated with the use of ATVs climbed between 1982 and 1986; after 1986, the number of deaths gradually declined. By contrast, the first indexed article does not appear until 1985 – with interest at higher levels through 1989. Although the level of deaths remained at close to the

1989 level through 1992, news coverage in the topic disappeared. Figures 2-5 makes clear the lack of any association between reporting on ATVs and the number of deaths or injuries associated with their use.

As was the case with Tris, official actors and sources dominated the production of news on ATVs. All of the stories depicted on Figure 2-7 reported on past or contemplated government action and/or the comments of government officials. The timing of the news stories neatly tracks the governmental action: calls for and announcement of a CPSC investigation into ATV related deaths and injuries (early, 1985);<sup>130</sup> development of a staff report and initial commission action on that report (late, 1986 and early, 1987);<sup>131</sup> announcement of a settlement between CPSC and ATV manufacturers together with Congressional inquiry into the matter (late 1987 through Spring, 1988);<sup>132</sup> and subsequent government investigations into dealer sales practices and distributor “dumping” of ATVs on to the U.S. market at prices below cost (1989).<sup>133</sup>

The movement of CPSC toward regulating all-terrain vehicles also highlights the importance of disseminating information through routine, media channels. As noted above, until 1985, the increase in the number of accidents, injuries and deaths associated with ATV use had eluded media scrutiny. Emphasizing the need for quick action, one CPSC commissioner, Stuart Statler, mailed a “fact sheet” and a request for information to news media and consumer organizations throughout the United States. He asked anyone who had experienced an ATV accident or who had knowledge of an ATV-related death to contact the agency. He later explained – to a specialized law journal that covers the CPSC – that he made this mailing as a way of obtaining information for the agency when the agency’s budget was tightly constrained.<sup>134</sup>



Statler's efforts to have the media bring the matter of ATV safety to the attention of the public worked very much like a press release. Indeed, CPSC Chairman, Terrence Scanlon, charged that this mailing amounted to "'a one-man consumer alert and virtual press release.'"<sup>135</sup>

Although it garnered little attention from *The New York Times*, after the mailing, the television news magazine, "20/20" ran a story on ATVs. The resulting heightened media attention was not lost on ATV enthusiasts. John Ulrich of *ATV News* wrote, for example, "The sport of ATV riding is engulfed in a fire storm of controversy fed by sensationalist general media stories about youngsters and adults being injured, maimed or killed by ATVs."<sup>136</sup>

Ulrich blamed the heightened media attention on the decision of the CPSC Commissioners to proceed with the regulatory action on ATVs. He said, "[T]he grand-standing, headline seeking, sensationalistic role playing was of the most obvious type with each commissioner jockeying to upstage the next. Explanations of rider behavior have consistently fallen on deaf ears."<sup>137</sup>

Before the CPSC moved to regulate ATVs by initiating a lawsuit and entering into a consent decree, it considered issuing a new regulation on ATVs. At public hearings in connection with this rulemaking proceeding, representatives of media devoted to ATV hobbyists, among others, testified about the attention of the general media on ATVs. Commissioner Statler's efforts were singled out for particular criticism. *Motorcycle Industry Magazine* charged, "From the outset, Mr. Statler has strategically planted sensationalistic, negative propaganda with manipulative ploys utilizing a single mindedness...out of place in his position and purview."<sup>138</sup>

In another forum, Senator Larry Craig (R-Idaho) accused Commissioner Statler of initiating a "massive publicity campaign, spreading unproven 'facts' in public statements to more than 500 national media outlets."<sup>139</sup>

As CPSC's consideration of ATV safety unfolded, release of information to the press became a matter of controversy. Statler defended this action. The vilification of Statler became a story in itself.<sup>140</sup> Manufacturers complained about misleading statements in "Consumer Alerts" from the agency and in its public notices.<sup>141</sup> The Commission itself deliberated on the appropriate statistical comparisons to be made and disclosed to the public about ATV usage and injuries.<sup>142</sup> Stories sympathetic to "victims" of ATVs appeared on "20/20," "60 Minutes" and in *People's Weekly*.<sup>143</sup> In all, from 1983 to 1992, there were 66 articles on ATVs indexed in the *Reader's Guide*.

Like the news coverage of Tris, media attention to all-terrain vehicles illustrates several points discussed in this chapter. First, absent official attention, accidents in connection with the use of ATVs - even fatal accidents - received very little media attention. Second, even a benign sounding "information request" can prompt a large amount of media attention when it moves through appropriate channels of the media. Finally, when news stories are reported, those stories are dominated by statements of public officials and reports of official action.

*Coverage of Aviation Security: The TWA 847 Hijacking.* In June, 1985, terrorists seized control of TWA Flight 847. They took the passengers and crew as hostages, murdered a U.S. Navy diver, and grabbed hold of the U.S. mass media for more than two weeks. Brigitte Nacos examined this terrorist incident at some length in her work, *Terrorism and the Media*.<sup>144</sup>

The terrorists not only seized control of the aircraft; they seized the attention of the media. A broader perspective on coverage of hijacking makes the enormity of the terrorist seizure clear. On average, between 1975 and 1996, the number of hijackings ranged between 0 and 21, and there were on average 4.7 highjackings per year.<sup>145</sup> As noted above, there is no significant correlation between the number of highjackings and the number of aviation security articles. Unlike most highjackings – which appear to be ignored by the media – the TWA hijacking occupied national attention.

In response to the hijacking, President Reagan, among other measures, proposed an expansion of the federal skymarshal program.<sup>146</sup> The “Great Communicator” did so at a nationally televised, evening press conference,<sup>147</sup> yet attention to this policy initiative was swallowed by the terrorist dominated coverage of the hijacking. The theft of public and media attention was so complete that this expansion of the program is inconceivable save in terms of a response to this 1985 hijacking.

Figure 2-6 depicts the number of magazine stories on aviation security indexed in the *Readers' Guide*. The procedure for constructing this measure is set out in the Appendix. Although coverage of aviation security only changed slightly in news magazines as a result of the hijacking, in other types of magazines, coverage increased enormously. Moreover, these other periodicals, collectively, had a circulation that exceeds that of the news magazines.<sup>148</sup> This brings the matter more closely to public attention.

Table 2-2 makes the point that official sources and actions usually dominate the press, but this case illustrates that this domination is not inevitable. Carefully drawn plans and made-for-the-media news may defeat government domination of the press. By staging “violent spectacles,” Nacos argues,

“terrorists try to exploit the linkages between the news media, public opinion, and presidential decision making...”<sup>149</sup> Normally, she observes, press coverage of foreign policy is dominated by the Washington “golden triangle” news beats: the White House, the State Department and the Pentagon.<sup>150</sup>

Terrorism works, she argues, by changing this dynamic, and she called the 1985 hijacking a “striking example.”<sup>151</sup> She observes:

Correspondents who reported the TWA hijacking in Beirut found that the terrorists and their Amal allies were well aware of the reach of various American media organizations, of press pools, and of the vastly different audience sizes of the electronic and print media. They staged news conferences, interviews and briefings with selected hostages, Amal leader Nabih Berri and other figures in the TWA drama *like seasoned American press secretaries or publicity agents*. According to one account, graduates of media studies programs at American universities attended meetings in the house of Nabih Berri at which tactics for handling the news media were discussed and worked out.<sup>152</sup>

The media strategy worked. As Nacos observed, the hijacking story opened 85% of the network news broadcasts during the crisis. The times it did not lead the broadcast, the lead story involved other terrorist incidents.<sup>153</sup>

Other impressive evidence of the strategy’s success comes from the media content studies of Tony Atwater. Examining the content of both network and *New York Times* coverage, he found that coverage of government sources amounted to 17% of all coverage on the hijacking. This is a far cry from the usual one- to two-thirds of media coverage citing government sources noted in Table 2-2. Here, 53% of the network stories and 19% of the *New York Times* stories, Atwater found, concerned the hostages, their families, and the hijackers.<sup>154</sup>

The first section of this chapter made the point that there is no association between the number of terrorist acts and the frequency of media coverage. By contrast, the TWA 847 hijacking and the other cases of terrorism that Nacos considers saturated the news. The implication of this case is that the media strategy of the terrorists, rather than of the government, shaped the news.

*Coverage of Air Transportation Safety.* The reports of media coverage in the preceding three cases strike an episodic tone. One planned event is associated with a flurry of news stories, and the line from media coverage to government action is not difficult to draw. Yet an examination of how news about aviation risk is produced would be remiss without some attention to the role of air transportation unions in shaping news about risk.

To be sure, airlines have a long history of concern about air transportation safety,<sup>155</sup> but over the period of this study, the most noteworthy aspect of news coverage in this area was the success of unions in bringing their concerns about aviation safety to public attention.<sup>156</sup>

Unhappy with the policies of the Reagan Administration, in the 1980s, unions employed by Eastern Air Lines developed and began to use a corporate campaign strategy in their dealings with management. Corporate campaign strategies seek to expand the scope of labor-management disputes by bringing attention to corporate conduct on matters likely to garner community attention. An important part of this strategy involves placing complaints with regulatory and law enforcement agencies about regulatory transgressions and then publicizing the regulatory or law enforcement action. The strategy costs a company "managerial time, public embarrassment, potential fines, and the costs of compliance." Thus, it diminishes the authority of management in the workplace, and relatively speaking, augments the power of labor.<sup>157</sup>

Needless to say, the tactic is controversial and has been called a perversion of the regulatory process.<sup>158</sup> Several books on the airline industry since deregulation, its labor relations, and the actions of the Air Line Pilots Association and the International Association of Machinists with respect to Eastern Air Lines have discussed this strategy to explore a variety of theoretical issues.<sup>159</sup>

The important point here is that well-designed media strategies were able to bring the unions' point of view to the public on multiple occasions. A special issue of *Air Line Pilot*, a publication of the pilots' union, describes many of the steps it took in support of a media strategy. The union had a national training program for media spokesman. During a strike with Eastern, the pilots held daily conference calls among spokesman all across the country to make sure they sang "from the same sheet." The union placed advertisements in prominent newspapers such as *The New York Times*, *The Wall Street Journal*, and *The Washington Post* to get its message to the public.<sup>160</sup>

But these campaigns involved more than clever media relations. As labor strife increased, the pilots instituted a "Max Safety" campaign. In this safety campaign, the union encouraged its pilot members to fly "by the book." Union members placed hard to remove stickers in plane cockpits. This mild vandalism built both solidarity and forced additional maintenance on the company.<sup>161</sup>

The union also used an extensive postcard campaign to bring governmental attention to bear on Eastern. As part of the campaign, union members were to report safety violations to the Federal Aviation Administration, the Department of Transportation, the National Transportation Safety Board, and two Congressional subcommittees charged with oversight of aviation. The cards were designed so that information that might identify the sender (but also the details of a claimed violation) were removed.<sup>162</sup>

Eastern's management dismissed the entire "Max Safety" campaign as a labor response to disagreements over wages, fringe benefits and working conditions.<sup>163</sup> A Republican Secretary of Transportation complained that the union was trying to make safety a political issue, and emphasized that only six of thirteen hundred cards received yielded any proven safety violations.<sup>164</sup>

Yet the consequences of the union-generated media attention were significant. An editorial in *The New York Times* noted "pressure from Congress," including calls from 150 Congressman, leading to an investigation of Texas Air, Eastern Air Lines's parent corporation. This investigation came on top of FAA fines of Eastern for sundry safety violations. More to the point, the editorial explained, "Texas Air has offended organized labor, the industry establishment, and a lot of important people in Washington."<sup>165</sup>

Although Eastern passed the inspections,<sup>166</sup> the publicity campaigns were not good for Eastern. *Aviation Week* reported, for example, that Eastern's traffic dipped as the FAA conducted its inspection.<sup>167</sup> Eventually, Congress passed a bill setting up a dispute resolution board between Eastern and its unions. Although President Bush vetoed the bill, the special inspections, the Washington attention, and the publicity could not have been helpful as Eastern skidded toward, entered into and eventually expired in bankruptcy.<sup>168</sup>

Eastern Air Lines for a time was a subsidiary of Texas Air. The safety campaign of the pilots blurred into "a broad publicity campaign" against Frank Lorenzo, the chief of Texas Air.<sup>169</sup> This campaign of both pilot and machinist unions raised doubts not only about airline safety, but also antipathy against Lorenzo himself. Network interviewer, Barbara Walters, asked Lorenzo point blank about his being the most hated man in America.<sup>170</sup> The full effect of the union media campaign, the amount of publicity it generated, and ultimately its

effect on public policy is difficult to gauge, yet at the time, observers felt the campaign had important effects.

During the strife between the pilots, the flight attendants and the airlines affiliated with Texas Air, the number of articles on aviation safety increased. Difficulty in attributing that increase to a media campaign arises because part of a media strategy is moving other political actors to speak for the principals to the dispute. The disputes between Frank Lorenzo, Eastern Air Lines and its unions had origins well before the late 1980s. Overall, however, the account of a media struggle between Eastern and its unions is not implausible. Even more interesting is the use of postcards to garner governmental attention, part and parcel with a larger media campaign.

The regression analysis presented in the preceding section takes no account of the air transportation union media strategies, yet inspection of Figure 2-1 does indeed show an elevated level of media concern with aviation safety in the mid and late 1980s. The findings in this section do not negate the earlier results. Here, the unions worked through allies in Congress and the government to bring their concerns to public prominence. This is not inconsistent with the earlier analysis. More noteworthy, however, is the observation that regulatory concerns were peripheral to any regulatory disputes. Without passing on the merits of the any real or imagined concerns with operational safety, as with the emergency rule on federal air marshals, the publicity drove regulation in ways not associated with any objective perception of risk.

*Less specific media planning.* The other cases in this study have not generated a secondary literature about their media coverage, and an exhaustive study of that coverage is well-beyond the present project. Frankly, less is known about these other cases.



**Regulation by Objective, the 1978 Commuter Rule and the 1995 Commuter Safety Initiative.** The remaining cases on aviation safety received varying amounts of media attention. The Reagan-era Regulation by Objective proposal received very little media attention. Proceedings on the safety aspects of the 1978 Commuter Rule were a small portion of much more extensive proceedings on airline deregulation. The 1995 Commuter Safety Initiative was announced from the site of a commuter accident. However, the preparations for this initiative had been underway well before the accident. In any case, per the history of the controversy with Eastern Air Lines, the airlines, the unions, and the other participants in this matter would seem to have had adequate resources to garner extensive media coverage if they had wanted to do so.

**Thermal Neutron Activation.** Like the emergency rule on air marshals, the thermal neutron activation proposal was peripheral to a terrorist act, the 1988 bombing of Pan Am 103 over Lockerbie, Scotland. The terrorist act received a great deal of media coverage, but the media plans of the terrorists, if any, are unknown. Surely, the matter received a good deal of media attention. It seems unlikely that any terrorist would expect the bombing of a major U.S. carrier's trans-Atlantic flight to go unnoticed. Moreover, media scrutiny was spawned in part by a subsequent government commission and a group of Lockerbie relatives, but the details of any media planning are not known.

**Lawn Darts.** The father of a little girl killed by a lawn dart contacted the media and government officials in his grief and anger about her death. His daughter's story was taken up by the media, and the matter advanced as Congressional partisans used the incident as an instance of the Administration's failure to protect public health and safety. At the time of the controversy, epidemiological studies indicated that lawn darts produced somewhat fewer

**injuries than either horseshoes or tetherball. Clearly, this regulatory item had little to do with systematic concerns about product safety regulation and much to do with suggesting an administration's indifference to suffering.**

**Drawstrings. Drawstrings are the cords used to tighten the hoods on children's coats about a child's head. The regulation of drawstrings received little media attention although the letters to the First Lady from a mother grieving the loss of her child due to a drawstring strangulation did receive some local media coverage. But the matter did not receive the extensive coverage of the lawn dart case – probably in part because of prompt action by the safety commission and manufacturers in developing standards to prohibit the future use of drawstrings.**

**The evidence from each of these cases about media strategies is quite uneven in its detail. Yet, with varying levels of sophistication, it appears that interest groups by themselves or acting with government officials or government officials by themselves developed plans to provide information to the mass media. At the very least, it seems the dissemination of information to the press was not left to chance.**

## **Conclusion**

**As noted, the mass media shapes public opinion. This chapter inquires about media reports on air transportation and consumer product safety. A variety of studies and the findings in the cases considered here suggest reporting in the mass media on aviation and consumer product safety exaggerates the risk of death and disproportionately reports on catastrophic events. Second, because of conscious efforts to use the institutional structures or processes of the mass media, the content of news stories in the mass media is strongly associated with**

the pronouncements of government officials and with the messages of well-crafted media campaigns of interested stakeholders.

Taken together, these findings raise doubts about relying on the media as the source of information for coming to sensible judgments on matters of safety. The textbook account places a good deal of reliance on the mass media's production of unbiased news, yet the evidence offered in this chapter suggests a large role for the government and publicity seekers in shaping what news is reported.

By contrast, the study of media activity in this chapter is more peripheral to the account of anticipatory democracy. To the extent that elites rely on the press to get a sense of the public's concerns on a particular matter, elites will receive quite a biased sample since the media reports only the most severe accidents or safety issues. This is a matter taken up in the next chapter.

Besides adding to the more general argument of this dissertation, this chapter has also made a modest contribution to the study of media reporting. First, the quantitative findings on the reporting of fatal airplane accidents are somewhat surprising given results elsewhere in the media literature. Although the regression analysis indicates that larger accidents are reported, a conclusion that smaller accidents or aviation-related fatalities go completely unreported is unwarranted. A variety of technical grounds, in addition to substantive ones, might account for the inability of the regression models to establish a significant relation between such accidents and news reports. More significantly, this study only considered reports in news magazines. Other media might report on accidents more reliably. Still, the results do support a claim that larger accidents do receive a disproportionate amount of media attention, and this claim does present a problem for the textbook account of regulatory policymaking.

**Second, that cases involved some level of media planning is unsurprising. After all, the cases selected for this study were chosen on the basis of claims reported in the specialized media. Moreover, accepting claims of no correlation between accidents or deaths on one hand and media reports on the other is tantamount to accepting a null hypothesis. Still the association of 10-plus fatality accidents and 50-plus fatality accidents of U.S. regulated carriers with reporting does suggest some systematic, institutional bias in media reporting. This bias is related to what Cater and others called, "the business of publicity," and it is substantially different from naive views of media reporting that see the media largely as a mirror of objective conditions.**

<b>Table 2-1: Comparison of Number of Stories and Population Mortality Rates for Selected Causes of Death.</b>			
<b>Type of Accidental Death</b>	<b>Number of Stories</b>	<b>Death Rate per 100,000 people</b>	<b>Comparison to story death ratio for heart disease<sup>†</sup></b>
<b>air and space transportation</b>	<b>120</b>	<b>0.5</b>	<b>3004.61</b>
<b>fire</b>	<b>161</b>	<b>2.1</b>	<b>959.81</b>
<b>firearms</b>	<b>35</b>	<b>0.7</b>	<b>625.96</b>
<b>electric current</b>	<b>4</b>	<b>0.4</b>	<b>125.19</b>
<b>cutting or piercing instrument</b>	<b>1</b>	<b>N/A</b>	<b>N/A</b>
<b>inhalation or ingestion of object</b>	<b>1</b>	<b>1.5</b>	<b>8.35</b>
<b>poisoning</b>	<b>199</b>	<b>2.1</b>	<b>1186.35</b>
<b>† The numbers in this column represent the number of times greater the story to death rate ratio is for the associated cause of death than that ratio is for heart disease. Source: Singer and Endreny, pp. 52-53.</b>			

Table 2-2: Selected Studies on Use of Official Sources in the Mass Media.		
Study	Extent of Study	Pertinent Findings
Brown, Bybee, Wearden and Straughan, 1987	Two randomly constructed weeks during 1979 and 1980 of front page stories in <i>The New York Times</i> , the <i>Washington Post</i> and four North Carolina newspapers	<ul style="list-style-type: none"> <li>• 31% of sources in front page stories affiliated with the U.S. government; 78.9% of those stories are from government executives</li> <li>• 57.7% of sources in front page stories affiliated with some governmental (including foreign) unit</li> <li>• 56% of national and 64% of wire service stories depend on routine<sup>1</sup> sources rather than informal or enterprise sources</li> </ul>
Danielian and Page, 1994	Eighty different policy issues on network news, 1969-1982	<ul style="list-style-type: none"> <li>• 51.9% of television news stories use government sources (10.2% Presidential or White House sources; 29.5% other administration sources or Members of Congress from President's party; 12.2% Members of Congress not of President's Party)</li> </ul>
Gans, 1979	Six month sample of stories on domestic actors and activities drawn from the years 1967, 1971 and 1975 from cover stories and National Affairs section of <i>Newsweek</i> and domestic news on CBS Evening News	<ul style="list-style-type: none"> <li>• 54% of television news stories and 55% of magazine articles used as sources, incumbent presidents; presidential candidates; members of Congress; other federal officials or astronauts</li> <li>• 11% of television news stories and 13% of magazine articles used as sources state or local governmental officials</li> </ul>
Hornig, Walters and Templin, 1991	All news stories on Hurricane Hugo and Loma Prieta Earthquake to December, 1989 from Newsbank Electronic Index	<ul style="list-style-type: none"> <li>• 55% of all quotations used in articles from government affiliated sources</li> </ul>
Hoynes and Croteau, 1989	All Nightline shows, January, 1985 to April, 1988	<ul style="list-style-type: none"> <li>• 30% of U.S. guests were current or former government or military officials</li> <li>• 66% of one-guest shows were done with current or former government or military officials</li> </ul>

<p>Lasrossa and Reese, 1990</p>	<p>All stories on stock market crash of October, 1987 reported in <i>Newsweek</i>, <i>The New York Times</i>, <i>The Wall Street Journal</i> and the "CBS Evening News"</p>	<ul style="list-style-type: none"> <li>• Between 9-23% of sources used were government sources affiliated (depending on the media)</li> <li>• As compared to other sources, government sources disproportionately blamed the deficit for the crash.</li> </ul>
<p>Ryan, 1993</p>	<p>All weekday broadcasts between September and December, 1991 of "All Things Considered" and "Morning Edition" of National Public Radio</p>	<ul style="list-style-type: none"> <li>• 26% of sources used were government officials</li> <li>• 61% of domestic political stories were "Washington-based;"</li> <li>• 53% of all Washington-based stories were lead by a quotation from a Member of Congress</li> </ul>
<p>Sigal, 1973</p>	<p>Two week samples from the years 1949, 1954, 1959, 1964 and 1969 of stories on foreign and national news on front page of <i>The New York Times</i> and <i>The Washington Post</i></p>	<ul style="list-style-type: none"> <li>• 46.5% of the sources cited were officials of the U.S. government</li> <li>• 78.1% of the sources cited had governmental (including foreign governmental) affiliations</li> <li>• 58.2% of the stories came from routine channels; of those, 80.7% of had sources who were U.S. government officials</li> </ul>
<p>Whitney, Fritzier, Jones, Mazzarella and Rakow, 1989</p>	<p>Sample of Monday to Friday evening newscasts from May, 1982 to April, 1984 using abstracts from Vanderbilt Television News Index</p>	<ul style="list-style-type: none"> <li>• 28.2% of the films or sound bites are federal officials</li> <li>• 40.6% of the films or sound bites are from officials affiliated with some level of government of a political source</li> </ul>
<p>† The term, "routine" sources or channels is defined in Sigal, 1973. He states: "Routine channels include (1) official proceedings such as trials, legislative hearings, and election tabulations; (2) press releases as well as reports monitored over official radio or from TASS; (3) press conferences, including daily briefings by 'official spokesmen' and broadcast interviews; and (4) nonspontaneous events, such as speeches, ceremonies, and staged demonstrations." Sigal contrasts these type of sources to "informal" and "enterprise" sources. "Informal" sources include "(1) background briefings; (2) leaks; (3) nongovernmental proceedings like association meetings or trade union conventions; and (4) news reports from other news organizations . . ." "Enterprise" sources include "(1) interviews conducted at the reporter's initiative; (2) spontaneous events which a reporter witnesses first hand, like fires, riots, and natural disasters; (3) independent research involving quotations from books and statistical data; and (4) the reporter's own conclusion or analysis." p. 120 Other authors building on his work have used the same term.</p>		

**Table 2-3: Negative Binomial Regression Analysis of Civilian Aviation Safety Appearing in News Magazines, by Month, 1975-1996.**

Model	Endogenous Models			Exogenous Models			Final
	1	2	3	4	5	6	7
Constant	-0.75*	-0.71*	-0.86*	0.73*	-0.76*	-0.76*	-0.62*
Articles on Civilian Aviation Safety in Prior Month	0.10* [0.09]	0.10* [0.09]	0.10* [0.09]	.....	.....	.....	.....
Accidents at U.S. Sites with 10 or More Fatalities	0.24 [0.22]	0.26 [0.24]	0.14 [0.13]	0.18 [0.17]	.....	.....	.....
Accidents at U.S. Sites with 10 or More Fatalities, in Prior Month	0.44* [0.41]	0.42* [0.39]	0.33 <sup>†</sup> [0.30]	0.46* [0.43]	0.46* [0.43]	0.47* [0.44]	0.58* [0.55]
Divided Legislature	-0.06 [-0.05]	-0.05 [-0.05]	-0.04 [-0.03]	-0.05 [-0.04]	-0.04 [-0.04]	-0.04 [-0.04]	-0.05 [-0.05]
Divided Government	0.50* [0.41]	0.50* [0.41]	0.51* [0.41]	0.52* [0.43]	0.52* [0.43]	0.52* [0.43]	0.51* [0.43]
Media City	-0.81 <sup>†</sup> [-0.76]	-0.83 <sup>†</sup> [-0.77]	-0.76 <sup>†</sup> [-0.70]	-0.83 <sup>†</sup> [0.78]	-0.78 <sup>†</sup> [-0.74]	-0.78 <sup>†</sup> [-0.73]	-0.80 <sup>†</sup> [-0.76]
Accidents at U.S. Sites or Involving U.S. Carriers with 50 or more Fatalities	1.32* [2.29]	1.38* [2.47]	1.40* [2.50]	1.37* [2.43]	1.48* [2.81]	1.45* [2.69]	1.47* [2.82]
Fatalities in Month	.....	-0.00 [-0.00]	-0.00 [-0.00]	-0.00 [0.00]	-0.00 [-0.00]	.....	.....
Fatalities in Prior Month	.....	.....	0.00 <sup>†</sup> [0.00]	0.00 [0.00]	0.00 <sup>†</sup> [0.00]	0.00 <sup>†</sup> [0.00]	.....
$\alpha$	0.98 <sup>~</sup>	0.98 <sup>**</sup>	0.93 <sup>**</sup>	1.02 <sup>**</sup>	1.04 <sup>**</sup>	1.04 <sup>**</sup>	1.04 <sup>**</sup>
L.L.	-359	-359	-357	-361	-362	-362	-364
-2LogL	46.4	46.8	50.1	43.2	42.6	42.5	38.8
Stata Pseudo-R <sup>2</sup>	0.06	0.06	0.06	0.06	0.06	0.06	0.05

Coefficients [Marginal Effect of a One-Unit Change in Independent Variables on Count, Holding All Variables at Mean] \* Denotes Level of Significance  $\leq 0.05$ . <sup>†</sup> Denotes level of Significance  $\leq 0.10$ . <sup>\*\*</sup> Denotes result of a log-likelihood test that the data are Poisson distributed is smaller than 0.0001. For endogenous models, n=263. All others, n=264. All calculations except Nelson-Aldrich Pseudo R<sup>2</sup> made using STATA 7.0.



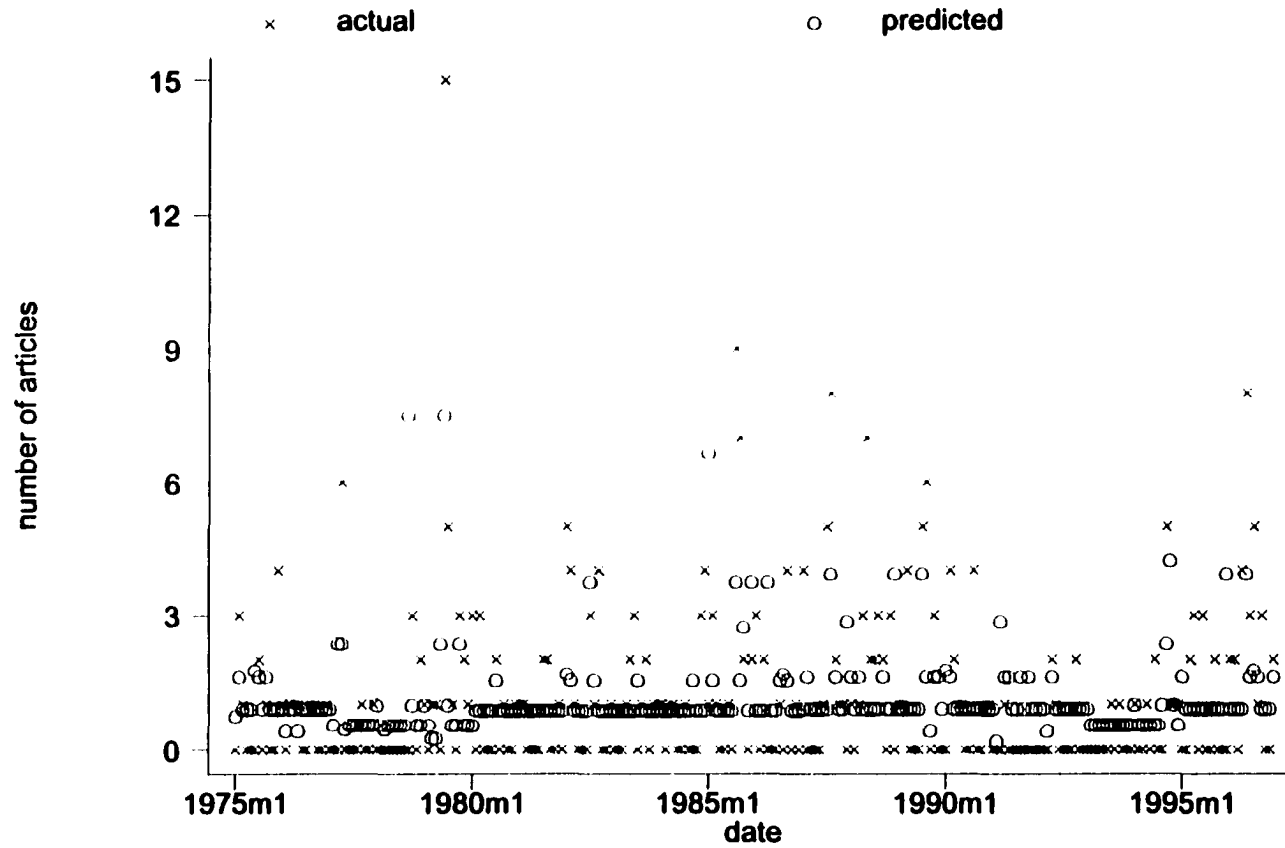
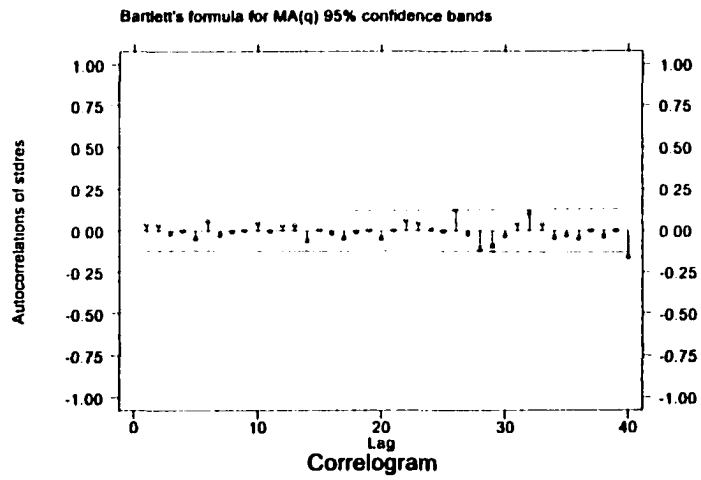


Figure 2-1: Articles Appearing in News Magazines on Civilian Aviation Safety, 1975-1996, by Month, Actual versus Predicted. Sources: Article Count of *Readers' Guide to Periodical Literature* and Annual List of Air Transport Accidents in *Flight International*.



**Figure 2-2: Autocorrelations of Standardized Residuals, Table 1, Model 7.**

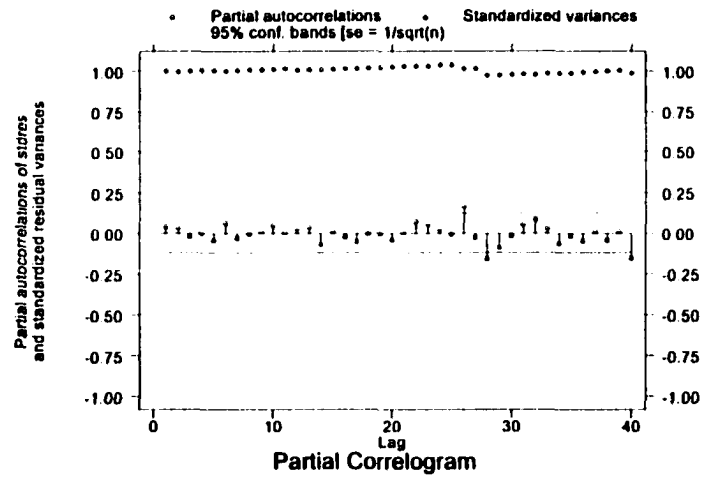


Figure 2-3: Partial Autocorrelations of Standardized Residuals, Table 1, Model 7.

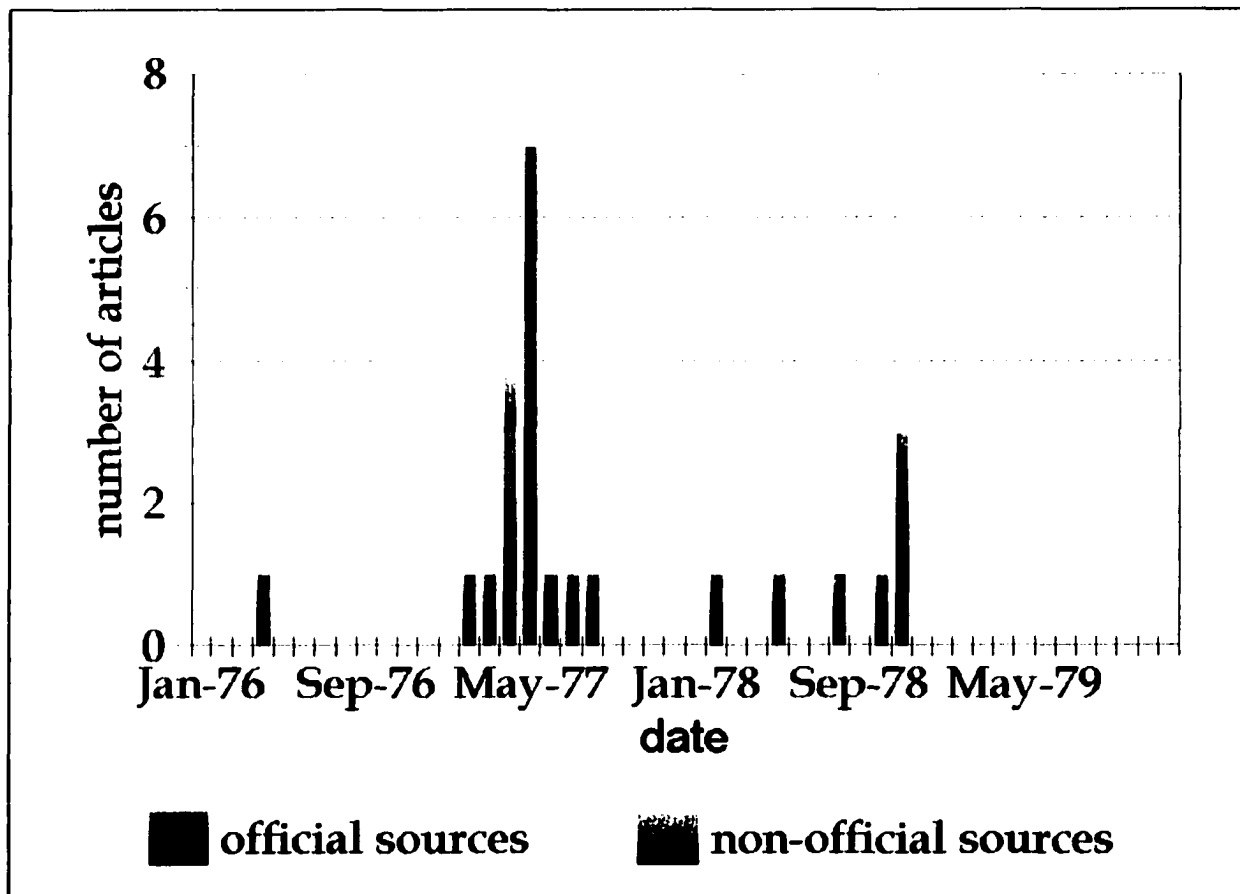


Figure 2-4: Count of Articles on Tris Indexed in *The New York Times*, by month and source, January, 1976 to December, 1979.

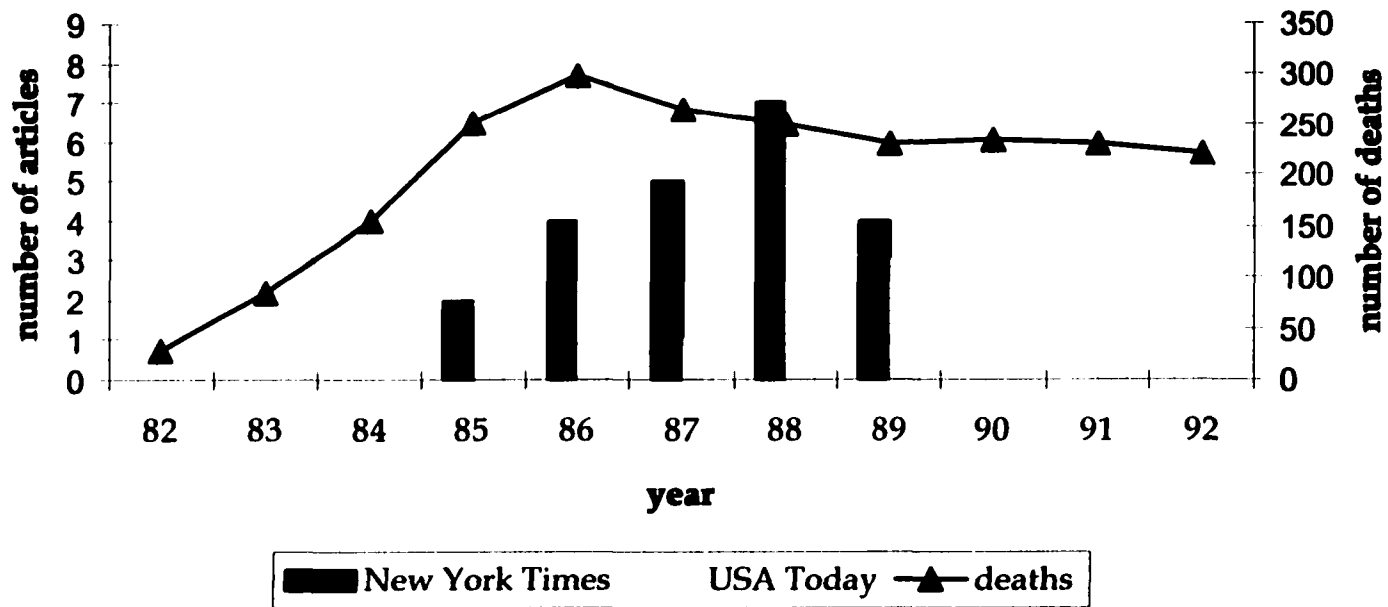


Figure 2-5: Number of Indexed News Articles on All-Terrain Vehicles Appearing in *The New York Times* or *USA Today* (Left Axis) and Number of Deaths Associated with Use of All-Terrain Vehicles (Right Axis), 1982-1992. Sources: *New York Times Index*, *USA Today Index* and U.S. Consumer Product Safety Commission.

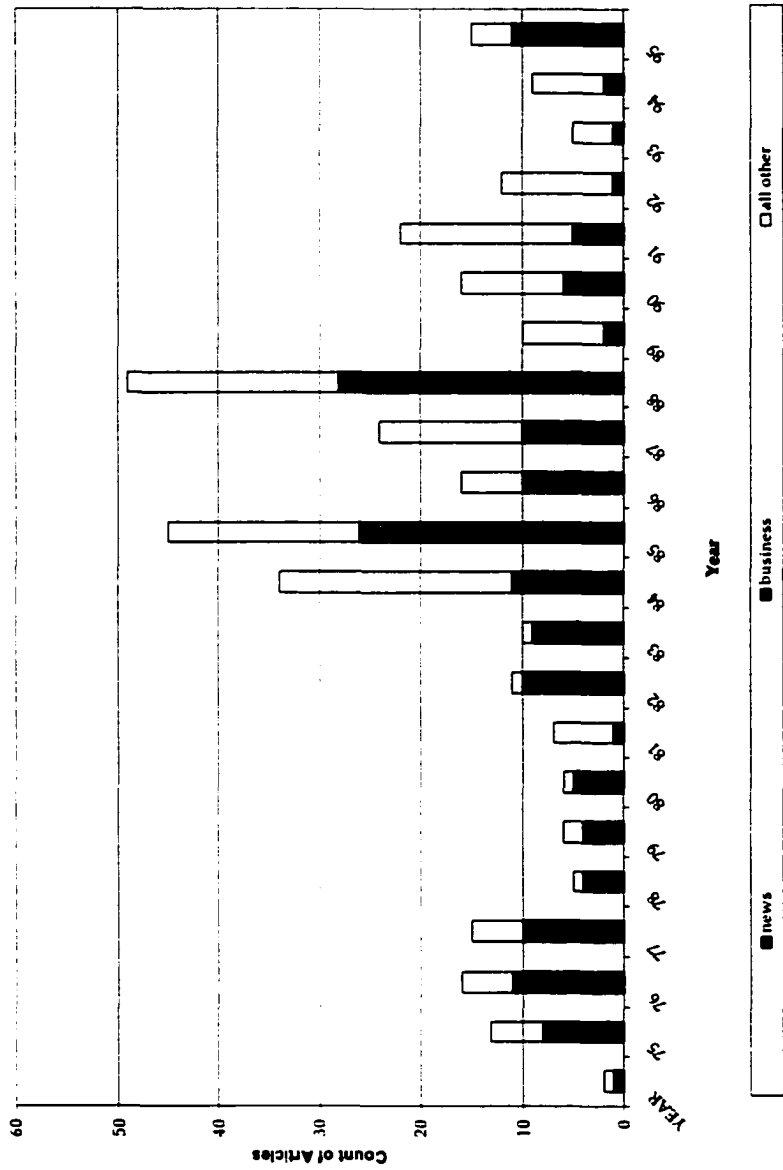


Figure 2-6: Count of Articles on Aviation Security, by Year and Type of Magazine, 1975-1996

## Chapter Three: Perceiving and Monitoring Public Opinion

### Introduction

By comparing reported perceptions of public opinion to systematic indicators of public opinion, this chapter asks about the mechanism that brings public opinion into regulatory deliberations. The question matters. For public opinion to affect public policy, the directions of the public have to enter into the deliberations of policymakers. In textbook accounts, public opinion enters into deliberations about policy through the work of elected officials as they reflect on the results of their previous election and prepare to run against potential challengers in their next election. In anticipatory democracy, information about public opinion is ubiquitous in diffuse policy networks. Bureaucrats and regulatory stakeholders talk about public opinion just as they talk about the myriad other things that affect policy.

To address the question posed, this chapter considers at length a single case: public opinion about aviation safety as proceedings on the 1995 Commuter Safety Initiative were underway. Aviation rulemaking offers a particular advantage for understanding the perception of public opinion in policy networks because public opinion on aviation safety is volatile. Undoubtedly, the public is always against airplane crashes and in favor of more safety, yet as observed in this chapter, the intensity of public views about airline safety fluctuates a good deal. For this dynamic intensity to have any affect on rulemaking, gauges of that

**intensity need to be available to policymakers. By considering a case where stakeholders had available a wide variety of measures of public opinion, evaluating what those stakeholders said about public opinion, and connecting those statements to available measures, this chapter can offer persuasive evidence on how policymakers and stakeholders perceive public opinion. The evidence in this chapter is further strengthened by situating the results of this single case study relative to the other cases in this dissertation and other work on the perception of public opinion.**

### **The Volatility of Public Opinion on Risk**

**In a series of works on public opinion about public policy, Benjamin Page and Robert Shapiro conclude public opinion is remarkably stable over long periods of time. Moreover, they argue, public opinion is rational, that is, it “reacts to new situations and new information in sensible, reasonable ways.” They blame “government non-responsiveness to public opinion” on “a lack of available information.” Their extended body of work is a helpful benchmark for examining public opinion about risk, and more particularly, public opinion about aviation safety.<sup>171</sup>**

**In reaching their conclusions about the stability of public opinion, Page and Shapiro rightly emphasize the importance of analyzing identical questions in making judgments about changes in collective public opinion. For small changes in wording by themselves, they warn, can account for fluctuations in public opinion.<sup>172</sup>**

**Repeated, publically available surveys about the safety of consumer products do not appear to have been undertaken during the period of this study. There were, however, several Harris and Gallup polls on aviation safety and**



security. At the least, these studies can be examined for both plausible consistency with prevailing views on the stability of public opinion and the connection between media attention and surveyed opinion.

**Volatility in Public Opinion About Aviation Safety.** Tables 3-1 and 3-2 collect identically or nearly identically worded questions about air transportation safety. Table 3-1 reports for several times over the period of this study the portion of all adults and airline traveling adults who feel that airline travel is safer than it was five years before. The proportion of adults believing air travel was safer ranges between 6.8% and 40.4%. Yet these observations about the data make the table noteworthy. First, in general, it seems that public trust in the safety of air travel declined in the 1980s from far higher levels in the 1970s. This shift in public opinion was described in qualitative terms by regular participants in aviation policy over the course of interviews reported later in this chapter. Still, this change in attitude merits reiteration here. Second, the proportion of the public believing that air travel is less safe than it was five years before is volatile. The swings in that proportion exceed six percent in every instance. In the 1980s, these large swings exceed eight percent and came in different directions. Finally, air travelers are somewhat more optimistic than members of the general public about the safety of air travel. Nevertheless, the fluctuation in this proportion of the public mirrors the fluctuation in the public as a whole.

Table 3-2 depicts the proportion of the public indicating that a particular item of aviation safety or security was a matter of "great concern." Data on these questions are available for three years, 1985, 1989 and 1995. As with Table 3-2, this information is broken down by the respondent's travel experience. This table also merits three comments. First, the questions ask about aviation safety as a collective rather than an individual concern. That is, respondents are asked

*what they think other people think.* They are not asked to report on what they themselves think, or more importantly, what they themselves do. Second, there were increases of more than eight percent in the proportion of the public expressing "great concern" about bombs on aircraft, pilot error and maintenance. Finally, that concern is consistently greater for members of the public who travel by air.

The volatility of public opinion about aviation safety evidenced by these two tables merits some comment. Page and Shapiro examined 1128 survey questions about public policy asked more than once by prominent survey organizations. They report that for about two-thirds of the question asked, aggregate surveyed opinion about the policy of interest did not change by as much as seven percent.<sup>173</sup> Against this standard, *the swings in opinion of eight percent in two opposite directions* noted in Tables 3-1 and 3-2 are clearly exceptional.

The unusual quality of this opinion is made more evident by comparison with study of fluctuations of surveyed opinion that Page and Shapiro made as apart of their study. Those are instances where aggregated public opinion shifted by 6% in opposite directions within two years. Only 173 questions were asked frequently enough to judge whether a true fluctuation in public opinion had occurred, and *in those instances*, only 18% of the cases demonstrated a statistically significant fluctuation.<sup>174</sup> The data in Table 3-2 are less than ideal for making this comparison. Nevertheless, assuming that the opinion of airline travelers and the general public track reasonably close to each other, and fudging slightly on the time period allowed, it seems that there were *two* fluctuations over the period of this study. In these ways, public opinion on aviation safety is exceptionally unstable.

Table 3-3 presents data on a variety of aviation risk and performance indicators. More specifically, it reports for scheduled service air carriers at five year intervals: the number of revenue passenger enplanements; the number of revenue passenger miles; the number of departures; and the revenue load factors. While public opinion as measured by surveys was deteriorating, as measured by usage statistics, it was improving. These system-wide data mask fluctuation in these statistics on individual routes or carriers. But quite clearly, these aggregate data are not a surrogate for surveyed opinion. Indeed, surveyed opinion has only a weak relation to many pertinent behaviors. For example, despite expressed concerns about aviation safety, public opinion surveys also reveal very few (less than two percent) travelers report changing or cancelling their travel plans because of fears about flying.<sup>175</sup> Clearly, aggregate measures of air travel indicate something quite different that public opinion polls do. The fluctuations in surveyed opinion and the disconnection between surveyed opinion and mass behavior merit further investigation before continuing.

The Mass Media and Public Opinion on Aviation Safety. An extensive literature argues the mass media are influential in shaping public opinion.<sup>176</sup> Figure 3-1 presents, by month, both the total number of articles on aviation safety and on commuter aviation safety. The data presented in Figure 3-1 and Tables 3-1 and 3-2 are not extensive enough to permit a rigorous testing of claims on links between mass media attention and public opinion. However, the data do suggest a claim that media coverage shaped surveyed opinion about aviation safety or security is clearly not unwarranted. A few words on this matter is in order.

A recent book by Diana Mutz, *Impersonal Influence* suggests a strong role for the mass media in configuring the response patterns like those observed in

Tables 3-1 and 3-2. Arguments that “personal-experience” shapes “political attitudes,” she argues, are commonplace. Thus, the expectation that air travelers would hold opinions different from non-travelers or members of the general public is reasonable. Yet, she notes, repeated studies have found only minimal effects of personal experience on attitudes about collective phenomena.<sup>177</sup> Thus, in Tables 3-1 and 3-2, there is little reason to expect large differences in the public opinion of travelers and other members of the general public. Inspection of these tables confirms both reflections. In both tables, there are differences in public opinion related to personal experiences, but these differences are quite small. Even more noticeable in both tables is the pattern in the survey results between opinions of the general public and experienced travelers.

The reason for the parallel movement of these public opinion statistics, Mutz would suggest is the mass media. “By providing information beyond the realm of personal experience, they [the mass media] ensure that our perceptions of large collectives are not mere extrapolations from personal experience.”<sup>178</sup>

Mutz’s argument on the disconnection between personal and collective judgements also finds some indirect support. “Since the media may impart information at odds with people’s day to day experience,” it has the capacity to alienate their collective or political judgments from the experience of every day life.”<sup>179</sup> Thus, individual judgements about collective conditions (found in surveys) can deteriorate even though the sum of individual judgements about safety (aggregate travel data) continues to increase. Mutz, of course, wrote about the disconnection between individual and collective judgments in her exploration of the relation between employment status and election results, but her logic appears to apply in the present study.

Another way of examining this matter is to consider the relationship between knowledge about aviation risks and public concerns about aviation safety. Figure 3-1 shows media attention to aviation safety rising through 1994 and 1995. A June, 1995, CBS/New York Times poll asked respondents about their knowledge of aviation safety. Almost 40% of the public said that there were *more* airplane accidents in 1994 than there were a few years ago. About 35% said that the number had remained about the same. In fact, 1994 had been the second safest year for major carrier accidents and the best year ever for commuter carrier safety. The number of articles on aviation safety was increasing even as the number of accidents was declining. It would seem media-created perceptions about aviation safety, rather than real world changes in aviation safety, were driving public opinion about aviation safety in 1995.<sup>180</sup>

At the very least, public opinion about aviation safety is somewhat volatile, and this instability of opinion on aviation safety makes public opinion in this area somewhat exceptional. Obviously, the results presented here are not a rigorous test on the connection between mass media attention and views about aviation safety. However, the best explanation of the instability in public opinion about aviation risk is probably that these fluctuations in this opinion stem from fluctuations in media coverage. Quite clearly, the volatility does not stem from individual experiences or changes in the real-world accident rate. Thus, views about this kind of risk probably come from the mass media, and if so, added to the findings of the preceding chapter, the public would appear to absorb a somewhat misleading picture of risk from the mass media even if that absorption of information has limited effects on their individual behavior.<sup>181</sup>

In the context of this volatility, the next section examines how public opinion enters into policymaking by examining the multiple indicators of public

opinion and the conclusions of policymakers and stakeholders about the state of public opinion. Because public opinion about aviation is so highly volatile, in one sense, if public opinion is to matter in decision making, it must be attended to in cases of aviation policymaking. The 1995 Commuter Safety Initiative discussed in the next section is, in some sense, a critical case.

#### A Critical Case Study: The 1995 Commuter Safety Initiative

The final push for a new regulation to govern the operations of so-called commuter airlines began with an airplane crash. On December 13, 1994, an American Eagle commuter crashed near Raleigh-Durham, North Carolina.<sup>182</sup> This crash came less than two months after another commuter crash in Roselawn, Indiana.<sup>183</sup> On a visit to the wreckage in North Carolina, Secretary of Transportation Federico Peña announced a plan to regulate all airlines with “a single level of safety.”<sup>184</sup> Peña’s Commuter Safety Initiative (CSI), then, appears as the picture of government responsiveness and attentiveness to the people’s business.

As the FAA worked on the new regulation, the media turned its attention to aviation safety. “Think federal regulators are keeping you safe in the air?” *U.S. News & World Report* asked on its cover. “Think again,” it warned.<sup>185</sup> “How Safe is this Flight?” *Time* also wondered in a cover story.<sup>186</sup>

Quite clearly, the CSI was undertaken in the glare of the mass media, yet whether that scrutiny was a catalyst for or a consequence of that action is far from clear. Even more obscure, and important for this chapter, in this picture of government responsiveness is the role of public opinion in proceedings on this regulatory action.

This section considers the monitoring and perception of public opinion over the course of regulatory proceedings on the Commuter Safety Initiative in three parts. The first part details the terms of the new rule and the comments of political leaders, interest groups and experts about it. A second part reviews the indicators of surveyed opinion as the FAA worked on this regulation, and the final part examines the contemporaneous statements of interest groups and public officials about their perceptions of public opinion on this matter. This final part also compares those perceptions of public opinion to the extrinsic data on public opinion. What seems quite clear is this: Interest group and public official perceptions of public opinion are tied closely to mass media coverage.

*Terms of the Rule and Views of Experts and Elites.* Despite the picture of government responsiveness described above, the groundwork for a major revision to the rules governing commuter airline operations had been laid well before the crash in Raleigh-Durham. The proposal to create a new single standard for all air carriers initially emerged from the FAA at the end of the Reagan Administration.<sup>187</sup> The House Aviation Subcommittee and the NTSB had both been holding hearings on the adequacy of existing commuter airline regulations six months to a year before the Raleigh Durham crash.<sup>188</sup> The leading trade journals, *Aviation Daily* and *Aviation Week*, had both reported FAA plans to upgrade commuter safety in the well before the December, 1994 crash.<sup>189</sup> Thus, when Secretary Peña promised swift action from the crash site, action was already underway.

As the FAA worked on the "One Level of Safety" proposal, Senators Pressler (R-SD), Hollings (D-SC) and Snowe (R-ME), all expressed support for FAA's efforts to eliminate a "double-standard" in aviation safety.<sup>190</sup> Coming on top of hearings in the House Aviation Subcommittee, a forum by the National

Transportation Safety Board, and the personal involvement of the Secretary of Transportation,<sup>191</sup> the high level of political support for a rule change had to be clear to any observer.

Ultimately, the final rule enjoyed wide although not unanimous interest group support. The Air Line Pilots Association (ALPA) had long campaigned for tightened commuter airline regulations. For ALPA, that had long pitched “One Level of Safety,” even the release of the initial FAA proposal was “[A] victory of almost immeasurable magnitude—a ‘Holy Grail’” for which the union had “crusaded for years.”<sup>192</sup>

Other interest groups professed support for the “One Level of Safety” concept, but they differed with the FAA on how this ideal would be embodied into a Final Rule. The Air Transport Association (ATA), and the Regional Airline Association (RAA) professed agreement with the idea of the rule, but they raised objections to the specifics of the FAA proposal. They were criticized in the media for doing so.<sup>193</sup> Many of the kinks in the rule were worked out.<sup>194</sup> Ultimately, even the RAA, the trade group representing the largest commuter carriers, supported the final version of the rule because as one airline executive put it, “We got tired of getting beat up defending Part 135.”<sup>195</sup> (Part 135 of the Federal Air Regulations governs Commuter Air Carrier Operations.)

Small aircraft manufacturers, very small carriers, and executives of small airports predictably opposed the rule change. As one trade group representative said, the new regulation was “[A] good example of a regulatory overkill, a solution looking for a problem.”<sup>196</sup>

The CSI brought about many significant changes in standards required by FAA regulations. Most significantly, it required commuter airlines to fly aircraft meeting more stringent “air transport” rather than “general aviation” standards.



That is, it required commuters to use larger airplanes with higher performance standards (*e.g.*, more powerful engines), and additional or upgraded safety equipment (*e.g.*, weather radar). Although the rule allowed some grandfathering-in of existing equipment and aircraft types, its impetus toward use of higher performance aircraft amounted to a clear change in the FAA Rule.

In several respects, the 1995 CSI was a second visit to many recommendations already considered or issued by the NTSB or the FAA itself. For example, under the upgraded standards, commuters could not allow pilots aged sixty and older to operate their aircraft, (the Age 60 Rule). All these reforms, and the suggestions to improve pilot training and duty time<sup>197</sup> had been features of NTSB Commuter Safety Studies in 1972, 1980 and 1995.<sup>198</sup> To be sure, as with aircraft standards, the precise details of the training suggestions had changed.<sup>199</sup>

The CSI also included provisions for a chief airline safety officer and licensed dispatchers. Dispatchers are responsible for cross-checking the navigational plans of pilots, crew and plane scheduling, and keeping in touch with planes during flight.<sup>200</sup> These new standards were also long-time NTSB recommendations.<sup>201</sup>

A joke told among pilots about the difference between air transportation and general aviation safety may make clear an important point about differences in air safety equipment and standards. A retired 747 (large commercial airplane) captain wanted to fly a Cessna 172 (a small airplane) for "puddle jumping." As he filed his flight plan, he told the Flight Service Station representative, "... and I'd like to declare an emergency at this time." The Captain explained, "I'm down to one radio, one VOR receiver, no deice equipment, one flight crew member and one engine."<sup>202</sup>

The joke is that what would be regarded as an operational emergency in a large passenger aircraft was in a sense the normal means of proceeding in general aviation. So while additional equipment and specifications make travel safer, it is already in a sense safe enough.

The most strenuous objections to the rationale underlying the proposed rule came from manufacturers of small aircraft and small operators that flew them. First, none of the airworthiness modifications required by the proposed rule corrected a condition that caused any of the accidents listed in the notice of rulemaking. Second, and more significantly, they charged that the rulemaking was driven by unwarranted public fears and that the new rule would actually *decrease* the safety of the public.<sup>203</sup> These points are taken up after a review of public opinion on aviation safety contemporaneous with consideration of the rule.

The alignment of interests and the arguments were largely the same in 1995 as they had been in 1978. In that year, a major revision of the Commuter Rule had also taken place. If anything, a tightening of the commuter rules over the intervening years and an improved accident rate made the case for a separate set of commuter rules much stronger than it had been in 1978.

This context differed from that leading to adoption of a similar 1978 Commuter Rule. Both the 1978 and the 1995 rules were comprehensive reforms of commuter airline operations.<sup>204</sup> Many of the technical issues were the same, but the political context was quite different. In 1978, efforts of the Civil Aeronautics Board, the Congress and the President to end economic regulation of air carriers were approaching completion.<sup>205</sup> Although one commentator has called the nearly simultaneous economic deregulation of airlines and alteration in the commuter safety rules "a coincidence,"<sup>206</sup> in fact, one major goal of the

**Airline Deregulation Act of 1978 was enhancing the role of commuters in air transportation.<sup>207</sup>**

**Long-standing and frank discussions within the industry about safety, industry-sponsored as well as governmental studies of safety practices, e.g., creation of airline safety officers, together point up at least some interest in industry in improving passenger safety quite apart from government regulation. All considered, however, the FAA's adoption of the 1995 Commuter Safety Rule was a reversal of regulatory actions (and deferrals of action) and – relative to its prior rules – amounted to a real toughening of its regulation over commuter aviation.**

*Surveyed Opinion and Media Attention.* **A review of several polls taken shortly after the crash of the Gulf Jetstream in Raleigh, North Carolina and Secretary Peña's crash site promise to take action make the apparent public concern seem quite clear. A Gallup poll of air travelers taken the day after “a commuter plane crashed . . . near Raleigh, North Carolina, the fourth crash of an airliner in the past six months,” yielded reports of several interesting answers from the public. Sixty percent of those surveyed said they would wait an hour or longer “for a flight on a regular airline in order to avoid a flight on a commuter airline.” Thirty percent of travelers reported that they would wait for three or more hours to avoid a “commuter airline.”<sup>208</sup>**

**A Harris poll taken in January, 1995 reported that 33% of the public felt that air travel was safer than it had been five years before. This represents a shift by 38% of the public from six years before. In 1989, 53% of the public had said air travel was less safe than it had been five years before.<sup>209</sup>**

**A January, 1995, Washington Post/AP poll found that 76% of the general public said they would pay a 10% more to increase safety and security - *even***

*though 80% of the public already rated the overall safety record of commercial airline travel as good or excellent. This is a four percent increase in that willingness to pay reported in 1989. This increase is just outside the reported margin of error*<sup>210</sup>

Analysis of a June 1995, CBS/ *New York Times* poll corroborates these findings. Although around fifty-five percent of the public said that they were afraid of or bothered slightly by flying, about three-quarters of the public surveyed in this poll rated airline safety as good or excellent. Less than two percent of the public said that they had ever canceled or changed their plans because of any fear of flying.<sup>211</sup>

These Gallup, Harris, *Washington Post* / Associated Press or CBS/*The New York Times* polls were all available to interest groups and public officials through the mass media. Media attention to aviation safety –judged against the background of the prior decade – was not particularly high as the Commuter Safety Initiative proceeded through the FAA. Figure 3-1 presents, by month, both the total number of articles on aviation safety and on commuter aviation safety. As compared with all coverage on aviation safety, coverage on commuter aviation safety is quite modest. Judged by this article count data, media attention to aviation safety was somewhat elevated in 1994 and 1995, and more to the point, coverage on the safety of commuter aviation safety was proportionally higher than it had been at other periods of the study.

At least a portion of those stories stem from the efforts of media savvy political leadership to draw attention to the commuter aviation safety. A crash site promise to take action can have little other purpose. By contrast with coverage of the 1995 Commuter Safety Initiative, news coverage on both “aviation safety” or “commuter aviation” was lower as the 1978 Commuter Rule was considered and adopted. As the prior section indicated, many of the

technical and economic issues were quite similar. The difference is this: In 1978 as government officials adopted airline deregulation, few political leaders were interested in elevating public awareness of aviation safety. In 1994-1995, the elevation in salience earned protesters of the new safety proposal a rebuke in the media.<sup>212</sup>

Thus far, this section has reviewed the terms of the rule and described its political support and opposition. By examining surveyed opinion on and media attention to commuter airline safety, this section has considered what extrinsic evidence of public opinion there is. To link this case history to other accounts of how policymakers perceive public opinion, some consideration of their views on public opinion about this topic is now due.

*Policymaker Description of Public Opinion.* As the FAA proposed, considered and adopted the 1995 Commuter Safety Initiative, public opinion seemed a paramount concern. In the official notices, written comments and statements at hearings, there were repeated references to “public confidence,” “public concern” or the demands of “the American public” for aviation safety. When asked about public opinion, many in the aviation policy community offered responses very much like those reported by Susan Herbst and Bernard Cohen and others in their research on perception of public opinion.<sup>213</sup> When discussion turned to public confidence, however, the explanation of public opinion changed. Aircraft load factors airline revenues and media attention to aircraft safety were all cited as indicators of public confidence. This focus on the media and the attention to behavioral indicators of public opinion depart somewhat from the existing literature.

A dozen phone or in-person interviews with past or present FAA personnel or industry representatives began with inquiries about the 1995

**Commuter Rule, research on public opinion done in connection with that rule, and more general comments about the nature of public opinion. Almost everyone interviewed said that yes, public opinion does influence the rules or actions of the FAA. When asked what public opinion is or how to go about determining what it is, these bureaucrats and lobbyists answered in a manner that might have been predicted from a reading of Cohen, Powlick and Herbst. For bureaucrats, public opinion was what they heard from the public on the DOT consumer hotline; what they read in letters; what they saw in the print media or on television. It was what they heard from interest groups concerned about aviation policy, sometimes dubbed “the alphabets” (e.g., ATA,<sup>214</sup> RAA,<sup>215</sup> ALPA,<sup>216</sup> AOCI,<sup>217</sup> AOPA<sup>218</sup>, or GAMA<sup>219</sup>). Although each group only presents one side of a matter, one bureaucrat explained, that when you’ve heard what they all have to say, you have a sense where public opinion is. On other issues, she explained, sometimes on some issues the best indicator of public opinion is what is said in Congress.**

**For interest groups, public opinion had a somewhat narrower meaning. Sometimes, representatives said, it was what their members told them. How they learned about what their members were thinking depended on the size of the group. Representatives of groups with large memberships (more than a thousand members) spoke about conducting a poll or survey of their members -- although they relied on member letters, hotlines, conventions and meetings to get a good feeling for what their members thought. Spokesman for smaller groups carefully said that they did not know what public opinion was and that the role of their organization was to represent their members and not the public. In their view, they did not represent public opinion but rather members of their organization, and representation of the public was a task undertaken by two**

specific public interest groups, Aviation Consumer Action Project (ACAP) and the International Airline Passengers Association (IAPA).

One further point about the conception of public opinion merits attention. When asked about public opinion polls, several individuals associated with aviation policymaking indicated that yes, they were also something to consider in talking about public opinion. Probably more important, however, was the fact that several did not raise them as a means of determining public opinion. No interest group or FAA representative to whom I spoke indicated that FAA or their interest group conducted public opinion polls or kept track of public opinion using them.

On the other hand, one group had conducted and published the results of a poll on aviation safety several years earlier.<sup>220</sup> Moreover, and perhaps more important were not simply statements by interest groups that they were unaware of any polls or public opinion but the denial of several interest group representatives that there were even public opinion polls about aviation safety in existence. Obviously, this sort of information – surveyed opinion – is not highly valued. Of course if surveys are a sort of crowned jewel – valued but not shown to any but the most powerful decision makers – my interviews with less senior interest group representatives might not yield disclosure of polling results.

When I raised the question about polls, I had in hand several polls conducted over the twenty years of the study. No one asked for a copy. In the course of many of the interviews, I described one of the important results of the polls – that over the past twenty years, an increased percentage of the public believes that flying is less safe than it was five or ten years ago. When I asked them about the result reported in the polls, after some preemptive dismissal of public opinion polls, I received two very different sorts of responses. The

**predominate response was that the polls can't possibly be correct, and the other that the polls were capturing some other broad change in society. Both responses merit some further exposition.**

**The predominant view, was that the polls are just wrong -- only the mere product of people's irrational emotions. A couple of interest group representative dismissed the polls by pointing to an increase in airline load factors since the 1970s, the general expansion of the industry and the larger proportion of the public that had flown. To say that public confidence has declined in the face of such growth statistics, in their view, was incorrect.**

**The key for understanding differences in views about the relationship between public opinion and public policy is an assessment of public opinion's volatility. All but one of the people that I asked said that public opinion was volatile. A former FAA official added, that public opinion, presumably as measured by a survey or airplane usage behavior was stable over the long term, but he added that stability was not the way that politicians saw public opinion. They saw airline accidents as something that received disproportionate media attention and that had to generate a response from political leaders. He even suggested the idea that the inside-the-beltway spin control of politicians might account for the relative stability of policy opinions.**

**At a public meeting for comments on the Commuter Safety Initiative, then-FAA Administrator Donald Hinson made a similar point about media attention. Comparing the 1995 attitude about airplane accidents to that of twenty years before, he said, that now when there's an accident, "somebody needs to get hung." He attributed this attitude to instant newscasts on television, "the aggressive journalistic styles in vogue today," and the Freedom of Information Act, that has made every government agency a research library for journalists."<sup>21</sup>**



Hinson's concern with the media and public confidence at the hearing were far from isolated remarks. He made the same points elsewhere. For example, in speaking on "Global Issues and Challenges Affecting the Future of Aviation," he listed as "Challenge I" maintaining "a high level of public confidence in air travel." More to the point, the irony of public opinion's driving adoption of the Commuter Safety Initiative was not lost on him: He noted 1994 had the second fewest major carrier accidents on record and was the safest year ever for commuter aviation.<sup>222</sup>

While interesting in their own terms, these assessments of what public opinion is and how it is perceived are still disconnected from particular policy decisions. The best way to link particular views of public opinion to particular policy decisions is an examination of the documents accompanying the new commuter rule.

The FAA justified the need for a new commuter rule in documents accompanying the proposal for and the announcement of the new rule. These documents were, respectively, the Advanced Notice of Proposed Rulemaking (ANPR)<sup>223</sup> and the Supplementary Information accompanying the Final Rule (SIFR).<sup>224</sup> Both indicated that public perceptions were a "catalyst" or part of the showing of a need for action. As the notices indicate, there were particular claims about public opinion that shaped the rule.

In the Advanced Notice, the FAA said:

**"[S]ome members of the public are questioning whether they are receiving an appropriate level of safety in small propeller-driven aircraft as compared to the level of safety they receive in large jets. This public concern is partly a result of the integration of commuter carriers with major airlines under an arrangement known as code-sharing. The term "code sharing" refers to the computerized airline reservation system that lists a commuter flight in the**

reservation system under the same code used by a major carrier."<sup>225</sup>

The agency added,

"With media attention to recent accidents, the passenger may believe that the flight involves more risk because the smaller airplane and its operation may not have to meet the same safety standards [of larger planes]. Most passengers probably do not realize that some differences in standards are necessary because of differences in the airplane and that some of the accidents that are categorized in the media as "commuter" accidents occurred in flights being conducted under part 121;"<sup>226</sup>

And,

"The combined effect of a continuing growth in the commuter industry and the ever growing relationship between major carriers and their commuter counterparts will blur the distinction between commuter and major air carriers. In other words, passengers will no longer readily distinguish between one type of carrier and another, but will simply view each component as a part of the nation's air transportation system."<sup>227</sup>

Finally, in assessing the need for the regulation, the ANPR observes,

"If public confidence [defined as the value that the public spends in air transportation] wavers by only one percent, annual total air carrier revenues would be reduced by \$880 million . . ."<sup>228</sup>

The Supplementary Information published by the FAA with the Final Rule reiterated many of the points made in the Advanced Notice, but the FAA

also made additional points about the influence of public opinion. For example: in responding to claims that the additional costs and resulting higher fares of the new rule might push passengers from air travel to travel by automobile, the FAA observed,

“[I]t has been the FAA’s observation that passengers are usually willing to pay for safety. . . . It should also be noted here that the public tolerates a higher accident rate for automobile travel than for airplane travel. If air transportation accident rates approached that [sic] of ground travel, most Americans would stop flying.”<sup>229</sup>

Near the end of its analysis of the rule, the FAA observed,

“It is clear that the American public demands a high degree of safety in air travel. This is manifested by the large amount of media attention given to the rare accidents that do occur, by the short term reductions in revenues carriers have experienced following accidents or acts of terrorism, and by the pressure placed on the FAA as the regulator of air safety to further reduce accident rates.”<sup>230</sup>

The FAA’s description of public opinion in its rulemaking documents tells us how, as an organization, it saw public opinion. Public beliefs about code-sharing (that is, commuter airline use of major airline abbreviations and livery so that the commuter airline and the major airline seem to be one carrier); public beliefs about the differences in safety standards for different types of aircraft; the blurring in the public mind caused by the growth of the commuter industry and its relationship to major carriers; and the short term fall off in air carrier revenues

following a crash were what mattered.<sup>231</sup> All justified in the view of the FAA, “One Level of Safety.”

The FAA’s analysis of public opinion merits attention in three respects. First, despite the obvious availability of polling data about public wants – through the mass media if no where else – the reference to public appeals was *not* documented by reference to polls. Even if such surveys on matters such as airline code-sharing or safety practices exist, it seems unlikely that many members of the public have reflected on such practices. Thus, there may be no real opinion to survey.

The origins of FAA views on public *beliefs* about code sharing are not documented in the rulemaking. The economic implications of code sharing had had some importance and media scrutiny in the 1980s. In 1994, *U.S. News & World Report* and two travel magazines printed articles on code-sharing. Earlier, in the 1990s, *Esquire* has printed a series of articles on the topic,<sup>232</sup> but these seem too thin a basis for concluding that code-sharing was a matter of pressing public or media concern.

Second, the explanatory comments published with both the proposed and final versions of the rule make repeated references to “media attention.” This attention is linked to beliefs of the public about the safety of small planes. It is cited as proof of the demands of the American public for aviation safety. More significantly, the fiercest critics of the rule accepted this same view of public opinion. This view was that public opinion had moved the matter on to the FAA’s agenda for action.

The General Aviation Manufacturers Association (GAMA) represents manufacturers of small aircraft. Under the terms of the new rule, some planes made by these manufactures would not be permitted in air carrier operations. It

charged, the rule “lacked sufficient justification,” that the accidents cited as justifications for the rule “would not have been prevented by this rulemaking,” and that the proposed rule was “the result of public, media and agency overreaction to recent commuter accidents.” More to the point, “[I]nstead of hastily proposing rules based on incomplete information, the agency should have informed the public that many so-called commuter operations are already being conducted under Part 121.”<sup>233</sup> (Part 121 of the Federal Air Regulations concerns the operations of air carriers using “large” aircraft.) That is, this interest group suggested dealing with the perception problem rather than changing the rules. The FAA did not adopt this view.

Unsurprisingly, the FAA asserted sufficient justification for its new rule. Two aspects of its response to the claims made by GAMA merit comment. First, the FAA explained, “Those accidents were catalysts for the Government to focus on the differences” between regulations governing major carriers and those concerning commuter operations. They were “not an independent justification for the rule itself.”<sup>234</sup>

A catalyst accelerates a process without affecting the outcome. This idea that media attention speeded the consideration of the Commuter Safety Initiative without affecting its outcome also came out in interviews. This agenda effect, however, is a modest claim of influence on the terms of a new rule or procedure.

A second aspect of GAMA’s objection to the new rule was its argument that it would *decrease* the safety of the traveling public. More specifically, GAMA argued the newer aircraft and airworthiness standards cost more than the old ones. Those costs would be passed to consumers in ticket prices. Those higher ticket prices would drive consumers to alternative (and since air travel is the safest mode of transportation) to less safe modes of transportation.<sup>235</sup>

In other contexts, the FAA has accepted this argument as a basis for refusing to issue new regulations. For example, it withdrew a proposed new rule requiring safety seats for small children on such a basis. It reasoned that children are safer sitting in the lap of their parents in an airplane than in a car seat placed in any vehicle used for any form of surface transportation.<sup>236</sup> By contrast, in this case, the FAA noted its observation, “that passengers are usually willing to pay for safety” and that “if the accident rate of air travel approached that for automobile travel “most Americans would stop flying.”<sup>237</sup> The noteworthy point is not the FAA’s position on the matter, but its dismissal of an economic argument with its beliefs about psychological state of the traveling public.

In announcing the Final Rule, the FAA went beyond generalized assertions of confidence and offered fairly specific claims and references to evidence. Thus, it warned that Americans would stop flying if aviation safety rates approached those of the automobile. It also cited as evidence of demands for safety, the short term reduction in airline revenues following an accident or a terrorist incident.

This section has examined at some length a single episode of aviation rulemaking to understand how public officials and others perceive public opinion. Initially, the answers seemed very much like those reported for other policymakers in studies by Susan Herbst and Bernard Cohen. Those findings are considered at length in the next section. As examination of the case progressed, two sets of unexpected findings emerged. The first set of findings concerned traditional indicators of public opinion. Surveyed opinion about aviation safety was actually somewhat more favorable than it had been six years before as a Reagan Administration “One Level of Safety” proposal was introduced. At the same time, media attention to aviation safety climbed as deliberations on the new

rule were underway. But, at least some of that attention was generated by official action, *e.g.*, Secretary Peña's trip to a crash site.

Also, there were frequent references to and discussions on media attention in both conversation and official documents. The improvement in surveyed opinion as deliberation on a sterner rule were underway cuts against that data's having a decisive influence on the terms of the new rule. At the same time, the increased media attention and frank references to media in the rulemaking documents suggest a pivotal role for the media in this matter. Quite clearly, it was media attention rather than surveyed opinion that dominated elite thinking about what the mass public was thinking.<sup>238</sup>

A second set of findings concerned the importance of behavioral factors. The FAA and other participants in policymaking seem far more interested in examining indicators of behaviors from which public beliefs might be inferred than in examining data on the beliefs themselves. Thus, bureaucrats and lobbyists look at enplanements instead of survey data. Perhaps, ticket sales or traffic patterns are only a surrogate for surveyed opinion or media attention. Alternatively, those streams of data connect to separate areas of interest. This is a matter considered both at the end of this chapter and throughout the next one.

### Situating the Results

A body of literature suggests the results of the preceding section are far from unusual. Some studies conclude the mass media is itself a gauge of public opinion. At the very least, media reports are probably taken to be a substantial influence upon public opinion, even if they are not regarded as a gauge of public opinion. Moreover, although the other case studies are not as rich in data as the Commuter Safety Initiative, in the other cases, there is also substantial reliance

attention to the mass media. Both the more extensive literature and the other cases in this study merit considering in trying to situate the results of this study.

*Use of Polls by Bureaucrats and Policy Elites.* Empirical study on how elected policymakers perceive and respond to information about public opinion has been an area of recent interest in political science. As observed in the introduction, scholars and ex-presidential pollsters have all written on how high political officers use and follow polls in shaping public policy or talk about policy.<sup>239</sup> In these works polls guide official decisions or at least talk about those decisions. As the next section points out, however, other public officials only consult polls infrequently if at all.

A parallel body of work on the use of polls by unelected officials superficially yields similar results. Yet the logic could hardly be the same. First, unelected officials lack any electoral incentive to care what public opinion is. The question to be answered is this: Why would they ever look at polls? Second, the informational problems of a single decision maker are different from those of a distributed, bureaucratic organization. A study on polling data use by an elected leader needs to examine how information is sorted and converges on a single decision maker. By contrast, such a study of information use in a bureaucracy needs to evaluate the sharing and dispersion of information among many different individuals.

For the most part, researchers have assumed that public opinion data matters to bureaucrats because it matters to their elected superiors. With limited empirical investigation, they have moved to consider the second matter, diffusion of information about public opinion. This information, they argue, diffuses to and within the bureaucracy through informal networks. Public opinion polls are widely discussed in official Washington. Perhaps, this inside-



the-beltway chitchat is the mechanism for disseminating information about public opinion. Robert Mattes, for example, has suggested that White House briefings have an important role in disseminating public opinion information to bureaucrats.<sup>240</sup>

Robert Cohen and Kenneth Kollman argue that interest groups play an important role in providing public opinion information to bureaucracies. Cohen discovered a privately sponsored Harris Poll on nuclear energy in the hands of the Nuclear Regulatory Commission.<sup>241</sup> Kollman reports finding that 36% of the interest groups that he surveyed were regularly or occasionally “Polling the general public on policy issues of concern to you.”<sup>242</sup>

Undoubtedly, the communication of information about surveyed opinion through a policy network *could* provide sufficiently detailed information public opinion to afford a basis for shaping policy. Moreover, it is conceivable that bureaucrats do monitor public opinion to meet or anticipate the commands of elected leaders. But suggesting that polling information usually comes through *irregular channels*, yet *routinely* provides direction in policymaking seems implausible. Moreover, awareness of what surveyed opinion is does not establish that the results of the survey have affected any particular decision.

Mattes, Cohen and Kollman all agree that surveyed public opinion information is valued, but they equate this valuing of information with its influence or importance. As one bureaucrat explained to Mattes, analysis of survey data gives the Bureau of Public Affairs, “‘something “to lay on” the other bureaus’ . . . ‘a product [with] which they could really prod and pound other bureaus.’”<sup>243</sup> Another agency, declined to produce a privately conducted poll in response to a Freedom of Information Act request because, “if we were to

provide it, then we would never again see anything like this from Harris or anybody else." It seemed too important a benefit to risk losing.<sup>244</sup>

Of course, these anecdotal findings may correctly describe a more general pattern that survey results are influential in shaping policy. On the other hand, inside-the-beltway banter making reference to polling reports or occasional provision of such reports may well be only idle chit-chat. Robert Cohen, for example, reports one official telling him, "[Public opinion] 'certainly has some sort of a role in the sense that public opinion . . . creates a part of the environment in which one regulates'. . . . But, 'I try to shut that out totally. . . . I try to make by decision on the basis of the record, rather than whether people are screaming in the street. . . .'"<sup>245</sup> If policymakers are consciously trying to shut out surveyed opinion, it seems there is little room for it to have influence on policy.

The findings of Kollman are also vulnerable. He conducted a survey of interest group representatives, but he discounted his key finding: that a majority of such representatives *denied* that public opinion surveys have any effect on their lobbying. Kollman explained away the finding. He wrote, "This could be simple arrogance on the part of the group representatives. . . , it could be a repudiation of my overall premise . . . , or it could mean that only a subset of the groups consider public opinion relevant in their decisions and some simply do not recognize the way public opinion shapes their choices. The latter reason seems the most probable."<sup>246</sup>

The theoretical importance of public opinion, together with the ambiguous evidence, offers a fair basis for these authors to conclude as they do that surveyed opinion is important to unelected officials. Yet this conclusion is far from unassailable. A better examination of the importance and worth of

surveyed opinion data considers the demand for such information and the uses made of it.

A particularly well-designed study conducted by Robert Rich on the Research Applied to National Needs (RANN) Program of the National Academy of Sciences undercuts this argument.<sup>247</sup> In 1972, RANN commissioned the National Opinion Research Center (NORC) to conduct public opinion surveys and offer careful analysis of the survey results to four federal agencies. The RANN study offered government agencies high quality, *free* survey data and analysis. Agency officials could ask for a survey on any topic they wished. The study then examined how the information was used.

In framing his study, Rich drew on the extensive literature about the use of information by policymakers. Two explanations for non-use or underutilization of empirically-grounded, policy-relevant literature emerge from that research. First, policymakers sometimes complain that information generated by social science researchers is unintelligible. In this sense, surveys are not used because of the poor linkage between the production of survey data and the uses to which it might be put.<sup>248</sup> But researchers on public administration argue for a second explanation. They contend that use of information turns on bureaucratic roles, procedures and practices.<sup>249</sup> In this view, surveys of public opinion data would be used only when it serves organizational interests to do so.

Rich concludes his research better supports the second view. He reports, “organizational interests” dominate “decisions to collect information and decisions to use it.” He notes almost minimal resistance to survey research, *per se*. The use or non-use of this information by bureaucrats instead, he argues, turns on the extent to which the data optimizes their own interests. In a sense,

Rich's conclusion almost follows from the design of his study: After all, the circumstances for developing surveyed opinion data useful to government officials could never have been more favorable than those in his study. The participating agencies were free to have any question they could imagine asked in a well-designed public opinion survey.

Still, the results were quite a mixed bag. Rich explained:

Relative to what the [then] literature would have one believe, these results reflect amazingly high levels of utilization. Relative to expectations on the basis of how the information was collected, the levels of utilization were low; that is, the correlation between expected and actual uses was low.<sup>250</sup>

The significance of Rich's results for the present study are, however, far greater. Rich finds quite limited use of survey opinion data under the best imaginable circumstances: surveys custom-designed for policymakers. Necessarily, surveys *less well-designed* for specific policy needs should have *less* use. Thus, the surveys that become the stuff of beltway banter or insider chitchat would seem to have somewhat poor prospects for use in shaping policy managed primarily by government bureaucracies.

Bernard Cohen's study of public opinion effects on public policy yields results similar to those of Rich. The State Department once had a Division of Public Opinion Studies.<sup>251</sup> According to the officials interviewed by Cohen, hardly anyone who received the reports of the Division said that they relied upon them.<sup>252</sup> Public opinion, they said, was better followed by reading the newspapers and following the lead of Congress.<sup>253</sup>

Taken together, what these studies establish is that reports on surveyed opinion are a kind of curiosity. The reports are worth a look. But they do not appear to influence policymaking in the way, for example, that the inflation rate

shapes the decisions of the Board of Governors of the Federal Reserve. The modest importance of surveyed opinion contrasts sharply with the widespread perception that all public officials meticulously consult on public opinion for any decision of consequence.

*Bureaucratic Perception of Public Opinion.* The findings of the previous section require some return to fundamentals. The obvious preliminary question for understanding the monitoring of public opinion, then, is what do public officials consider when they think of public opinion. Bernard Cohen in a series of studies<sup>254</sup> and Susan Herbst in a recent one<sup>255</sup> asked this very question. Cohen asked officials about sources of information on public opinion. They report seeking information by looking to friends and family of officials; news and editorials; Congress; letters; audience responses to lectures; demonstration or protest marches as well as polls. Almost twenty years later, Philip Powlick repeated this approach and reported similar findings.<sup>256</sup> Both Cohen and Powlick found bureaucrats rely on all these sources.

Susan Herbst used a similar approach in a study of Illinois politics, but she organized her findings by her respondents' placement in policy networks. Thus, she noted that legislative staffers, journalists and partisan activists all held somewhat different perceptions of public opinion. She reported each group tries to construct public opinion in a way that makes sense from their particular vantage.<sup>257</sup>

While instructive, the composite view of perceptions about public opinion yielded by these studies has two weaknesses. First, the composite depends on the views of officials or others formed over a variety of issues. The assumption is that the impression of public opinion is always formed in the same way. Perhaps, different indicators of public opinion matter in different ways.

Second, those studies offer no extrinsic evidence of public opinion. The interviews offer some indications of what officials perceive, but the studies do not match those perceptions to any phenomena open to observation by others. For example, if an Illinois legislative staffer says that he perceives a great deal of public interest in an issue because there was a lot of media coverage, what does that assertion mean? A week-long, front page, above-the-fold story in *The Chicago Tribune*? A couple of stories in rural weekly newspapers? Or something else? Is the standard the same for all staffers and all issues? The problem with the path breaking work of Herbst and Cohen is that such questions cannot be answered.

The insight of Herbst and Cohen is that public officials and others monitor and perceive public opinion in ways quite different from those expected by political scientists. The next task is linking the reports on these perceptions to extrinsic indicators of public opinion. One way to make this linkage is to examine a single issue or policy then compare official or interest group to extrinsic indicators of public opinion. By exploring the adoption of the 1995 Commuter Safety Initiative, this chapter has sought to make this linkage. For the aviation community, the swelling of news stories on aviation safety the months of late 1994 and early 1995 seemed like a great deal of public interest. Even though surveyed opinion about aviation safety had improved over levels of a few years before, policymakers and stakeholders in the relatively small aviation community perceived a public clamoring for action. The design of this study permits this conclusion, and it yields an important insight about the way media attention comes to matter. By the standards of media coverage given to high public officials – Presidents or Senators aspiring to be President – the level of media scrutiny of aviation on this matter was quite small. But from the

perspective of the air transportation community, the level of attention was colossal. Exploring why individuals from interest groups are so sensitive to media attention and the consequences of that attention for the members represented for interest groups is a matter taken up in the next chapter. However, before continuing, some review of media public opinion perception and media affects in the other cases of this dissertation requires some discussion.

*Interpreting Adverse Publicity: CPSC and FAA.* On other cases in this dissertation, information about the state of public opinion and perceptions of that opinion are lacking. Still, the milieu of both the FAA and the CPSC is very attentive to adverse publicity. The CPSC has had to face concerns on the effects of adverse publicity from its inception and at subsequent reauthorization hearings. The chairman of the study group that recommended establishing CPSC testified at subsequent Congressional hearing:

During the course of administering the National Commission on Product Safety we learned that the power to issue a public statement concerning products or categories of products was an important implement. It not only improves the understanding of the consumer and enhances his capacity to use products wisely and safely, but it is as well a valuable deterrent against manufacturing irresponsibility.<sup>258</sup>

At the same hearings, General Electric explained the danger of this deterrent to manufacturers. Information issued with the imprimatur of the U.S. government has a special weight. GE's general counsel warned, "If the information is premature, inaccurate or misleading, the consumers themselves will suffer. If it is identified with a company or product, it can have serious impact upon reputation, good will and market place results."<sup>259</sup>

At reauthorization hearings, manufacturers of urea-formaldehyde insulation complained of having “been bullied, abused, smeared in the press, maligned through consumer alert-bulletins and telephone hotlines, and finally crippled and brought to its knees,” by a government publicity campaign.<sup>260</sup> Witnesses for business expressed concerns about the use of “non-objective, instructional or educational materials to achieve regulatory results;”<sup>261</sup> and the threat of a press release “couched in public relations terminology . . . designed to maximize the impact of the ‘horror’ aspect of injury potential regarding the product.”<sup>262</sup>

These charges attribute extraordinary power and even a kind of lawlessness in the use of government publicity. The claim is not merely that government uses publicity as a sanction. It goes further. The claim is that CPSC uses publicity to affect conduct outside of its regulatory jurisdiction. Outside the usual channels of judicial or political review, there is not the same reflective consideration on what is said or done. As the National Association of Manufacturers neatly put the matter, “The potential to destroy a product by a premature press release cannot be overstated.”<sup>263</sup>

Far more than most industries, the aviation industry is traditionally supportive of government regulation.<sup>264</sup> But even here, there is some prospect for encouraging changes outside of the usual regulatory channels. At hearings to augment civil and criminal penalties for violating the federal air regulations, FAA Administrator Longhorn Bond said as much. Bond felt that using publicity to bring recalcitrant air carriers to heel was a legitimate and effective use. It has a deterrent effect. He explained, “[T]he many folks we deal with are knee deep in lawyers. . . . They have more money and time [than the government] and they



can use legal techniques for dragging . . . [an enforcement proceeding] . . . out, and slither off the hook."<sup>265</sup>

Airlines complained about the FAA's using publicity as a regulatory tactic. At the same hearings, a commuter airline trade-group observed that its members, small airlines, were particularly vulnerable to adverse publicity from regulators.<sup>266</sup> A group of charter operators made the same point.<sup>267</sup>

Years later, at a conference on transportation safety, an American Airlines executive made the same point on the harmful effects of government-sponsored, adverse publicity. After noting that FAA fines can run into millions of dollars, he added, "plus a black eye that can be much more damaging..." After all, he explained, the airline industry is based on trust. "Where would we be," he asked, "if the public seriously doubted that a big aluminum tube could fly across the continent at 600 miles an hour? If travelers ever lose confidence in the safety of air travel," he warned, "we might find ourselves back flying biplanes on mail routes!"<sup>268</sup>

Speaking to an FAA group, a retiring FAA Administrator Donald Engen made a similar point at a speech to women air traffic controllers. He said, "Public confidence is important because unless people believe in the safety, the speed and the reliability of the system, they won't use it . . . ."<sup>269</sup>

In sum for businesses regulated by either the CPSC or the FAA, the tenor of both agency and industry official remarks is that public confidence matters to industries touched by safety regulation. Adverse publicity has serious consequences for both an industry as a whole and when aimed at particular companies or products, for those companies or their products.

Neither the CPSC nor the FAA are unique in the concerns that there regulatory actions generate. Even as Congress created CPSC, it had before it a

litany of examples where agency-sponsored publicity destroyed products or companies. These cases include the Food and Drug Administration's recall and comments upon Bon Vivant vichyssoise (1971); and its November, "Black Monday" warning to consumers not to eat cranberries (1959). They also include the Federal Trade Commission's complaint against duPont's leak stopping antifreeze, Zerex. Legal scholar Ernest Gellhorn published an account of all three cases in the *Harvard Law Review* as deliberations on the Consumer Product Safety Act were proceeding.<sup>270</sup>

## Conclusion

Although the results presented here are consistent with other literature on perception of public opinion, they raise some doubt about the textbook view of regulatory policymaking. Quite clearly, surveys of public opinion and reports of their findings have little weight in the deliberations of agency policymakers. Both interviews and a review of official documents indicate the mass media carries a great deal of weight with policymakers, and adverse media attention is a recurrent complaint of interest groups in fields affected by concerns with aviation or consumer product safety.

These findings, however, do not save the textbook account of regulatory policymaking. Although mass media attention is widely associated with fluctuations in surveyed opinion, as this regulatory reform took place, the safety record of commuter aviation and surveyed public opinion about aviation safety had actually been improving. Thus, given the facts of commuter air transportation risk, public opinion developed at the wrong time. Moreover, the crash-site visit of the Secretary of Transportation and the adoption of a long time, union publicity campaign theme – which was nearly universally cited by the

rulemaking participants, and the incorporation of long-standing recommendations into the new regulation seem inexplicable in terms of public opinion developed in the 1990s. Consideration of a longer time frame is required.

Beyond the single case examined in this study, somewhat less can be said with confidence. Quite clearly, mass media attention to regulatory policy impinges on the thinking of policymakers and stakeholders. This result is evident – at least, broadly speaking – in each of the two policy areas of this study. Whether mass media attention to stakeholders because they think it a reliable gauge of present public opinion or a powerful influence on future public opinion is unknown.

Quite clearly, however, the findings of this chapter – on the process of coming to judgment on the state of public opinion by reviewing or talking about media coverage – solve a theoretical problem. How do public officials and stakeholders and regulatory policy bring public opinion into their deliberations: by noticing what's in the newspaper, what's on television; or by talking about it. This talking about public opinion is central to anticipatory democracy.

This process for coming to judgment on public opinion is quite different from that expected in textbook democracy: an elected official's use of surveys and estimating probable gains or losses in votes by reference to prospective challengers. Nothing in this study suggested detailed polling by or brought to public officials: There were no reports of politician reliance on surveys or leaks of polls, and there were not detailed letters or memoranda from elected officials dictating the terms of a new regulation made apart of the rulemaking docket. In these respects the textbook account of democracy is untenable. Moreover, the repeated references to and concerns about adverse publicity in the areas of both

**aviation and consumer product safety second the findings of case study. Why private interests care about public opinion and how they respond to public opinion are matters for the next chapter.**

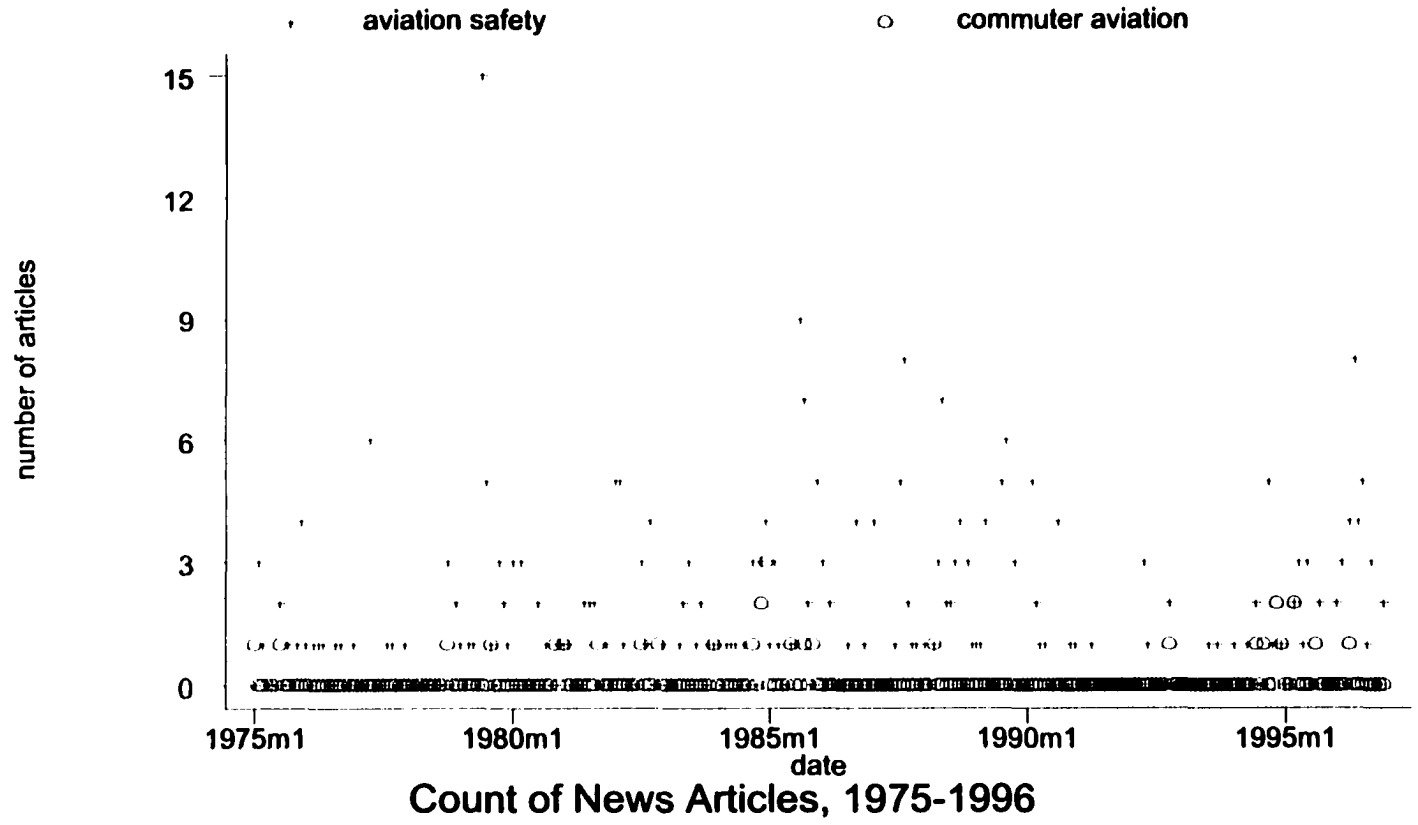


Figure 3-1: Count of News Articles on "Aviation Safety" and "Commuter Aviation," by month, 1975-1996. Source: Appendix.

<b>Date</b>	<b>Adult Population</b>	<b>Airline Travelers</b>
February, 1977	40.4	48.1
June, 1985	17.3	19.7
April, 1986	6.8	8.4
December, 1988	**	16.8
January, 1989	8.3	8.7
January, 1995	14.6	**

<sup>†</sup> The status of airline travelers was determined from answers to the following questions: (For 1976) "In any case, I'd like to ask you some questions about your buying plans. In the next six months, do you feel certain that you will purchase a vacation trip traveling by airplane, that you possibly will or that you probably will not purchase a vacation trip traveling by airplane?" (For 1985 and 1986) "Over the past two years, have you taken or have you not taken a trip by air of some 200 or more miles away from home?" (For 1988 and 1989) "Over the past two years, have you or have you not taken a trip by air of 100 or more miles away from home? In 1995, no such question was asked. <sup>‡</sup> The precise question asked was: "Compared with five years ago, do you feel that air travel is safer, less safe, or has it remained about the same?" \*\* Information unavailable. Source: Harris Polls 7690; 851208; 861203; 881207; 891101; 951101. Available [On-line] [http://www.irss.unc.edu/irss/dataservices/dataservices.html#The The Odum Institute Public Opinion Poll Question Database](http://www.irss.unc.edu/irss/dataservices/dataservices.html#The%20The%20Odum%20Institute%20Public%20Opinion%20Poll%20Question%20Database) [March 6, 2000]

<b>Table 3-2: Percentage of the Public Expressing "Great Concern" about Aviation Matters, by Year and Travel Experience</b>				
	<b>Have Taken Trip by Air</b>	<b>Not Taken Trip by Air</b>	<b>Total Percent Expressing Great Concern</b>	<b>n</b>
<b>Item</b>	<b>1985</b>			
<b>Bombs placed aboard aircraft</b>	64.9	78.5	71.6	925
<b>Hijacking</b>	66.1	81.8	73.8	954
<b>Pilot error</b>	41.5	47.9	44.7	577
<b>Poor maintenance</b>	54.0	64	58.9	761
<b>Item</b>	<b>1989</b>			
<b>Bombs placed aboard aircraft</b>	76.4	87.8	82.3	1026
<b>Hijacking</b>	65.3	78.6	72.1	900
<b>Pilot error</b>	53.1	62.2	57.7	720
<b>Poor maintenance</b>	75.9	83.9	80.0	998
<b>Item</b>	<b>1995</b>			
<b>Pilot error</b>	***	***	65.1	1250
<b>Poor maintenance</b>	***	***	83.3	1250
<p>Question for 1985 &amp; 1995: "Let me read you some things that are generally believed to be threats to air safety. For each, tell me if that should be a matter of great concern, mild concern, or no concern at all for people who fly at home or abroad these days"                      Question in 1989 was modified to ask: "...for people who fly these days." *** No collected data.                      Source: Harris Polls 851208; 891101; 951101. Available [On-line] <a href="http://www.irss.unc.edu/irss/dataservices/dataservices.html">http://www.irss.unc.edu/irss/dataservices/dataservices.html</a> The The Odum Institute Public Opinion Poll Question Database [March 6, 2000]</p>				

<b>Year</b>	<b>Revenue Passenger Enplanements</b>	<b>Revenue Passenger Ton-Miles</b>	<b>Overall Revenue Load Factor</b>	<b>Aircraft Revenue Departures</b>
1975	205,062	16,281,046	46.9%	4,704,710
1980	296,903	25,519,322	51.8%	5,352,927
1985	382,022	33,640,249	54.3%	5,835,474
1990	465,560	45,792,630	54.2%	6,923,593
1995	547,773	54,065,620	56.3%	8,061,521
Historical Air Traffic Data, Annual 1954-1980, [On-line] <a href="http://www.bts.gov/oai/indicators/airtraffic/annual/1954-1980.html">http://www.bts.gov/oai/indicators/airtraffic/annual/1954-1980.html</a> ; Historical Air Traffic Data, Annual, <a href="http://www.bts.gov/oai/indicators/airtraffic/annual/1981-2001.html">http://www.bts.gov/oai/indicators/airtraffic/annual/1981-2001.html</a> [Accessed, October 15, 2001]				



## Chapter Four: Voluntary, Private Responses to Adverse Publicity and Public Opinion

### Introduction

Undoubtedly, a citizen worried by troubling media reports about a product's or an airline's safety may write his or her Congressman or another public official to complain, but instead, he or she may simply buy other products or fly other airlines. The task of this chapter is to use the cases to trace effects of mass media influence on public opinion and private firms – through markets and other social institutions – to changes in the conduct of firms and industries. The chapter suggests three complementary paths or channels of public opinion effects on private firms: classical market responses; third-person effect, market responses; and private standard setting. These pathways all can operate at the same time and as public opinion works on public officials to bring about policy change. Before concluding, the chapter briefly considers how tort liability affects the results presented in this study.

In literature tracing public opinion effects on public policy, market choices are largely unexplored. After all, market choices are not bailiwick of political science. Moreover, these choices are not usually considered changes in government policy *per se*. Instead, they are viewed as alternative patterns of private conduct already permitted by existing governmental policy.

This chapter and the next present the matter differently. This chapter concerns the way in which market and other voluntary mechanisms translate public opinion into changed behavior by stakeholders in a given *status quo*

policy. Connecting these voluntary changes taking place in the context of a *status quo* policy to adoption of *new* government policy is the task of the next chapter. As compared to the textbook account of policy adjustment to public opinion, this chapter and the next present a markedly different view of how public policy comes to correspond to public opinion.

#### Classical Market Accounts Linking Media Attention to Effects on Stakeholders: Changes in Availability, Quantity, Revenue and Profit

The belief that adverse publicity leads consumers to change their beliefs or preferences and so their purchasing habits is widespread. It is evident in the interest group remarks noted in the preceding chapter. The view has roots in both microeconomic theory and established business practice. At least for the cases presented in this dissertation, however, the evidence that adverse publicity causes changes in consumer behavior is spotty and ambiguous.

The suspected causal chain is this: Adverse publicity changes consumer attitudes. The changed attitudes change individual consumer purchases. Aggregated, these consumer choices affect seller revenues and profits. In light of changed profits, managers of firms selling goods or products adjust their firms product or services. This is the usual argument of neo-classical economics.

For economists, how information about product or travel safety diffuses to consumers is connected with the study of markets and market incentives. "The lynchpin of the perfectly functioning market," regulatory economist Kip Vicusi writes, "is that consumers and producers be fully cognizant of the risks their choices entail."<sup>271</sup> In a text book, he explained that in a perfect market, "safer products will command a higher price."<sup>272</sup>

By virtue of assuming perfect information in markets, the need for inquiry set out in this and the next section is obviated. There is an alternative view. Information may be taken as not uniformly distributed throughout markets or to parties to a particular transaction. For example, manufacturers tend to know more about the hazards of a product than consumers do. Where consumers are unable to distinguish between safe and hazardous products, more cheaply produced hazardous products *may* drive more expensive safe ones from the market. Of course, the incentives of rival manufacturers to inform the public about product “quality,” and the tort law, go some of the way toward combating informational asymmetries in the marketplace.<sup>273</sup>

Yet, Vicusi argues, “[T]he wide publicity devoted to newly discovered risks is frequently unduly alarmist.”<sup>274</sup> Undue alarm is a problem for it means, consumers cannot weigh different attributes about a product and come to a reasoned decision. This quality of information, and presumably, the irrational panic it engenders, disrupt usual market equilibria.

In the public relations literature, problems with product safety are also a matter of importance. Product safety issues are paramount when manufacturers ask consumers to return purchased goods for repair or replacement. An article on the “public relations considerations,” of these product recalls observes that recalls are, “particularly pernicious public relations problems, because they occur relatively frequently, have potentially disastrous consequences, and require considerable attention ...”<sup>275</sup> More to the point, another business author observes, that in the face of a product safety crisis, “consumer attitudes toward the harmful product and manufacturer change.”<sup>276</sup>

As with other areas of this dissertation, the evidence on this matter in air transportation is somewhat better organized than for consumer products in

general. To proceed, this section will present and comment upon two studies on air transportation safety, one on aviation security and two on all-terrain vehicles.

*Safety in Air Transportation.* Borenstein and Zimmerman examined the “reduction in demand” an airline encounters “as consumers respond to an accident.”<sup>277</sup> With some exceptions due to data limitations, they considered passenger traffic for the month of and the three months following fatal accidents aboard major U.S. air carriers between 1960 and 1985. In this sample, these very large crashes involve total destruction of the aircraft and more than forty fatalities. From the perspective of the NTSB study noted in Chapter Two, these authors have chosen a set of crashes with unusually high fatalities. The study reports “demand” as a percentage of the airline’s average monthly demand.

Depending on the statistical technique used, the authors report a total decrease in consumer demand following crashes between 1960 and 1977 of about two percent. They found decreases of demand associated with crashes between 1978 and 1985 of between two to fifteen percent. They divided their study into these two eras because they reasoned that price incentives would work differently in an era of regulated prices (pre-1978) than in an era of market pricing (post-1977). They conclude, “The relatively small overall effects indicate that consumers view accidents as providing little new information about the safety of an airline and the industry.”<sup>278</sup>

Borenstein and Zimmerman suspected that media attention might be related to the size of changes in passenger demand after an air accident. They used the number of stories in *The New York Times* to search for this effect in two ways. First, they counted front page stories about the crash. Second, they totaled the number of crash stories, regardless of placement, for the two weeks following

the crash. Neither of these measures was strongly associated with the level of consumer demand.

This systematic study has been criticized elsewhere,<sup>279</sup> but here it merits three comments. First, the measures of media attention used in the study may not be appropriate measures of media attention. This study has already reviewed media attention on accidents. Figure 3-1 depicts the number of articles on aviation safety in *The Readers' Guide*. There is quite clearly a quantum shift in the amount of media coverage between the mid-1970s and thereafter. This shift in the level of media coverage may account for the results of Borenstein and Zimmerman. It would explain the magnitude of the difference in crash effects on passenger demand between the regulated and the market competition eras of air transportation.

Second, besides ruling out media attention, the authors neither tested nor offered any other account of how information about airplane accidents diffuses to the public or to intermediaries between the public and the airlines. Presumably, they believe that the public learns of airplane accidents in one way or another. Yet if their measures of media attention cannot account for changes in demand, then they have offered neither an account of how that information is diffused to individual members of the public – nor one revealing how individuals respond to that information once it is provided. They conclude on the basis of their aggregated data, however, consumers see no new information in airline accidents.<sup>280</sup>

Finally, a swing in passenger demand that totals as high as ten or fifteen percent of one month's demand is *not* insubstantial. Still, they conclude, "travelers did not respond to crashes to an extent that is statistically discernable." But, the authors, rightly offer a caveat to their results. "Since deregulation,

consumers' responses to crashes may have increased, though the sample for this period includes only 13 accidents and these may not be representative of the 'typical' crash. The estimated effects are generally not significant at conventional levels, but they do indicate a pattern of negative response to crashes that tapers off after approximately two months."<sup>281</sup>

Ultimately, Borenson and Zimmerman are interested in explaining why airlines lose equity value after a crash. They conclude that very little of this loss can be attributed to changes in consumer demands for services following an accident.<sup>282</sup> Given their results, however, a safer interpretation is that there is no very large, systematic effect of airline crashes on media coverage about those crashes on passenger demand.

In their study on adverse corporate publicity, Fisse and Braitewaite consider the crash of an Air New Zealand DC-10 in Antarctica. The crash caused 257 fatalities. Publicity on the crash came both from the crash itself as well as from charges of a Royal Commission that the airline covered-up the true causes of the crash. Fisse and Braitewaite, themselves, found a review of the clippings about the accident and cover-up unsettling. Yet company insiders reported that the financial impact of the accident and attendant publicity was "almost certainly small." There was no effect on the market share of the airline on routes where it competed with Quantas Airlines. A national survey after the crash and scandal reported continued and widespread confidence in the airline's safety. While only one case, this very intensive study suggests that public response from adverse publicity does not come from changes in consumer preferences.<sup>283</sup>

*Aviation Security.* Pailen-Johnson Associates, at the request of the FAA, prepared a study on the effect of news coverage about terrorism on air travel. The authors developed a statistical model of air travel across the North Atlantic,

then searched for effects of terrorism on air travel using a media variable. They reasoned that the public would only fear what was reported to it. Hence, they measured the effects of terrorism by measuring media coverage. They measured it by examining articles concerning "terrorist attacks on Americans abroad." They then counted the number of pages devoted to terrorism in *Readers' Guide* publications, and aggregated those counts into a six-month moving average.<sup>284</sup> The study reported that each additional page of coverage, maintained for a six month period and devoted to terrorism, decreased demand for North Atlantic air travel by two percent in peak season and four percent in busy season.<sup>285</sup>

This is quite a large effect.<sup>286</sup> During 1986, the study estimates that there were 700,000 fewer North Atlantic air travelers. The lost revenues exceeded one billion dollars.<sup>287</sup> Obviously, the effects of concern over terrorist activity varies from time to time and place to place.

In Chapter Two, there was reference to the TWA Flight 847 hijacking. In that year, TWA reported that its international passenger service load factor dropped from 68.4% to 66.3%.<sup>288</sup> The decline in demand, however, may also stem from change in TWA's operations. As international traffic declined, TWA switched planes to domestic routes.

The more infamous bombing of Pan Am Flight 103, over Lockerbie Scotland, occurred in December, 1988. It had an immediate effect on ticket sales.<sup>289</sup> By January, 1989, its trans-Atlantic *traffic* fell 15%.<sup>290</sup> Over the next year, Pan Am reported a decline in *revenues* of 14.5% in its Atlantic Division.<sup>291</sup> Of course, here too there was a reallocation of routes. All of these effects are quite large. Certainly, they provide a basis for connecting adverse publicity with diminished profitability. But these studies are not capable of determining whether and to what extent changes in consumer preferences are leading the

changes in consumer behavior. Perhaps, they are. An alternative argument, considered in the next section, is that changes in the beliefs of intermediaries, like travel agents, account for changes in consumer travel patterns.

*All-terrain vehicles (ATVs)* Studies on the impact of adverse publicity on consumer products are somewhat scattered. There is not a single consumer products industry. There are many. Thus, studies exploring the impact of adverse publicity on consumer attitudes lack the systematic quality of the studies on air transportation. Three different studies of a single consumer product, all-terrain vehicles, offer some insight on the effects of publicity on ATV sales. All three studies offer weight to claims that adverse publicity works by changing consumer attitudes about this product, but the evidence they offer is equivocal. This equivocality merits attention in the next section.

A study by the U.S. International Trade Commission of the ATV industry came about in the context of a trade dispute. Polaris Industries was the sole manufacturer of ATVs in the United States. In 1988, it complained to the Department of Commerce that Japanese ATV distributors (Honda, Yamaha Suzuki, and Kalasaki) were “dumping” their products on the U.S. market. After the Commerce Department found probable cause for believing that ATVs were being sold in U.S. markets at prices below their cost, the matter went before the U.S. International Trade Commission for adjudication.

To make findings on the charges of dumping, the Commission conducted an extensive investigation of the ATV market in the United States. Ultimately, the Commission found that imported ATVs were not being sold in the United States for less than fair market value.<sup>292</sup>

One subsidiary finding is particularly important for the present study: The Commission found that publicity had a major role in reducing ATV sales.<sup>293</sup> The



staff report elaborated on this conclusion. It linked the decline in ATV sales to adverse publicity by noting, "There have been several news and consumer programs such as ABC's 20/20 program (April 1985) and CBS's 60 Minutes (April 1987), that reported potential safety problems with ATVs."<sup>294</sup>

Economist John Graham also examined the ATV industry. He did so in examining the regulation of ATVs as one part of a broader study on whether product liability law encourages manufacturers "to promote injury prevention"<sup>295</sup> He concludes that it does. He selected ATVs as an oft-cited example of a case in which product liability laws worked to promote safety. Without reference to the International Trade Commission study, he also concluded "the primary factor" in the decline was "the adverse publicity in large audiences of potential customers" from national media stories.<sup>296</sup>

Graham lists as particularly influential media events: the April, 1985 20/20 program; the April, 1987 "Most Dangerous Vehicle" episode on "60 Minutes;" as well as a February, 1987 article that appeared in *People*. Of lesser importance were Stuart Statler's statements in 1984 at a number of public appearances. Then Graham adds, "The effect of these stories was probably amplified by the common practice of local media to follow-up stories that prestigious national media outlets initiate."<sup>297</sup>

Like the findings of the International Trade Commission, Graham's conclusion on ATV sales merits closer scrutiny. The exact sales figures of ATVs are not available from the Commission, but information on the importation of all-terrain vehicles was reported to both the Commission and the Department of Commerce. The four major manufacturers of ATVs are outside the United States.<sup>298</sup> Figure 4-1 depicts the number of ATVs imported into the United States for the years, 1982 to 1990. Like Figure 2-5, it also shows the number of articles

on all-terrain vehicles appearing in both *The New York Times* and *USA Today*. From 1985, there was a steady decline in ATV sales, and the decline became more precipitous in 1987. The Department of Commerce import statistics show a slightly different pattern than the Motorcycle Industry Council statistics relied upon by Graham.<sup>299</sup> Regardless of the measure of ATV sales or imports, compared to the number of stories on aviation, the number of stories on ATVs was not high in any year. Indeed, there are only 66 stories on ATVs indexed in *The Readers' Guide to Periodical Literature* between 1983 and 1992.<sup>300</sup> Of those, only seven appeared in major news magazines. It does seem, particularly for the period after 1984, that as the number of stories on ATVs increased, the imports of ATVs declined.

*People's Weekly*, "60 Minutes" and "20/20" do enjoy wide circulation among the public. Moreover, members of the public may well be attentive to safety issues, yet the suggestion that these three media events were decisive in changing public attitudes about all-terrain vehicles is untenable. Such claims assume a great deal of public attention to the media over a very short time.

Studies of media effects on public opinion speak in terms of media induced changes requiring significant levels of publicity over months or years.<sup>301</sup> This level of media attention is lacking in this case. Thus, while one or two media spots may swing a small change in consumer attitudes or information, such attention seems unlikely to have caused the extensive changes in mass attitudes attributed by these studies. To put such claims in perspective, for example, in 1979 after all the attention to the birth-defect causing drug thalidomide, only one in ten people could recall what it was. Fewer than one in four people knew what happened at Love Canal.<sup>302</sup>

One other aspect of ATV sales also deserves attention: the decline of three-wheeled ATV sales. Broadly speaking, there were two types of ATVs for sale: three-wheeled and four-wheeled. Not only did ATV sales decline from their peak in 1984, but in addition, the mixture of ATV sales changed. Between 1983 and 1987, the proportion of three-wheeled ATVs sold dropped from 90% of sales to 3%.<sup>303</sup>

Contemporaneous comments explained the change in the mix of sales in a variety of different ways. Industry spokesman suggested the changes were due “market factors.” These included, for example, consumer desires for a smoother ride.<sup>304</sup> Industry denied steering customers into the four wheelers by price discounting.<sup>305</sup> Members of the trade press began observing and commenting upon the switch as early as 1985. For example, one editor testified at a CPSC hearing, “[T]he average consumer seems [sic] how much controversy there is and they’re moving into four-wheelers.” He added presciently, “If this evolution continues, I think three-wheelers will just fade from the market place within four years.”<sup>306</sup> A Mississippi Farm Bureau spokesman observed, “The companies were feeling the heat from the CPSC and took it upon themselves to voluntarily ban three-wheelers.”<sup>307</sup>

Whether the switch to three-wheel ATVs was led by consumers or guided by industry intermediaries is not clear. The same logic about the comparatively small extent of media coverage and changes in consumer attitudes would seem to apply to the switch away from three-wheeled vehicles as well. Gregory Rogers, a CPSC economist, wrote about the response of the market to implicit information about ATV risks. While not aimed at explaining the decline in new 3-wheeled ATV sales, his work offers some insight in explaining how and why that decline may have occurred.

Rogers took advantage of a “natural experiment.” In December, 1987, the CPSC and the ATV industry entered into a preliminary consent decree. Among other things, the decree halted the sales of new, three-wheeled ATVs. To investigate the pure informational effect of the consent decree, he examined the average price difference between *used* three- and four- wheeled ATVs. These sales are outside the control of ATV manufacturers and distributors. The decree left sales of used vehicles largely unaffected. Thus, he argued, “If, in fact, the consent decree and concomitant publicity provided new risk information to the public, we would expect the relative price of three-wheeled ATVs to decline in the market for used ATVs.”<sup>308</sup>

Rogers developed an elaborate econometric model of ATV price. Applying suitable controls, he found *after* the preliminary consent decree, the price difference between the 3- and 4-wheeled ATVs increased by almost two hundred dollars.<sup>309</sup>

This increase, he said, “probably represents the minimum market valuation” of the additional risks of 3-wheeled ATVs as compared to 4-wheeled ones. The estimate is a minimum one because information about the higher risk associated with three-wheeled ATVs had been available to the public, as early as 1986.<sup>310</sup> As Figure 2-5 shows, there was more publicity on ATVs following entry of the preliminary consent decree than at other times. The decree was widely publicized in the media, and moreover, after the decree, he argues that coverage shifted from a general emphasis ATV safety to one on the stop sale order *and* three-wheeled ATVs.<sup>311</sup>

Rogers studied the publicity on ATVs using the clippings service files of the CPSC. His attention to publicity merits two comments. First, the size of his study. For the three months November, 1987 to January, 1988, he reports seeing

220 articles.<sup>312</sup> Unlike this study which uses counts from indices as a benchmark of media attention, his study uses actual collections of news articles. Thus, his count is vastly more articles than depicted in Figure 2-5, 4-1 or noted in the *Readers' Guide*.

Second, the evidence on the media's role in bringing about a switch in consumer vehicle choices is somewhat weaker than Rogers suggests. Most of the articles that he examines report on the consent decree and its stop sale provision. This is what the literature on the dominance of government officials and activities in the media would suggest.

Excepting the articles on the consent decree and stop sale order, the mix of articles on ATV safety is very close for the two periods he compares. About one-third of the articles on the risk of ATVs – before *and* after the acceptance of the preliminary consent decree – specifically concern three-wheeled ATVs (For November-December, 1987, 32.5%; for January, 1988, 34.8%). The slight difference in the proportion of articles about three-wheeled ATVs seems too thin a basis on which to argue that consumer decisions changed very much because of changes in media coverage.

Review of the study by Rogers offers two important insights. First, merely increased public attention to facts already known has a large effect on price. But second, and more importantly, that increased attention does not suffice by itself to explain the decline of three-wheeled vehicle sales. After the decree, even used three-wheeled machines had significant value. Consumers would still purchase these machines that manufacturers had chosen no longer to offer for sale. This evidence undercuts claims that consumer purchasing decisions change largely because of adverse publicity.

No single study offers a consolidated image of the media picture of ATVs. Quite clearly, between 1985 and 1988, that picture grew less favorable. Hazardous a conclusion that this deterioration harmed sales of ATVs, especially three-wheeled ATVs seems a small risk.

On the other hand, given the stridency of the assertions about the effects of adverse publicity on consumer attitudes, the findings presented in this section on airline travel and ATVs are indeed, quite feeble. Two objections are quite properly raised against the analysis presented in this section. First, none of the analyses really tested for effects of information on individuals. All of the analysis used aggregated data. Second, none of the studies concerned attitudes or cognitions. Instead, they focused on behaviors. Both of these objections have merit.

Yet, re-examination of the several studies mentioned in this chapter also points up a possible second explanation. Reporting in the media led elites to change their expectations about consumer behavior. Thus, as Borenstein and Zimmerman note, the equity markets respond to publicity about an airline crash even when consumer travel patterns do not. Travel agents may steer their passengers away from airlines suffering crashes or terrorist attacks. The airlines themselves adjust their equipment allocations or air fares based on what they expect consumers to do.

The prompt but limited fall in the price of used ATVs after entry of the preliminary consent decree also merits reflection. Even the information implicit in the decree (that 3-wheeled ATVs are hazardous) did not destroy the market for those products. Consumers would still buy even when elites would not sell. All these findings suggest, but do not rigorously test a view that these changes

come from changes in elite expectations about mass behavior rather than changes in mass behavior itself.

### Mass Media Shaped Interpretation and Response to Public Opinion

The introduction to this dissertation notes that several theoretically disparate literatures converge on a single finding. Experts and members of the general public evaluate risk differently. Whatever reason finally accounts for the difference between elite and mass evaluation of risk, the difference has consequences. It means that an expert elite – such as officials heading up a risk regulating agency like the FAA or design and operational experts in industry – can not accurately draw upon their own experiences or feelings in evaluating public perceptions of risk or fears about safety. The training, background and experience of experts make them different from members of the public on matters within their especial competence. Moreover, experts and industry insiders are aware of this difference. Thus, to judge about public opinion, experts cannot begin with an assessment of they themselves think.

A logic suggested by Davidson and others, indicates, agency officials and policy insiders must figure for themselves and communicate about public opinion not on the basis of what “I” think or “you” think, but on the basis of what “they,” the unknown public thinks on any given topic. Decisions turn on how decision makers think the public will respond to the change. This “third-person effect” introduces a bias in the perception of public opinion.

Individuals can learn of public opinion in two ways. First, they can learn from their individual experiences and assume that all people are like themselves. Thus, as Benedict Anderson has noted in a well-used example, medieval artists prepared stained-glass images of biblical figures in then-contemporary clothes.<sup>313</sup>

Without access to a mass media, these artists could not imagine a time or place where people wore other styles of clothing. Such imagination is created by exposure to other times and places through the media.

Second, people can learn of public opinion through the mass media. Laboratory researchers on media communications have attempted to understand how the mass media affects people's perceptions of public opinion. When asked to evaluate the influence of media communications on other people, individuals consistently over estimate the likelihood of changes in other people's attitudes due to the communication. That is, individuals looking at a media message believe that the message will persuade others even though they themselves believe that they are not affected. Precisely how or why this third-person effect works is not completely understood. Nevertheless, this systematic misperception of public opinion appears most strongly in more educated, somewhat older persons – just the type of experienced individuals holding positions of responsibility in policy networks<sup>314</sup>

Some researchers have begun to point out the political and behavioral consequences of third-person effects. Diana Mutz, for example, reports on the importance of favorable "horse race" media coverage in presidential elections. Horse race coverage on an election concentrates on which of the candidates are ahead and which are behind. These media depictions generate perceptions of public support for one candidate over another, and they lead to increased campaign contributions to leading candidates.<sup>315</sup>

When H. Phillip Davidson first coined the term, "third-person effect," he offered two examples relevant to the marketing of products. He suggested, as one example, the effect of news about product shortages on purchases of consumer goods. After hearing rumors of a product shortage, consumers may



hoard goods. They do so – not because they believed the reports of shortages – but because they feared other customers would believe the reports and hoard the goods.

In a similar way, Davidson noted after reports that aerosol might harm the earth's atmosphere, manufacturers of products sold in aerosol cans began to sell their products in spray or squeeze containers. One possibility he observed is that those businessmen may have expected stories about aerosols to turn the public against the use of aerosol cans. The key to understanding the influence of mass opinion over policy is that the influence depends less on what the public actually does or thinks than on what decision makers themselves think that the public will think or do.<sup>316</sup>

Looking for behavioral evidence of “third-person effects,” or “anticipated opinion” effects on public policy has not really occurred. The insight of Davidson is this: Elites predicate their expectations about public opinion on what they see in the media. Manufacturers, distributors and retailers of products don't wait for consumer opinion of a product to change. They make judgements about what consumers will do based on what they see in the media. They anticipate where public opinion will be at the end of the product cycle, and they plan their operations accordingly. The remainder of this section uses three cases to illustrate this point on anticipated opinion. Sales of DC-10s and tickets for passage on DC-10s after well-publicized crashes of DC-10s; changes in buying patterns of picnic toys after media attention to Michelle Snow's death from a tossed lawn dart; and multiple changes in the production of children's pajamas after publicity about the claimed carcinogenicity of Tris became news.

*DC-10 Sales, Use and Publicity* The synergy between third-person effects and media reporting about accidents yields a pattern of behavior quite distinct

from elite responses to market behavior. Without addressing the third-person effect, economists Barrett and Lofasco examined passenger and airline responses to a string of DC-10 crashes in 1979. “After an American Airlines DC-10 crashed on takeoff at Chicago in May, 1979,” they wrote, “the DC-10 was engulfed by an extraordinary wave of negative publicity.” Before the end of the that year, there were two more DC-10 crashes, a temporary but unprecedented decertification of the plane by the FAA – so that no airline could use it – and a Congressional inquiry into the matter. “It was widely perceived at the time,” Barrett and Lofasco wrote, “that DC-10s would never regain the confidence of the riding public.” Even 18 months after the crash, airlines were changing their advertising to de-emphasize DC-10s and trying without success to sell their fleets of DC-10s. Orders for new DC-10s, of course, dropped dramatically<sup>317</sup>

The perceptions of the public that led to these dramatic steps by airlines were not, however, matched by airline passenger behavior. Using CAB market share data by city-pair, quarter and airline, Barrett and Lofasco found, “no evidence, that several months after the Chicago DC-10 crash, passengers were attempting actively to avoid flying DC-10s.” This non-avoidance, moreover, came in a period following the Chicago crash that included two subsequent DC-10 crashes.<sup>318</sup> This string of accidents presents very nearly the worst case of negative publicity about flying.

About ten years after the 1979 DC-10 crashes, there was an “intensively publicized” crash of a DC-10 in Sioux City, Iowa. Barrett, Menighetti, and Prete conducted a study of *travel agency* bookings following that crash. In this later study, the authors *did* find a 25% drop in the proportion of new bookings going to DC-10s in the first month after the crash. (A 35.4% drop in the first two weeks after the crash.) Yet they also report that “quite soon, DC-10 bookings started a

steady and rapid recovery.” They found any crash-induced unwillingness to fly DC-10s had dissipated within six months of the accident.<sup>319</sup>

In discussing this second set of results, Barrett et al. made two observations pertinent here. First, they speculate that as media coverage of the accident declined, public anxieties, and the loss of bookings declined. Second, they note that the travelers in this second study were “unusually well-informed passengers,” not typical of the general population.”<sup>320</sup>

This pair of studies neatly offers support for the working of the third-person effect. In the earlier study, passenger traffic was largely unaffected by the string of DC-10 crashes, yet airline executives were acting as though the public were concerned. They changed airline advertisements; they tried to sell the DC-10s in their fleet and so on. These were judgments concerning assets worth millions of dollars. Of course, 1979 was a turbulent period in the airline industry. Deregulation, an oil shortage, and high interest rates all were working to change airline operations. The consequences of these changed industry circumstances cannot be entirely excluded as contributing to the desires to sell DC-10s, but on the other hand, the behavior is noteworthy.

When compared to the earlier study, the second study suggests the workings of the third-person effect in a second way. The CAB data is a count of passengers boarding aircraft. The data showed no evidence that passengers were avoiding DC-10s. By contrast, the travel agency data showed quite a large drop in bookings.

The obvious question is: Why the difference? Barrett et al. states that the difference comes from differences in the kind of passengers being studied. They call the travel agency passengers, “unusually well-informed.” This assertion,

however, does not explain why “informed” passengers would avoid the DC-10 – which after all, despite several crashes does have a fairly good safety record.

An argument relying on the third-person effect does explain this apparent avoidance. The DC-10 is excoriated in the media. Taking their cues about what the public wants from the media, travel agents book or steer their passengers onto planes other than DC-10s. Of course, the Barrett et al. studies were not designed to search for changes in consumer preferences versus changes in travel agent recommendations. Moreover, one poll, taken a month after the 1989 Sioux City crash reported that 12% of air travelers said they tried to avoid taking trips on DC-10.<sup>321</sup> That result is somewhat surprising compared to the 2% of air travelers who said they avoided commuter flights after a spate of adverse publicity about those flights in 1995. The analysis here is somewhat speculative. Still, it seems likely that some sort of third-person effect was driving the differences in study results.

*Lawn Darts* Lawn darts are foot-long, arrow-shaped throw-toys. They weigh about half a pound and have narrow steel tips and plastic fins. They are thrown in an arc at a circular target laid on a lawn as a picnic game.<sup>322</sup> However, when thrown in a modestly high arc, the darts had sufficient force at their tip to penetrate a child’s skull. In 1987, a seven year-old girl, Michele Snow, died after she was struck in the head with a lawn dart. This led to the public efforts of her father, David, to seek an accounting for regulatory inaction on this hazard.<sup>323</sup>

Probably, meaningful public opinion on lawn darts did not exist before the death of Michele Snow in April, 1987, but after her death, her father did much to create it. He went to his local news paper, *The Press Enterprise* and told them what had happened. He repeated the story to *The Los Angeles Times*, to a

local ABC affiliate and ultimately to “60 Minutes.” He testified twice before Congress.<sup>324</sup>

In his appearances before Congress, four months after his daughter’s death, Mr. Snow presented the very picture of an angry parent. He wanted to prevent a similar tragedy from befalling other children and families. He said that he only wanted the CPSC to enforce its regulations, and his testimony prompted Congressional inquiries. Congress held hearings, and it looked to see whether the current regulations were being obeyed. Ultimately, Congress passed a statute in effect requiring CPSC to adopt a rule banning lawn darts.<sup>325</sup>

At CPSC hearings on the ban, an industry spokesman observed, “the collective negative publicity” had led *retailers* to discontinue purchase of lawn darts. He told CPSC, “you have effectively killed this item in the short term.”<sup>326</sup> The owners of a small manufacturer asked, “What will our small company do with 53,000 sets of lawn darts?”<sup>327</sup>

Lawn darts are usually sold in combination with other picnic games, such as volley ball or badminton.<sup>328</sup> By the time CPSC was considering a rule on lawn darts, manufacturers had noted retailers were beginning to purchase game sets that included combinations of games other than those having lawn darts.<sup>329</sup> Aside from a report on “60 Minutes” and a few newspaper accounts, media attention to lawn darts was quite limited. Probably, there was too little coverage for media-driven public opinion change on lawn darts. Thus, the response was predicated not on what the public actually did but on what merchants and sporting goods manufacturers thought the public would do.

*Tris-treated children’s pajamas.* The industry responses to CPSC’s attempted regulation of Tris also illustrates the likely workings of a third-person effect. Chapter Two has already considered media coverage on Tris, the flame

retardant used in children's pajamas and thought to cause cancer. The highlights of that media story were the initial reports of the Environmental Defense Fund's petition to require labels on Tris-treated clothing (March, 1976); the run-up to a CPSC ban on such clothing (April, 1977); proceedings on the ban and its end (June, 1977); and thereafter. The keys to understanding the workings of the third-person effect here are examining how elites modified their organization's conduct over time in anticipation of public opinion.

The CBS Evening News with Walter Cronkite reported in March, 1976 on the EDF petition. Through this broadcast and *The New York Times* story the next day, many apparel manufacturers and retailers learned for the first time that children's pajamas might be made with a hazardous chemical.<sup>330</sup> Roughly divided, there were three main clusters of firms concerned with Tris-treated children's pajamas. They were: manufacturers of the chemical Tris; different manufacturers in the textile and apparel industries; and retailers.

At first, chemical manufacturers disputed claims on the carcinogenicity of Tris. As arguments on whether Tris causes cancer were before the CPSC, both the Environmental Defense Fund and Michigan Chemical, the manufacturer of Tris submitted memoranda for consideration. A CPSC staffer reviewing a memorandum submitted by a chemical manufacturer wrote, "It is essentially the same data presented by the Environmental Defense Fund." She added, "Only the conclusions drawn are different," and she highlighted the inherent uncertainty of the evidence by concluding, "The fact that the same data can generate two such varying interpretations indicates that further research is necessary."<sup>331</sup>

Ultimately, however, resolution of the Tris controversy did not turn on scientific research. Before chemical manufacturers withdrew Tris from the

market as a flame retardant for sleepwear, they reported sales of Tris for such purposes were already declining dramatically. Manufacturers attributed these lost sales to adverse publicity.<sup>332</sup> According to data submitted to the Congress, in 1976, sales of Tris for use in sleepwear declined almost fifty percent from levels of the previous year.<sup>333</sup> This decline in the sales of Tris and this withdraw of the chemical from use in children's clothing came without regulatory action. Production of Tris for clothing was not a significant portion of the chemical business, and the adverse publicity about Tris, added to a blight of bad publicity already confronting chemical manufacturers.<sup>334</sup> This new publicity was unwanted and disproportionate to any revenue Tris brought to the industry.

The positions of the textile, apparel and clothing, and retail industries were somewhat different from those of chemical manufacturers. These firms added Tris to artificial fibers (the spinners); wove those fibers into fabrics or applied Tris to already woven fabrics (the mills); made pajamas from Tris-containing fabrics (the apparel manufacturers); or sold the finished garments to the public (the retailers). Their interests were less in defending the safety of the chemical and more aimed at assuring their respective businesses would not endure economic harm. Rather than defending the use of Tris, they preferred, where possible, to switch to other products and to deplete their stocks of manufactured goods.

Six months after the initial stories on Tris, CPSC surveyed the several markets related to the production and sale of Tris-treated garments. A staff memorandum reports, "[R]etailers maintain that they have no indication of adverse consumer reaction." Nevertheless, retail buyers were searching for substitutes although "their actual orders have not changed..." For apparel manufacturers, the effects of the Tris-related publicity varied. Much depended

on the nature of their production. For fabric producers, the effect ranged from “discontinued” to “wait and see.”<sup>335</sup> A later survey by the American Textile Manufacturers Institute found that nearly all textile manufacturers had not used Tris since March, 1976—a date well before final agency action to ban Tris.<sup>336</sup>

The memorandum reports two areas of consensus. First, “all the publicity has held back voluntary marketing of Tris-treated apparel.” Second, “Tris-treated fabrics will be replaced as substitutes are available,” regardless of the outcome of pending studies determining whether Tris causes cancer.<sup>337</sup>

After the ban and its attendant publicity, *The Wall Street Journal* reported changes in manufacturer and retailer behavior. Manufacturers reported increased interest in naturally flame retardant fabrics for use in making children’s pajamas.<sup>338</sup> A catty *Wall Street Journal* aside, written some months after both the attempted ban and the subsequent litigation points to another course by retailers: recommending alternatives to pajamas such as “plain old untreated long johns.”<sup>339</sup>

Already, the case very much suggests the workings of a third-person effect. As Figure 2-4 illustrates, compared to the publicity that was to come in 1977, the media attention to Tris in 1976 was quite modest. It was a couple of news stories. Consumers had not changed their purchasing habits at all, yet purchases of the chemical Tris for use in sleepwear had already declined significantly. Nearly all textile manufacturers had stopped using it, and retailers were searching for pajamas that could meet federal flammability standards without using Tris. The pajama elite—if such a term can be used—was moving based on publicity in anticipation of public opinion well before there was public opinion on the matter. Indeed, for the most part, the public was quite willing to purchase Tris-treated pajamas up to the time of the ban.



But the evidence on the workings of the third person effect becomes somewhat stronger by consideration of facts after a second petition of the Environmental Defense Fund was filed in February, 1977. This petition called for a ban on the sale of Tris-treated children's pajamas. At this time, the major stocks of Tris-treated garments were with department stores and large discount chains. A CPSC estimate in March, 1977 noted around 70% of children's pajamas are sold in department or large national chain discount stores. In department stores, about 20% of pajamas were treated with Tris while in large chains between 50-60% of the pajamas were so treated.<sup>340</sup>

In mid-February, after the second, EDF petition, two large retailers indicated that they would continue selling the garment pending a scientific or authoritative resolution of the controversy. Stores were trying to reduce their stocks of Tris-treated garments.<sup>341</sup> By the end of February, *Women's Wear Daily* was still reporting little consumer reaction to the Tris controversy although there were reports in some areas of "tremendous opposition from our customers to Tris-treated items."<sup>342</sup> By the end of March, the tenor of discussions about Tris had changed within this industry. As *Women's Wear Daily* was reporting "an imminent ban on Tris,"<sup>343</sup> consumers were, however, still buying the product.

This examination of behavior by the several industries involved with producing Tris-treated children's pajamas illustrates very nicely the workings of the third-person effect. Even though parents would still buy this product – thought to subject their children to a risk of cancer – manufacturers and retailers were moving away from producing this product. The evidence in the Tris case even suggests an explanation for why media effects are so consistently over-estimated: elite misunderstanding about diffusion of information through the mass media to the mass public. As Jeffrey Friedman observed in the context of a

discussion on political ignorance, “The failure of non-scholarly public-opinion analysts,” to understand popular ignorance, “probably stems from the analyst’s own absorption. . .”<sup>344</sup>

In April, 1977, the CPSC banned the sale of Tris treated pajamas. Until June, 1977, when a court set the ban aside, it makes no sense to speak of “voluntary” actions by retailers. Still a memorandum from a CPSC enforcement attorney about the ban is useful for understanding the diffusion and effect of information about Tris. He observed that many stores did not know about the ban. He said when commission inspectors found stores that had banned garments on the shelves, “[T]hey said they didn’t know anything about it [the ban] or that they didn’t have notification of it and did not know that this was Tris-treated -- or whatever the excuse was. . . .” When told about the ban, they agreed take the banned garments off the store’s shelves.<sup>345</sup> Although most large retailers were in “substantial compliance” with the ban a short time after the ban, others had “a communication problem.”<sup>346</sup>

Of course, denials from retailers that they knew nothing of the ban have a certain self-serving quality. If they know nothing, their selling the banned garments is less culpable. Still, if retailers could credibly claim that they knew nothing of the ban, there is some basis for believing that the public – even as the ban was in force – had limited information about the ban. Retailers and all the other kinds of firms involved with children’s pajamas all had good reasons to monitor news on the topic. If a significant portion of retailers were unaware of the ban, it seems unlikely that knowledge would be widespread in the public and shaping their attitudes about these goods.

The workings of the third-person effect offers a second mechanism for understanding private adjustments because of adverse publicity. Elites use

reporting in the media as a gauge of public opinion, but as laboratory research shows, that gauge is biased. As elites direct their operations to meet their perceptions of public opinion, private operations may change the goods or services that they offer for sale. Thus, travel agents steer their customers away from DC-10s. Fabric and apparel manufacturers move away from the use of Tris. They do so not because government regulations mandate the change or because public opinion demands it. They do so because they expect that the public will eventually require it.

As explained in Chapter One, the cases chosen in this study concern risk because on such matters elites and members of the mass public tend to perceive risks differently. A series of studies by Paul Slovic and various collaborators report on public opinion about risk. They find that individuals tend to overestimate the kinds of hazards that are disproportionately reported in the media.<sup>347</sup> The implication of that study for this work is that the perception of media reporting about a risk may depend on the bias or interest of the observer. Thus, the magnitude an elite response to adverse media coverage may turn less on *actual* media effects on public opinion and more on elite misperceptions about the likely effects of media coverage on public opinion.

#### Collective Private Responses to Public Opinion

The first two sections in this chapter suggested a simple strategy for responding to public opinion by which individual firms might act on their own. Don't buy, use or sell the suspected product. Treat it as deodand. But throwing out a valued product with the soiled bath water of claimed safety defects is far from the only possible industry response to public concerns about safety. This section discusses industry wide, or even multi-industry responses. Private

interests can adjust to actual or anticipated changes in public opinion in a concerted fashion, by developing safety standards. They do so because when consumers are unable to discern quality differences between different brands of the same product, the safety problems of one manufacturer threaten the reputation of the entire industry.<sup>348</sup>

This quality problem goes beyond safety or quality differences between products. It comes up on issues of product compatibility, performance, reliability and safety.<sup>349</sup> Many such matters can be addressed in private standard setting. Standard setting involves announcing in an appropriate forum, such as the American National Standards Institute, that a collection of firms is interested in developing a standard, establishing a technical committee to weigh and consider proposals for the new standard; and developing "a broad consensus on all the elements of the standard."<sup>350</sup>

Although "voluntary standards" are developed outside governmental processes, the standards thus determined are not really voluntary. Firms are expected to meet the agreed-upon or otherwise prevailing standard. Thus, for example, users of computers will recall the ANSI or ASCII file options in many software programs. Although programs are not required (or at least in one point in time were not required) by statute or regulation to have such options, as a practical matter, all software users expect them. In this sense, they are required even though they are voluntary.

As Samuel Krislov explains, legal authorities rely on the standards established through the standard setting process. They put the burden on non-conformers to the standards to warn of and explain non-conformity to the standards.<sup>351</sup> Courts will read such standards into contracts<sup>352</sup> or interpret them as the criteria for judging "due care" in tort law.<sup>353</sup>

Not a great deal is known about the private regulation of safety. Robert Dixon observed that most people unfamiliar with the standards system it are “surprised” to find so vast and far flung an enterprise. These bodies for making norms affecting the conduct of third parties go unnoticed by the public – and he might have added, by political science.

Dixon notes that in 1978, there were between 25,000 and 50,000 private standards.<sup>354</sup> In another work on standards, in 1983, Ross Cheit notes 420 standard setting organizations had promulgated more than 32,000 standards.<sup>355</sup> These standards cover a wide range of enormously important products and operations. They range from building construction and screw thread separations to the electronic format of computer text. Still, voluntary standards setting organizations or processes are often dismissed for producing weak or ineffective standards. The organizations are thought to be “captured” by member firms or thin veils behind which competitors conspire. As Cheit observes, there is no “anti-business” sentiment behind private standard setting. Yet a peremptory dismissal of the importance of safety issues in developing private standards is unwarranted.<sup>356</sup>

Cheit studied four matched sets (private and government) of standards regulating a particular area. After comparing private and public standards, he concluded, “Private standards should not be rejected solely on the theory that they tend to be underprotective.”<sup>357</sup> He explained that other business interests, besides consumers, worked to assured strong safety standards. For example, gas companies are interested in making sure that consumers have only safe gas appliances to use. After all, gas explosions are bad for business. Labor unions want to assure that workers have safe equipment, and where workers and consumers use the same equipment, their work acts to protect consumers as well

as workers. Testing laboratories do not want ridiculously weak standards since their reputation depends on having and testing for meaningful standards.<sup>358</sup>

Joseph V. Rees, somewhat to his own amazement, makes the same point about voluntary regulation of the nuclear power industry after the incident at Three Mile Island. In a book about the Institute of Nuclear Power Operations, he reports that even critics of nuclear power concede that the institute does a better job of inspecting plants than government inspectors do.<sup>359</sup>

Undoubtedly, voluntary standards are developed for a variety of reasons not the least of which is an effort to pave the way for sound public policy. Reese in writing about nuclear power suggests that public opinion plays a role in prompting the development of standards.<sup>360</sup> Standard setting or proposals for voluntary standard setting were part of the ATV, lawn dart and drawstring cases in this study. They also have some role in aviation.<sup>361</sup> Like voluntary standards “recommendations” of the National Transportation Safety Board – not voluntary standards in the usual sort but not mere suggestions either – played a role in both of the FAA commuter rules. With this background, an example of how even a whiff of adverse publicity can bring about standard setting and private change is now due. The case presented here is the voluntary standard setting on drawstrings.

*Drawstrings on Children’s Clothing.* A drawstring is a cord run through a hem to tighten the fit of a garment around a person. Traditionally, hoods on jackets or sweatshirts are pulled tight with a drawstring. Occasionally, children are strangled when these strings on the hood are caught in a playground slide or fence. Long drawstrings in the base of a coat or jacket are sometimes caught in school bus doors or escalators. Between 1985 and 1995, 17 deaths and 42 non-

**fatal incidents involved the entanglement of drawstrings on children's clothing.<sup>362</sup>**

**Five-year old Nancy Sibley died when the drawstring around her hood caught on a playground slide. Her mother, Thelma, wrote to Hillary Clinton – mother to mother – in February, 1994 asking for a CPSC investigation.<sup>363</sup> CPSC had long been working on playground safety, but reducing this risk by changing the design of children's garments had not been considered.<sup>364</sup>**

**The staff convened meetings with manufacturers and retailers of children's clothing to discuss drawstrings around hoods and the dangers they pose to children. Instead of drawstrings, manufactures can secure hoods with snaps, velcro, buttons or elastic. Notes of this meeting report, "[S]everal manufacturers indicated that with two years lead time, they could do whatever was asked," but they had real concerns about timing.<sup>365</sup>**

**Retailers echoed this theme of time dependence in their comments. One said, Retailers according to CPSC notes, "We want to sell safe products and prevent injuries." Another added, that they could not change products already made and being shipped from overseas, that is, "on the water." Overall, however, there was "no overwhelming resistance to moving toward elimination of strings."<sup>366</sup>**

**At the same time, there were concerns about the terms of a CPSC warning to the public. A strongly worded warning potentially effects, "millions of dollars worth of products ordered but not yet sold." Moreover, observed another retailer, "We do not have alternative products to offer the consumer."<sup>367</sup>**

**In July, 20 major retailers and manufactures joined with the CPSC in announcing, "a major cooperative effort . . . to protect America's children." The**

firms agreed to modify or eliminate drawstrings “from the hoods and necks of children’s clothing.”<sup>368</sup>

Prior to the press release, this matter had received negligible attention. Even after the July press conference, it was not a hot media item. Yet the threat of adverse publicity was sufficient to bring about substantial changes. A supplement to the original discussion makes this point somewhat clearer. More than a year later, in November, 1995, CPSC Chairman Ann Brown, joined with two Ohio Members of Congress, in announcing new “Guidelines for Drawstrings on Children’s Clothing.”<sup>369</sup> These guidelines included provisions on waist and bottom drawstrings *as well as* hood and neck drawstrings.<sup>370</sup> “Ultimately, a “voluntary” product standard developed through the ASTM process embraced these guidelines.<sup>371</sup> CPSC touted its joint development of clothing standards as a “success story.”<sup>372</sup> The case here only illustrates the availability of a mechanism for joint industry action in response to or in anticipation of adverse publicity.

#### Liability, Tort Law and Product Design

Well-grounded arguments in legal and economic theory present a challenge to the argument presented in this chapter. Indeed, by themselves, they might offer a rival explanation to the cases considered in this dissertation: tort liability. A tort is “A private or civil wrong, other than breach of contract, for which the court will provide a remedy . . . for damages.”<sup>373</sup>

In general, tort law requires manufacturers , distributors and providers of a product or service to pay money damages to the “victims” of unsafe products or services. By requiring such payments for injuries caused by a product or service, this body of law fosters safety. It does so by offering firms an economic



incentive to make their products safe: do so “or pay the way for the losses the enterprise inflicts.”<sup>374</sup>

Liability under tort law is not a serious challenge to the argument on the relationship between public opinion and public policy change presented in this dissertation for four reasons. First, the *precise* reasons why interest groups or their members change their product or service delivery or specifications after adverse publicity is of peripheral concern. As noted in the section on standard setting, courts use voluntary standards as one basis for establishing the standard of due care in a way similar to that use of government agencies in establishing new regulations. Whether businesses adapt their behavior in the face of adverse publicity to make more money or they do so to avoid financial losses by limiting tort liability or business changes related to new regulations is of no moment in arguing that public policy change is driven in significant measure by the practices of those businesses. The essential claim here is that this response is motivated by something other than electoral incentives. How much these differing motivations drive particular kinds of behavior, as a general matter, is not a subject this study is well-designed to address.

Second, systematic evidence on the link between products liability concerns and the types of changes described in this chapter is, by in large, somewhat modest. Researchers have had a difficult time linking the product liability laws to specific design changes. In an early study, George Eads and Peter Reuter examined the connection between product innovation and product liability law by interviewing employees at several large manufacturers. Except for firms subject to extensive regulation such as the FAA, the interviewed employees report, “product liability is the most significant influence on product safety efforts.”<sup>375</sup> Yet at the same time, Eads and Reuter report that firms

respond to product liability actions as an essentially random influence. The problem, they report, is that lawsuits offer no clear signals on how product designs should be adjusted to improve safety.<sup>376</sup> As Richard Morrow later summarized, "The message our product liability system conveys to engineers is that they must design and produce safe products. What it does not tell them is how to be safe or how safe to be."<sup>377</sup>

A subsequent symposium by the National Academy of Engineering refined this conclusion. Perhaps, the best substantiated effects of product liability suits on industry were on behaviors such as the withdraw of "mature, technologically well-established firms" from markets as suppliers to manufacturers of high risk goods.<sup>378</sup> Thus, for example, Dow Chemical or DuPont announced intentions to restrict sales of supplies to medical device manufacturers.<sup>379</sup> A second well-substantiated class of effects concerned preparations for anticipated litigation. The preparations included increased attention to documentation of rationales for design changes or greater scrutiny of product claims in literature accompanying the products.<sup>380</sup> Even in this report by engineers, evidence on the effects of product liability laws on design innovation was somewhat mixed.<sup>381</sup> Making design changes to anticipate the mistakes of that bumbling user, Murphy, of Murphy's Law is sometimes dubbed, "Murphy-proofing."<sup>382</sup> How much "Murphy-proofing," however, comes from concerns about product liability and how much comes from desires to improve products for users, is far from clear.

Even findings of pro-business groups such as the Conference Board have yielded mixed results on product liability. A survey of corporate risk managers indicated companies were "adapting" to change in products liability law, yet a survey of chief executives yielded different results. Moreover, while noting that

“product liability can be fatal to the health of the firm,” this second report suggested the chief effects of product liability were on corporate planning, lost executive time, and international competitiveness.”<sup>383</sup> Although important issues, these are not the sort of product or operational changes of importance for the argument here.

The conclusions of Eads and Reuter on the importance of the media go a long way in removing tort liability as a compounding cause for the argument advanced by this chapter. After all, Eads and Reuter draw the connection between lawsuits, regulatory proceedings *and* publicity. As reported in Chapter Two, the connection between *verdicts* and publicity is quite tenuous. Moreover, a good deal of publicity is generated by government sources. Indeed, Garber and Bower have argued that businesses systematically misperceive the risk of product liability suits because they judge the risk by reference to media reports rather than by unbiased sources.<sup>384</sup> If it is publicity, rather than *actual assessments of potential liabilities based on analysis of court decisions*, that drive decisions, then the logic of the argument presented here is unaffected.

Finally, several different studies suggest that concerns about product liability play very little role in commercial aviation. Admittedly, manufacturers of small aircraft used in general aviation have been beset with problems related to concerns about product liability, but the matter is quite different for manufacturers and users of large, commercial aircraft. Reviewing the market penalties for aircraft safety, Nancy Rose argued that consumer reliance on an airlines’ reputation provided a greater incentive than tort liability for maintaining safety. She offers two reasons. First, “airlines purchase virtually complete indemnities against crash liabilities.”<sup>385</sup> Without a requirement that

airlines pay the damages of a lawsuit themselves, there seems to be little “deterrence” provided by the tort law.

Second, Rose observed, “[M]ost airline executives cite the need to preserve and enhance their reputation as their primary concern in maintaining safety standards.”<sup>386</sup>

In an unrelated study, Ross Cheit adds a third reason: as a practical matter, whenever a plane crashes, the airline is liable for damages.<sup>387</sup> Under a variety of legal doctrines, airlines are responsible for damages resulting from a crash. For damages to people on the ground, it will be no defense for the airline to say what was done was reasonable.<sup>388</sup> For injuries to passengers, airlines are liable on a showing of only “slight negligence.”<sup>389</sup>

Without addressing these other works, Benjamin Cosgrove of Boeing seconds their conclusions. He notes a letter periodically cautioning engineers “not to let the prospect of litigation prevent us from communicating . . . ” about improvements and safety. What drives concerns about product safety are needs to assure product reputation and the public trust. As evidence on the importance of this trust, he cites the fate of the British aerospace industry after its production of the deHavilland Comet. A series of catastrophic crashes by this innovative jetliner damaged the reputation of this foreign manufacturer’s products beyond repair.<sup>390</sup>

Since half the cases in this study come from commercial aviation, at least for those cases, any compounding effects of product liability laws can be dismissed. As for cases of consumer products, any compounding effects of the products liability laws can be largely discounted. A small body of work in economics emphasizes that the real harm to a company from product related injuries to consumers or airplane crashes comes from the harm to

reputation—and the resulting capital market responses — rather than from the liability consequences of the accidents.<sup>391</sup>

Summarizing the evidence, Peter Huber and Robert Litan concluded “[T]he documented direct linkages between liability and safety are weak.” They added, “[O]ther factors—primarily regulation and bad publicity—seem in the aggregate to provide much more important incentives . . . to improve the safety of products and services.<sup>392</sup> Of course, as even Huber and Litan acknowledge, the effect of tort liability cannot be entirely dismissed. At the very least, individuals most closely involved with product design or operational safety warn liability concerns are a major concern. Moreover, at least some product changes can be linked to liability concerns. Still on the whole, Huber and Litan may be correct in their assertion that product liability plays “an indirect role in amplifying the safety enhancing effects of reputational concerns and regulation.”<sup>393</sup> Thus, while presenting some challenge to the argument offered here, probably, tort liability is probably not a threat to validity of sufficient magnitude to impair any conclusions reached in this dissertation. Obviously, this claim is open to further scrutiny.

## Conclusion

The gravamen of anticipatory democracy is an argument that there are grounds explaining the correspondence between public opinion and public policy outside of those in the account of textbook democracy. More specifically, the argument runs that the profit motive and different market or non-governmental process can link media attention to change in private, voluntary conduct. Quite clearly, adverse publicity affects interest group demands, regulated industries and private firms through a variety of channels. It may

change consumer attitudes about a product, but probably more importantly, it changes elite expectations about consumer behavior. These changes in elite expectations about consumer attitudes, in turn, lead to changes in internal firm operations. More significantly, it leads to the coordinated development of private standards and non-binding, recommendations to industry.

Thus far, this work has not considered the adoption of new regulations, but already, the account has supplanted the textbook account in two ways. First, it has suggested profit incentives are one reason for private attention to public wants and demands.

Second, it has outlined three alternative processes by which these private wants and demands are translated into specific designs or operational changes. These responses of firms, trade groups and industries are not plain old economics. The bulk of firm and industry response comes not from signals of the market, but to signals about likely public opinion in the mass media and elsewhere. Through this hybrid, market-related process, private firms and industries react like political actors to the public, and ultimately political debate about safety and safety policy.

This chapter also briefly considered a potential counter-argument to the account of anticipatory democracy sketched here: tort liability. This study is not designed to differentiate the consequences of expectations about consumer behavior from those of tort liability on industry standard setting, firm practices or designs. Still, the meat of arguments on the deterrent effects of tort liability do not undercut the basic logic of the argument presented here. Those arguments rely on the damage to reputation that product liability suits bring to manufacturers, and that concern with public opinion outside of electoral processes is completely consistent with anticipatory democracy.

This result displaces elected officials and their subordinates from their central role in translating private wants into policy choices. Nevertheless, these officials, however, retain a role in generating publicity about safety issues and in convening fact-finding bodies to encourage private standard setting, and they remain important in linking these private translations of public opinion to government policy change. That linkage is the task of the next chapter.

In a sense, the findings presented here are somewhat speculative. Research has discovered no study that links decisions about product quantities, prices or design to consumer worries about safety as compared to elite perceptions of those fears. Moreover, systematic inquiry on how all these matters affect the work of trade or standards setting organizations is simply not known. At the most, perhaps, this chapter offers a framework for thinking about these questions.

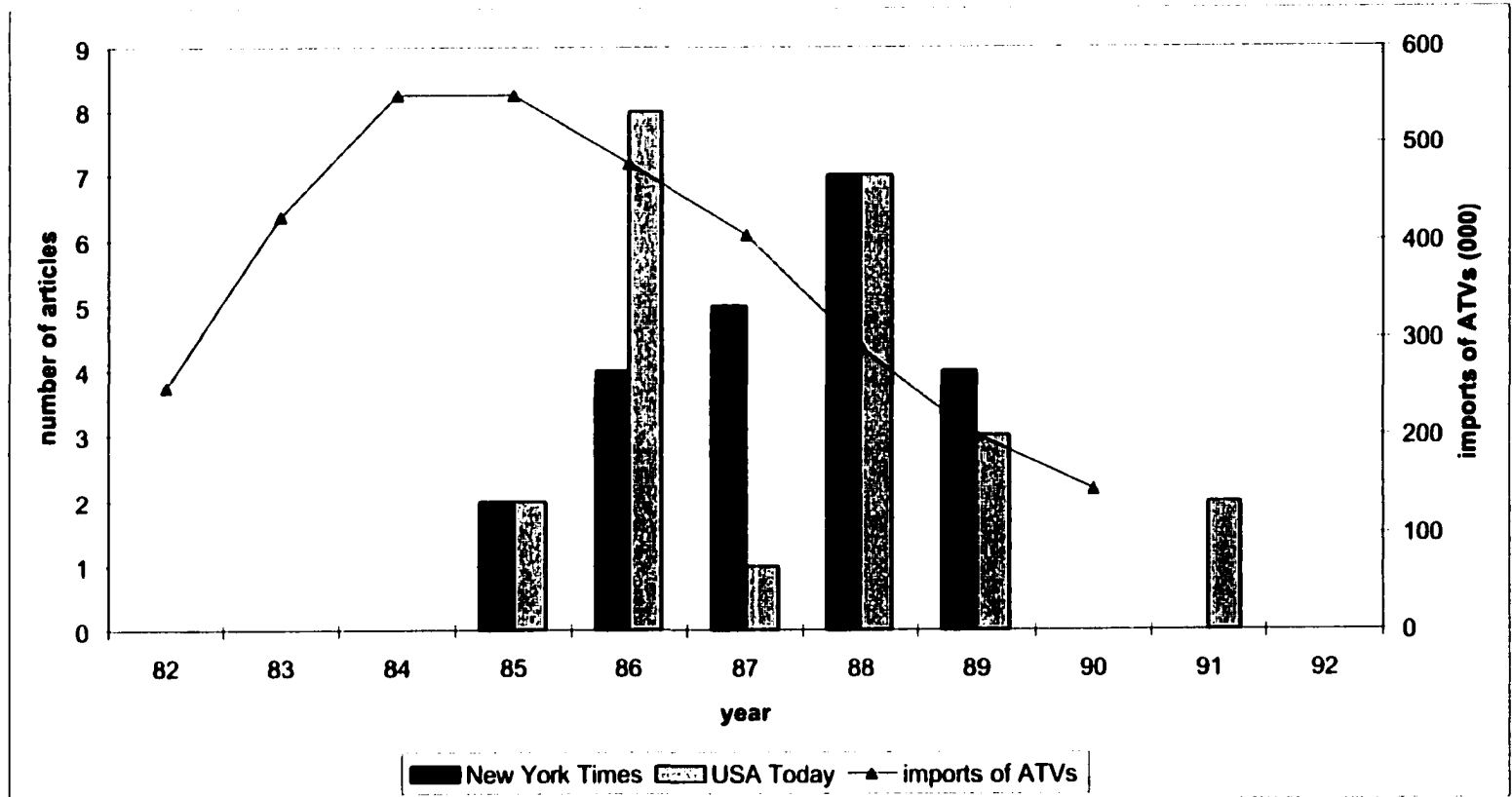


Figure 4-1: Importation of All-Terrain Vehicles and Appearance of Articles in *The New York Times* and *USA Today*, 1982-1992. Sources: *Statistical Abstract of the United States*; Table 2-5, *infra*.



## Chapter Five: Enacting Regulatory Change

### Introduction

This chapter links regulatory outcomes to public opinion influenced changes in private practices and standards. The preceding chapters have offered an explanation of how public opinion shapes private conduct and standards. For a long time, observers of regulatory policy have noted the incorporation of private standards, practices and procedures into government regulations. The theoretical point made in this chapter is this: When regulatory action incorporates public opinion-influenced, private standards or practices into new regulations, those regulations are then stamped with public opinion effects. The significance of the claim made here is that this public opinion influence comes outside the channels of democratic institutions. This conclusion is at odds with the textbook account of regulatory policymaking because actions outside of government have significant, even decisive, importance in making public policy.

To be sure, in any account of regulatory policy, government officials rely on aides, experts and interest groups in making judgments about public wants. In the textbook account, however, only public officials make policy. They do so by taking some authoritative step, such as adopting new regulations, decrees or other directives. The role of aides, experts and interest groups is providing information to help public officials set the terms of new authoritative acts. In this view, governmental acquiescence to private conduct—even in the face of substantial government monitoring or steps to bring about private action

responsive to public opinion — does not count as policy change. This omission, even when this voluntary action has significant regulatory implications, is more than a methodological point. It highlights a key difference in conceptions about the role of experts and interest groups in developing public policy. In the account offered here, interest groups, their members and experts *make* policy by settling on private designs, practices and standards.

This chapter has two major tasks. First, it needs to set out a framework for understanding policy change that encompasses changes in policy by both governmental commands and governmental acquiescence to changes in private conduct. Second, the chapter needs to consider the development of regulations in the several cases of this dissertation. Because the claim is that public opinion influence works by adjustments of private interests to public opinion, the cases are divided into two sections based on the magnitude of the private response: substantial and moderate. The presentation of each case reiterates the extent to which private practices were shaped by public opinion, traces the institutional processes by which those private standards were placed into a new regulatory proposal, and reports on the success or failure of the proposal in bringing about real changes in conduct.

### Regulatory Authority Distributed Throughout Society

In the context of regulatory policy, governments are *not* responsible for carrying out their own regulations. Regulatory aims are carried out when private firms, organizations and associations make their own rules and procedures mesh with governmental policies, and then require individuals associated with or employed by them to operate according to the new rules or policies. Over time, within or between organizations, these consensual

arrangements – overlaid on governmental requirements – become standardized and eventually incorporated into government regulations, decrees or statutes. Max Weber recognized and wrote about this standardization,<sup>394</sup> yet this idea is unfamiliar to much of the work linking public opinion to public policy.

This standardization has two aspects: first, that private standards, practices and procedures are layered atop government policies and, second, that as those private layers become standardized, they are incorporated into policy. A series of articles by John Sutton, Frank Dobbin, Lauren Edelman and others illustrates this layering, standardization and subsequent adoption of private practices into public policy.<sup>395</sup> In the context of the Civil Rights Act of 1964, their work examines the relationship between government policy, equal employment opportunity standards and management practices. Perhaps, ten years before adoption of the Civil Rights Act, twenty percent of employers used “internal labor market” employment practices such as written job descriptions and formal, job performance evaluations.<sup>396</sup>

After adoption of the Civil Rights Act and increased governmental attention to civil rights, employers looked for ways to comply with the law. As they did so, they experimented with a variety of personnel procedures to meet the anti-discrimination objectives of the statute: Employee testing, racial quotas and “internal labor market” practices were all efforts to develop organizational policies that would prevent unlawful discrimination. On each of these strategies, courts, administrative agencies, and senior managers commented. Lauren Edelman, Christopher Uggen and Howard Erlanger note that over a period of years the literature of personnel management settled on internal labor market strategies as optimal for addressing personnel matters given societal concerns

about civil rights. Use of these strategies increased, and use of testing and quotas declined. The statute forbade only discrimination, but private parties rationalized compliance with the law by requiring new procedures to assure non-discrimination. Over time, thereafter, the Congress, the courts and administrative agencies began to recognize, expect, and then require as a matter of course, private firms would have these organizational procedures.<sup>397</sup> It is this layering of private practices and standards atop government policy and the subsequent incorporation of these private practices into statutes, regulations or decrees that is of interest here.

Claims that private standards or practices are the basis for subsequent government standards are not novel. Writing over one hundred years ago, Max Weber made a similar point.<sup>398</sup> More recently, regulatory scholar and now Supreme Court Justice, Stephen Breyer, also made this point. In writing about regulation by government standard setting, Breyer observed, by way of example, that many standards of the National Highway Safety Traffic Administration had their origins in consensus standards of the Society of Automotive Engineers. He added that many regulations of the Occupational Safety and Health Administration began as industry consensus standards.<sup>399</sup> Robert Dixon and Steven Kelman others have made similar points.<sup>400</sup> As the preceding chapter observes, voluntary standards become mandatory as other interests and courts come to expect their observance.

The idea that private practices or standards are layered on regulations, statutes or court decrees offers two advantages for understanding regulation. First, it makes explicit the informational value of regulations, standards or practices.<sup>401</sup> This informational value is quite in addition to information that experts or interest groups may provide.<sup>402</sup> After all, even if regulations only

memorialize best practices, on important matters, that enrollment alone has value. It conveys information to the many parties interested in knowing what the best practices of an industry are: at the least, private parties attempting to abide by them and regulators rely on them to assure proper conduct.

The informational values of rules is this: Rules make public what kinds of relations between interests are socially or economically reasonable in a given societal context. The information codified into industry standards, instituted in private operating procedures, or designed into products is a public good.<sup>403</sup> This attribute of private standards means that when government learns of private rules, it may use the information contained in them without cost. Thus, production of government regulations in reliance on private standards is, in a sense, subsidized by private interests. This informational subsidy might well explain the willingness of regulators to adopt private standards, but there are other reasons besides.

Second, the idea of a regulation incorporating already agreed-upon best practices offers an alternative to reflecting on regulatory action as authoritative commands. Private firms, trade associations or industries by contractual arrangements, standard setting processes or other means are free to choose and be bound by any set of standards, practices or designs not prohibited by government policy. Because they have this power, in a limited sense, regulatory authority is not confined to government, but distributed throughout society. By enacting a statute or promulgating a regulation, the government gives a rule somewhat greater legitimacy throughout society.<sup>404</sup>

Rules do define property rights – and securing economic advantage by obtaining favorable rules is a frequent object of interest groups and trade associations. But rules have significance beyond conferring immediate

economic benefits. Settled rules reduce transaction costs. As Douglass North has persuasively argued, they do so by reducing “the costs of measuring the valuable attributes of what is being exchanged. . . .”<sup>405</sup> In this sense, rules not only define the current value of what is presently owned, they also affect future transactions in goods not yet made or services not yet sought. This reduction of transaction costs has real benefits for regulated interests.

This view of a regulatory system coincides with findings that new regulation may not change actual practices very much, and it explains why private interests may tolerate or even connive at governmental action. Formal adoption of policy that codifies “best practices” offers advantages to nearly all policymaking participants. For public officials, it offers the prospect of an accomplishment for which they may claim credit. For a strategic, re-election motivated public official, the strategy offers further advantages. As an official proposes a new policy, he or she “goes public.” This call for the public’s attention can take place at a press conference, an agency meeting, or at a Congressional hearing, and it casts the public official in the role of a public guardian.

Although a rule may come about so that elected officials, agency leaders or others can claim credit for doing their job, the changes codified in the new regulation can be quite large. Assessment of a regulation’s effect depends on whether the status quo is determined before or after “going public.” Judged from the terms of government regulation at the *status quo ante*, the change in the formal regulation is or may be quite substantial. An industry may well be doing something quite new. Judged after things have “gone public” and industry has adjusted to the public concerns in its own operating standards or product

designs, the regulatory changes in actual practices may be more modest – even if the textual changes in regulation are quite substantial.

For a firm, interest group, or industry criticized for abuses or deficiencies, a regulation amounting to a codification of industry practices is also attractive. After all, the firm, interest group or industry only agrees to do what it is already doing. Moreover, the incorporation of private standards into regulations may curtail the production of substandard products – lemons – that bring an entire industry into disrepute.<sup>406</sup> Finally, the apparent success that a new rule gives regulators leaves them free to skip to other issues or tasks.

Of course, public officials may press for terms in new regulations more restrictive than industry practice. (Or, they may agree to terms less restrictive than prevailing industry practices.) Certainly, they may tip the balance of formal policy in favor of one group rather than another. Within the context of settling on a written policy, firms, interest groups and entire industries can and do vie with one another for competitive advantage. Technical ideas and political ideologies, as well as the usual array of electoral influences, can shape policy too. Moreover, there may be substantial time delays between the instant an official “goes public,” the private adjustment of industry practices to public opinion, and the final incorporation of the public opinion adjusted practices into a regulation. Yet those matters do not alter the basic adverse publicity-interest group dynamic outlined above, and they do not alter the fundamental importance of current industry practices and procedures in preparing new regulation.

The informational value of rules, moreover, gives private interests reasons to make rules by themselves, but it does not preclude governmental assistance in helping them formulate new rules. The fact finding function of the National Transportation Safety Board, the National Electronic Injury Surveillance System

of the CPSC, presidential commissions and other governmental investigative bodies is a clear indication of the role of information in developing sensible rules. The convocation of such bodies by elected leaders is very much a governmental function.

The textbook accounts of regulatory policy turn on government officials setting the terms of policy according to their perception of public opinion. Obviously, there are many strains of the textbook account, but, for convenience, speaking of neo-institutionalism and pluralism is helpful. Following that discussion, some attention to the particular ways in which this account articulates with other accounts of rulemaking is in order.

The central thrust of neo-institutionalism is an explanation centering on state autonomy in pursuing objectives through development and enforcement of rules. As Theda Skocpol observes, state autonomy is present when the state formulates and pursues goals “that are not simply reflective of the demands or interests of social groups, classes or society.”<sup>407</sup> Neo-institutionalism places great weight on rule-oriented explanations, but the rules are developed and enforced exclusively by “an actor or set of actors” of the state.<sup>408</sup> By contrast, in *Anticipatory Democracy*, rules are made and enforced outside of the government through market or other social processes. Sometimes these rules are codified by the state in its statutes or regulations, but sometimes not.

Pluralism is somewhat closer to the account offered here, but different in its approach to rules. As observed in the introductory chapter, pluralists saw public opinion as working to shape policy by modulating the access of interest groups to public officials. Avery Leiserson, L. Pendleton Herring and David Truman, for example, wrote about interest groups as quasi-governmental.<sup>409</sup> They did talk about publicity and public opinion, but they did so in terms of



interest group support for an administrative agency.<sup>410</sup> Publicity worked, they argued, because it showed how an interest group had deviated from the rules of the game, and thus reduced, or occasionally, augmented interest group access to key government officials.<sup>411</sup>

For Herring and Truman, publicity and public opinion were important for building alliances throughout the government and society.<sup>412</sup> Indeed, Herring saw private regulatory activities such as standard setting as helpful to government regulators, but for very different reasons than suggested here. He said, “[P]rivate interests, won over to governmental policy and convinced of its helpfulness to them, may make this policy their own and through self-regulation . . . partially relieve the authorities of the burden of regulation.”<sup>413</sup> Ideas on how private interests should manage their own affairs went from public officials to members of industry. Noteworthy in all of these accounts are the review of New Deal programs and an emphasis on policy development in the center of government. In these accounts, public opinion works by bolstering or weakening participants in government, but as with neo-institutionalism, the rules shaping private conduct originate in the government.

In their review of interest group research, Frank Baumgartner and Beth Leech express surprise “at the degree to which many of the descriptions of the ‘whirlpools’ of policymaking” in older works is “similar” to more recent discussions of issue networks, policy subsystems, policy domains, and policy communities.”<sup>414</sup> Much has been learned from this unwavering gaze at group activities in the institutional interstices of governance. Understanding the behavior of trade associations as approximating the work of a cartel is, moreover, quite reasonable when the focus of government activity is economic stabilization

and controlling prices. But such a view denies informational importance in rules, and equates all group activity to a plea for a subsidy.

Although pluralists did not adopt the argument presented here, they were not altogether blind to its import. First, many of the pluralists did have some inkling that regulation of health and safety might work somewhat differently than the economic regulation that occupied the bulk of their attention. They took some pains to address the adoption of pure food and drug laws following publication of *The Jungle* by Upton Sinclair. Nevertheless, in their comments on this type of policymaking, the classic pluralists lump this type of policy together with more traditional patterns of interest group participation in regulation.<sup>415</sup>

Neither neo-institutionalism nor pluralist accounts entirely capture the rulemaking dynamic set out here. Perhaps, the closest theoretical account is the state in society approach of Joel Migdal. In a comparative study of post-colonial societies, Migdal argues the most important power of the state is its capacity to mobilize its population to meet the demands of governance. Explaining gaps between the aspirations and achievements of government policy requires, he argues, an approach that emphasizes the sources of resistance to governmental aspirations.<sup>416</sup> In a similar way, understanding how public opinion affects public policy requires knowing both how public opinion affects public officials, which has been well-studied, *and* how it affects non-governmental elites with a role in making policy. Those non-governmental actors settling private standards and conduct – like the actors on the periphery of Migdal’s work – facilitate development of or encourage resistance to central government policy.

To summarize, this section makes three points. First, when regulations incorporate previously established, but public opinion influenced standards, they bear the stamp of public opinion. Second, the government may play some

role in developing the information for the development of private standards - standards that may eventually work their way into new government regulations. And finally, the process of regulatory development presented here, although akin to neo-institutionalist and pluralist accounts, is neither. Instead, the it comes closest to the state and society approach used in the study of comparative politics.

The sections to follow trace the development of private standards into government regulations. A section presenting substantial industry responses to public opinion precedes a further section collecting cases with more moderate responses.

#### Substantial Industry Response to Public Opinion

This section considers the two commuter rulemaking proceedings, the ATV consent decree and the efforts to regulate Tris-treated children's pajamas. It also briefly mentions the proceedings on drawstrings. In these cases, there was a substantial response to public opinion by industry before government rulemaking. In all but one of the cases, the government action in large measure only codified the industry response. The important exception, Tris-treated pajamas, involved a government intervention ultimately determined to be unlawful although in some sense that governmental action only accelerated a product removal already in progress.

*The Commuter Rules.* Chapter Three has already gone a long way in laying out the context of the rulemaking proceedings on the Commuter Rule of 1978 and the Commuter Safety Initiative of 1995. Quite clearly, any fair review of the terms in these rules has to acknowledge in their terms the inclusion of already operating practices and long-standing recommendations to the aviation

community. Before considering the terms of these two rules, a brief word on how FAA regulations are built into airline operations is in order.

At hearings throughout the period covered by this study, as airline executives have explained, airlines are regulated by a series of self-enforced, nested standards. The Federal Air Regulations (FARs), the actual basis for day-to-day FAA enforcement and operational activities, are drafted by the FAA pursuant to its organic statutes. In turn, air carriers draft (and the FAA approves) manuals specifying the ways in which the carrier will comply with the FARs and FAA directives. Airline training, maintenance and operations practices are all set out in manuals. Once approved, those procedures acquire the force of law for the airline using them. The procedures have this force in the sense that airlines must operate according to and may not deviate from the policies set out in their manuals regardless of the precise terms of the FARs. For reasons of safety, reliability, convenience and so on, airlines may choose to exceed the minimum standards laid down by the FARs. Indeed, the FAA has a process where airlines may seek an exemption from FAA rules if the exemption increases safety.<sup>417</sup> In many ways, this picture of the relationship between private rules and government standards corresponds to the one painted earlier.

*The 1978 Commuter Rule.* The final steps of the six-year long process of consultation that led to adoption of the 1978 Commuter Rule began with announcement of a conference in Denver and ended with “the largest, most complex safety rulemaking project” in FAA history.<sup>418</sup> The most costly changes in the FAA proposal issued after the conference required commuter air carriers to fly “air transport” (rather than “general aviation”) certified planes. Air transport planes have higher performance standards (*e.g.*, requirements for more powerful engines that allow a plane to complete a take-off even if one engine

fails) and additional or upgraded safety equipment (*e.g.* weather radar). Besides additional requirements on avionics for larger aircraft and for turbojets, the proposal also required that pilots in command of commuter aircraft hold an air transport pilot's licence although co-pilots could continue to fly with a less difficult to obtain commercial pilot's licence. It also required that commuter airlines have a continuous (rather than an as-needed) maintenance program<sup>419</sup>

Commuter airlines used "small" aircraft to fly passenger routes with insufficient traffic to support a major carrier. The proposal would have required commuter carriers to fly "big," air-transport certified airplanes. By its terms, the proposed rule precluded use of commuter airline favorites such as the Beech 99, the Swearington Metro and the deHavilland Twin Otter.<sup>420</sup> Although supportive of many of the proposed Part 135 revisions, early on, commuter airline and manufacturers denounced the requirement that commuter operate aircraft certified as meeting "air transport" standards as "an absolute disaster" that would "sink" their companies<sup>421</sup> and "virtually destroy the commuter industry."<sup>422</sup>

Assessing these claims is difficult. Because adoption of the Commuter Rule and the Airline Deregulation Act both changed the organization of commercial air operations, stating with precision the import of this restriction *before* adoption of the '78 Commuter Rule is somewhat difficult. The rule created new record keeping categories, and the potential for entry into the commuter airline business was an important element of economic deregulation.

However, in the first year after the adoption of the Commuter Rule, roughly three-quarters of the twin-engined turboprops, the work-horse of the commuter air fleet, were aircraft that the FAA had proposed to ban from commuter airline operations. Three years later, these three aircraft still made up

more than half of the two engine turboprops used by commuter airlines. They made up more than a quarter of all of the aircraft flown by commuters.<sup>423</sup> Quite clearly, meeting the large airplane requirement would have destroyed much of the basis for hopes that immediate growth in the commuter industry would work to cut prices in fares offered by major carriers.

Proceedings on economic deregulation of airlines and on the proposed commuter rule were joined – at least to the extent that the economic deregulators had to offer assurances that deregulation would not imperil the safety of air travel. By October, 1977, one Congressional leader pushing deregulation was Senator Howard Cannon, Chairman of the Senate Public Works and Transportation Committee. After reviewing manufacturer objections to the proposed rule, he took to the floor of the Senate and denounced the FAA proposal. Reporting the claim of General Aviation Manufacturers Association that the Beech, the Twin Otter and the Metroliner had “just as good a safety record as larger jet aircraft,” he expressed concern about the proposed rule and added, “it does not make sense.”<sup>424</sup>

By the end of the month, FAA withdrew its proposal to require use of only transport certificated aircraft. In making this withdraw, the FAA laid the matter solely on interest groups. It cited comments claiming that the effect of the proposed “air transport” standard would be “to virtually destroy the commuter industry.” It observed that its proposal had caused “widespread concern and uncertainty with the aviation industry,” and that its proposal was already “having an adverse affect on certain aircraft manufacturers and Part 135 operators.” It concluded its withdraw by noting that if adopted, the provision would “impose and unreasonable economic burden” on the industry.<sup>425</sup>

Aside from the “air transport” aircraft requirements, however, the bulk of other changes amounted to requiring already existing best practices. For example, in a 1972 safety study, the NTSB had found all the large commuters that it surveyed to be well managed, their flight crews to be “well qualified” and their maintenance personnel “to be well trained and closely supervised.”<sup>426</sup> These carriers already had, and so NTSB recommended, the FARs be amended to require all commuter carriers to have: pilots in command of aircraft with an air transport licence; limitations on pilot duty times, and designation of Directors of Operations, Chief Pilots, Directors of Maintenance and Chief Inspectors – all meeting minimum qualifications. In addition, the NTSB suggested that the FAA tighten standards relative to maintenance manuals and logging of maintenance difficulties.<sup>427</sup>

Although there were technological and philosophical questions to address about whether small planes should be used for air transportation,<sup>428</sup> the terms of the final rule in large measure adopted longstanding NTSB recommendations and larger commuter carrier best practices. The final version of the 1978 Commuter Rule toughened the requirements for pilots-in-command of the commuter aircraft ( 97% of revenue passenger miles on commuters would be flown with a pilot licenced to air transport standards); brought the maintenance to or close to large standards (67% of all commuter miles would be flown by passengers in planes with Part 121-like maintenance standards); and split the difference on the avionics equipment (75% of all commuter passenger miles would be flown in planes equipped with thunderstorm detection equipment or weather radar and all jets seating more than ten passengers would have cockpit voice recorders and ground proximity warning systems).<sup>429</sup>

Except for the air transport requirement, early on, the Commuter Aviation Association of America, a trade group of commuter airlines, had supported the proposal, and observed, “[A]lmost every one of . . . [its] members have already and have for years been operating in excess of the safety regulations as imposed by the existing part 135 criteria; so that many of the new regulations proposed by the FAA in new part 135 will not, in fact, become a burden, financial or otherwise, to the commuter operators because they really just upgrade the two things that commuter operators have already voluntarily done.”<sup>430</sup> Its approval of the final rule was no surprise. A CAAA representative observed on looking at the final version of the rule, “The new standards appear to be realistic, and they can be met by the industry.”<sup>431</sup>

The General Aviation Manufacturers Association (GAMA), a trade association for manufacturers of smaller aircraft also expressed approval for the new rule. It said, “The rules are tough, but the net result will be an affordable commuter airplane.” The GAMA representative added, the rule imposes “virtually the same maintenance, training and proficiency requirements that must be met by certificated trunk and local service airlines,” and then explained, most U.S. were commuters already close to meeting the standards. He said, “The main changes for us will be in the paper work.”<sup>432</sup>

Three points about this case are clear. For the most part, the new commuter rule – adopted after a long consultation process – largely required air carriers and manufacturers to do much of what they were already doing. This is a codification of best practices into regulations. Second, when the FAA sought to move beyond industry practices, as with the “air transport” certified airplane requirement, the industry was able to defeat the measure largely on grounds of impracticability. Finally, the agency touted the rule as a major reform. From the



perspective of actual prior rules, it was. But from the perspective of prior industry practices, it was more modest.

The 1995 Commuter Safety Initiative. At the time of its adoption, the rules springing from the 1995 Commuter Safety Initiative were also called the “most comprehensive changes ever in aviation rulemaking.”<sup>433</sup> The terms of the resulting rule have already been detailed in Chapter Three, but a short review of its major terms may be helpful. The rule changed the definition of large aircraft from those with more than thirty seats to those with more than nine seats. Thus, commuter carriers had to use aircraft meeting “air transport” instead of “general aviation” standards. As explained above, this new requirement had appeared in and been withdrawn from the 1978 Commuter Rule.

For some carriers, however, the upgrade of operational standards from commuter to trunk carrier standards also entailed changes in operational practices. Under the upgraded standards, commuters could not allow pilots aged sixty and older to operate their aircraft (the Age 60 Rule); they had to reduce the amount of time that they required pilots to fly (the flight duty-time rule); and they had to create a flight dispatch system operated by FAA licenced dispatchers. In addition, all airlines had to have a chief airline safety officer.<sup>434</sup> All these rule changes had been in the works for some time, and the object of earlier FAA or National Transportation Safety Board recommendations to airlines.<sup>435</sup>

As observed in Chapter Three, interest groups were active on this rule. The major trunk carriers were already operating up to the large aircraft standards of Part 121. The Regional Air Airline Association (RAA) reported that about 50% of regional airlines already operated under 121. He added that percentage would increase to 96% under the new rules.<sup>436</sup>

Although the pilots union had long supported “One Level of Safety,” some of the support for this concept dissipated as the FAA was setting the terms of the Final Rule. The Air Transport Association (ATA), the National Air Transport Association (NATA), the American Association of Airport Executives (AAAE) and the RAA all raised objections – and some were criticized for doing so.<sup>437</sup> Many of the kinks in the rule were worked out.

Manufacturers of small aircraft voiced the most strenuous objections to the rule. But the elements of the air transportation community using these aircraft serve a very small proportion (0.4%) of all revenue passenger miles traveled.<sup>438</sup> Moreover, as compared to carriers, manufacturers would seem to have a relatively small role in day to day airline operations, and the Commuter Safety Initiative did concern primarily air carrier operations.

In fairness, neither of the two commuter rule revisions turned entirely on private operating standards. In both of the cases, the National Transportation Safety Board and the FAA itself had done much to assist in the development of the standards used by air carriers. Nevertheless, in both of these cases, the new rules were hailed as comprehensive and extensive changes. But, as the rules were adopted, most affected parties were already using operating standards and substantially in compliance with those set out in the new rule. The standards were not cut from new cloth but from a fabric already well-worn by settled operational practices.

*All-terrain vehicles.* As with the two Commuter Rules, the regulation ultimately governing all-terrain vehicles (ATVs) was largely a codification of industry practices. Instead of coming in a regulation, this codification came in a judicial consent decree. Chapters Two and Four outlined the very extensive publicity campaign on ATVs and the industry responses to that campaign.

Following a widely circulated information request by one commissioner, the CPSC began formal action by initiating a rulemaking proceeding. Following subsequent, nation-wide hearings and review of an extensive report by an agency task force, the Commission chose to seek a ban of all-terrain vehicles by litigation.

Instead of bringing suit itself, CPSC sought the assistance of the Department of Justice in bringing suit. A year later, the Department did bring a civil action on behalf of the agency, but the Commission entered a preliminary settlement as it filed suit. A few months later, amidst widespread criticism, the case was finally settled with the court's approval of a consent decree.<sup>439</sup> This decree amounted to a *de facto* regulation of all-terrain vehicles. Its provisions were quite extensive. Some further actions under the decree did require further government and interest group collaboration, but eventually, the agency terminated its rulemaking proceeding.

The case is a good one for understanding the effects of industry standards in developing comprehensive regulations. In aviation, different sectors of the aviation community use different standards for determining what conduct is safe. For example, what counts as safe for a private pilot will not do for a major air carrier, but those differences in standards are offset by differences in use and user training. In consumer products, there are no such differences. Thus, the ATV case offers a somewhat cleaner case for examining the effect of industry standards on regulation.

On the other hand, ATVs lack the long history of extensive governmental scrutiny over safety present in the air transportation industry. Here, much governmental fostering of study on safety issues was concurrent with its interest in regulating the industry. As with the commuter aviation rulemaking cases, the

strategy for assessing the influence of public opinion-adjusted industry standards in the final decree is to compare the strength of the government's case for its proposed regulation, in this case a ban, to the industry standards and the consent decree eventually settled upon. Because the CPSC sought an absolute ban of this product and then settled on something less, the influence of the standards in shaping the regulation will be discernable where the standards become part of the final resolution.

The consent decree on ATVs adopted by Judge Gerhard Gazelle included provisions he called, "a wide, effective program designed immediately to alert consumers to operating hazards of ATVs through warnings, advertisements, manuals and training."<sup>40</sup> These included provisions requiring ATV manufacturers to undertake a multi-million advertising campaign on ATV safety; to enhance labeling; and to direct ATV dealers to provide ATV rider education programs. In addition, the industry agreed to stop sales of three-wheeled ATVs and to negotiate in good faith on suitable product standards. In return, the Commission agreed to settle its lawsuit -- including its demand for a recall -- by a vote of 2-1.<sup>41</sup>

In reviewing the merits of the settlement, put bluntly, Judge Gazelle observed the settlement involved "major, continuing expenditures" by the manufacturers, avoided the delaying effect of litigation on meaningful relief, and augmented the "limited scope of the government's power." He stressed the comprehensiveness of the arrangement, and noted that while opponents to the settlement "desire to tinker with the language here and there, they are largely uninformed as to the business intricacies involved." He concluded, "No decree designed to protect consumers has ever gone this far in meeting such a massive national consumer problem."<sup>42</sup>

In many respects, the logic of Judge Gazelle's opinion on the consent decree works like that of comments on the two commuter rules. There was no comprehensive national regulation of ATVs before the decree. The consent decree has provisions regulating ATVs, and therefore, it amounts to a major change. The consent decrees did bring about some significant changes—particularly the training programs. On the other hand, as explained in the remainder of this section, much in the decree was not new.

A year and a half long investigation—culminating in a task force report and staff recommendations—laid the predicate for the CPSC's regulatory action. Instead of proceeding with rulemaking, the agency elected to file a lawsuit seeking a ban of ATVs and then withdrew the demand for a ban in return for a regulation-like consent decree. In the task force report, the staff had recommended: efforts at halting the marketing of ATVs to children; improved warning labels and point of sale literature; participation in ATV voluntary standard setting processes; and a strong education and public information campaign.<sup>443</sup> Despite finding that "hands-on" training does much to improve safety, the staff limited its recommendation on the matter to a mandatory label suggesting its importance. Perhaps more significantly, it opined "a ban of three-wheeled ATVs . . . is inappropriate."<sup>444</sup>

The reports of the Office of General Counsel and the Office of Compliance and Enforcement submitted with the overall task force report are confidential documents and not publicly available.<sup>445</sup> A specialized reporting service routinely covering the CPSC, however, reported on the compliance and enforcement document. It reported the confidential report as saying, "the recommendations in the report are 'superficial ones that would do virtually nothing.'" The report added, that they are "'very little more than the status

quo.” The report complains, moreover, that the task force report shifts the responsibility ““from the makers and promoters of this very dangerous product to the user.””<sup>46</sup>

A memorandum apparently leaked from the Office of the General Counsel appeared to take an even dimmer view. The *Legal Times* reported a warning that “CPSC was required to compare the risks of ATVs with those of such other vehicles as snowmobiles and motorcycles before determining that ATVs are hazardous.”<sup>47</sup>

By May, 1987, no such study was done. At a Congressional hearing on the settlement, one commissioner referred to an opinion of counsel that no such study was required. The agency’s general counsel noted there was “nothing in the statutory mandate of the Commission” requiring such a study. But he added, recent judicial decisions on similar statutes *had* required comparable data. He specifically mentioned the so-called X-car case.<sup>48</sup>

The X-car case involved an action brought against General Motors for a ban and recall of cars designed with a so-called X-frame. This included approximately 1.1 million cars sold under the trade names Chevrolet Citation, Pontiac Phoenix, Oldsmobile Omega, and Buick Skylark. In that case, the government claimed the X-cars were defective because they were predisposed to “premature rear wheel lock-up.” At trial, the government relied on the personal experiences of X-car consumers to show that X-cars were “generically afflicted with a safety-related defect.” The National Highway Traffic Safety Administration noted more complaints about the X-car’s “‘yaw instability’” than of any car in its history.<sup>49</sup>

General Motors argued, “the X-car has not been shown to have any peculiar propensity to lock-up. . . more frequently than cars generally.” The

Government argued that comparative data was irrelevant. The District Court sided with GM. Drawing from other risk assessment cases, the Court concluded that the government had failed to meet its burden of showing “an unreasonable risk.” It reasoned such a showing requires assessment of the frequency with which harm occurs in a “threatened population *relative to its incidence in the general population.*”<sup>450</sup>

With only leaks reported in the legal press to judge from, rendering a definitive view on the state of legal advice offered the Commission is not possible. But on the basis of those reports, on the expressed concern about the X-car case, and the recommendation of the task force report,<sup>451</sup> it seems quite clear that the CPSC faced a precarious regulatory situation in seeking to ban all-terrain vehicles. CPSC staff did not make such a recommendation on the basis of its view of the evidence, and its counsel appeared to have doubts about the prospects of winning such an action. Absent a strong case, the major threat of the agency’s action was that of harmful, adverse publicity.

Some review of the terms of the consent decree ultimately adopted is now in order. There were four major groups of provisions in the consent decree of interest here. They concern product standards, rider training, advertising and continued sales of three-wheeled ATVs.

From the perspective of the argument set out here, perhaps the most interesting part of the consent decree concerned product standards. The Consent Decree expressly contemplated reliance upon private standards. It includes a joint promise “to attempt in good faith to reach agreement on voluntary standards satisfactory to the Commission.”<sup>452</sup>

In fact, work on developing these standards had begun as the CPSC proceedings were underway. As the CPSC ATV Task Force worked, CPSC

engineers and human factors experts raised a variety of issues about ATV design for inclusion in a standard. These include: labeling, age recommendations, standardized controls, various performance and handling requirements, but the most difficult question was that of dynamic stability. By August, 1985, a first phase draft covering the issues other than performance and handling characteristics, including dynamic stability, was being circulated to participants through an American National Standards Institute process. A voluntary standard covering these matters was eventually adopted after the decree was entered.<sup>453</sup> Performance and stability issues were to receive attention later.

The Consent Decree itself went a good deal toward addressing concerns about providing information to consumers. It devotes more than ten of its 63 pages on the content, readability, durability, color, location and testing of labels.<sup>454</sup> It covers the warnings required in owners manuals and at the point of sale to consumers. At the time of the decree's adoption and thereafter, these warnings were widely seen in the personal injury bar as items to improve the legal position of ATV distributors in suits brought against them for personal injuries. In any case, proceedings on these were underway as the final case was settled.

Work on the second phase of the standards: development of performance and handling requirements including dynamic stability, was in a sense never completed. Development of these standards began in August, 1985 with retention of a contractor to identify a testing procedure by the Specialty Vehicle Institute of America (SVIA). Although CPSC staff followed the development of the testing procedures, witnessed a series of proposed tests, and saw a partially completed draft shortly before the completion of the Task Force report, in the report the staff indicated that it did not have adequate information to assess the



standards. Moreover, the report noted, "It is unlikely that the standard will be completed in a reasonable amount of time and will adequately address ATV hazards unless significant changes are made to incorporate Commission recommendations."<sup>455</sup>

The real sticking point in discussions on stability was "lateral stability:" how likely the vehicle was to roll over onto its side. Despite negotiations before and after adoption of the consent decree, ultimately CPSC and ATV manufacturers came to an impasse over a lateral stability standard. CPSC and the manufacturers had to paper over their differences to comply with the terms of the consent decree. To do so, they reached a series of interim bi-lateral agreements between CPSC and each manufacturer, by adopting the CPSC-preferred static stability method -- but set at a level at which all existing vehicles on the market could meet.<sup>456</sup> Two years after adoption of the consent decree, SVIA finally concluded and advised CPSC that it could not produce a standard acceptable to the Commission.<sup>457</sup> Here too, the terms of the final regulation were set at the level established in industry practices.

Rider training was also an area of importance in the consent decree. At the outset of the ATV investigation, it was widely believed that experience in riding ATVs was unrelated to the occurrence of injuries. As a Congressional report summarized, "CPSC staff studies demonstrate overturning and loss of control in a majority of investigations, regardless of possible rider misuse and regardless of the experience of the user."<sup>458</sup> After the Task Force report was complete, a Commission epidemiologist pointed out, that the conception of 100% protection used in the Congressional report was unrealistic, and in any case, "the 13 times greater risk of injury among novices during their first month [of ATV

riding] would seem to be evidence that experience does confer some protection, albeit imperfect.”<sup>459</sup>

Moreover, he explained, there might well be room for significant improvement in rider safety with proper training. Significant numbers of accidents occurred under circumstances that manufacturers specifically cautioned riders to avoid. For example, 70-80% of victims did not wear helmets. Drivers of three-wheeled ATVs on paved surfaces had a risk of being involved in a fatal accident 150% of that for drivers on unpaved surfaces, and 20% of all injured persons were passengers on these vehicles designed for riding by only one person at a time.<sup>460</sup>

Early on, although supportive of voluntary rider training, the ATV industry opposed a mandatory training program. User groups such as the American All-Terrain Vehicle Association endorsed user education and awareness.<sup>461</sup> SVIA had been formed by the major ATV manufacturers, among other reasons, “to foster and promote” their safe use.<sup>462</sup>

As hearings on the rulemaking proceeding were underway, in 1985, CPSC Chairman Scanlon asked ATV manufacturers to consider a program that would provide free training to purchasers of ATVs. Initially, at the hearings, one manufacturer representative observed that even when training had been offered for free, “people don’t sign up.”<sup>463</sup> After consideration, with some admitted mixed feelings about a proposal for a pilot program, Honda, the manufacturer with the lion’s share of the U.S. ATV market,<sup>464</sup> declined to create such a program. In doing so, CPSC notes of a meeting report three reasons cited by Honda: logistics -- dealers did not have the space to conduct such training; law -- dealers are not Honda employees who could be obligated to provide such

training; and finally, attitude -- Honda dealers are not in the training business -- dealers do not provide training for motorcycles or automobiles.<sup>465</sup>

Acceptance of the consent decree represents a very real change in the industry position and something of a regulatory innovation. The industry undertook "to offer to all interested persons a nation-wide hands-on training program." The decree outlines an extensive administrative structure to run the program; its curriculum; its limited free availability; and a novel cash or savings bond inducement to encourage ATV purchasers to take the course.<sup>466</sup>

A third matter covered in the decree concerned advertising and public awareness. The topic occupied ten pages and an entire appendix of the decree. Attention to safety warnings in advertisements began before the final consent decree but after the beginning of the CPSC proceedings. Gary Ford and Michael Mazis studied all-terrain vehicle advertising from 1980 until signing of the preliminary consent decree at the end of 1987. To do so, they searched 44 publications likely to contain ATV advertisements for the years 1980-1987. Their search yielded 948 advertisements of which 272 were unique.<sup>467</sup> These unique advertisements were used in their analysis.<sup>468</sup> Apparently, they did not weight their findings for the frequency of an advertisement's appearance or the circulation of the periodical in which it appeared.

Their results offer data indicating changes in industry advertising practices *after* the CPSC began examining the industry but *before* its members entered into the preliminary consent decree with the government. Relative to the period before the CPSC investigation, Ford and Mazis report "a large increase in the percentage of ads that included some warning about the use of ATVs by children." They add, however, that over 60% of the ads in magazines for the general public<sup>469</sup> contained no words of caution about the use of ATVs. Thus,

initiation of the investigation and the attendant publicity by itself did a good deal to encourage manufacturers to change the warnings of their advertisements.

Moreover, for the advertisements appearing in this same group of periodicals, the frequency of particular types of warnings increased. More specifically, after the CPSC began its investigations, there were increases in the *proportion* of advertisements containing warnings: never to ride on paved surfaces; to wear helmets, eye protection and protective clothing; not to carry passengers; not to drive ATVs after using drugs or alcohol; not to engage in stunt driving; to avoid excessive speed and to be careful on difficult terrain.<sup>470</sup>

Finally, the decree halted sales of new three-wheeled ATVs.<sup>471</sup> As noted in Chapter Four, industry sales of all ATVs had declined prior to the adoption of the decree. Sales of three-wheeled ATVs had already diminished close to zero, and standard setting proceedings were already underway. Thus, there was *de facto* compliance with many significant provisions of the decree even as it was adopted.

In a sense, the argument could conclude here. Adverse publicity has brought about a significant regulatory change in large measure shaped by the industry response to that publicity. Yet this claim is strengthened if other causes for the settlement—besides the weakness of the government’s case—are excluded as causes for this settlement.

The most frequently made complaint about the ATV settlement is some suggestion of untoward political meddling. In many respects, political support and opposition to the decree stacked up in predictable ways. As the decree was proposed, considered and then adopted, without surprise, industry touted the stringency of the regulation to which it would become subject, the great strength of its case in the event that the matter were not settled, and the illegality of

proposed legislation to, in effect, overturn the settlement agreement reached. Douglas Toms, a former Administrator of the National Highway Traffic Safety Administrator, retained by the ATV industry, also endorsed the settlement calling the settlement "an unprecedented effort to resolve a very complicated and an emotional safety problem...."<sup>472</sup>

The settlement was denounced by, among others, consumer groups and several prominent present and former public officials.<sup>473</sup> At other times, these would be obvious allies of the agency. In disappointing them, the agency cut itself off from its usual political supporters. Congressman James Florio (D-NJ), whose Subcommittee had looked into ATVs regularly since 1985, wrote in a letter to *The New York Times* that the settlement was filled with "loopholes and inadequacies."<sup>474</sup>

The views of industry and consumer advocates were in some measure predictable, yet even within the Republican Party, the settlement occasioned some unhappiness. Senator Alphonse D'Amato (R-NY), for example, took the unusual step of filing an amicus brief to block the court's approval of the settlement. He was unsuccessful. In testimony before a House Committee, he charged, "This settlement is a bigger giveaway than the publisher's clearinghouse sweepstakes."<sup>475</sup>

At the time of the settlement, members of the Democratic Party controlled both houses of the Congress. They may well have passed legislation banning all-terrain vehicles as they subsequently did with lawn darts. At least by itself, a partisan account of the ATV settlement fares poorly. In substantial measure, the terms embodied or eventually incorporated into the consent decree were the products of industry adjustments to adverse publicity. Where the industry could not re-design its product to meet a technical objection, that element of design is

conspicuously absent from the product standards and the final decree. Of course, the effect of a threatened lawsuit – it must be conceded – probably had an important impact in bringing matters to a head and forcing a settlement. Yet the adjustments of the ATV industry in the products sold, the advertising issued, the industry assistance to driver training, and to various other aspects of standards are undeniable.

*Tris-treated children's pajamas.* Children's pajamas treated with the flame retardant Tris were *effectively* banned by a series of CPSC actions beginning in 1977, but the agency was unable to sustain a regulation articulating this ban. The effective actions included issuance of an interpretative rule, modification of the published rule to change industry-wide loss sharing and enforcement cases brought throughout the country. They commenced more than a year after claims about the carcinogenicity of Tris were first made, and they continued until Tris-treated pajamas were gone from the market. Chapters Two and Four reviewed the extensive media coverage given to Tris and the responses of chemical, textile and apparel manufacturers to that coverage.

The so-called ban on the sale of children's pajamas treated with Tris began on April 7, 1977. Although the agency's press release called identified the agency action as a ban,<sup>476</sup> this "ban" was not promulgated by any new administrative rule. Instead, the CPSC announced its "interpretation" of the Federal Hazardous Substances Act. Section 2(q)(1)(A) of that Act, the agency said, *already* precluded use of the chemical in children's pajamas.<sup>477</sup>

The manner of bringing about a ban had been briefed for the Commission by its counsel.<sup>478</sup> The agency had legal authority to implement a ban in one of two ways: by rulemaking or by litigation. The commissioners were warned that rulemaking would take months or years. It required notice in the Federal

Register, period for participation of some sort, further commission decisions, and possibly appeals through the court system. Using rulemaking, the Tris-soaked pajamas giving rise to concern would have remained in the stream of commerce until the process, including appeals, was complete.

Two statutes authorized the agency to adopt a rule: the Federal Hazardous Substances Act (FHSA) and the Consumer Product Safety Act (CPSA).<sup>479</sup> Under either statute, a rule would be subject to exacting scrutiny by a reviewing court.<sup>480</sup> It seem far from clear, however, that a court would have found a rule – in 1977 – banning use of Tris to be supported by adequate grounds. At the time, courts were inclined to strike down rules about carcinogens as not being supported by substantial evidence even where the evidence of effects on humans was far stronger than it was in the case of Tris.<sup>481</sup> Although the Commission prevailed in many of its injunctive actions against retailers – actions in which the agency claimed it could establish Tris-treated pajamas as hazardous to children – most of those actions were quickly settled.<sup>482</sup>

The Commission fared less well in actions with fabric manufacturers. It lost or suffered entry of a “consent judgment.” Strictly speaking, the agency lost on procedural grounds, but as noted above, it would have had some difficulty in prevailing on the merits. On the other hand, if the publicity of CPSC’s decision or deliberations were what was driving action on Tris, the precise legal form of the rule would seem immaterial – anything that publicized a ban would do.

By contrast with the legal difficulties associated with rulemaking, a litigation strategy offered immediate relief. Rulemaking offered no prospect for immediate removal of Tris-treated pajamas unless the Commissioners believed and could prove in court that Tris was an “immanent hazard.”<sup>483</sup> Such a case is hard to make when exposure to the chemical might not result in a cancer at all or,

if so, only after twenty or thirty years. By interpreting FHSA to mean that Tris-treated pajamas were, by statute, *already* a “banned hazardous substance,” the Commission took immediate action to remove Tris-treated clothing from the stream of commerce. But taking action, of course, required CPSC to convince a court that its interpretation of the statute, based on the evidence that it had collected about Tris, was correct.<sup>484</sup>

Besides stopping the sale of Tris-treated pajamas, declaring Tris-treated pajamas to be “a hazardous substance” had a second implication. The declaration triggered the automatic repurchase provisions of the FHSA. These provisions meant retailers would have to repurchase Tris-treated pajamas from any consumer that returned them. Manufacturers would have to repurchase garments from distributors and retailers.<sup>485</sup>

If the definition of “hazardous substance” were expanded to include a larger category of items, such as “fabric, yarn or fiber” that contains Tris, the repurchase obligations correspondingly grew. For not only completed pajamas would have been covered but also pajamas in the process of being made. But as CPSC Chairman Byington later explained at an oversight hearing, the FHSA had never been applied to manufacturers other than the manufacturers of the final good. No one knew if courts would allow the returns and refunding to continue up the chain to fabric manufacturers, yarn spinners and chemical manufacturers. In testifying about what the Commission did, Chairman Byington explained that CPSC opted for the conservative course: use its unquestioned jurisdiction to get the finished goods off the shelves.<sup>486</sup> Using this strategy, the Commission anticipated it would avoid lengthy proceedings over the legality of its initial ban. Notwithstanding these hopes, the Commission’s ambitions on the ban were thwarted in the courts.



As its counsel predicted it would be, the FHSA interpretation was both challenged in court and was “viewed in an extremely critical way” because of “the absence of any rulemaking proceeding in which the Commission considered the views of interested persons before declaring sleepwear to be hazardous.” For while the statutory definition of “toxic” did not exclude carcinogens, “the statutory framework does not seem appropriate unless the toxicity is easily discernable” – doubtful cases should be resolved by rulemaking.<sup>487</sup>

The most significant questions about the prudence of the litigation strategy came to light in the case of *Spring Mills v. CPSC et al.* This case is noteworthy for three things: the confusion that it engendered in the textile and apparel industries, its inability to halt the Commission’s enforcement policy, and its sharp criticism of Commission concerns with publicity and public opinion. The case holds that the CPSC violated the due process rights of *Spring Mills* when CPSC issued a substantive regulation under the guise of issuing an interpretative regulation and, hence, the “TRIS bans and amendments thereto” were by this case declared “null and void.”<sup>488</sup>

*Spring Mills*, filed in a South Carolina federal district court, engendered confusion because it appeared to contradict an earlier decision made on the Tris ban in a Washington, D.C. federal court, *American Apparel Manufacturers Association v. CPSC*.<sup>489</sup> In *AAMA*, the Court ordered the CPSC to extend its ban. More specifically, AAMA asked the Court, not to void the ban, but to extend the ban from children’s Tris treated pajamas to Tris-treated fabric intended for use in such pajamas. This extension would allow its members to avoid the entire economic burden of paying for the ban on Tris-treated pajamas.<sup>490</sup> After in effect, interpleading the American Textile Manufacturers Institute (ATMI)<sup>491</sup>, Judge Hart of the District Court in the District of Columbia then held that CPSC “acted

arbitrarily and capriciously in too narrowly defining the 'banned hazardous substances' in its April 8, 1977 ban. . ."<sup>492</sup>

By adding these new products to the ban, Judge Hart effectively ordered all fabric manufacturers, nationwide, to refund the cost of fabric to apparel manufacturers -- a point immediately reported in the trade press.<sup>493</sup> In a sense, Judge Hart attempted to provide by decree a commercially reasonable way of distributing the losses associated with use of Tris. The industries themselves, had not done this.

CPSC promptly amended its earlier promulgated interpretation setting out at length the Order of Court in the Federal Register.<sup>494</sup> The record is unclear and disputed as to whether the Commission had originally wished to extend the ban beyond apparel manufacturers in the first instance. Possibly, a majority of commissioners were willing to do so only after Judge Hart's suggestion that such an extension would be lawful.

The decision of Judge Hart was promptly appealed to the United States Court of Appeals for the District of Columbia, and that Court stayed both the Court's order and the May 5 interpretative regulation adopting it. Upon representation that the Commission would extend the ban by its own authority rather than pursuant to Court order, the Court of Appeals on May 19 dissolved the stay and vacated the order of the District Court.<sup>495</sup>

On May 24, CPSC was again sued and enjoined from enforcing its interpretation of the FHSA, by the Court in *Spring Hills*. Thereafter, on June 1, after CPSC issued, as it had promised, a new interpretative regulation adding to the previous interpretation of banned hazardous substances all unwashed, Tris-treated "fabric, yarn or fiber" and the chemical Tris when it was intended for use in such fabrics.<sup>496</sup> Meanwhile, the *Spring Hills* case continued.

The final decision, entered on June 23, was a scathing assessment of CPSC. Judge Chapman called the Tris rulemaking and the Commission's actions in a related case, "classic examples of the arrogance of the bureaucracy and the abuse of power,"<sup>497</sup> but more interesting for attention here are the court's findings about the importance of publicity.

The Court found an April 4, 1977, meeting closed to the public – a meeting in which Commissioner Franklin expressed her sense of unfairness about the allocation of cost issues – pivotal to the Commission's decision. At this meeting, the Commission met with two of its lawyers and four of its public affairs staff, and the Judge observed, "This ratio of lawyers to public relations people, together with the transcript of such meeting, convince this Court that the Commission was more concerned with its image than with the legal basis of its action."<sup>498</sup> Later in his opinion, Judge Chapman found noteworthy "the continuous press releases of CPSC to explain [its ban]."<sup>499</sup>

Judge Chapman not only found Commission concern with publicity damning in determining the legality of its actions, he also found it noteworthy as he handled the case. In dismissing charges widely reported in the newspaper that he had a conflict of interest because of family ties to the textile business, Chapman said that the way that those charges were raised "is 'typical of the way this case has been handled since the very beginning. Try it in the newspaper, try it on television, try it everywhere except the courtroom.'"<sup>500</sup>

The important point is that the publicity about Tris-treated children's pajamas and their ban was doing a good deal of the work in getting Tris-treated pajamas from the shelves. After losing in the District Court – and while an appeal was still pending – CPSC settled the case on terms favorable to fabric manufacturers. In particular, CPSC agreed to drop its appeal of the injunction

entered against it -- an injunction that included provisions restraining CPSC from "bringing any action against Spring Mills or its customers for future refusal to repurchase Tris-treated products made or sold by the company."<sup>501</sup> Moreover, in a contemporaneous action, CPSC "consented to a dismissal of its suit" against other seven other manufacturers, including Burlington Industries and J.P. Stevens, so long as the Commission was not "prevented from filing future actions to restrain the sale of Tris products directly to consumers."<sup>502</sup>

CPSC found allies in many courts willing to enforce the ban on selling Tris-treated children's pajamas. In 1977, it brought actions against Woolworths, Zayre, Macys, E.B. Mott and Federated Department Stores. On the other hand, at least one court refused to enforce the Tris ban because the evidence was insufficient to establish that Tris was hazardous to humans,<sup>503</sup> and another court refused to apply the re-purchase remedies of the FHSA noting that CPSC did not perfect its regulation of the matter.<sup>504</sup> More than two years later, in opposing a bill to assist fabric manufacturers who had produced Tris-treated fabrics, the Assistant Attorney General wrote that the effect of CPSC's ban on repurchase requirements was still uncertain. He said, "[I]t is unclear whether textile suppliers who sold TRIS impregnated fabrics to the [apparel] manufacturers were obligated to repurchase the goods. . ."<sup>505</sup>

Critics of CPSC saw its actions on Tris as an exemplar of regulatory disaster. Days before the agency voted to ban Tris, a House Government Operations subcommittee called a hearing to oversee CPSC's work. Complaining about the delay in action, the subcommittee chair asked, "How do the 20 million mothers [of children wearing Tris-treated pajamas] get to know there is a problem here?" He added, "There is no way in our society that anybody protected their interests."<sup>506</sup>

For several years after its attempted ban, CPSC appeared before Congress to hear complaints about its handling of the Tris controversy. Almost as soon as it had banned Tris, the agency endured criticism for the manner in which it had acted. In 1978, Congress passed an indemnity bill for firms harmed by the agency's handling of Tris. President Carter, a consumer advocate and facing an already bursting budget, vetoed it.<sup>507</sup> Still later, critics called into question the sufficiency of the basis on which CPSC had acted.<sup>508</sup> During the Reagan Administration, an indemnity law was finally passed.<sup>509</sup>

The ironic aspect of the Tris ban is described in Chapter Four. Tris was well on its way out of use by the time that the EDF filed its second petition, the one seeking to have Tris banned. The problem in imposing the regulation was deciding what to do about pajamas already sold, stock on hand, and work in process. Here, there were no industry standards to follow – only the law of contract. Eventually, the indemnity act dealt with some of these losses.

The irony in efforts to regulate Tris-treated pajamas should not be lost. Government work to develop a regulation on Tris generated publicity that drove these pajamas from the market. Private responses to publicity removed this product even though no final regulation on the matter withstood legal scrutiny. This case certainly supports claims about the strong need of interest group adjustments to be incorporated into formal regulations.<sup>510</sup>

*Drawstrings.* In this case, the only government action was convening preliminary meetings by industry and announcing its role in pressuring the industry to take “voluntary” action. Here, private standards satisfied the agency objective, and there was no proposal for a new regulation.

In all five of the cases in this section – the two commuter rules, the ATV consent decree, the Tris-treated children's pajama ban and the proceedings on

drawstrings in children's garments – the industry adjusted its products or services to meet real or expected concerns apparent in public opinion. The industry adjustments came in advance – sometimes well in advance – of a final government regulatory action. Moreover, because the regulatory action in many respects was made to conform to prevailing industry practices, a claim that industries were only anticipating government action appears to be untenable. Some attention to cases where industry was unwilling or unable to adjust its standards and conduct in the face of public opinion is now in order.

### Cases of Less Extensive Industry Response to Public Opinion

This section considers two cases involving aviation security – the federal air marshal emergency rule and the rule requiring thermal neutron activation explosives detectors – the FAA's regulation by objective proposal, and the CPSC's rulemaking on lawn darts. In these cases, organized interests made very little in the way of substantial adjustments responsive to public opinion. In two cases, the major part of the change involved changes in government operations with little impact on private operations. A third case involved a complete termination of private operations, and the final case – which might have led to major changes in private operations – was withdrawn.

*The Regulation by Objective Proposal.* Regulation by Objective (RBO) was both a philosophy of regulation linked to the conservative tenor of the Reagan administration and the basis for a specific rule proposed by the FAA. Under RBO, the FAA would replace its "traditional 'how to' regulations with the safety objectives they are intended to achieve."<sup>511</sup>

The impetus for the proposal came from two directions. First, President Reagan issued Executive Order 12291. This order was part of a much broader

administration commitment to ease the regulatory burden on business.<sup>512</sup> This new rule, FAA stated, would allow affected operators “to seek more effective and efficient methods of complying with safety objectives.”<sup>513</sup> Although the NPRM explicitly links this proposal to EO 12291,<sup>514</sup> the Administrator, the Associate Administrator and several lower level FAA officials all emphatically denied any White House or Department of Transportation influence in undertaking this rule change. Instead, they suggested RBO was the culmination of a long-term FAA goal: the consolidation of Parts 121 and 135.<sup>515</sup>

The FAA traced inefficiencies in the extant regulations governing air carriers by noting their peculiar historical development. Because economic deregulation or technological change had undone much of the earlier basis for these distinctions and because the “time consuming” process of revising the FARs made regulation of specific types of operators and operations “increasingly difficult,” FAA proposed this alternative system of regulation.<sup>516</sup>

More specifically, FAA would replace the rules of general applicability for trunk carriers (Part 121) and the rules governing other types of for-hire aviation, including commuters (Part 135) and substitute a new regulation that contained only broad safety objectives (Part 120). Each operator would then receive operating documents identifying the particular safety objectives that would apply to its operations as well as the FAA-approved specific methods and operational specifications that the operator would have to achieve to be in compliance with the regulations. In essence, the method would give each operator its own version of FAR 121 or 135. At the outset, the regulation would be the same as the existing FARs, but over time, the FAA reasoned, there would be variation among different carriers as each carrier adapted its operating

documents by suggesting and then validating to the satisfaction of the FAA, new methods of meeting its specified safety objectives.<sup>517</sup>

The reception of the proposal among interests involved in air transportation was almost uniformly negative. A few commentators suggested that entire process might be illegal and, in any case, saw the flexibility in the proposed system as inviting not only FAA responsiveness but also FAA arbitrariness. More serious criticism was leveled at the rationale for the entire rulemaking enterprise. The FAA already had a process for granting exemptions from the FARs, and no one from FAA (or anyone else) could think of an example where an airline “was impeded in developing innovative methods of achieving safety.”<sup>518</sup>

Pilot, flight attendant, dispatcher, machinist and air traffic control unions all opposed or had grave concerns<sup>519</sup> about RBO, and even the airlines, which were to receive the benefits of this new regulatory scheme, opposed it. Not a single member of the 140 member RAA, which represented regional and commuter carriers, the most innovative and fastest growing sector of the industry – who presumably had the most to gain from this regulatory change – supported the proposal.<sup>520</sup> Neither did the more established trunk carriers. At a meeting of the major carrier trade group, the Air Transport Association, with FAA, after discussing the proposed rule at some length, one airline executive bluntly asked, “[H]ow come we don’t understand how this is good for us.”<sup>521</sup>

The benefits of the change were unclear. At the least, airlines might have to re-write their manuals – again, and there were prospects for new changes over time. The pilots and other labor groups feared that their members might not be able to assert the FARs as a basis for refusals to undertake what were, in



the opinion of their membership, unsafe practices. More than on commentator opined, "If it ain't broke; don't fix it!"<sup>522</sup>

Although there was some tepid support from state-level regulators,<sup>523</sup> the criticism of the other federal agency concerned with aviation safety, NTSB, was withering. The Chairman of NTSB challenged the basic rationale for the rule writing, "It is not at all clear that innovation is being seriously impeded under the current regulatory system," and then condemned the proposal by adding, "the potential for serious degradation of safety under the RBO concept that has been articulated thus far is, in the Board's view, substantial."<sup>524</sup>

The record does not reflect extended consideration of public opinion on this matter -- not even after the fact. ACAP, a public interest group connected to Ralph Nader tried to broaden the controversy by suggesting that the proposed rule would "do to air safety what James Watt and Anne Gorsuch are doing to the environment. . .,"<sup>525</sup> but that reference is hardly a careful analysis of public opinion. Thus, this case embodies the most modest of all industry responses to public opinion -- no response at all. Industry did not have to adjust its procedures to meet public opinion or prevail in this matter. The case concluded by withdraw of the rulemaking proposal.<sup>526</sup> This outcome makes little sense in classic pluralist terms for it seems that the airlines were well-positioned for a favorable change.

By contrast, air carrier and other aviation community positions on the rule make a great deal of sense if accepted rules -- as implemented through air carrier manuals and procedures -- do have informational value. The outcome also makes sense if government is unable to draft, as Breyer argues, sensible rules without significant industry assistance. Finally, it makes sense if the interest in

government regulation stems from wishes to assure the legitimacy of the private rules and quell official critics.

The government's withdrawal of the proposal to regulate by objective is susceptible to multiple interpretations. As noted, the withdraw might have signaled the value the industry placed in having their established rules and procedures respected. Alternatively, the withdraw may have been part and parcel of a broader, Reagan Administration abandonment of its regulatory reform agenda.<sup>527</sup> Finally, although the media was relatively quiescent on the matter of aviation safety at the time of this proposal,<sup>528</sup> the rhetoric in at least some of the comments suggests the proposal contained at least the seeds for mobilization of the public about aviation safety. Still, the case is one where the government response follows the response of an industry with conduct usually attentive to public opinion.

*The Federal Skymarshals Emergency Rule.* The bloody hijacking of a TWA Flight 847 and related murder of an on-board Navy diver is discussed briefly in Chapter Two. In response to the hijacking,<sup>529</sup> President Reagan directed the Secretary of Transportation, "to explore an expansion of our armed *sky* marshal program aboard international flights. . ."<sup>530</sup>

In the aviation community, sky marshals had the reputation of being young, immature, minimally trained and a recurrent cause of "false arrests, frightened passengers, and fearful air crews."<sup>531</sup> The Air Line Pilots Association (ALPA) warned, "There is no such thing as a friendly gun on board an airplane." A spokesman added, "A sky marshal is no good. We need sky marshals like a fish needs a bicycle, because on an airplane, once that door is sealed and closed, there is no where else to go. That is not a place to have a gunfight. . . ."<sup>532</sup>

At the same hearing, the Chief of the FAA Civil Aviation Security Program emphasized that the “sky marshal” program had evolved into the “air marshal” program, but he emphasized that even the air marshal program “was not by itself the solution” for deterring terrorist acts against civil aviation – a more comprehensive approach was needed. Instead, he referred to the passenger screening system, as “the cornerstone” of the Civil Aviation Security Program. Although he saw some value in having a cadre of air marshals, the value of an extensive program, its size and philosophy were things that he declined to discuss on the public record.<sup>533</sup>

Secretary Elizabeth Dole explored the matter very quickly, and directed the FAA to expand the program “to the extent necessary to ensure safety aboard U.S. air carriers traveling in all threatened areas.”<sup>534</sup> In an emergency rule that *required* airlines to carry Federal *Air Marshals* and to seat them when and where they requested, the FAA acknowledged the opposition of air carriers to the program. After carefully differentiating “air marshals” from “sky marshals,” the notice of the rule observed that “Some air carriers have denied seating to marshals. . .”<sup>535</sup>

Even after the rule was issued, the Air Transport Association agreed with the pilots: “[A]s a general rule, we do not like to see guns on board an aircraft.” Besides the obvious dangers of a gun fight in close quarters, both the pilots and the airlines were concerned about stray bullets’ damaging the aircraft and so causing a crash.<sup>536</sup>

After the rule was issued, there were very few comments submitted. Unions of flight attendants and flight engineers<sup>537</sup> each stated objections similar to those raised by the airline pilots at the Congressional hearings where the air marshal proposal arose. However, the pilots changed direction. ALPA wrote

that it “concur[s] with this amendment,” and it reiterated its support for the air marshal program “since its inception.”<sup>538</sup>

ALPA's apparent change seems due to new ,or perhaps, only renewed influence over the air marshal program. In July, it sent a bulletin to its members differentiating “air marshals” from “sky marshals” and noting that air marshals are thoroughly trained aviation security specialists.<sup>539</sup> Moreover, for air marshals, the mission centers on a pre-flight briefing with the crew. The briefing comes with the recognition that “the captain is the final authority as to safety and *all* other matters pertaining to the flight.”<sup>540</sup>

There is little doubt that high administration officers brought about a rule change, but claims of substantial policy change are more doubtful. The original sky marshal program had been discontinued in 1974, largely for ineffectiveness in preventing hijackings.<sup>541</sup> The orientation of the air marshal program was significantly different from that of the sky marshal program. It emphasized ground-based security instead of riding shotgun. What remains, then, is a rule authorizing law enforcement officers to demand a seat – even if it means bumping a passenger. This is hardly a dramatic policy change, yet it was one of the key changes growing out of the TWA 847 hijacking. There was plenty of public support for a re-writing of the aviation security program. Accounts of policy change through elected officials would thus predict enormous change. The actual, very minimal change highlights the importance of industry rules developed through experts and interest groups.

*The Lawn Darts Rule.* Lawn darts are foot-long, arrow-shaped throw-toys. They weigh about a half-pound and the efforts of David Snow to bring these toys to the attention of the media, the public and the government are outlined in

**Chapter Four. In this case, adverse publicity both drove the product from the market and led to a regulation banning the product.**

Under the Federal Hazardous Substances Act (FHSA), lawn darts were determined to be a “banned hazardous substance.” They were exempted from the ban by regulation if they were sold with suitable warnings and in suitable places.<sup>542</sup> Following its creation, CPSC took over administration of the FHSA and the entailed responsibility for regulation of lawn darts. From the time CPSC began operations regulation of this product had been a quiet area. Aside from a CPSC compliance study in 1984, this hazard received very little scrutiny until 1987 when lawn darts merited two different articles *Pediatrics*<sup>543</sup> and one dart killed, a seven-year old, Michelle Snow.

The plight of Mr. Snow’s daughter and its value as a symbol of an administration unconcerned with safety regulation did much to move lawn darts on to the national agenda. During 1987 and 1988, besides increasing its enforcement of existing regulations, CPSC considered two regulatory proposals on lawn darts. One banned lawn darts entirely. The other tightened standards. This second proposal, worked out at a July, 1987, meeting between CPSC and industry representatives involved: tightening warnings, making product alteration more difficult, and stopping the sale of darts in combination with other products.<sup>544</sup>

At CPSC, staff was divided. Engineers, lawyers and program managers favored a ban; epidemiologists, economists, health scientists and public affairs specialists favored continued enforcement of the existing rules and working with industry to develop suitable voluntary standards.<sup>545</sup> In supporting a ban on the sale of lawn darts to adults (sales to children were in effect already prohibited), the chief compliance attorney observed that most of the injuries under the

current regulation were to children, and he concluded, that “trying to limit lawn dart use to adults only simply has not worked.” He added that the poor history of industry in complying with the existing regulations and CPSC’s inability to enforce voluntary standards that an industry might agree to accept would not preclude children’s use of lawn darts. Hence, the product is “too dangerous to be marketed,” and his directorate supported a ban.<sup>546</sup>

In opposing a ban on lawn darts and supporting further development of industry standards, the epidemiology and economics directorates looked at the same facts somewhat differently. After reviewing investigation reports of lawn dart injuries that lacked complete information about the labels and place of purchase, giving due regard to the poor history of industry compliance with the existing 1970 standards, one epidemiology staffer observed, “we cannot conclude that the mandatory standards were ineffective. . .”<sup>547</sup> Moreover, in comparison with other outdoor games such as horseshoes, tetherball, or archery, injury costs associated with lawn darts were “not particularly high for children under 15.” One staffer added, the data on comparative injury costs, “do not indicate to us that the overall risk associated with lawn darts is unreasonable.”<sup>548</sup>

Three manufactures controlled over 85% of the market for lawn darts,<sup>549</sup> and with their trade group, the Sporting Goods Manufacturers Association, they met and proposed to develop a suitable voluntary standard for lawn darts.<sup>550</sup> In March, 1988, the Commission directed the staff to develop a rule predicated on these standards and rejected a complete ban.

After the agency rejected the ban, Senator Pete Wilson (R-CA) introduced a bill calling for a ban on lawn darts. In a warning to conservatives, Columnist George Will reiterated a warning of one CPSC commissioner, Anne Graham, on lawn darts. She called the matter “catsup as a vegetable.” The reference referred

to the silly argument by some conservatives that catsup could count as a vegetable in school lunches. More to the point, Will warned that conservatives should avoid confirming the caricature of conservatives “as logic choppers . . . who can always gin up reasons why the government should not police the path of life.”<sup>551</sup>

James Florio, a Congressman from New Jersey, who chaired the subcommittee overseeing the work of the CPSC replied to Will’s editorial. Florio agreed “[I]t is folly to argue against government intervention in the case of lawn darts.” After noting that Will’s main point was admonishing “fellow conservatives against taking positions so contrary to logic as to promote a caricature of them,” Florio complains that Will has missed the larger point about lawn darts: they are but one example of larger problems at the product safety commission.<sup>552</sup>

The airing of a poignant “60 Minutes” segment on the dangers of lawn darts prodded the House into action. Two days after the segment was shown, Deborah Dingell, wife of House Energy and Commerce Committee chairman John Dingell, called Mr. Snow and said, she was “very affected by the piece and was going to throw her all into this.”<sup>553</sup>

By the end of the week, both the House and Senate had passed a law requiring CPSC to amend its lawn dart regulations by lop-sided votes, exactly one week before the Commission was scheduled to vote on the proposed ban of lawn darts. In the House, the measure appeared under a suspension of the rules. Representative Dingell quickly urged passage. He brushed aside potential objections by noting, “Lawn darts are not a major industry, not even a major part of the recreation industry.” He explained, “By any measure, the benefits of banning lawn darts far outweighs (sic) the costs,” and then added, “This issue

should be decided by common sense and common decency, not abstract theory or ideology.”<sup>554</sup>

Although perhaps important to a few, no policy on lawn darts could ever be termed a high national priority. Even Congressman Florio, saw the matter as largely symptomatic of larger problems at CPSC. Still, the CPSC did adopt a ban on lawn darts, and after its effective date, lawn darts could not be legally sold. As a practical matter, manufacturers had been unable to sell the darts for sometime before the ban. As noted in Chapter Four, the adverse publicity had killed the product well in advance of governmental regulation.

Just as with all-terrain vehicles, before regulatory action, there were efforts to set voluntary standards by manufacturers. Those efforts did not ultimately shape the terms of the final regulation. To be sure, the industry almost prevailed. But for the media attention following the agency decision to try standard-setting, the new regulation on lawn darts would probably have embraced newly developed industry standards. Nevertheless, the decision to ban lawn darts in the presence of industry standards, contradicts the general pattern argued for in this and the prior chapter.

Perhaps three reasons account for this outcome. First, the industry had a poor history of compliance with what prior standards did exist: the federal regulations. This finding casts some doubt on whether, in fact, there really was an accepted industry standard. Second, by comparison with the other cases in this dissertation, no regulations on lawn darts could be imagined as technically intricate in any important sense. After all, this product is a throw toy. Finally, as compared with other cases in this study, lawn darts are not a very important product. Because of the media attention given the matter – and probably the likely public opinion development if the issue had remained salient for very



long— the issue had some electoral appeal. On the other hand, banning the product had almost no electoral risks. For no firm did lawn darts generate as much as three percent of revenues,<sup>555</sup> and, as one manufacturer frankly conceded, “The world won’t end without lawn darts.”<sup>556</sup>

*The Explosive Detection Systems Rule.* Recent policy on airline detection of explosives is commonly linked to the December, 1988, destruction of Pan Am Flight 103 over Lockerbie, Scotland. Without question, the bombing precipitated a series of actions by the Reagan and Bush administrations, by the Congress and by the FAA. Well before this bombing, however, the media, the public, Congress and the FAA had been paying attention to the threat of aircraft sabotage. As Figure 2-6 shows, even before the Lockerbie bombing, media attention to aviation security was already at very high levels. As noted in Chapter Three, surveys about aviation security are somewhat irregularly timed. Moreover, surveyed opinion on the matter is somewhat volatile, but even a review of less than ideal data may put the state of public opinion in perspective. Between January, 1978, and April, 1986, for example, the proportion of the public believing that airport security screening was “very effective” declined from 54% to 15%. The proportion believing it was “hardly effective at all” roughly tripled.<sup>557</sup>

In August, 1988, the GAO issued a report noting “public and congressional interest in aviation security had increased,”<sup>558</sup> although this report dealt with the lapses in security at airport access points. The report did not address explosives detection. Congressional interest in aviation security was not new: Congress had held 27 hearings involving aviation security since the TWA 847 hijacking in 1985.<sup>559</sup> Moreover, the August, 1988, report followed a half

dozen earlier General Accounting Office reports written on aviation security since 1985.<sup>560</sup>

Before the Lockerbie bombing, the FAA announced the award of contract for five thermal neutron activation (TNA) explosives detection systems (EDS).<sup>561</sup> The TNA explosives detectors carry checked baggage into a chamber where a neutron cloud, emitted from a radioactive source, “interacts with the contents of the luggage.” The irradiated luggage emits gamma rays -- that the detector then analyzes for the “characteristic signatures” of explosives.<sup>562</sup> The announcement and this research came as no surprise. At least since 1986, aviation trade journals made reference to research on explosives “sniffers” and a new explosives detection technology, thermal neutron activation.<sup>563</sup>

Shortly after the Lockerbie bombing, the FAA announced new security measures -- including a controversial new rule on limiting access at airports and more importantly for discussion here, accelerated its purchase of TNA machines.<sup>564</sup> At hearings on aviation security in March, 1989, the FAA touted these moves. Monty Belger, an FAA Assistant Administrator called the TNA detectors “a remarkable system,” resulting from three years of FAA-directed research. He said, the system “shows great promise,” and experience shows that it can “screen baggage with a high success rate (95%) and a low false alarm rate (4%).” Belger added, “the high success rate was attained finding minimal quantities of explosives, and would be higher with larger amounts of explosive material.”<sup>565</sup>

At these hearings, the aviation community seconded the FAA’s accelerated activity on the development of thermal neutron activation explosive detectors. Trade associations of airlines,<sup>566</sup> flight attendants,<sup>567</sup> pilots<sup>568</sup> and airports<sup>569</sup> all testified approvingly of the FAA’s action. By the end of June,

Congress had adopted, and the President had signed, legislation requiring the installation and use of this new technology “as . . . necessary to ensure the safety of air commerce.”<sup>570</sup>

At the hearing, the FAA had indicated no needs for further legislation,<sup>571</sup> but the new legislation required changes significantly more extensive than what industry had considered. In the first week of July, the FAA circulated a request for comments on three alternative proposed rules. These alternatives would have required installation of either 1250, 400 or 270 TNA explosive detectors at U.S. and foreign airports.<sup>572</sup> The major airline trade group, the Air Transport Association (ATA), at the March hearings, had complained about the cost of TNA systems. It had suggested concentrating a few machines at airports having a high level of threat. When asked about the cost of installing the machines at all U.S. airports, the trade group estimated a figure of around a billion dollars.<sup>573</sup>

Conceding that a billion dollars was “real money,” one committee member brushed the ATA cost objections aside and implied the government should fund these safety devices. Ultimately, plans for government financing of TNA explosive detection systems from the aviation trust fund died in a Senate committee pending the report of the Lockerbie Commission.<sup>574</sup>

As matters were underway, Congressman Sherwood Boehlert (R-NY) of the House Aviation Subcommittee complained that the airline trade group should be helping the committee more in unlocking the money in the aviation trust fund. After noting the success of the bank lobby in blocking the automatic interest deduction withholding, Congressman Boehlert asked, “Why can’t you collectively get cards and letters and petitions in airports and get people to convince those not on this committee — we are already convinced; we are

believers – that we have billions of dollars sitting idle in a trust fund that should be used to prevent future PanAm 103s?”<sup>575</sup>

Although the FAA proposal made reference both to the Act of Congress seemingly requiring adoption of the rule, as well as the statements of Secretary Skinner,<sup>576</sup> the proposal was widely criticized. Unsurprisingly, manufacturers of alternatives to TNA commented on the short comings of the TNA.<sup>577</sup> Unions, ever watchful of the safety of their members, supported the adoption of TNA although the pilots union called for exploration on financing this technology.<sup>578</sup> The most sharply critical comments came from the most directly affected: airports and airlines.

Airports called the Notice of Proposed Rulemaking a “deeply flawed proposal,” one imposing constraints on air travel “far out of proportion to the hoped-for gain in security.”<sup>579</sup> Besides pointing to possible operational problems, one airport charged that “the FAA is ‘shooting from the hip’” with “a shot” that would “be very expensive to the airlines.”<sup>580</sup>

One airline noted that the TNA explosive detection technology would not have been sensitive enough to prevent the Pan Am explosion.<sup>581</sup> Regional and charter carriers sought to exclude any inconvenience or cost associated with the rule from their operations.<sup>582</sup> The Air Transport Association, representative of major trunk, domestic and international carriers, concentrated on more general difficulties with the proposal. It reminded the agency of its support for research into explosive detection systems and raised questions about the operational performance of the equipment as well as concerns about its cost. Moreover, since the carrier is only a “surrogate” for the “real target” of terrorist operations – the government – the ATA argued the government should pay for the cost of explosives detection. ATA concluded “unhappily” by suggesting “that the

objective . . . has shifted from the development of an effective detection device . . . to responding to a public perception that immediate deployment of any available device . . . is required.”<sup>583</sup>

Besides repeating the objections raised by other commentators, Cardiss Collins (D-IL), Chair of the House Government Operations Transportation Subcommittee, charged that the rule would provide “a false sense of security to the flying public.” She noted that the tests of TNA had been “stacked in TNA's favor.” She added that the proposed rule, “appears to be based more on its [FAA's] rush to assure Congress and the public that it has responded to the Pan Am disaster than on a well thought out approach to explosives detection.”<sup>584</sup>

Of course, adoption of a rule was required by law. Notwithstanding the objections, although with some modification, the FAA adopted the TNA rule in September, 1989,<sup>585</sup> nine months after the Lockerbie bombing and two months after the rule was proposed. By the end of the next year, the rule had been reviewed by a presidential commission<sup>586</sup> and effectively repealed by statute.<sup>587</sup>

At hearings before Congress shortly after adoption of the FAA rule, the testimony of aviation interest groups and security experts was sharply critical of the FAA. While acknowledging that TNA was a useful contribution to aviation security, a former FAA civil aviation security chief complained about “obfuscation of the issues” on the current security system, said TNA “is wrongly being put forward as a cure to the ills of the civil aviation security system,” and charged that “TNA hyperbole to quiet fears of the public ill-serves the best interests of the passenger. . .”<sup>588</sup>

Airport trade groups also complained about the new rule. When asked what was wrong with the new rule, an airport director testified:

Well, it weighs 10 tons and takes up ramp space of about 19 by 40 feet. It is slow, has about a 5% false alarm rate, as tested. Now, with the smaller amounts of explosives used by terrorists, the errors could go up to as high as 15 percent, or even greater, and the machine has too small an aperture for oversized bags.

It requires special training, special nuclear licences, and no other country at this time has approved it, and several are developing alternatives to it.

It will cost a great deal to operate and support, including significant costs to modify access control procedures to accommodate the increase in ramp activity required by the screening of 100% of all international baggage.

And lastly, it will create delays and/or early check-in requirements of 3 hours or more for international flights.<sup>589</sup>

Later, that estimate of delay was extended to five or six hours when 100% of the baggage was screened at, for example, New York's John F. Kennedy Airport.<sup>590</sup>

This testimony came as the FAA was expecting a report on explosives detection technology from the National Academy of Science.<sup>591</sup> The 1989 Lockerbie Commission, more formally known as the President's Commission on Aviation Security and Terrorism, was quite critical of the FAA's management of explosives detection technologies. Commenting that the FAA had not done any testing or computational modeling of the explosives necessary to damage an aircraft, the Commission concluded, "[W]ithout first knowing what it needed to guard against, the FAA launched a multi-million dollar development program. . . ." It added that the specifications adopted had "doubtful utility" since terrorists had been using plastic explosives lighter than those that FAA specifications required explosive detectors to detect.<sup>592</sup>

Even worse, the TNA EDSs approved by the FAA were never subjected to “scientific testing” at an airport. The TNA machine in use at JFK had been tested by “strapping simulated explosives onto the outside of suitcase,” but the Commission conducted the first tests of the machine at an airport using “actual explosive materials.” Calibrated according to FAA specifications, the TNA in use failed in two of ten passes. At more sensitive levels, the TNA produced an unacceptable rate of false alarms.<sup>593</sup>

To summarize, six months after the Lockerbie bombing, and hearings commenting favorably on thermal neutron activation technology, the initial statute directed the FAA to adopt an explosive detection system regulation.<sup>594</sup> The agency did so and projected 50 systems would be in place by the end of 1990 and 150 in place by the end of 1991. But a new act, the Aviation Security Improvements Act of 1990, among other things, prohibited the FAA from requiring the purchase or deployment of an explosive detection system unless the FAA’s Administrator certified the equipment capable of detecting explosives under realistic operating conditions.<sup>595</sup> At that time, thermal neutron activation explosive detection systems were unable to meet this standard.<sup>596</sup> Ultimately, the first device capable of detecting explosives under operational conditions used a wholly different technology, computerized axial tomography (CAT). These CAT scans rely on a technology similar to that used in medical imaging procedures.

Public opinion may well have driven elected officials and the FAA for a rule on TNA, and this rule, requiring more than a billion dollars to implement, has to be regarded as a major policy change. Yet this regulatory effort was halted, and that cessation was largely for operational reasons. The science was workable, but the technology was not able to meet the operational requirements of the air transportation industry. This failure might well have wrought

considerable inconvenience on the public at large, and despite the pleas of political leaders, industry was unwilling to take steps to garner more extensive political support to finance additional security measures.

There were significant changes in the FAA's management of aviation security following Lockerbie, but adoption of thermal neutron activation was not ultimately one of them. Although suggestions that governmental action may have nudged airlines to take a more proactive stance on aviation security may be in order, the effects of those actions are difficult to separate from the other sequellae of the Lockerbie bombing.

The grab bag of results in this section are somewhat difficult to group together. However, looking at the array of cases – with the trivial exception of lawn darts – it seems that regulatory agencies are unable to sustain a policy adjustment made in response to public opinion – when product and service providers are unable or unwilling to support the agency response. The concluding section adds the results of this section to those of the preceding one.

## Conclusion

The chapter yields two key findings. First, when industry makes a substantial response to public opinion, in large measure, the government codifies the industry choices into regulations. Second, when government adoption of a regulation precedes industry adoption of related practices, the government regulation may be repealed or marginalized.

These findings are quite striking. They mean the decisive adaptations to public opinion come before regulatory agencies have adopted a new regulation. These findings challenge the central tenet of textbook, regulatory democracy.



They do so because the chief response to public opinion is not mediated by efficacious, governmental regulation.

As noted in the introduction, the private responses to public opinion are far from the whole story. Yet even when change in policy takes place as suggested by the textbook account, that is, when a change in regulation precedes changes in industry practices, at least for the cases in this study, the regulation ends up marginalized. In one case, TNA, a regulation adopted despite difficulties in industry compliance, was repealed before its effective date. In other cases, lawn darts and skymarshals, directions from elected leaders did lead to the adoption of new regulations. Surely, however, these cases stand for only modest policy change. At the least, this chapter and the preceding one highlight the importance of considering responses to public opinion outside political channels.

## Chapter Six: Public Opinion Effects on Enforcement of Policy

### Introduction

Thus far, the assessment of public opinion influence over policy has concentrated on the development of government regulations and private standards and practices. Some attention to other aspects of policy is due. As much of the earlier argument began with an analysis of media effects on the adoption of new regulations, so this chapter examines media effects on implementation of regulation. Specifically, it considers how mass media affects staffing decisions about aviation safety enforcement. Although this analysis highlights the role of media, it gives short shrift to other aspects of the argument presented before. On the other hand, by examining quantitative data over an extended period of time, this analysis allows for systematic, quantitative examination of effects on policy.

Mass media attention to an issue is widely taken to be a harbinger of policy change. The difficulty in figuring out why media attention foreshadows policy change is that the media both report on the plans and deeds of public officials *and* moves them to take action. This problem makes ascertaining the media effects difficult because researchers are unable to distinguish what happened *because* of media coverage from what would have happened regardless of media scrutiny.

One strategy for examining this media foreshadowing of policy change is using research from investigative journalism. As an explanation of policy

change, the investigative model has two problems. First, as a theoretical explanation, it leaves out other obvious, non-governmental policymaking participants, such as interest groups or experts. Second, empirical research on investigative journalism considers only unusual cases. The task for this chapter is illustrating an alternative approach for understanding media influence on public policy.

A well-established literature on political control offers some insight on how to separate independently arising media effects from media coverage incidental to reporting on the works of public officials: Add media variables to the standard political control model. The expectation is that heightened media coverage should increase enforcement levels. As chapter two concluded, media coverage is itself not completely independent of political control, yet it retains some independence. Exploration of media effects on policy – holding political controls constant – merits some effort.

In many respects, aviation safety inspection is an ideal case for exploring the effects of media attention on public policy. Crashes, hijackings or bombings of commercial airliners can garner a good deal of media attention, and they are all unambiguously unhappy occasions. A resulting public demand “to do something” to prevent a recurrence seems a fair surmise. At the same time, the one regulatory task most immediately under the control of government officials is enforcement of existing laws. Thus, a fair starting point for exploring media attention is looking how media attention affects the assignment of personnel to enforce aviation safety rules.

To summarize, this chapter proposes to examine the relationship between administrative staffing and media attention. To do so, it uses fiscal year staffing data of the U.S. Federal Aviation Administration from 1975 to 1996, a count of

articles indexed in *The Readers' Guide to Periodical Literature* over the same period, and controls for institutional access to media, political control, and growth of the air transportation industry. But before that examination, some greater attention to the underlying theoretical accounts is now due.

### Agenda Setting and the Investigative Model

Usually, the influence of the mass media is argued to rest in its influence over the systemic agenda of the government. The agenda, as John Kingdon conceived it, is "the list of subjects or problems to which government officials, and people outside of government closely associated with those officials, are paying serious attention at any given time."<sup>597</sup> Agenda setting is moving items on and off that list.

As a general matter, views on whether media attention drives policy change or merely reflects official actions and intentions to bring about to make policy change are mixed. For many studies, the origins of the change may not matter. Thus, for example, Frank Baumgartner and Bryan Jones took an agnostic view.<sup>598</sup> They argued without too much regard to the origins of media scrutiny, "Each time there is a surge of media interest in a given topic, we should expect a degree of policy change."<sup>599</sup>

Agenda setting has its own extensive literature, and in that body of work, the role of the mass media has come to play an important role although the dimensions of that role are uncertain. George Edwards and Dan Wood, for example, find the President, the Congress and the media influence each others agenda.<sup>600</sup> Kingdon, at least according to media scholar, Timothy Cook, dismissed the media as having an important effect in agenda setting. For

Kingdon, “[T]he media have very little independent effect upon agenda setting because they are largely passing along information from elsewhere.”<sup>601</sup>

As chapter two reported, study after study has concluded that government sources dominate reporting in the mass media. Although conceding that the media largely stick to reports from authoritative sources, “Cook argues the agenda is set by neither the exclusive action of the media in choosing stories nor that of “authoritative” sources whose actions and statements make the news. Both work together to produce newsworthy stories bringing matters to the public’s attention.”<sup>602</sup>

In an effort to isolate the effects of mass media attention on public policy, Fay Lomax Cook, Donna R. Leff, David Protess and others, over a series of articles, reported on the policy effect of investigative journalism.<sup>603</sup> By studying the policy effects of exposés, their research strategy neatly solved the simultaneity problem inherent in asking whether the press leads officials to take action or officials lead the press to report their actions. Collaborating with a team of investigative reporters, these researchers were able to learn the contents of investigative reports before the reports were made public. To study the effects of the reports, they surveyed both elite and general public respondents before and after release of these news studies.

The theoretical framework for their analysis was the so-called hypodermic model. They explain:

The classic “hypodermic model of muckraking journalism would suggest that (1) journalists work on an investigation surrounded by as much secrecy as they can muster, (2) the investigative report then appears in print or is aired on television, (3) the public is aroused by publication of the exposé and (4) pressures elected officials or relevant agency personnel to correct the problem disclosed, and (5)

these decision makers respond to the public and work to change the relevant policies."<sup>604</sup>

Using a variety of cases and research designs, Cook, Leff, Protesse and their many co-authors persuasively cast doubt on the hypodermic's account of media-driven policy change. In particular, they attribute policy change not to the airing of journalistic investigations but instead to "the active collaboration between journalists and policymakers . . . as stories are being investigated and before they are aired."<sup>605</sup>

These findings merit reflection for a couple of reasons. First, judging the extent of policy change is quite difficult. Even Cook, Leff, Protesse et al. noted more symbolism than substance in the policy response of one case they studied.<sup>606</sup> Indeed, savvy administrators can put new names on an old policy, shuffle responsibilities, and label the name change as a reform. This reform can obscure the evaluation of performance by emphasizing the connection or disconnection of past conduct or conditions to present policy implementation or performance. Only informed participants can tell if the policy change is more than a name change, and changes may take significant amounts of time to have any real effects. A series of fairly short term studies is poorly designed to detect longer term consequences of media attention.

Second, sophisticated participants will simultaneously adjust their behavior to meet and anticipate expectations communicated through the mass media. George Herbert Mead has likened this sort of simultaneous adjustment to the movement of players on a baseball field after a ball has been hit into play.<sup>607</sup> Thus, news stories may change not only the views and conduct of government officials but also those of journalists, interest groups and other stakeholders. So, for example, if news reporting induces changes in the conduct

of private stakeholders, government activity levels may not need to change for very real changes in the day to day operations of a regulated business to occur.

Usually, administrative policymaking depends on matters such as expert advice, interest group demands, partisan politics, and so on. Once responses of these many stakeholders to media attention are considered, the real policy response to media attention is not clear. These influences on policy are outside the simple hypodermic model, and this simultaneous adjustment process means there is not a necessary direct step from media coverage to policy change.

Thus, some exploratory analysis of cases where there is likely to be media interest, some industry concern with media attention, and some prospect for systematic analysis of government action holds some promise for a broader understanding of media effects on public policy. As suggested in the introduction, this paper considers the staffing of aviation safety inspection, but before turning to consider the design of the analysis, some attention to justifying the selection of aviation enforcement cases as objects for this study is in order.

### Leverage Offered by Studying Aviation Policy

Aviation policy is an excellent case to study media effects on policy for four reasons. First, events such as plane crashes, aerial hijackings and bombings receive media attention disproportionate to the risk of harm to anyone. Second, the issue is one-sided. Almost no one is in favor of these tragedies. The prediction made by reference to the investigative model is quite clear: “get tough” on safety by hiring more inspectors. Third, both the industry and the regulatory agency profess sensitivity to media coverage. Finally, aviation staffing data are available for a long period of time, and the act of bringing hiring

and inspector is comparable from one time to another. Each of these points merits a brief comment.

*Media Interest.* Without a doubt, few issues have the capacity to garner media and public attention as that of aviation safety and security. As observed in chapter two, aviation deaths are relatively speaking, quite rare, yet they capture a disproportionate share of mass media attention. This exaggeration in aviation reporting makes aviation policy a good one for examining media effects on policy because the media coverage is so disconnected from events and activities underlying the related policy area.

*A valence issue.* Reporting on aviation safety and security is largely one-sided. Generally speaking, reports of airplane hijackings, on-board explosions, mid-air collisions and airliner crashes regard those events as catastrophic misfortunes. Reports of lax governmental regulation or airline desires to weaken safety or security rules standards are hardly more comforting. Even reports of heightened vigilance or improved future safety are not reassuring. (After all, why aren't they doing those things now! You mean they let me fly when it's not safe!) The prediction of the investigative model to do something by hiring more inspectors is unambiguous.

*Purported Adverse Publicity Effects on Industry.* Throughout the period of this study, there are several statements by government and industry officials on the harm caused the industry by adverse media attention. Broadly speaking, the concerns of the aviation industry and its regulators with adverse publicity was covered in chapter three. As one executive said, "Where would we be," he asked, "if the public seriously doubted that a big aluminum tube could fly across the continent at 600 miles an hour? If travelers ever lose confidence in the safety



of air travel," he warned, "we might find ourselves back flying biplanes on mail routes!"<sup>608</sup>

As chapter four observed, more systematic studies by economists and others of the air transportation industry have suggested also adverse consequences for airlines following high levels of media scrutiny. However, on this point, the evidence is mixed. Nevertheless, the remarks of government regulators, industry representatives, and the study make an assertion that airlines care about media attention somewhat warranted.

#### Leverage Drawn From Empirical Research on Political Control

Thus far, this paper has laid out research on the model of investigative journalism and explained why examining media effects on enforcement of aviation safety and security policy presents a good case for analysis. For the study of media effects on public policy, examining the staffing of aviation safety inspection offers more than just the opportunity to consider more cases. A few words on the two ways in which these cases offer particular leverage for exploring media effects is in order.

*Political Control.* The most important modern explanation for bureaucratic activity centers on the so-called political control thesis. This body of work draws from literature on the economics of principals and agents. It makes the elected officers of the government, the President and Members of the Congress, "principals." Government agencies are "agents," and the statutes governing agencies are agency contracts. By extension of the median voter theorem, the Congressional subcommittees charged with overseeing the operations of a government agency are argued to control the operations of government agencies.<sup>609</sup> This literature has been extensively cheered, reviewed and critiqued

elsewhere. The importance of that literature for the analysis here is this: it offers a means of statistical control political inclinations of government officials. These controls work irrespective of mass media attention.

Articles exploring the effects of investigative journalism on policy cleverly control for the inclinations of public officials by examining dormant topics put on the public agenda by the mass media. These studies of investigative journalism only look where there is no apparent prior political interest in changing policy. In this study, that control comes in a different way, by adding media variables to standard political control models. By predicting – on balance – how politicians would act but for media coverage of aviation, the political control model offers an excellent benchmark from which to examine the effects of the media on aviation inspection staffing. This approach offers some prospect for a new understanding of media effects on public policy.

Obviously, for valence issues such as safety or security, media attention can be measured by counting the number of articles or news stories on a topic, but such a count leaves open the matter of official sources dominating coverage in the media. Because the production of news stories depends, at least in part, on the release of information from government sources, elected officials in control of the Administration, the Senate, the House of Representatives, or the committees of either body may manipulate the agenda, hold hearings or otherwise use their powers of office to create a public spectacle. Although elected officials may wish to control policy in accord with their ideological predispositions, they also wish to assist the production of news favorable to their electoral prospects. Quite apart from any ideological concerns, an out-of-power party in the Congress may advance its prospects by criticizing the Administration for real or imagined policy inadequacies. This argument is the same point made in the analysis of

reporting contained in chapter two. So at least part of assessing media effects in examining the access of the opposition to institutional routines linked to media coverage. This aspect of control is largely unexplored in the traditional political control literature, but rough categories such as unified or divided government or unified or divided Congress may have serve the analytic purposes here.

### Studying Implementation Decisions: Data and Methods

This section lays out a testing procedure, admittedly an imperfect one, for addressing the question laid out at the conclusion of the last section. Aviation safety inspections take place throughout the country; they involve thousands of people; and they involve highly technical matters. The only meaningful assessment of past inspections and enforcement practices – apart from reviewing anecdotal accounts or official rhetoric – is some sort of quantitative analysis.

The adequacy of the FAA's inspection and enforcement practices became a major issue at several points in the period covered by this study. The topic merited reports from the General Accounting Office;<sup>610</sup> the Office of Technology Assessment;<sup>611</sup> the Department of Transportation;<sup>612</sup> a specially formed Aviation Safety Commission,<sup>613</sup> and the National Academy of Sciences.<sup>614</sup> Yet study of inspection practices over this extended time is not possible. As one GAO official explained, "FAA for a number of years didn't keep track of which airlines they inspected, or how frequently, or what they found when they inspected them." After an incredulous Senator asked to make sure he understood the testimony, the GAO official added, "Yes, that's right. They kept no record. So there is nothing to go back to and look at . . . ." <sup>615</sup>

The FAA does, however, keep records of its enforcement actions and of the number of aviation safety inspectors that it employed. The number of

enforcement actions brought in a particular period, other things being equal, is certainly one reasonable measure of how “tough” the enforcement policy is. The measure is far from perfect, and exploration of that data is a matter for another time.

In earlier chapters, the argument has been that public opinion and public policy are jointly produced as public officials “go public” with some safety issue or another. The decisive policy change takes place as interest groups and their members “voluntarily” change their behavior, and government officials codify those already made changes into public policy. An exact analogue for this process is not available for a study of government operations for two reasons. First, “going public” in this context is more than a critique of private interests; it involves a critique of whatever party is running the government. Second, only the government can modify its own operations. A voluntary change by private parties is limited in its effect of changing what the government does. At the very least, private parties need allies in the government to modify agency action.

Thus, the argument presented in the bulk of the dissertation cannot be tested here. However, as noted at the end of the prior section, one part is amenable to testing: the claims about the media as public opinion. Bureaucrats, interest groups, and their members, all report looking to mass media as an indicator of public opinion. As Chapter Three explains, the media is linked to the public opinion in two ways. First, the media shapes surveyed opinion. Second, interest groups, government officials and others make judgements about what the public is thinking based on what appears in the media.

Various regression techniques are available to assess the relationship between reporting on aviation safety and various indicators of FAA enforcement

and inspection. This chapter uses ordinary least squares regression as modified by the Cochrane Orcutt procedure.

Table 6-1 describes the variables used in this analysis. It contains the name of the variable used here and its description or source. The measure of aviation inspection staffing is the change in the number of aviation safety inspectors employed by the agency at the end of the calendar year. This count includes all aviation safety inspectors, that is, both inspectors assigned solely to air transportation matters as well as general aviation inspectors. In the FAA, general aviation inspectors are responsible for inspecting commuter air carriers. This year-end count varies quite a bit from month to month over the course of a year. For example, from the end of the fiscal year to the end of the calendar year, the number of inspectors changes in this study on average by close to 20%.<sup>610</sup>

The analysis uses several independent variables; most are quite conventional. Only a few merit much attention here. The count data described in the Appendix is used to measure media influence. Using the variables for each article described there, the article count data was re-coded and aggregated by year. The media variable measures the number of articles about non-military, aviation safety appearing in major news magazines. Because criticism of government practices has a dual role: critiquing both a practice *and* the governing party, controls for the political context of media stories on aviation safety were used. Thus, there is a variable to mark the presence of government divided between the President and the Congress; and the presence of divisions between the two houses of the Congress.

The work of the FAA is overseen in Congress by the House and Senate Aviation Subcommittees. For this project, then, it is necessary to identify the median voter on these two subcommittees. For this task as well as for other

research on Congressional roll call voting, scholars have sought to establish a scale or dimension of analysis on which a median voter can be located. Substantively, this scale is understood as a measure of ideology or sometimes, the extent of government intervention in the national economy. Poole and Rosenthal, among others, offer good reasons for believing that there is more than one dimension to roll call voting, but even they concede a single primary dimension linked to party ideologies.<sup>617</sup>

Once a roll call measure is established, the scores of all committee members can be ranked to determine the subcommittee's median voter. As Groseclose, Levitt and Snyder have observed, a number of different measures are available. One widely used measure is the score assigned to Senators and Representatives by the interest group, Americans for Democratic Action. This group is interested in rating the members of Congress according to their liberalism. This measure is widely called the ADA Score. Groseclose, et al. argue that the terms of political debate change from year to year. They suggest making an adjustment to raw ADA scores to correct for annual "stretching and shifting" of the scales of liberalism. This correction makes for a constant underlying index of liberalism or conservatism.<sup>618</sup>

#### Results: Media Coverage and Size of the Inspection Force

Table 6-2 presents the results of Cochrane-Orcutt regression estimating the annual *change* in the number of FAA inspectors.<sup>619</sup> Figure 6-1 depicts the actual and predicted numbers of aviation safety inspectors. Obviously, there is a trend in the data. Before regression analysis, the trend was removed by subtracting from each observation the value of the observation that precedes it. This difference is the annual change in the number of aviation safety inspectors.

The Cochrane-Orcutt procedure adjusts the regression estimates for autocorrelation in the data, a likely problem for a time series of staffing levels.<sup>620</sup>

The regression models presented here fit the data moderately well. The adjusted  $R^2$  ranges between 0.16 and 0.59. Overall, the fit of the model is best when variables accounting for the ideology of the median aviation subcommittee member committee (of each House of Congress) are removed from the model. In those cases, the F-statistic and the  $R^2$  statistic are both at their highest. This parsimonious model was used to generate the plot of prediction on Figure 6-1.

Perhaps, the safest interpretation of the results in the full model (Table 6-2, Model 1) is this: media coverage and divisions in government are collinear with ideological scores. The data are too sparse to sort out this relationship. Still, it appears that divisions in government and media attention explain a somewhat larger proportion of the variance of change in the number of safety inspectors than more traditional measures of political control over the bureaucracy do.

The results of a stripped-down model appear as Model 2 of Table 6-2. Of all the models, it offers the highest adjusted  $R^2$  and F-statistics, and unlike all the other models on the table, all of the coefficients are statistically significant. The results mean that for every article on non-military, aviation safety in major news magazine, the FAA increased the staffing of its aviation safety inspection work force by seven inspectors.

Model 3 of Table 6-2 is the classic political control model. Of all the models, it performs the least well in terms of overall or specific variable goodness of fit statistics. Only the median voter of the House Aviation Subcommittee appears to influence staffing at the FAA. This result is quite striking in its weakness.

Obviously, none of these models are perfectly specified, yet the result point quite strongly to a role for media influence in shaping aviation safety inspection and staffing policies. One caveat to drawing very general conclusions from this statistical analyses is present. The results may stem from a composition effect. As with the data in the preceding section, all of the cases where the legislature was divided occurred where Ronald Reagan was President, the Republican Party controlled the Senate, and the Democratic Party had a majority in the House of Representatives. Although there are theoretical reasons to trust the results presented here, other explanations peculiar to the data cannot be entirely discounted.

### Conclusion

This chapter has used regression analysis to test parts of arguments using data on the enforcement of aviation regulations. A full test of the argument made in the earlier sections of the book is not possible, but systematic, quantitative examination of inspector staffing levels does suggest that those levels are related to the extent of coverage in the mass media. Obviously, a more extensive study of policy implementation might consider media effects on other aspects of implementation and consider interest group interactions with the agency. At the very least, the results here offer some basis for concluding public opinion does have systematic effects on regulatory policy. Moreover, it suggests that not all of the public's influence is explicable in terms of political control. Stronger conclusions on these data are not possible.



<b>Table 6-1: Identification, Source and Description of Variables Used In Regression Analysis</b>	
Identification of Variable	Source or Description
Difference in Annual Number of FAA Safety Inspectors	FAA Statistical Handbook of Information, Table 1.3 (various years). Figures include number of both general and air transportation safety inspectors.
Major News Journal Articles on Civilian Aviation Safety (Year)	Appendix .
Divided Government: Different Parties Control Executive and Legislative Branches	Equals 1 if President and at least one house of the Congress are of different parties; Equals zero otherwise.
Divided Government: Different Parties Control Senate and House of Representatives	Equals 1 if majority party in each chamber is different; Equals 0 otherwise.
Party of President	Equals 1 if the President is of Democratic Party; Equals 0 if the President is of the Republican Party.
House Aviation Subcommittee Median ADA Score (Groselose Adjusted)	Committee Memberships determined by <i>Congressional Staff Directory</i> (Washington, D.C. Congressional Quarterly Press, various years); Americans for Democratic Action, <a href="http://adaction.org/">http://adaction.org/</a> ; Real and nominal scores, <a href="http://wesley.stanford.edu/groselose">http://wesley.stanford.edu/groselose</a> [Accessed 07/11/00]
Senate Aviation Subcommittee Median ADA Score (Groselose Adjusted)	
Number of Enplanements	FAA Historical Traffic Data, <a href="http://www.bts.gov/oai/indicators/airtraffic/annual/1954-1980.html">http://www.bts.gov/oai/indicators/airtraffic/annual/1954-1980.html</a> and <a href="http://www.bts.gov/oai/indicators/airtraffic/annual/1981-2000.html">http://www.bts.gov/oai/indicators/airtraffic/annual/1981-2000.html</a> [Accessed 07/11/00]

Table 6-2: Effects of Media and Ideology of Median Public Officers on Change in the Number of FAA Aviation Safety Inspectors, 1975-1996.			
	Model 1	Model 2	Model 3
Major News Journal Articles on Civilian Aviation Safety (Year)	4.40 3.42 (0.22)	6.93* 2.84 (0.02)	N.C. <sup>1</sup>
Divided Government: Different Parties Control Executive and Legislative Branches	221.56 134.85 (0.12)	182.83* 52.34 (0.00)	N.C. <sup>1</sup>
Divided Government: Different Parties Control Senate and House of Representatives	-105.10 94.85 (0.22)	-136.88* 47.99 (0.01)	N.C. <sup>1</sup>
Party of President	-15.65 130.59 (0.91)	N.C. <sup>1</sup>	-78.67 82.10 (0.35)
House Aviation Subcommittee Median ADA Score (Grosseclose Adjusted)	-5.48 6.28 (0.40)	N.C. <sup>1</sup>	-10.94* 4.96 (0.04)
Senate Aviation Subcommittee Median ADA Score (Grosseclose Adjusted)	0.99 5.78 (0.87)	N.C. <sup>1</sup>	1.04 2.87 (0.73)
iter	57.75 256.44 (0.82)	-124.10* 47.47 (0.02)	515.69* 186.37 (0.01)
ρ	-0.16 0.19 (0.41)	-0.38 0.20 (0.08)	0.61 0.14 (0.00)
Model Goodness of Fit Statistics			
Iterations	16	8	7
Adjusted R <sup>2</sup>	0.35	0.54	0.16
F	2.74 (0.06)	8.36* (0.00)	2.20 (0.13)

<sup>1</sup> Estimated using the Cochrane-Orcutt procedure on first order differences of Annual Data described in Table 6-1. <sup>2</sup> Not Calculated. The parameter was not calculated because the adjustment for time series qualities in the data were accomplished in another way.

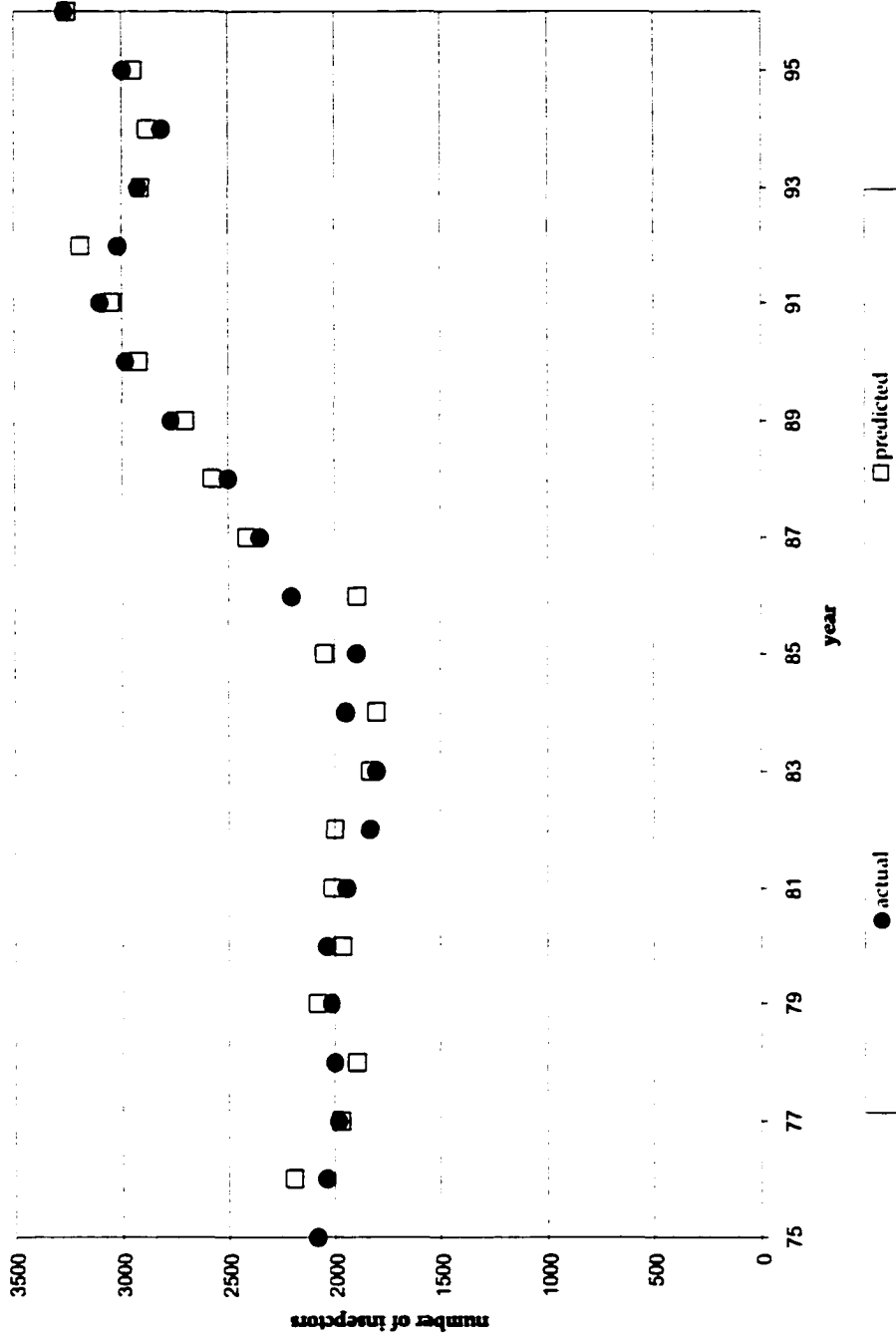


Figure 6-1: Actual and Predicted Number of Aviation Safety Inspectors. Source: Table 6-2, Model B

## Chapter Seven: Conclusion

### Introduction

I have finished presenting the findings of this study, but before concluding, I would like highlight some more important surprises I encountered in working on this dissertation and reflect on some of the questions they raise and implications they suggest. The major findings - each taking up a chapter - are surprising because they are at odds with conventional wisdom on how a correspondence between public opinion and public policy comes about. In a sense, each of these chapters is anticipated by one aspect or another of existing research – which for one reason or another is outside the mainstream thinking on the correspondence between public opinion and public policy. Strung together, however, I believe these separate findings amount to an alternative account of how public policy comes to correspond to public opinion.

### Discovering Surprises

Instead of rehashing the comparison between the textbook and anticipatory accounts of correspondence between public opinion and public policy or reviewing each chapter separately, it may assist readers to understand the import of the account if I recount the sequence of my understanding. This project began with an idea that survey data on public opinion was so ubiquitous that assessing the effects of public opinion on regulatory policy would be a matter of comparing survey results to policies actually adopted. After all, the government conducts more than one million survey interviews per year,<sup>621</sup> and

suggesting that this information might be collected and ignored defied common sense. To be sure, before heading off to examine rulemaking dockets in Washington, I had read *The Public's Impact on Foreign Policy* by Bernard Cohen and a *samizdat* copy of *Reading Public Opinion* by Susan Herbst. But I dismissed these works, respectively as outdated and not pertinent to a study of national policymaking. Yet my findings - on cases wholly unrelated to their studies - corroborate these works of Cohen and Herbst in substantial part. This finding is important because it does some violence to ideas that public opinion surveys are the important tool in shaping public policy to be responsive to public opinion.

As I contacted interest group representatives and various regulatory officials searching for and asking about survey research, I was quite impressed with the insistence with which they dismissed polls as a reliable indicator of public opinion. Moreover, I was struck with their frequent references to the mass media as a means of ascertaining public opinion, and their comments on the intensity of media coverage regarding adoption of the 1995 Commuter Safety Initiative.

These comments prompted my inquiries about the relation between aviation accidents and media coverage. Later, to some extent, I was able to extend those results to other cases in the study. My findings on the influence of government over reporting will surprise few communications researchers, but as I noted in the introduction, it is at odds with the assumptions about news coverage widely made.

As I examined the filings in the rulemaking proceedings, the transcripts of proceedings and the sundry associated regulatory reports, several aspects seemed particularly important. First, I was struck again and again by industry complaints about adverse publicity and its ruinous effects. Airline and

regulatory officials repeatedly refer to the importance of public confidence in the industry. Yet, the perception of adverse publicity's effects did not entirely correspond with evidence of its effects. For example, passengers will fly the planes of airlines having planes that recently crashed. Parents were willing to buy Tris-treated pajamas for their children- despite bad publicity - right up until the moment those pajamas were banned.

Second, I was struck by how much (or how little) industry changes its designs, practices and standards quite apart from government directions to do so. For example, the chemical Tris was no longer being used to make children's pajamas well before the government took action to ban it. The apparel industry agreed not to use drawstrings - without bad publicity - following a suggestion children were dying because of the use of these strings in children's clothing. Airlines and airplane manufacturers routinely and systematically study safety. I am not suggesting that these product changes are a pure market response; indeed, the response takes place very much as a consequence of government efforts to encourage industry to get its own house in order. However, these private efforts take place far from the offices of Congress, the White House or regulatory agencies.

Third, as I compared indications in transcripts, government reports or trade journals about industry practices to the terms of new regulations, I saw how extensively "new" regulations tracked those prior "voluntary" practices and standards. Quite obviously, I could not listen in on any confidential advice of interest groups to government officials. The literature suggests that offering this electoral or politically sensitive information is decisive bringing policy into accord with public opinion. Yet, judging from the array of cases that I studied, what seems to matter is the structure of private standards. When private

standards are already in place, major new regulatory initiatives codifying those initiatives are possible. Absent such private standards, government has more difficulty drafting sensible regulations. With this finding in place, it seems a safer statement to suggest that adoption of new regulations involves a large measure of – but not entirely – credit claiming by public officials. Perhaps from the perspective of prior regulations, new regulations seem a big change, but judged from the perspective of industry practices, the new regulations studied here seem much less substantial.

The importance of *appearing* to do something by passing a new law or adopting a regulation was made clear for me by examining the 1995 Commuter Safety Initiative, the 1985 Federal Air Marshal Emergency Rule and the Thermal Neutron Activation Explosive Detection Systems rules. After these tragedies, there was some public call or, at least, media clamor for action. High public officials were quick to promise action, and they delivered by passing a law or issuing a regulation.

However, the policy import of these statutes or rules depended in large measure on pre-existing industry practices. The Commuter Safety Initiatives codified a good number of ideas that had been kicking around aviation for a long time. The Air Marshal Emergency Rule was a very modest change in a program already disfavored by industry, and the TNA explosive scanning was not easily integrated into then existing airline operations. Put all together, these results strongly suggest the importance of industry's demonstrating the workability of an idea before it can be made into law.

Quite obviously, after the tragedies of September 11, 2001, the nature of the threats to aviation security are quite obviously different than they were before that date. I am unable to offer an opinion on new directions in aviation

security, but I suspect that the process by which new rules will be adopted will – in substantial part – depend on the capacity and efforts of air carriers to make the changes in advance of government regulations.

### An Alternative Path

The starting point for thinking about both anticipatory and textbook democracy is a recognition that the mass public both votes *and* consumes. As I observed in the introduction, a consumer worried about a product's or an airline's safety might write the President, his or her Member of Congress or some other public official to express concern, but more likely, he or she may buy a different brand or fly a different carrier.

Taking the full measure of public opinion effects on public policy requires thinking about mass public effects not only through electoral channels but also through consumer channels. Those voting and consuming choices both have consequences for the development of public policy. Voting decisions directly affect candidates for public office and elected officials, but they leave private firms unaffected. Consumer choices directly concern private firms, but they have little weight in political deliberations. But the development of public policy requires the collaboration of public officials *and* interest groups *and* their members. An understanding of public opinion effects on public policy reached by examining responses of public officials to public opinion is incomplete. A fuller understanding requires, in addition, attention to the ways in which private interests respond to public opinion.

To this end, based on my results, I suggest a series of questions to ask in trying to understand how public opinion translates into public policy outside electoral processes. First, what are the influences shaping public opinion? And



since those influences tend to come in large measure from the mass media, what is the media saying? Second, what information about the state of public opinion is available? And, within the pertinent policy network, how is that information about public opinion being understood? Third, how does public opinion affect a particular firm, group or industry? To what extent can affected interests change service delivery, product design, industry standards or practices without government assistance? At the same time, what are government officials doing to help or hinder such private responses? Fourth, as regulators adopt new or proposed regulations, to what extent are the terms of the new regulations a product of already modified industry conduct? How far in favor of one group or another and for what reasons have public officials tipped the terms of the new regulations? Finally, and throughout this process, what is the relationship between public opinion, the status quo policy and enforcement?

At this level of abstraction, I think that useful answers about future developments in public policy are available. These answers are, I believe, somewhat more helpful than blanket assertions that elected officials or private firms will do what is in their best interest to do. Thinking about the relation between public opinion and public policy at higher levels of abstraction may not yield such helpful results. When Raymond Bauer, Ithiel de Sola Pool and Anthony Dexter “inaugurated” their famous study of interest groups and trade policy, they reported, “[O]ne prominent economist told us we were wasting our time. ‘Tell me what a businessman manufactures,’ he said, ‘and I will tell you where he stands on foreign trade.’ If this economist’s genie could have so performed,” Bauer, de Sola Pool and Dexter tell us, their study “would have but little interest. It would be a study of mediating variables incapable of affecting the outcome.”<sup>622</sup>

Quite clearly, the “mediating variables” reported on in this study affect outcomes quite strongly. The information available to the public is systematically biased. The construction of judgments about public opinion is an uncertain collective process. The range of likely private responses to fluctuation in public opinion is quite large, but the nature of those responses appears to have had a substantial impact on the terms of regulations subsequently adopted. And, in at least one statistical study, the media variables appear to have a larger effect on outcomes than more conventional measures associated with policy enforcement.

### Judging the Uniqueness of the Cases

Judging the importance of the argument presented in this dissertation depends in some measure on judging the uniqueness of the cases. I must admit that the cases in this study are somewhat unusual. This study considers a limited range of data: nine cases drawn from two regulatory agencies over two decades, plus a regression analysis of enforcement staffing. Although the cases present a wide array of outcomes, they all have some real or threatened mass media interest or appeal – probably related to the risk of bodily harm or injury presented by the risks of interest. Moreover, the cases reflect an unusual division of elite and mass opinion: The opinions of experts and the mass public opinion were on opposite sides of a matter largely because experts and the mass public tend to evaluate risk in different ways. In more usual cases, divisions between mass opinion tend to mirror the divisions in policy experts and other elites. Finally, in all the cases, private parties play the predominant role in delivering goods or services to the public. The government’s role is limiting to shaping the

production or delivery of these goods or services. In these ways, the cases used in this study differed from more usual regulatory matters.

Making judgments about the uniqueness of the cases turns on deciding why the findings in this study are what they are. In a sense, there are two choices. First, there may be some unusual dynamic in the regulation of safety. Such a view sharply limits any extension of the results in this study. As observed in chapter five, this narrow view of regulatory safety was taken in many of the pluralist works studying public opinion.<sup>623</sup> In this view, the argument offered here may offer insight on the workings of agencies as diverse as the Food and Drug Administration, the National Highway Traffic Administration Agency or any of the myriad other agencies regulating safety, but it offers little in contexts outside the regulation of safety.

A second, broader view of the argument presented here is that this same processes of interest group adjustment to public opinion and government use of privately-adjusted policies is at work in all or most policymaking. In this view, the unusual transparency of the cases considered here is not a consequence of an unusual policy dynamic. Instead, this transparency is only a by-product of the unusual divergence between mass and elite opinion that takes place in the regulation of safety. To this extent, in all efforts to trace the influence of public opinion onto public policy, we should look for the mechanism at work in these cases.

I believe the second broader view of the argument offered here is the correct one for two reasons. First, I think the textbook account of correspondence between public opinion and public policy places too heavy an explanatory burden on public officials. Even with information provided by interest groups and bureaucrats, this account requires that public officials must process a good

deal of information and make a large number of decisions. Evidence on a widespread dissemination of public opinion to subordinate officials – a diffusion required for a high level of public opinion influence in drafting technical regulations is missing. Also absent is evidence on how high-level public officials shape *private* choices decisions about product designs, procedures and standards in the absence of regulations or the like. Without the long paper trails to establish a heavy hand of political influence, I do not believe that the textbook account offers a very persuasive explanation on the major portion of how public policy comes to correspond to public opinion. The gaps in the argument and the evidence are too large.

Second, relegating the argument presented here to a niche of safety policy or the like requires some convincing grounds that safety policy is a niche unlike other areas of policymaking. The argument has to say what is in the niche and what is not. I do not believe such an argument can be persuasively made. An institutional basis for such a niche – that there is in some special set of points establishing an inviolable equilibrium – is probably not tenable. A view that such a niche exists because of innate, behavioral characteristics of human populations might have greater warrant, but connecting these attitudes or cognitions to an institutional structure is quite an attenuated process. Thus, any linkage between mass public attitudes or cognitions about safety and an institutional or policy niche is likely to be quite difficult to sustain.

To be sure, I began this dissertation believing that the selection of cases would make transparent a more general process, and so my conclusion on the matter may not be completely convincing. The evidence presented here is limited to a few cases, and generalizing beyond those cases is a matter of some peril.

## Ideas for Future Research

Obviously, one way to extend the analysis offered here is to see how well the argument travels to policymaking in other cases, at other agencies and/or at other times. But, I have a few words on two theoretical directions that research might explore. First, I find fascinating the different ways in which public opinion diffuses through an industry and the effects that it has on depending on industry structures. My thinking in this regard has been shaped by thinking about the differences in the responses of interests to efforts to regulate Tris-treated children's pajamas and air transportation. I am struck by how the vertical structure of the industry shapes the responses. My sense is that elements of an industry closest to consumers – retailers or ticket agents – might be quite important in assuring the attention of manufacturers and industry trade groups to public concerns about a product or mistake.

A related matter is how the structure of an interest group affects the response of the interest group and its members to public opinion. This work has concentrated on industry trade groups and their members. I suspect the response to public opinions of mass membership organizations or media-focused, elite interest organizations might follow a somewhat different course than the response outlined here. But that suspicion is only a hunch, and the matter requires some further attention to consider the matter more fully.

Second, and more generally, I am impressed with the mechanisms of non-electoral, policy responsiveness to public opinion. The textbook account does a very persuasive job of explaining how public opinion influences the choices of elected officials. It does less well, however, in explaining how public opinion affects the choices that come before public officials. This question has two aspects.

First, what is the extent to which public officials use the media to persuade the public to want the policy reforms he or she suspects the government can offer. For example, in this study, Secretary Peña made a crash-site promise of new commuter rules when proceedings on those rules were already in some sense underway. Is this type of action best understood as credit-claiming? An effort to lead public opinion? An effort to use public opinion to persuade interests affected by regulation to suggest new alternatives? Or something else?

Second, what role does public opinion have in moving public officials to develop new policy choices? Throughout this study, for example, public officials played a large role in sponsoring investigations into accidents, conducting industry studies and in convening industry members to collaborate on matters of public concern. In reading over reports and transcripts of many of these proceedings, it struck me that the informational flow went in several directions at once. To be sure industry and governmental officials learned a good deal of what each other was thinking, but more interesting was the information flow between and among members of the same and different industries and how those flows led to the development of new designs, practices and standards. These new designs, practices and standards, in turn, became the basis for new choices by elected officials. All of these are matters for further reflection, research and investigation.

### Suggestions for Agency Reform

The final set of questions I want to consider is this: What do these results say to someone interested in reforming either of the two agencies or working in either of these two policy areas. I have two comments.

First, government agencies can play an important role in developing and disseminating information about public policy to the public and to private interests. A good deal of the activity pertinent to rulemaking takes place outside of these agencies, and for government-sponsored information to matter, it needs to be available outside of government agencies. To influence the form of future regulations, government officials, activists and lobbyists need work to change “voluntary practices” at industry conferences or standard setting proceedings. Government agencies draw on these “voluntary practices” as they consider new regulations. Government agencies already do sponsor informational development and dissemination, but it does no harm to note this is a practice worth preserving and augmenting.

Second, agencies need to be attentive to their press and the press coverage about the policy area in their domain. Compared to mass media sources, the specialized press or government reports are often a better source of information about events. Indeed, the mass media may be a crummy way to find out what other people – especially the mass public – are thinking. However, the mass media are widely used by this purpose for policy elites.

More to the point, the press matters in policy deliberations not for the contents of its reporting, but for beliefs it creates about what other people are thinking. Those beliefs have very real consequences, and it seems a careful policymaker or someone seeking to influence a policymaker would be attentive to spin placed on news by the press. Again, this suggestion will come as no surprise to public relations professionals, but it may be worth heeding in the reflecting on the development of public policy.

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## Appendix - Article Count Data

Throughout the text, I make reference to “article counts.” This appendix describes those counts. First, it discusses how I collected the raw data and then coded that data into variables. Second, it contains my assessment on the reliability of this data collection and coding into variables. Finally, it addresses the validity of these article count variables as a measure of media attention to aviation.

### Collection and Coding

To build a list of articles for further analysis, I consulted the *print* version of *The Readers' Guide to Periodical Literature* for the years, 1975-1996. A listing of the more significant subject headings that I used to search for articles on aviation-related topics appears at Table A.1. In general terms, I searched for articles under aviation-related headings from “aerospace industry” to “avionics,” plus some selected other terms. Besides using a primary list of subject headings, I also checked the “see also” headings under entries related to specific airlines. For each article included, I noted the subject heading under which I found it, the article’s title, its month and year of publication, and the periodical or periodical type in which it appeared. In this way, I found 9294 entries. After removing duplicate or multiple entries for the same article, this search yielded 7278 articles.<sup>624</sup>

To convert the entries into dichotomous variables describing the articles, I answered yes or no questions about the content of each article. A list of these questions appears in Table A.2. I answered the questions based on the title of the article, the keyword under which it was indexed and the periodical in which it appeared. After I finished this coding, I created variables describing media coverage by counting the number of "yes" answers in a particular period of interest, usually a month or a year. The count for each variable, by month, appears in Table A.3

### Reliability of Article Count Collection and Coding

Using the *Readers' Guide* as the basis for studies of mass media is not a technique free from controversy or difficulties. John Woolley, Cheryl Zollars and others have suggested several methodological difficulties inherent in using this source as a basis for study of mass media attention.<sup>625</sup> Althaus, Edy and Phalen, have raised similar points with respect to the Vanderbilt Television Archives.<sup>626</sup> On the other hand, Frank Baumgartner and Bryan Jones have used article count data from the *Readers' Guide* with some success. They considered the development of political agendas and the translation of items on those agendas into public policy.<sup>627</sup> In a later work, they applied their technique to the study of air transportation policy.<sup>628</sup> In the remainder of this section, I want to discuss how the analysis in this dissertation addresses these standard methodological criticisms. I want to compare this study of media coverage on air transportation to the 1994 Baumgartner and Jones study, and I would like to address the reliability of the variable coding used in this study.

The warnings offered by Cheryl Zollars to anyone conducting or using a media study based on entries in the *Readers' Guide* are now familiar to researchers relying on this source. First, not all periodicals indexed in the *Reader's Guide* are "popular" periodicals that reach a broad audience. Many of the periodicals lack "large or even national circulations . . . . Several have been targeted to audiences with a specialized interest, skill or knowledge base—of a serious amateur, professional or even academic level." In addition, over time, the number of periodicals indexed by *The Readers' Guide* has increased. Thus, researchers need to "control for this [increase] when measuring the change in the number of articles per subject heading." Finally, "Without testing," she warns, "an index's subject headings and subheadings should not be construed as necessarily reliable indicators of articles' topical distribution at anyone time or across time."<sup>629</sup>

In collecting articles for this study, I have attempted to address all three of these concerns. First, because my interest is in the perceptions of aviation reported to the mass public, I have excluded from consideration articles appearing in *Aviation Week & Space Technology* and *Flying*. Judging from the reputation of these periodicals and an examination of their content, I do not believe that these are periodicals widely read by the mass public. More importantly, the number and topic of articles appearing in them are far more likely to reflect the interest of readers in the aviation community than the interests of the mass public.

In their study of air transportation agenda setting, Baumgartner and Jones appeared to take a different view. They included entries from both of these periodicals studies in their work. As I made notations about the articles on

aviation, I could not help but observe the large proportion of articles from these two journals. For example, in 1994, (a year not included in the Baumgartner and Jones study) when Secretary Peña promised action on a new commuter rule, 79% of the entries listed under the heading "aviation" were references to articles appearing in *Aviation Week* or *Flying*.

Baumgartner and Jones coded articles in a significantly different way from that used here. Their results appear to reflect the consequences of their choice to include aviation periodicals. For example, they report that 47% of air transportation articles dealt with technology; 47% with rates, routes and regulation or industry economics and finance, and only 6% with safety.<sup>630</sup> By contrast, almost twice as many (11.6%) of the articles deal with safety.

A second type of problem noted by Zollars and others stems from a composition effect. The number of articles on a topic may appear to swell as the number of periodicals indexed in the *Readers' Guide* grows. This effect confounds analysis because it means that change in the frequency of articles indexed may be due to changes in the number of periodicals indexed rather than changes in the level of media coverage devoted to aviation. Woolley suggests using a "deflater" to offset increases in the number of articles because of inflation in the number of periodicals indexed.<sup>631</sup>

This study uses a different approach. It meets this problem of inflation in the number of periodicals by assessing variation in articles not only in terms of the aggregate number of articles indexed, but also in terms of the number of articles indexed in particular periodicals or well-defined classes of periodicals, *e.g.*, news magazines, business magazines, women's magazines, etc. The classes

of periodicals are set out in Table A.4. Unless otherwise noted, all periodicals in a particular class were indexed for the entire length of the study.

Major U.S. news magazines, *U.S. News & World Report*, *Time* and *Newsweek* by themselves make up one class of periodicals. *Business Week*, *Forbes* and *Fortune* make up a second category. Together, the articles on aviation-related topics in these periodicals make up just over half of the articles in the study. Because the composition of these two important classes of periodicals does not change, no changes in the number of articles can be ascribed to changes in the composition of periodicals indexed.

In other categories of periodicals, there may be a very slight composition effect. Table A.4 reports the periodicals entering and leaving each group over the course of the study. Only one periodical (*People's Weekly*) not indexed for the entire range of the study contributes more than one percent of the articles. Any other composition effect of consequence appears in the "Other" category. For the most part, changes in the number of entries in one category tend to be correlated with changes in other categories.

Table A.4 also reports the percentage of articles in the study coming from particular periodicals. The contribution of each class of periodical to the article pool is noted as well as contribution of periodicals contributing more than one percent of the articles. Six periodicals contributed just over half of the articles in the study. Examination of the contribution of these six periodicals, at three ten-year intervals, to the overall article pool for each of three years suggest that index inflation is not likely to be a serious problem in this study.

A final well-known difficulty with using the *Readers' Guide* to study the content of media coverage is that the "keywords" or "subject headings" used to index articles change over time. This study mitigates that difficulty in two ways. First, it uses an extremely broad selection of subject headings. (See Table A.1) Second, it uses a scheme of content codes in some measure independent of that set out by the headings. (See Table A.2.)

The expansiveness of the search is especially evident compared to the 1994 Baumgartner and Jones study. They reported finding 13,951 articles for the years 1900-1985.<sup>632</sup> This study has discovered more than half that number for a 22 year span. Moreover, by excluding from the count articles in *Aviation Week* or *Flying*, this study has excluded two large sources of *Readers' Guide* entries on aviation topics.

The complaint against making judgments about media coverage on the basis of the number of entries associated with any particular keyword or subject heading is this: the meaning of keywords or subject headings to an indexer may change unpredictably over the time included in a study. Thus, the counts are not of comparable things. For example, the meaning of a subject heading may change because indexers develop new keywords, create new topic headings or consolidate old ones.

The design of this article count meets this objection to comparability over time. The headings selected by indexers are immaterial to the analysis except for the clues that they offer as to article content. The scope of articles searched was quite comprehensive, and thus the fine-grained distinctions that an indexer might make as to article content are unimportant for judging changes in content



over time. Such changes are judged using the content variables discussed above and in Table A-2.

The construction of the variables used in much of the analysis presented in this dissertation turns on making judgments about the contents of individual articles. The information on which I made these judgments included the article's date, title, periodical and subject heading. I have tried to state the criteria by which I made these judgements as clearly as I can in Table A.2. Nevertheless, one insidious difficulty in analyzing the content of articles is that given the same title, subject heading and periodical, different people may draw different conclusions about the contents of an article.

The extent to which different people might "code" the same article differently was tested in two stages in three different ways. To conduct both tests, I drew a simple random sample of the entries that I had collected from the *Readers' Guide*. To test the basic coding framework, three other graduate students in political science coded the first 31 randomly chosen entries (two printed spreadsheet pages full) with respect to each of the variables in Table A.2. The students reported no difficulty in deciding how variables should be classified and indicated that there was no need to detail the variable headings further.

A second, more extensive test of the author's reliability in coding articles according to the criteria identified in Table A.2 followed this preliminary test. For this second stage test, two different coders were used. Both have completed college, but none have had any background in political science. They have

graduate degrees in other fields. They received no instruction in coding the variables except a lengthy letter of instruction.

In this second stage, five hundred randomly drawn entries were selected and sent to the coders. This amounts to 5.4% of the total number of entries. Table A.5 reports on the level of agreement between the coders and me in two ways. For each variable and coder, it reports the percentage of our agreement, and it reports the Brennan-Prediger  $\kappa_n$  statistic of intercoder reliability.<sup>633</sup> What we want to know is this: the extent to which different people making judgments about the contents of the same article on the same information according to the same criteria will agree in their judgements. Perhaps, the most obvious way of assessing the level of agreement between a particular coder and the author is examining the percentage of cases on which they agree.

An earlier version of the kappa statistic was devised by Cohen as an alternative way for assessing the extent of agreement between two people coding data. The problem with assessing reliability by examining the proportion of cases on which two coders agree is this: Some proportion of the agreement between the coders could be expected to occur by chance alone. The kappa statistic reports the proportion of intercoder agreement "*after* chance agreement is removed from consideration."<sup>634</sup>

The kappa statistic ranges from 0 to 1. Tables A.4 and A.5 report on the average level of intercoder agreement for each variable included in the study. While not outstanding, the range of agreement and the kappa statistics are acceptable. Disagreements in coding of variables were strikingly one-sided. That is, coders were much more likely than I was to find that the criteria in Table

A.2 were satisfied. This result means that the count variables constructed from the variable codings are an understatement of the number of articles on a topic, at least as compared to the view of those articles by the coders.

In neither Table A.5 the level of intercoder agreement is never as high as the ninety-five plus (95+%) of agreement reported by Baumgartner and Jones in their earlier work.<sup>635</sup> Perhaps the lower level of agreement is a consequence of differences in the backgrounds of coders. Perhaps, it comes from the wider variety of articles considered in this study as compared to the earlier one or from a greater care in the earlier study.<sup>636</sup> Precisely why the level of agreement is lower in this study is a matter for speculation, but in any case, the data collection and coding of variables is sufficiently reliable for further analysis.

## Validity

Some limited comparison of the collected data with another media data is possible. To do so, I searched the Vanderbilt Television Archive Index of Evening News<sup>637</sup> via the internet, year by year, for the years 1976 to 1996. In this manner, I conducted four very limited searches: "plane crash and CBS;" "plane crash and NBC;" "terrorism and CBS;" and "terrorism and NBC." After each search, I noted the number of entries. I did not examine the entries. For the classes of periodicals likely to contain at least some discussion of contemporary issues of aviation security and aviation security, I aggregated the number of articles to provide a count of each of these variables per year over the same period. Finally, I calculated the correlations between the numbers yielded by the

crude search of the Vanderbilt archives and those of the analysis described more fully above. These are presented separately in Tables A.6 and A.7

Even these quick and crude counts of new stories from the Vanderbilt Television archive have moderate to fairly high associations with counts of articles in news and business periodicals. Articles counts on safety are more strongly associated with network news stories on safety article counts on security are associated with stories on terrorism. Differences in the types of media, in the method of search, and in the indexing might well account for less than perfect correspondence between the two media streams. Still, while there are good reasons to expect differences in these two measures, this cross-check is sufficiently strong that it provides an additional assurance that the article count data are a reasonable and valid gauge of media coverage.

The count variables discussed in this appendix offer a reasonable way of assessing media coverage about aviation for the period of this study. While not the final word on the matter, the description of their construction and testing makes replication fairly easy. Although these variables do not meet ideal standards of reliability and validity, they should serve sufficiently well for the present study.

**Table A-1: Selected<sup>†</sup> Key Words Used in Search  
of *Readers' Guide to Periodical Literature* on aviation topics**

Aerospace industry	Airplanes, Home-built
Air bases	Airplanes, Jet
Air defenses	Airplanes, Light
Air freight	Airplanes, Military
Air lines	Airplanes, Private
Air navigation	Airplanes, Racing
Air pilots	Airplanes, Remodeled
Air Traffic Control	Airplanes, Restored
Air Travel	Airplanes, Rocket-powered
Air warfare	Airplanes, Short Take-Off and Vertical Landing (STOL)
Airline	Airplanes, Solar
Airlines	Airplanes, Supersonic
Airplane	Airplanes, Testing
Airplane engines	Airports
Airplane engines, jet	Airships
Airplane factories	Airspace Aviation
Airplane hijacking	Aviation and State
Airplane industry	Avionics
Airplanes	Collective Bargaining - Airlines
Airplanes in ... [several categories of activities]	Collective Labor Agreement - Airlines
Airplanes, Antique	Pan Am Flight 103 Disaster
Airplanes, Business	Terrorism
Airplanes, Experimental	United States - Federal Aviation Administration
Airplanes, Freight	
Airplane, Government	

† A complete list of keyword/subject headings yields 1068 such headings. Minor typographical differences count as different entries, and so a modest effort to adjust the total number of entries for typographical errors and differences has been made. Many of the keywords or subheadings are derivations of those listed above. Although there are other topics interspersed with those listed above, in general terms all of the topics begin with the term "aerospace industry" and continue through "avionics," plus the additional topics noted above. Also not included on this list are the names of airlines cross-referenced in the airlines, "See also," section.

<b>Table A-2: Instructions for Content Coding of Articles</b>	
<b>Variable name</b>	<b>Coverage and Directions for Coding</b>
<b>aviation safety</b>	<p><b>Is the article about safety when traveling by air?</b></p> <p>Coverage: Articles about safety traveling by air refer may be those where the title or subject heading refers to airplane crashes, accidents or "near-misses;" to death or injuries associated with airplane crashes or air travel or the risk of such deaths or injuries; to changes in airplanes, airports, air traffic controls or other aspects of aviation explicitly linked by the title or heading to increases or decreases in the risk of accidental death or injury to individuals traveling by air; or to aviation safety more generally. All such articles are coded "yes" (=1); all others are coded "no" (=0).</p> <p>For close cases, please keep in mind the following considerations. An article merely about the economic health or well-being of the industry or of particular airlines (from which safety concerns might be inferred but not stated) should be coded, "NO." Also, articles about intentional deaths or injuries on aircraft due to terrorist attacks should be coded "NO."</p>
<b>organized labor and aviation</b>	<p><b>Is the article about activity of unions in the airline industry?</b></p> <p>Coverage: Articles about collective bargaining, strike or contracts between any aviation union and its employer are included in this category. Articles might also concern attempts to unionize the workers in a particular airline or of the airline to thwart or hinder unionization. Articles might also concern reports or charges by unions that air transportation provided by a particular carrier is unsafe. Aviation unions are usually unions of air traffic controllers, pilots, flight attendants or mechanics and machinists although other types of aviation workers are unionized as well. All articles having these characteristics should be coded, "YES"=1. All others should be coded, "NO"=0.</p>
<b>military aviation</b>	<p><b>Is the article about the military aircraft or the use of air craft by the military?</b></p> <p>Coverage: Articles pertaining to the military aircraft includes articles about manufactures, designers or pilots of such aircraft, the technical specifications or characteristics of such aircraft; government budgeting for the design or purchase of such aircraft; the sale of such aircraft to foreign countries; or the use of such aircraft in military operations. It also includes military use of airlines for transporting soldiers or other personnel. All such articles are coded "yes" (=1); all others are coded "no" (=0).<sup>†</sup></p>
<b>aviation security</b>	<p><b>Is the article about aviation security?</b></p> <p>Coverage: Articles about aviation security include articles about terrorist attacks on airports or airplanes; hijackings; blowing up airplanes and the like. It also includes articles on efforts to prevent terrorist or other intentional destruction of aircraft such as passenger screening; use of explosives or fire arm detection systems; intelligence gathering and the like. Articles on the consequences of terrorist attacks are also apart of this category. All articles having these characteristics should be coded, "YES" =1. All others should be coded, "NO" =0.</p>
<p><sup>†</sup> One independent coder pointed out a typographical error in an earlier version of these directions that is corrected in this version. I do not believe that it affected the results.</p>	

Table A-3: Monthly Counts of Articles Appearing in *Readers Guide to Periodical Literature* on Selected Aviation Topics, by Type of Magazine, 1975-1996\*

topic journal / date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Jan, 1975	0	0	0	0	1	0	0	0
Feb, 1975	6	3	1	0	0	0	0	0
Mar, 1975	1	1	0	0	0	0	0	0
Apr, 1975	0	0	0	0	2	1	0	0
May, 1975	1	0	0	0	0	0	0	0
Jun, 1975	1	0	0	0	1	1	1	1
Jul, 1975	3	2	0	0	1	0	1	0
Aug, 1975	1	0	0	0	1	0	0	0
Sep, 1975	1	1	0	0	1	0	0	0
Oct, 1975	0	0	0	0	0	0	0	0
Nov, 1975	2	1	0	0	1	1	0	0
Dec, 1975	4	4	0	0	0	0	0	0
Jan, 1976	2	1	0	0	1	0	1	1
Feb, 1976	1	0	0	0	0	0	0	0
Mar, 1976	1	1	0	0	1	0	0	0
Apr, 1976	2	1	0	0	1	1	0	0
May, 1976	2	1	0	0	2	1	0	0
Jun, 1976	0	0	0	0	4	0	1	1
Jul, 1976	0	0	0	0	1	0	3	2
Aug, 1976	2	1	0	0	1	1	1	0
Sep, 1976	1	1	0	0	4	3	2	2
Oct, 1976	0	0	0	0	2	1	2	1
Nov, 1976	1	0	2	1	2	1	2	1
Dec, 1976	1	1	0	0	6	1	1	0
Jan, 1977	1	0	0	0	1	0	0	0
Feb, 1977	1	0	0	0	2	1	0	0
Mar, 1977	0	0	0	0	2	0	0	0
Apr, 1977	7	6	0	0	1	0	1	1

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
May, 1977	1	0	0	0	2	0	0	0
Jun, 1977	0	0	0	0	3	1	1	0
Jul, 1977	0	0	0	0	7	3	0	0
Aug, 1977	2	1	0	0	4	1	0	0
Sep, 1977	3	1	0	0	1	0	0	0
Oct, 1977	0	0	0	0	1	0	7	7
Nov, 1977	1	0	2	0	2	1	6	2
Dec, 1977	2	1	0	0	2	0	1	0
Jan, 1978	0	0	0	0	1	1	1	0
Feb, 1978	1	0	0	0	5	3	1	1
Mar, 1978	3	0	0	0	4	0	3	1
Apr, 1978	5	0	1	0	2	1	1	0
May, 1978	1	0	2	0	12	7	4	4
Jun, 1978	0	0	1	0	1	0	0	0
Jul, 1978	3	0	2	2	1	0	0	0
Aug, 1978	1	0	2	1	1	0	0	0
Sep, 1978	2	0	2	0	0	0	4	4
Oct, 1978	5	3	0	0	0	0	0	0
Nov, 1978	2	0	0	0	2	1	1	0
Dec, 1978	4	2	1	1	1	0	0	0
Jan, 1979	4	1	0	0	0	0	1	1
Feb, 1979	0	0	2	0	0	0	0	0
Mar, 1979	2	1	0	0	0	0	1	0
Apr, 1979	2	1	1	0	1	1	0	0
May, 1979	3	0	0	0	1	1	0	0
Jun, 1979	28	15	2	0	0	0	0	0
Jul, 1979	9	5	2	0	1	0	2	1
Aug, 1979	6	1	0	0	1	0	0	0
Sep, 1979	2	0	0	0	0	0	0	0



topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Oct, 1979	7	3	0	0	2	2	0	0
Nov, 1979	3	2	0	0	1	0	1	1
Dec, 1979	2	1	0	0	4	1	0	0
Jan, 1980	4	3	0	0	0	0	0	0
Feb, 1980	1	0	0	0	1	0	1	1
Mar, 1980	5	3	0	0	0	0	1	0
Apr, 1980	0	0	0	0	5	1	0	0
May, 1980	1	0	0	0	1	1	0	0
Jun, 1980	0	0	0	0	1	0	0	0
Jul, 1980	4	2	1	0	2	0	0	0
Aug, 1980	2	0	1	0	0	0	2	2
Sep, 1980	1	1	0	0	5	3	1	1
Oct, 1980	0	0	0	0	0	0	1	0
Nov, 1980	0	0	2	2	0	0	0	0
Dec, 1980	4	1	3	0	1	1	0	0
Jan, 1981	2	1	0	0	3	2	0	0
Feb, 1981	5	1	1	0	1	0	0	0
Mar, 1981	1	0	0	0	3	2	5	4
Apr, 1981	0	0	0	0	1	0	1	1
May, 1981	1	0	3	0	10	6	0	0
Jun, 1981	2	2	3	1	2	2	0	0
Jul, 1981	2	2	3	0	4	1	0	0
Aug, 1981	4	2	9	6	3	0	0	0
Sep, 1981	1	0	2	1	6	5	0	0
Oct, 1981	2	0	0	0	21	12	0	0
Nov, 1981	3	1	1	0	11	5	0	0
Dec, 1981	0	0	3	0	4	1	0	0
Jan, 1982	7	5	1	0	7	4	2	0
Feb, 1982	7	5	0	0	6	2	0	0

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Mar, 1982	1	1	1	1	2	0	1	1
Apr, 1982	1	0	0	0	2	1	0	0
May, 1982	2	0	1	1	1	0	0	0
Jun, 1982	1	0	3	0	1	1	0	0
Jul, 1982	3	3	0	0	4	0	0	0
Aug, 1982	1	1	3	1	3	1	3	0
Sep, 1982	7	4	0	0	3	0	1	0
Oct, 1982	3	0	0	0	0	0	0	0
Nov, 1982	4	0	0	0	0	0	0	0
Dec, 1982	2	1	1	0	1	0	0	0
Jan, 1983	3	0	1	0	1	1	1	1
Feb, 1983	0	0	0	0	5	2	1	0
Mar, 1983	2	0	2	0	3	0	0	0
Apr, 1983	2	1	0	0	4	1	0	0
May, 1983	2	2	1	1	0	0	1	1
Jun, 1983	6	3	0	0	1	0	0	0
Jul, 1983	1	0	0	0	2	2	1	1
Aug, 1983	4	1	1	0	1	1	4	4
Sep, 1983	2	2	3	0	2	1	1	1
Oct, 1983	1	0	5	3	3	2	0	0
Nov, 1983	2	1	2	0	0	0	0	0
Dec, 1983	4	1	1	0	2	2	2	2
Jan, 1984	3	1	2	0	1	0	0	0
Feb, 1984	1	0	1	0	2	1	0	0
Mar, 1984	1	1	0	0	0	0	0	0
Apr, 1984	4	1	2	0	0	0	0	0
May, 1984	2	1	1	1	2	2	0	0
Jun, 1984	2	0	1	0	1	0	0	0
Jul, 1984	3	1	3	1	1	1	0	0

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Aug, 1984	1	0	2	0	1	0	3	3
Sep, 1984	3	3	0	0	4	3	0	0
Oct, 1984	1	0	0	0	3	0	0	0
Nov, 1984	3	3	1	0	3	0	0	0
Dec, 1984	5	4	1	0	1	0	7	6
Jan, 1985	1	1	1	0	2	0	0	0
Feb, 1985	5	3	1	0	1	1	1	0
Mar, 1985	2	1	5	2	0	0	0	0
Apr, 1985	4	0	3	0	3	0	0	0
May, 1985	3	0	4	3	2	2	1	0
Jun, 1985	3	1	7	1	2	0	0	0
Jul, 1985	4	1	2	1	1	1	18	10
Aug, 1985	14	9	0	0	0	0	2	0
Sep, 1985	13	7	0	0	1	0	5	1
Oct, 1985	4	2	2	0	1	0	1	0
Nov, 1985	2	0	2	1	1	0	3	0
Dec, 1985	10	5	0	0	4	3	3	0
Jan, 1986	4	3	1	0	1	1	5	2
Feb, 1986	2	0	3	2	2	0	6	3
Mar, 1986	6	2	2	1	2	0	1	0
Apr, 1986	5	0	3	0	6	2	13	7
May, 1986	3	0	0	0	3	3	5	0
Jun, 1986	1	0	1	0	3	0	4	2
Jul, 1986	3	1	3	0	3	2	0	0
Aug, 1986	2	0	1	0	3	1	1	0
Sep, 1986	7	4	1	1	1	0	8	6
Oct, 1986	5	0	0	0	3	0	0	0
Nov, 1986	4	1	0	0	7	2	1	1
Dec, 1986	1	0	1	1	2	0	1	0

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Jan, 1987	9	4	0	0	1	0	1	1
Feb, 1987	1	0	3	1	4	0	0	0
Mar, 1987	1	0	2	0	1	0	0	0
Apr, 1987	2	0	3	1	1	0	0	0
May, 1987	0	0	1	0	4	0	1	0
Jun, 1987	3	1	1	0	3	1	0	0
Jul, 1987	6	5	1	0	3	2	1	0
Aug, 1987	12	8	3	2	0	0	0	0
Sep, 1987	3	2	1	0	1	0	2	2
Oct, 1987	2	1	1	0	0	0	2	0
Nov, 1987	4	1	1	1	5	3	1	0
Dec, 1987	3	0	0	0	2	0	8	7
Jan, 1988	6	1	0	0	2	0	2	1
Feb, 1988	0	0	1	0	0	0	3	0
Mar, 1988	2	1	0	0	1	0	1	1
Apr, 1988	5	3	0	0	1	0	8	5
May, 1988	11	7	3	2	3	2	5	1
Jun, 1988	6	2	0	0	3	1	1	0
Jul, 1988	3	2	1	0	3	0	0	0
Aug, 1988	10	3	1	0	2	0	1	0
Sep, 1988	6	4	0	0	4	2	1	0
Oct, 1988	3	0	0	0	0	0	0	0
Nov, 1988	9	3	1	0	2	0	0	0
Dec, 1988	5	1	1	0	3	2	2	2
Jan, 1989	2	1	0	0	4	2	16	10
Feb, 1989	3	1	1	0	4	1	5	2
Mar, 1989	11	4	6	3	3	1	5	4
Apr, 1989	5	0	3	0	3	1	2	0
May, 1989	2	0	2	0	1	0	3	2

topic journal / date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Jun, 1989	3	0	0	0	1	0	0	0
Jul, 1989	9	5	2	0	7	0	1	0
Aug, 1989	9	6	0	0	1	1	1	0
Sep, 1989	1	0	6	2	0	0	5	0
Oct, 1989	6	3	1	0	4	0	5	4
Nov, 1989	5	0	0	0	1	0	3	3
Dec, 1989	3	0	0	0	0	0	3	0
Jan, 1990	0	0	0	0	2	0	1	1
Feb, 1990	8	5	0	0	2	1	3	0
Mar, 1990	2	2	0	0	1	0	2	0
Apr, 1990	2	1	4	2	0	0	1	0
May, 1990	3	1	2	0	0	0	2	1
Jun, 1990	1	0	2	0	2	1	0	0
Jul, 1990	1	0	0	0	0	0	0	0
Aug, 1990	5	4	0	0	1	0	0	0
Sep, 1990	1	0	1	0	0	0	1	0
Oct, 1990	1	0	3	1	1	0	0	0
Nov, 1990	3	1	0	0	3	0	0	0
Dec, 1990	2	1	1	0	4	2	0	0
Jan, 1991	2	0	2	0	3	2	2	1
Feb, 1991	2	0	1	0	0	0	2	1
Mar, 1991	2	0	2	0	3	0	2	0
Apr, 1991	5	1	2	0	3	0	1	0
May, 1991	0	0	1	0	2	1	1	0
Jun, 1991	4	0	0	0	2	0	0	0
Jul, 1991	5	0	0	0	2	1	0	0
Aug, 1991	2	0	0	0	0	0	0	0
Sep, 1991	2	0	0	0	0	0	0	0
Oct, 1991	0	0	0	0	0	0	1	0

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Nov, 1991	2	0	0	0	3	0	6	4
Dec, 1991	1	0	1	0	0	0	1	0
Jan, 1992	1	0	0	0	2	1	2	0
Feb, 1992	2	0	0	0	1	0	0	0
Mar, 1992	4	0	0	0	2	0	4	2
Apr, 1992	8	3	0	0	2	1	4	2
May, 1992	2	1	0	0	1	0	2	0
Jun, 1992	2	0	0	0	2	0	1	0
Jul, 1992	4	0	0	0	1	0	1	1
Aug, 1992	0	0	1	0	0	0	1	0
Sep, 1992	4	0	0	0	4	0	3	0
Oct, 1992	3	2	0	0	4	0	3	0
Nov, 1992	2	0	0	0	2	0	0	0
Dec, 1992	1	0	0	0	0	0	1	0
Jan, 1993	5	0	0	0	4	1	0	0
Feb, 1993	4	0	0	0	2	0	0	0
Mar, 1993	1	0	0	0	4	1	1	0
Apr, 1993	5	0	1	0	3	1	0	0
May, 1993	0	0	0	0	0	0	0	0
Jun, 1993	2	0	0	0	2	0	0	0
Jul, 1993	5	1	1	0	1	0	1	0
Aug, 1993	2	0	3	0	0	0	3	0
Sep, 1993	2	1	0	0	2	0	0	0
Oct, 1993	3	0	2	0	3	0	2	0
Nov, 1993	3	0	5	2	2	0	2	0
Dec, 1993	3	0	5	1	1	0	3	1
Jan, 1994	1	1	2	2	0	0	0	0
Feb, 1994	0	0	0	0	0	0	0	0
Mar, 1994	0	0	2	0	2	1	2	0

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Apr, 1994	4	1	0	0	0	0	1	0
May, 1994	2	0	1	0	1	0	0	0
Jun, 1994	2	2	1	0	1	0	0	0
Jul, 1994	2	0	2	2	0	0	1	0
Aug, 1994	1	0	0	0	0	0	0	0
Sep, 1994	9	5	0	0	2	0	0	0
Oct, 1994	2	1	1	0	1	0	0	0
Nov, 1994	8	1	0	0	0	0	0	0
Dec, 1994	6	1	1	0	1	1	1	1
Jan, 1995	1	0	0	0	0	0	1	1
Feb, 1995	4	0	1	0	0	0	0	0
Mar, 1995	3	2	0	0	0	0	1	0
Apr, 1995	7	3	0	0	0	0	0	0
May, 1995	4	1	0	0	1	1	1	0
Jun, 1995	10	3	0	0	0	0	0	0
Jul, 1995	0	0	0	0	0	0	1	0
Aug, 1995	1	0	1	0	0	0	0	0
Sep, 1995	4	2	1	0	2	0	1	1
Oct, 1995	2	0	2	0	0	0	1	0
Nov, 1995	0	0	3	0	1	0	3	0
Dec, 1995	4	0	0	0	0	0	0	0
Jan, 1996	5	2	1	0	0	0	0	0
Feb, 1996	5	3	1	0	1	1	0	0
Mar, 1996	1	0	2	0	1	0	0	0
Apr, 1996	8	4	0	0	0	0	0	0
May, 1996	10	8	0	0	2	1	1	0
Jun, 1996	13	4	0	0	1	1	1	0
Jul, 1996	10	5	0	0	2	0	5	5
Aug, 1996	4	1	0	0	0	0	2	0

topic journal /date	aviation safety		organized labor		military aviation		aviation security	
	all	news	all	news	all	news	all	news
Sep, 1996	8	3	0	0	5	1	4	2
Oct, 1996	6	0	1	0	0	0	0	0
Nov, 1996	2	0	0	0	2	0	0	0
Dec, 1996	5	2	0	0	1	0	2	2

Variable definitions are as described in Table A.2. "All" refers to the count of all specified articles indexed in *Readers' Guide to Periodical Literature*. As noted in the text, articles appearing in *Aviation Week & Space Technology* or *Flying* are not included in this count.. "News" refers to that subset of articles appearing in a major news magazine, i.e., *Time*, *Newsweek* or *U.S. News & World Report*.



Table A-4: Periodical Groupings and Their Proportion of Total of Periodical Entries.				
Magazines in Category	Proportion of Entries, Selected Years			Proportion of Entries Noted in Study <sup>‡</sup>
	1976	1986	1996	
<b>Major U.S. News Magazines</b>				<b>27.5</b>
Newsweek	14.2	11.5	6.8	10.4
Time	13.5	10.4	6.8	7.2
U.S. News & World Report	6.7	10.0	7.4	9.9
<b>Journals of Opinion</b>				<b>8.8</b>
The Atlantic Commentary				
The Nation	1.5	0.7	1.5	
The National Review	1.5	1.7	1.8	1.6
The New Republic	1.9	1.5	2.5	1.3
The New Yorker				
New York Magazine (1978-end)				
The New York Times Magazine				
The Progressive				
Science				
The Scientific American				
Smithsonian				
Washington Monthly (1978-end)				
<b>Consumer Magazines</b>				<b>1.9</b>
Changing Times (1975-1991)				
Common Cause Magazine				
Consumer Research Magazine				
Consumer Reports				
Consumer Digest (1992-end)				
Kiplinger Personal Finance Magazine (1991-end)				
Money (1978-end)				
<b>Women's Magazines</b>				<b>1.6</b>
Glamour (1976-end)				
Good Housekeeping				
Mademoiselle				
MS (1977-end)				
Redbook				
Seventeen				
Vouge				
<b>Business Magazines</b>				<b>23.2</b>
Business Week	13.1	11.5	14.2	15.1
Forbes	2.6	4.3	2.5	4.8
Fortune	1.1	4.4	3.1	2.9
<b>Travel Magazines</b>				<b>2.6</b>
<b>Mass Readership Magazines</b>				<b>2.8</b>
People's Weekly (1978-1996)		1.5	2.8	1.5
Readers' Digest	2.6	1.1	0.3	1.4
<b>All others</b>	<b>34.5</b>	<b>34.9</b>	<b>39.1</b>	<b>31.6</b>
<b>Percent of Articles Noted in Index: from specified year.</b>	<b>3.7</b>	<b>7.4</b>	<b>4.5</b>	

<sup>‡</sup> Percentage of entries noted in study after duplicate entries were removed. Entries for magazines with less than one percent of the total noted in the study are not separately reported. Some magazines in the all others category, e.g., *MacLean's*, do comprise more than one percent of the total number of entries. As noted in the text, articles appearing in *Aviation Week & Space Technology* or *Flurry* are not included in this count.

<b>Table: A-5 Average Inter-coder Reliability Analysis of Variables based on Random Sample of 500 entries.</b>	
<b>Variable</b>	<b>Percentage of Agreement Brennan Prediger <math>\kappa_n</math>)</b>
<b>safety</b>	85.3% 0.71
<b>union</b>	93.2% 0.87
<b>military</b>	92.5% 0.87
<b>security</b>	77.1% 0.55

**Table A-6: Pairwise Correlations between Annual Counts of Articles in *Readers Guide to Periodical Literature* on aviation safety and Computer Search Counts of Network News Stories at Vanderbilt Television News Archive**

	"CBS" AND "plane crash"	"NBC" AND "plane crash"
All articles	0.72*	0.70*
Articles in news magazines	0.72*	0.65*
Articles in journals of opinion	0.36	0.40
Articles in mass market magazines	0.14	0.28
Articles in business magazines	0.77*	0.74*
* Probability that true value of coefficient equals zero is equal to or less than 0.05.		

**Table A-7: Pairwise Correlations between Annual Counts of Articles in *Readers Guide to Periodical Literature* on aviation security and Computer Search Counts of Network News Stories at Vanderbilt Television Archive**

	"CBS" AND "terrorism"	"NBC" AND "terrorism"
All articles	0.44*	0.47*
Articles in news magazines	0.45*	0.44*
Articles in journals of opinion	-0.16	-0.11
Articles in mass market magazines	-0.08	-0.08
Articles in business magazines	0.48	0.48
* Probability that true value of coefficient equals zero is equal to or less than 0.05.		

## Endnotes

### (Chapter One: Introduction)

1. Stacy Schiff, "Perpendicular Lives," *The American Scholar* 68(Spring, 1999): 51-60, 54.
2. For literature reviews of the topic, see *e.g.*, Paul Burstein, "Bringing the Public Back In: Should Sociologists Consider the Impact of Public Opinion on Public Policy," *Social Forces* 77(1998): 27-62; Robert Y. Shapiro and Lawrence R. Jacobs, "The Relationship between Public Opinion and Public Policy: A Review. In Samuel Long, ed., *Political Behavior Annual* Vol. 2. Boulder: (Boulder, Colorado: Westview Press, 1989) pp. 149-79 Monroe, Alan D. Monroe and Paul Jr. Gardner, "Public Policy Linkages," In Samuel Long, ed., *Research on Micropolitics, II*. (Greenwich: JAI Press, 1987), pp. 207-32. A thorough critique of studies in this genre appears in Robert Weissberg, *Public Opinion and Popular Government* (Englewood Cliffs: Prentice-Hall, Inc., 1976).
3. Bernard R. Berelson, Paul F. Lazarsfeld, and William McPhee, *Voting: A Study of Opinion Formation in a Presidential Campaign* (Chicago, Illinois: University of Chicago Press, 1954), p. 251.
4. V.O. Key, Jr., *Public Opinion and American Democracy* (New York: Alfred A. Knopf, 1964), p. 374. Key does observe that there was no large scale study of the media available – and he suggested the safest conclusion was that the media reinforced the status quo. *Id.*, p. 396.
5. Benjamin I. Page, *Who Deliberates: Mass Media in Modern Democracy*. (Chicago, Illinois: University of Chicago Press, 1996), p. 123.
6. Anthony Downs, *An Economic Theory of Democracy* (New York: Harper & Row Publishers, 1957), pp. 226, 235-6.
7. *Id.*, p. 214.
8. John G. Geer *From Tea Leaves to Public Opinion: A Theory of Democratic Leadership* (New York: Columbia University Press, 1996), p. 37.
9. *Id.*, p. 10.
10. Lawrence R. Jacobs, *The Health of Nations: Public Opinion and the Making of American and British Health Policy* (Ithaca: Cornell University Press, 1993).

11. Lawrence R. Jacobs, Eric D. Lawrence, Robert Shapiro, and Steven S. Smith. 1998. "Congressional Leadership of Public Opinion," *Political Science Quarterly* 113(1998): 21-41; Lawrence R. Jacobs and Robert Shapiro, *Politicians Don't Pander: Political Manipulation and the Loss of Democratic Responsiveness* (Chicago, Illinois: University of Chicago Press, 2000).
12. Bruce Russett, *Controlling the Sword: The Democratic Governance of National Security* (Cambridge: Harvard University Press, 1990)
13. Theda Skocpol, *Boomerang: Health Care Reform and the Turn Against Government* (New York: W.W. Norton & Company, 1997).
14. For memoirs and histories, see, e.g., Dick Morris, *Behind the Oval Office: Winning the Presidency in the Nineties* (New York: Random House, 1997). Other presidential pollsters in this vein include Lou Harris and Hadley Cantril. See, Hadley Cantril, *The Human Dimension: Experiences in Policy Research* (New Brunswick: Rutgers University Press, 1967); Louis Harris, "Polls and Politics in the United States," *Public Opinion Quarterly* 27(1963)3-8. More scholarly investigations on presidential use of polls include: Richard S. Beal and Ronald H. Hinckley, "Presidential Decisionmaking and Opinion Polls," *Annals of the American Academy of Social Science: Polling and the Democratic Consensus*. 472(1984): 72-84; Jean M. Converse, *Survey Research in the United States: Roots and Emergence, 1890-1960* (Berkeley: University of California Press, 1987); Lawrence R. Jacobs and Robert Y. Shapiro. "The Rise of Presidential Polling," *Public Opinion Quarterly* 59(1995): 163-95; Seymour Sudman, "The Presidents and the Polls," *Public Opinion Quarterly* 46 (1982): 301-10.
15. See e.g., Walter F. Murphy and Joseph Tanenhaus, "Public Opinion and the United States Supreme Court," *Law and Society Review* 2(1968): 357-82.
16. See e.g., Jeffrey. Brooks, *Thank You, Comrade Stalin* (Princeton: Princeton University Press, 2000)
17. Bernard C. Cohen, *Democracies and Foreign Policy: Public Participation in the United States and the Netherlands*. Madison, Wisconsin: The University of Wisconsin Press, 1995); Bernard C. Cohen, *The Public's Impact on Foreign Policy* (Boston: Little, Brown, 1973); Bernard C. Cohen, "The Relationship Between Public Opinion and the Foreign Policy Maker," in Melvin Small, ed. *Public Opinion and Historians: Interdisciplinary Perspectives* (Detroit, Michigan: Wayne State University Press, 1970) 65-80; Bernard C. Cohen, *The Political Process and Foreign Policy: The Making of the Japanese Peace Settlement* (Princeton, New Jersey: Princeton University Press, 1957).
18. Susan Herbst, *Reading Public Opinion: How Political Actors View the Democratic Process* (Chicago, Illinois: University of Chicago Press, 1998), pp. 150-152.
19. Albert Venn Dicey, *Lectures on the Relation Between Law and Public Opinion in England During the Nineteenth Century* [1905] 2nd ed., Richard A. Cosgrove, ed., (New Brunswick, New Jersey: Transaction Books, 1981).

20. James A. Stimson Michael B. MacKuen, and Robert S. Erikson, "Dynamic Representation," *American Political Science Review* 89(1995): 543-65.
21. Morris P. Fiorina, *Retrospective Voting in American National Elections* (New Haven, Connecticut: Yale University Press, 1981), p. 3 [Footnotes omitted.]
22. David R. Maythew *Congress: The Electoral Connection* (New Haven: Yale University Press, 1974), pp. 17, 45.
23. V. O. Key, Jr., *Politics, Parties and Pressure Groups*, 4<sup>th</sup> ed., (New York: Thomas Y. Crowell Company, 1950), p. 108.
24. Avery Leiserson, *Administrative Regulation: A Study in Representation of Interests* (Westport, Connecticut: Greenwood Press, 1975), p. 3.
25. E. Pendleton Herring, *Public Administration and the Public Interest* (New York: McGraw-Hill Book Company, 1936), p. 29.
26. David B. Truman, *The Governmental Process: Political Interests and Public Opinion*. (New York: Alfred A. Knopf, 1951), p. 75.
27. Truman, *The Governmental Process*, *supra*, p. 384-385; 463.
28. E. E. Schattschneider, *The Semisovereign People: A Realist's View of American Democracy*. (Hinsdale, Illinois: The Dryden Press, 1960).
29. Christopher J. Bosso, *Pesticides and Politics: The Life Cycle of a Public Issue* (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1987).
30. John Mark Hansen, *Gaining Access: Congress and the Farm Lobby, 1919-1981* (Chicago: The University of Chicago Press, 1991).
31. Matthew D. McCubbins, Roger Noll and Barry Weingast, "Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies," *Virginia Law Review* 75(1989)431-482, 444.
32. V. O. Key, Jr., *Public Opinion and American Democracy* (New York: Alfred A. Knopf, 1964), pp. 557-9.
33. Cf Terry M. Moe, "An Assessment of the Positive Theory of 'Congressional Dominance,'" *Legislative Studies Quarterly* 12(1987): 475-520; James Q. Wilson, *Bureaucracy: What Government Agencies Do and Why They Do It* (New York, Basic Books, 1989), pp. 254-256.
34. The definition used here at odds with definitions of public opinion that others have used. At its core is the idea of aggregated individual beliefs or attitudes distributed throughout society without reference to any organization. Those beliefs may be magnified or diminished by the media, and media attention may be an important indicator of what public opinion is. However, this definition precludes consideration of discourse in the media *as* public opinion in the sense suggested by Habermas. Cf Jürgen Habermas, (trans. Thomas Burger.)

*The Structural Transformation of the Public Sphere: An Inquiry into A Category of Bourgeois Society* (Cambridge, Massachusetts: MIT Press, 1989). In a similar way, individuals holding particular beliefs or attitudes may be marshaled or dispersed by groups or elites. Such group activity is an indication of public opinion, but it is not as Blumer suggested, public opinion itself. Cf. Herbert Blumer, "Public Opinion and Public Opinion Polling," *American Sociological Review* 13(1948): 331-44.

35. H. L. A. Hart, *The Concept of Law*, 2<sup>nd</sup> ed. Clarendon Law Series. (Oxford: Clarendon Press, 1994).

36. See e.g., Samuel Krislov, *How Nations Choose Product Standards and Standards Change Nations* (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1997); David Vogel, *National Styles of Regulation* (Ithaca: Cornell University Press, 1986).

37. Max Weber, *Economy and Society: An Outline of Interpretative Sociology*. 4th edition, Gunther Roth and Claus Wittich, editors, Volume One (Berkeley, California: University of California Press, 1978), p. 311-337; Volume Two, 758-760.

38. The policy process model presents policy as developing through time. This model has evolved through the work of a good number of political scientists, most especially Charles O. Jones. For a summary of the contributions leading to this model, see Stella Z. Theodoulou and Matthew A. Cahn, "How Public Policy is Made," *Public Policy: The Essential Readings*. eds Stella Z. Theodoulou, and Matthew A. Cahn, 86-96. (Englewood Cliffs, New Jersey: Prentice Hall, 1995), pp. 86-96. For a summary and a critique see, Hank C. Jenkins-Smith and Paul C. Sabatier, "The Study of the Public Policy Processes," *Policy Change and Learning: An Advocacy Coalition Approach*. eds Hank C. Jenkins-Smith, and Paul C. Sabatier, (Boulder, Colorado: Westview, 1993), pp. 1-9. Policy feedback models also use this sense that policy develops. See e.g., Peter A. Hall, "Policy Paradigms, Social Learning, and the State," *Comparative Politics* 25(1993): 275-96; Paul Pierson, *Dismantling the Welfare State? Reagan, Thatcher and the Politics of Retrenchment* (New York: Cambridge University Press, 1994).

39. Hugh Heclo, *Modern Social Politics in Britain and Sweden: From Relief to Income Maintenance*. (New Haven, Connecticut: Yale University Press, 1974); Anthony King, *Running Scared: Why America's Politicians Campaign Too Much and Govern Too Little* (New York: Martin Kessler Books, The Free Press, 1997); Paul J. Quirk and Joseph Hinchliffe, "The Rising Hegemony of Mass Opinion," *Journal of Policy History* 10(1998):1-31.

40. Andrew Abbott, *The System of Professions: An Essay on the Division of Expert Labor*. (Chicago: University of Chicago Press, 1988), pp. 8-9; 52-57.

41. *Id.* at p. 60. Abbot, Brint and others make a related point. At some fundamental level, the deference accorded to professional (or expert) judgment depends on the legal system and ultimately, on public opinion. Steven Brint, *In an Age of Experts: The Changing Role of Professionals in Politics and Public Life*. (Princeton, New Jersey: Princeton University Press, 1994).

This twist means public opinion may shape both public policy and the scope of expertise at the same time.

42. Frank R. Baumgartner and Beth L. Leech, *Basic Interests: The Importance of Groups in Politics and in Political Science* (Princeton, New Jersey: Princeton University Press, 1998), pp. 25-30.

43. Benjamin I. Page, Robert Y. Shapiro, and Glenn R. Dempsey. "What Moves Public Opinion?" *American Political Science Review* 81(1987): 23-43; Diana Mutz, *Impersonal Influence: How Perceptions of Mass Collectives Affect Political Attitudes*. (New York: Cambridge University Press, 1998); John Zaller *The Nature and Origins of Mass Opinion* (New York: Cambridge University Press, 1992)

44. See e.g., Roger G. Noll, "Reforming Risk Regulation," *Annals of the American Academy of Political and Social Science* 545(1996): 165-75. Of course, informational level is also sometimes modeled as a condition rather than a commodity.

45. See e.g., Howard Margolis, *Dealing with Risk: Why the Public and Experts Disagree on Environmental Issues*. (Chicago: University of Chicago Press, 1996) Margolis argues that the differences occur because of differences in pattern recognition, that is, in training and experience between experts and members of the public.

46. Theodore J. Lowi, "Risks and Rights in the History of American Governments," *Daedalus* 119(1990): 17-40. Lowi argues that the differences occur because of differences in the level or unit of analysis that experts use (society) as compared with that used by members of the public (individual). Aaron Wildavsky and Karl Dake, "Theories of Risk Perception: Who Fears What and Why?" *Daedalus* 119(1990):41-60. Wildavsky & Dake argue that these differences occur because of differences in cultural position. Wildavsky makes the same point in Mary Douglas and Aaron Wildavsky, *Risk and Culture: An Essay on the Selection of Technical and Environmental Hazards* (Berkeley: University of California Press, 1982). Mary Douglas, "Risk as Forensic Science." *Daedalus* 119(1990): 1-16.

47. Benjamin Page and Robert Shapiro, *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. (Chicago: University of Chicago Press, 1992)

48. Frank R. Baumgartner and Bryan D. Jones, *Agendas and Instability in American Politics* (Chicago, Illinois: University of Chicago Press, 1993).

49. Michael X. Delli Carpini and Scott Keeter, *What Americans Know About Politics and Why It Matters*. (New Haven, Connecticut: Yale University Press, 1996).

50. Philip E. Converse, "Attitudes and Non-Attitudes: Continuation of a Dialogue," in Edward R. Tufte, *The Quantitative Analysis of Social Problems* (Reading, Massachusetts: Addison-Wesley Publishing Company, 1970), pp. 168-189.

51. Walter Lippman, *Public Opinion* [1921] (New Brunswick: Transaction Publishers, 1991), p. 229.



52. Walter Lippmann, *The Phantom Public: A Sequel to 'Public Opinion'*. (New York: The Macmillan Company, 1927), p. 69.
53. See pp. 61-63, 148-153, 192-199, *infra*.
54. See pp. 63-66, 135-162, 182-192, *infra*.
55. See pp. 73-74, 147-148, 206-210, *infra*.
56. See pp. 74, 156-158, 199-200, *infra*.
57. See pp. 73, 175-182, *infra*.
58. See pp. 73, 200-204, *infra*.
59. See pp. 66-69, 135, 204-206, *infra*.
60. See pp. 73, 135, 210-216, *infra*.
61. See pp. 73, 94-112, 175-182, *infra*.
62. See pp. 48-58, *infra*. The referenced studies are summarized on Table 2-2.
63. See pp. 69-72, 221-235, *infra*.

(Chapter Two: The News on Risk)

64. Page, Shapiro, and Dempsey. "What Moves Public Opinion?" *supra*; Mutz, *Impersonal Influence, supra*; Zaller *Nature and Origins of Mass Opinion, supra*.
65. Mutz, *Impersonal Influence, supra*.
66. Karen Frost, Erica Frank and Edward Maibach, "Relative Risk in the News Media: A Quantification of Misrepresentation," *American Journal of Public Health* 87(1997):842-45, p. 843. Cf. Peter Jacobson, "Mortality and the Media," *American Journal of Public Health* 88(1998):1267.
67. Barbara Combs and Paul Slovic, "Causes of Death: Biased Newspaper Coverage and Biased Judgments," *Journalism Quarterly* 56(1979): 937-843, 849, pp. 840,841.
68. Eleanor Singer and Phyllis M. Endreny, *Reporting on Risk: How the Mass Media Portray Accidents, Diseases, Disasters, and Other Hazards* (New York: Russell Sage Foundation, 1993), pp. 52-53.
69. *Id.*, p. 52, Table 3.4.
70. These are maintained by and are available from the web sites of the Federal Aviation Administration and the National Transportation Safety Board.

71. Daniel S. Balis and Robert J. MacCoun "Estimating Liability Risks with the Media as Your Guide: A Content Analysis of Media Coverage of Tort Litigation," *Law and Human Behavior* 20(1996): 419-29, p. 422.
72. Deborah Hensler, M. Susan Marquis, Allan F. Abrahamse, Sandra H. Berry, Patricia A. Ebener, Elizabeth G. Lewis, E. Allan Lind, Robert J. MacCoun, Willard G. Manning, Jeanette A. Rogowski, and Mary E. Vaiana, *Compensation for Accidental Injuries in the United States.* (Santa Monica, California: Rand Institute for Civil Justice, 1991), pp. 121-129, Tables 5.2 and 5.5. See also, A. Russell Localio, Ann G. Lawthers, Troyen A. Brennan, Nan M. Laird, Liesi Hebert, Lynn M. Peterson, Joseph Newhouse, Paul C. Weiler, and Howard H. Hiatt. 1991. Relation Between Malpractice Claims and Adverse Effects Due to Negligence: Results of Harvard Medical Practice Study, III. *The New England Journal of Medicine* 325, no. 4: 245-51; Balis and MacCoun, "Estimating Liability Risks, *supra*, pp. 424-425.
73. Steven Garber and Anthony G. Bower, "Newspaper Coverage of Automotive Product Liability Verdicts," *Law & Society Review* 33(1999): 93-121.
74. Garber and Bower, "Newspaper Coverage," *supra*, p. 101.
75. *Id.*, p. 113, Table 5.
76. A few words on the details are especially pertinent to the analysis of this section. Each of the entries was coded on two matters: whether it concerned military aviation and whether it concerned aviation safety. The precise questions and rules for making judgments about the articles based on the information contained in its entry are also part of the Appendix. Judgments on all both matters were made independently of each other. That is, an article might implicate matters of military aviation, aviation safety, both or neither. For a more general discussion on the problems of using the Readers' Guide in studies of media coverage, see Cheryl Zollars, "The Perils of Periodical Indexes: Some Problems in Constructing Samples for Content Analysis and Culture Indicators in Research," *Communication Research* 21(1994): 698-716; John T. Woolley, "Using Media-Based Data in Studies of Politics," *American Journal of Political Science* 44(2000): 156-73.
77. National Transportation Safety Board, *Survivability of Accidents Involving Part 121 U.S. Air Carrier Operations 1983 Through 2000.* (Washington, D.C., 2001): Safety Report NTSB/SR-01/01.
78. Timothy E. Cook, *Governing with the News: The News Media as a Political Institution.* (Chicago, Illinois : The University of Chicago Press, 1998), p. 2; Leon V. Sigal, *Reporters and Officials: The Organization and Politics of Newsmaking,* (Lexington, Massachusetts: D.C. Heath and Company, 1973), p. 4; Bartholomew Sparrow, *Uncertain Guardians: The News Media as a Political Institution* (Baltimore, Maryland: The Johns Hopkins University Press, 1999), p. 10.
79. Douglass Cater, *The Fourth Branch of Government* (Boston, Massachusetts: Houghton Mifflin Company, 1959), p. 11.

80. *Id.*
81. Ben H. Bagdikian, *The Media Monopoly*, 5th edition, (Boston, Massachusetts: Beacon Press, 1997), p. 134.
82. Sigal, *Reporters and Officials*, p. 104.
83. Cook, *Governing with the News*, 71-75.
84. *Id.*, pp. 91-97.
85. Stephen Hess, *The Washington Reporters* (Washington, D.C.: The Brookings Institution, 1981) Cook, *Governing with the News*, p. 71; Lippmann, *Public Opinion*, *supra*, pp. 338-340.
86. Cook, *Governing with the News*, pp. 38-60.
87. Philip J. Powlick, "The Sources of Public Opinion for American Foreign Policy Officials," *International Studies Quarterly* 39(1995): 427-51. See also, Jacobs and Shapiro, *infra* at pp. xv.
88. James Fallows, *Breaking the News: How the Media Undermine American Democracy*. (New York: Vintage Books, 1997), p. 187-88.
89. William Greider, *Who Will Tell the People: The Betrayal of American Democracy* (New York: Simon & Schuster, 1992), p. 299.
90. The references cited in Table 2-2 are: Jane Delano Brown, Carl R. Bybee, Stanley T. Wearden, and Dulcie Murdock Straughan, "Invisible Power: Newspaper News and the Limits of Diversity," *Journalism Quarterly* 64(1987): 45-54; Lucig H. Danielian, and Benjamin I. Page, "The Heavenly Chorus Years: Interest Group Voices on T.V.," *American Journal of Political Science* 38(1994): 1056-78; Herbert J. Gans, *Deciding What's News: A Study of CBS Evening News, NBC Nightly News, Newsweek, and Time* (New York: Pantheon Books, 1979); Susana Hornig, Lynne Walters, and Julie Templin, 1991. "Voices in the News: Newspaper Coverage of Hurricane Hugo and the Loma Prieta Earthquake," *Newspaper Research Journal* 12(1991): 32-45; William Hoynes and William Croteau, "Are You on the Nightline Guest List?" *Extra!* 2:(1989):2-15; Dominic L. Larosa and Stephen D. Reese, "New Source Use in the Crash of 1987: A Study of Four National Media," *Journalism Quarterly* 67(1990): 60-71. Charlotte Ryan, "A Study of National Public Radio," *Extra!* 6(1993):18-26; Sigal, *Reporters and Officials*; D. Charles Whitney, Marilyn Fritzler, Steven Jones, Sharon Mazzarella, and Lana Rakow, "Geographic and Source Bias in Network Television News, 1982-1984," *Journal of Broadcasting & Electronic Media* 33(1989): 159-74.
91. Siegal, *Reporters and Officials*, p. 120.
92. Hess, *Washington Reporters*, p. 99. Emphasis in original.

93. Harvey Molotch and Marilyn Lester, "News as Purposive Behavior: On the Strategic Use of Routine Events, Accidents and Scandals," *American Sociological Review* 39 (1974): 101-12.
94. Bryan D. Jones, James L. True, and Frank R. Baumgartner, "Does Incrementalism Stem From Political Consensus or Institutional Gridlock," *American Journal of Political Science* 41(1997): 1319-39.
95. Matthew D. McCubbins, "Government on Lay-Away: Federal Spending and Deficits Under Divided Party Control," In Gary W. Cox, and Samuel Kernell, eds., *The Politics of Divided Government* (Boulder, Colorado: Westview Press, 1991), pp. 113-53.
96. George C. Edwards, III, Andrew Barrett, and Jeffrey Peake, "The Legislative Impact of Divided Government," *American Journal of Political Science* 41 (1997): 545-63.
97. David R. Maythew, *Divided We Govern: Party Control, Law Making and Investigations, 1946-1990* (New Haven, Connecticut: Yale University Press, 1991)
98. Samuel Kernell, "Facing an Opposition Congress: The President's Strategic Circumstance," In Gary W. Cox, and Samuel Kernell, eds., *The Politics of Divided Government*. (Boulder, Colorado: Westview Press, 1991), pp. 87-112.
99. Downs, *An Economic Theory of Democracy*, *supra*, p. 55.
100. Flight International is a publication of Reed Business Information. Each year in late January or early February, it publishes a review of aviation accidents. Although not free from criticism – the inclusion of reports from the United States, the United Kingdom and Western Europe over-emphasizes accidents in those countries in comparison with accidents from areas with less regular communication or less reliable aviation authorities. Todd Curtis, "Airline Accidents and Media Bias: *New York Times*. 1978-1994," Web page, [accessed 18 November 2000]. Available at [http://airsafe.com/nyt\\_bias.htm](http://airsafe.com/nyt_bias.htm).
101. Which of these similar events – airline accidents – are reported and which are not reported is a pure empirical question. This study has not offered and does not rely on anything more than hunches in its coding of accident characteristics.
102. Gary King, "Statistical Models for Political Science Event Counts: Bias in Conventional Procedures and Evidence for the Poisson Regression Model." *American Journal of Political Science* 32(1988): 762-84; Gary King, "Variance Specification in Event Count Models: From Restrictive Assumptions to a Generalized Estimator." *American Journal of Political Science* 32(1989): 838-63. Although the Poisson model is "the benchmark" for the analysis of count data, it represents only one member of a broader class of regression models. Cameroon and Trivedi, *Regression Analysis of Count Data*, *supra*, p. 347. Poisson regression is suitable when the mean of a count equals its variance. When the variance exceeds the mean, a Poisson-like regression model, the negative binomial model,

makes possible regression of "over-dispersed" count data by estimating an additional parameter: the multiple by which the variance exceeds the mean. Negative binomial regression, like Poisson regression, has found some limited application in political science. It has been used to explore congressional behavior, Charles Stewart, *Let's Go Fly a Kite: Correlates of Involvement in the House Bank Scandal*, *Legislative Studies Quarterly* 19(1994): 521-35, presidential executive orders, Kenneth R. Mayer, "Executive Orders and Presidential Power," *Journal of Politics* 61 (1999): 445-66; and vetoes Todd G. Schields and Chi Huang, "Presidential Vetoes: An Event Count Model," *Political Research Quarterly* 48(1995): 559-72. Usually, the parameter of dispersion has been interpreted as the extent or degree of contagion of unmeasured influences from one period to the next.

Just as with normally distributed data, there will be issues of time dependence in count data. The basic problems of stationarity and serial correlation are similar for count models to what they are in more typical regression models. Formal resolution of these matters is a relatively novel question. Indeed, Brandt and Williams note that issues of time-dependent error in event count models are simply not addressed in most studies of social and political phenomena. Patrick T. Brandt, John T. Williams, and Benjamin Fordham, "Modeling Time Series Count Data: A State-Space Approach to Event Counts," Society for Political Methodology Meeting, University of California at San Diego, July 22-26, 1998. Patrick T. Brandt, John T. Williams, Benjamin O. Fordham and Brian Pollins, "Dynamic Modeling for Persistent Event-Count Time Series," *American Journal of Political Science* 44(2000): 823-843. As matters turned out, these potential problems appear not to be serious in the present analysis. Issues of time-dependent observations are discussed along with the results of the analysis.

103. Two characteristics of the results confirm the choice of a negative binomial regression model as the appropriate functional form. For a time series of data, inspection of the figure shows the data at or close to zero for a good deal of their range. This finding, together with the reflection that a count of events may not be observed as having a value of less than zero, indicates that some sort of event count model is necessary to summarize these data adequately. Moreover, there is no discernable drift or trend in the data or the whole period of this study. This observation suggests that this time series is stationary and that a more sophisticated count model is not required.

This preliminary choice of functional form is seconded by the results of the regression analysis. Table 2-3 indicates the natural logarithm of  $\alpha$ , the dispersion parameter. For all the models, the logarithm of this parameter exceeds zero. When  $\ln\alpha=0$ , the variance of the count data equals its mean, and thus the data is Poisson distributed. A likelihood-ratio test indicates the probability that these data follow a Poisson distribution is less than one in ten thousand. Thus, analysis by a negative binomial model is appropriate.

The next tasks in assessing the regression models of Table 2-3 is asking whether the covariates in the regression models improve on a "dumb" prediction, and if so, by how much. The likelihood ratio test indicates whether a variable or set of variables increases the likelihood estimate by a "significant" amount. This test is akin to the F-test of ordinary least squares regression although here the test statistic has a Chi-Square rather than an F-distribution. For all of the models in Table 2-3, the test statistic associated with the log-

likelihood ratio is less than 0.05. Thus, the null prediction is improved by inclusion of at least some of the covariates in the regression model. Some examination of the process generating these predictions of the model is, therefore, warranted. This finding, using the likelihood ratio test, however, offers little help in determining fit relative to a uniform criterion. Indeed, outside of ordinary least squares regression, there is some disagreement on the best way of judging overall goodness of fit. One set of standards, pseudo-R<sup>2</sup>, evoke the R<sup>2</sup> statistic of ordinary least squares regression. That statistic ranges between zero and one, and it indicates by what proportion a regression model reduces the error of prediction. It does so by comparing the estimated model to a "dumb" model that simply predicts the dependent variable's mean value. That dumb prediction would appear as a constant value at all times in the study.

Cameron and Trivedi review several pseudo-R<sup>2</sup> all with different strengths and weaknesses. They note proposals for use of a pseudo-R<sup>2</sup> measure called the likelihood ratio index. (Cameron and Trivedi, *supra*). The pseudo-R<sup>2</sup> statistic is 0.06. None of the models report a particularly tight fit. On the other hand, this investigation is the first study attempting to assess articles not written, and a lack of theoretical insight may account for some of the poorness of fit. Moreover, the figures partly reflect the substantive disagreement on what offers the best sense of R<sup>2</sup>. Quite obviously, the overall fit of the models is no more than modest.

Calculations were done with STATA 7.0.

104. National Transportation Safety Board, *Survivability of Accidents Involving Part 121 U.S. Air Carrier Operations 1983 Through 2000*. (Washington, D.C.: Safety Report NTSB/SR-01/01, 2001).

105. Coombs and Slovic, "Newspaper Coverage," *supra*.

106. Mutz, *Impersonal Influence*, *supra* at p. 694.

107. Adam F. Simon, "Television News and International Earthquake Relief," *Journal of Communication* 47(1997): 82-93.

108. Danielian and Page, "The Heavenly Chorus," *supra*, pp. 1062-1063, 1066-1068.

109. Glen T. Cameron, Lynne M. Sallot, and Patricia A. Curtin. 1997. "Public Relations and the Production of News: A Critical Review and Theoretical Framework," in Brant R. Burleson and Adrienne W. Kunkel, editors, *Communication Yearbook*. Vol. 20. (Thousand Oaks, California: Sage Publications, 1997), pp. 111-55, 112.

110. Lynne M. Sallot, "Mass Media Consonance: Proposing Public Relations as a Factor," (Presented to the Public Relations Interest Group, International Communication Association, Miami, Florida, 1992), p. 18.

111. Alice Mundy, "Is the Press Any Match for Powerhouse P.R.?" *Columbia Journalism Review* 1992: 27-34.

112. David T. Shirey, Chairman-Elect, American Apparel Manufacturers Association, in U.S. Congress, House of Representatives, Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce, *Regulation of Tris-Treated Sleepwear*, 97<sup>th</sup> Cong., 1<sup>st</sup> Sess., April 15 and June 4, 1981, p. 99.
113. Harvey S. Gold., Director, Government Relations, Velsicol Chemical Corporation, "Chronology of Toxicity Testing," in U.S. Congress, House of Representatives, Subcommittee on Antitrust, Consumers and Employment of the Committee on Small Business, 1978, *Banning Distribution of Tris*. 95<sup>th</sup> Cong., 1<sup>st</sup> Sess., April 28 and May 19, 1977, p. 154.
114. U.S. Congress, House of Representatives, Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce, 1978, *Consumer Product Safety Commission's Regulation of Tris: The Need for An Effective Chronic Hazards Program*, 95<sup>th</sup> Cong., 2<sup>nd</sup> Sess., 1978.
115. U.S. Congress. House of Representatives. Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce. 1978. *Report: Consumer Product Safety Commission's Regulation of Tris: The Need for an Effective Chronic Hazards Program*. 95th Cong., 2nd Sess., p. 10. The reports on carcinogenity were later published. Arlene Blum and Bruce N. Ames, "Flame retardant additives as possible cancer hazards. *Science* 195(1977)4273: 17-23.
116. Antonin Scalia and Frank Goodman, Procedural Aspects of the Consumer Product Safety Act. *U.C.L.A. Law Review* 20(1973) 899-982.
117. Vanderbilt Television News Archive, <http://tvnews.vanderbilt.edu>. Of the four stories, one was a correction of a story the night before. Stories on March 24, 1976 (CBS); February 8, 1977 (CBS) (ABC). The correction was on February 9, 1977 (CBS).
118. "Ban Asked on Children's Wear with Flame Retardant," *The New York Times*, 9 February 1977 sec. A, col. 1 p. 25.
119. Ralph Nader, Letter to Senator Warren Magnuson. 24 March 1976, Consumer Product Safety Commission, Freedom of Information Act, Tris Archives.
120. Environmental Defense Fund, Annual Report, 1977, [On-line] <http://www.edf.org/pubs/AnnualReport/1977> [August 28, 1998].
121. *Id.*
122. "Tris is Major Concern at Meeting of American Apparel Manufacturers Group," *Product Liability & Safety Reporter* 4(1976): 301-02.
123. In the *Readers' Guide to Periodical Literature*, articles on Tris are indexed under the heading, "dibromopropyl phosphate."

124. In *The New York Times*, articles on Tris are indexed under the heading, "Apparel – United States."

125. See e.g., "Ban Asked," *supra*; Nadine Brozen, "Family Style: U.S. Bans A Flame Retardant Used in Children's Sleepwear," *The New York Times*, 8 April 1977, sec. A, col. 1 p. 14; Charlton, Linda Charlton, "The Facts About Tris Don't Leave Much Choice," *The New York Times*, 3 July 1977, sec. D, col. 3 p. 3.

126. See e.g., Agis Salpukas, "Judge May Bar Consumer Unit on Ban of Tris," *The New York Times*, 24 May 1977, sec. 1, col. 5 p. 47; "Judge Strikes Down Safety Ban on Tris: Ruling Says U.S. Failed to Give Company Due Process," *The New York Times*, 24 June 1977, sec. 1, col. 6 p. 9; "Consumer Agency Issues New Warning on Tris," *The New York Times*, 20 August 1977, sec. 1, col. 6 p. 8.

127. Jimmy Carter, "Tris Bill Veto," *Congressional Quarterly Almanac, 1978*, (Washington, D.C.: CQ Inc., 1979), p. 67-E.

128. U. S. Consumer Product Safety Commission, Consumer Product Safety Alert, "CPSC Urges Caution for Three-Wheeled All-Terrain Vehicles," (December, 1984), p. 1.

129. "Sports and Recreation: Meeting with All-Terrain Vehicle Industry Scheduled for Oct. 23 by Safety Commission," *Product Safety & Liability Reporter* 12(October 5, 1984): 777; "Sports and Recreation: Three-Wheel Vehicle Manufacturers Blame User Behavior For Most Accidents," *Product Safety & Liability Reporter* 12(October 26, 1984): 824.

130. See e.g., Irvin Molotsky, "Rise in Deaths With 3-Wheel Vehicles Worries Safety Officials," *The New York Times* (February 27, 1985), p. A12; "U.S. Endorses Inquiry On 3-Wheel Vehicles," *The New York Times* (April 4, 1985), p. A21.

131. "Motorized Tricycles Studied," *The New York Times* (November 20, 1987), p. B19; "Makers of All-Terrain Vehicles Asked to End Sales for Young," *The New York Times* (December 19, 1986), p. A24; "Agency Takes Steps for Partly Banning All-Terrain Vehicles," *The New York Times* (January, 1987), p. A14.

132. Philip E. Ross, "All-Terrain Vehicle Limits Asked," *The New York Times* (December 22, 1987), p. D4; "New Settlement Limits All-Terrain Vehicles," *The New York Times* (March 16, 1988), p. A21; "Federal Judge Approves Decree Regulating All-Terrain Vehicles," *The New York Times* (April 28, 1988), p. D25.

133. "U.S. Rules on Japanese 'Dumping,'" *The New York Times*, January 30, 1989, p. D9; Barry Miller, "Study Assails Dealers in All-Terrain Vehicles," *The New York Times*, December 5, 1989, p. A33; Barry Miller, "All-Terrain Vehicles: Still A Safety Hazard," *The New York Times*, December 30, 1989, p. A50. There was also an article about a U.S. Public Interest Group study of ATV dealer practices after the consent decree negotiated by the ATV-distributors and the CPSC was in effect. Although from a private source, this study did concern a government action.



134. "Sports and Recreation: Statler Asks Public for More Data on All Terrain Vehicle Injuries, Deaths," *Product Safety & Liability Reporter* 13 (March 8, 1985): 150.
135. "General Policy: Scanlon Asks General Counsel to Draft New Regulations on Generic Product Data Release," *Product Safety & Liability Reporter* 13 (March 15, 1985): 169-70.
136. John Ulrich, "ATVs Under Attack, Opinion: Media Blitz Portrays ATVs as Evil," *ATV News* (May, 1985) in U.S. Consumer Product Safety Commission, "Public Hearing on ATV's," House Chamber, State House, Concord, Massachusetts.
137. Letter to Terrence M. Scanlon, Chairman, Consumer Product Safety Commission from Rick Campbell, Publisher, Motorcycle Industry Shopper, April 16, 1985, p. 1.
138. William Stermer, Testimony on behalf of Richard Campbell to U.S. Consumer Product Safety Commission, *In re: Public Hearing on Safety of All-Terrain Vehicles*, Los Angeles Convention and Exhibition Center, Los Angeles, California, October 17, 1985, p. 82.
139. "General Policy, Craig Seeks Justice Department Probe of Statler's Actions in ATV Investigation," *Product Safety & Liability Reporter* 13 (November 15, 1985): 861.
140. Irvin Molotsky, "A Case of Memorandums at 10 Paces," *The New York Times* March 30, 1985, p. A8.
141. See *e.g.*, Submission of Comments and Data by Specialty Vehicle Institute of America, *Re: All-Terrain Vehicles; Advance Notice of Public Rulemaking*, FR Doc. 85-13107, p. 2-3.
142. This debate itself became the topic of a General Accounting Office report. General Accounting Office, "Consumer Product Safety Commission: Concerns About Staff Memorandum Relating to All-Terrain Vehicles" (November 7, 1986).
143. References to these episodes appear several places. They are discussed, for example, in John D. Graham, "Product Liability and Motor Vehicle Safety," in Peter W. Huber, and Robert E. Litan, editors, *The Liability Maze: The Impact of Liability Law on Safety and Innovation* (Washington, D.C.: The Brookings Institution, 1991), pp. 120-190.
144. Brigitte Nacos, *Terrorism and the Media: From the Iran Hostage Crisis to the World Trade Center Bombing* (New York: Columbia University Press, 1994).
145. Research and Special Programs Administration, John A. Volpe National Transportation Systems Center, Center for Transportation Information, *National Transportation Statistics, Annual Report, September 1993* (Historical Compendium, 1960-1992) Table 22: Airline Passenger Screening Results, 1972-1991. Bureau of Transportation Statistics, Department of Transportation, *National*

*Transportation Statistics, 1998* Table 3-17: Airline Passenger Screening Results by Type of Weapons Detected, Persons Arrested, and Bomb Threats Received. <http://www.bts.gov/btsprod/nts/chps3/tblx13x17.html> [On-line: February 14, 2000].

146. President's News Conference, June 18, 1985, *Public Papers of the Presidents, Ronald Reagan, 1985, Volume 1* (Washington, D.C.: Office of the Federal Register, National Archives of the United States, 1985), pp. 778-785.

147. *Id.*

148. See e.g., "Circulation of Leading U.S. Magazines," *The World Almanac and Book of Facts, 1987* (New York, Pharos Books, 1988), p. 366.

149. Nacos, *Terrorism*, p. ix.

150. *Id.*, pp. 19, 31.

151. *Id.*, p. 30.

152. *Id.*, pp. 50-51. Emphasis added.

153. *Id.*, pp. 56-57.

154. Tony Atwater "Network Evening News Coverage Of the TWA Hostage Crisis." *Journalism Quarterly* 64(1987): 520-525; Tony Atwater and Norma F. Green, "News Sources in Network Coverage Of International Terrorism," *Journalism Quarterly* 65(1988): 967-71. Nacos, *Terrorism, supra*, p. 33.??

155. Nick A. Komons, *Bonfires to Beacons: Federal Civil Aviation Safety Under the Air Commerce Act, 1926-1938* [1978] (Washington, D.C.: Smithsonian Institution Press, 1989).

156. There is also within the period of this study one spectacular failure of a unions in making the public aware of aviation safety concerns, the Professional Air Traffic Controllers Association strike of 1981. Here, a well-designed strategies blunted media interest. In a book on the relationship between public information officers and the press, Morgan examines the effect of media strategies on strike of the Professional Air Traffic Controllers Organization (PATCO) against the FAA early in the Reagan Administration. In this strike, air traffic controllers employed by the FAA walked off their job. They left the air transportation system to work without them. As Morgan notes, the threat to air safety because of the strike was both novel and worrisome. David Morgan, *The Flacks of Washington: Government Information and the Public Agenda* (Westport, Connecticut: Greenwood Press, 1986).

The obvious question about the PATCO strike is this: Why didn't this strike lead to an explosion of stories about aviation safety? Examination of Figure 2-1 shows the number of stories about aviation safety actually *declined* during the period of the strike. The reason for the decline, as Morgan explains, is partly due to both to mistakes by PATCO and to successes of a media-savvy Secretary of Transportation, Drew Lewis and his press secretary. In the months

leading up to the strike, PATCO alienated a number of allies that might have turned their institutional relations with the press to the union's benefit. Airlines might have been a useful ally in securing improvements in air traffic controller working conditions. But in 1981, as airline deregulation began to bite, they could use an air traffic strike as a pretext for solving their own labor problems. More specifically, the limitations on air traffic gave the airlines grounds for declaring unwanted aircraft or personnel "redundant." PATCO also alienated obvious friends. More specifically, its endorsement of Ronald Reagan for President alienated or at least upset Congressional Democrats and AFL-CIO member unions who otherwise might have been far more sympathetic and helpful. *Id.*, pp. 123, 125.

These allies could have helped PATCO with their access to the routines of the media. During the strike, these allies did come to support PATCO, but poor groundwork made the support too little too late. Quoting a PATCO press aide, Morgan succinctly describes the union media strategy, "We had no media strategy." *Id.*, p. 129.

By contrast, the Reagan Administration was very active in seeking to get its message out. From the beginning of the strike, on all three networks, Secretary Lewis stressed "'safety first' and [the angle] that high school graduates were demanding more money than congressman." *Id.*, p. 128. Attacking a bloated and over-paid bureaucracy was a long-time Reaganite theme. By contrast, the PATCO demands for improved working conditions and better retirement conditions were "rarely explained" in the media. Even the labor beat reporters, who instead of political reporters covered the strike, were "not particularly sympathetic to PATCO's case." *Id.* Morgan notes that the destruction of PATCO was named by 48% of the respondents in a *New York Times* poll as the primary aspect they liked about Ronald Reagan's performance in his first year as President. *Id.* pp. 128, 128, 129.

Ultimately, PATCO lost the strike – badly. The Federal Labor Relations Authority decertified the union. The FAA fired the striking air traffic controllers. Ultimately, Morgan concludes that even a better media strategy would not have changed the outcome of the PATCO strike, but he does not consider what a better strategy, say by the airlines, would have done for the management of air traffic. *Id.*, p. 130.

157. Dan LaBotz, *A Troublemaker's Handbook: How to Fight Back Where You Work - and Win!* (Detroit, Michigan: Labor Notes, 1991), pp. 127-128; See also, Industrial Union Department, AFL-CIO, *Developing New Tactics: Winning with Coordinated Corporate Campaigns* (Washington, D.C.: Industrial Union Department, AFL-CIO, 1985).

158. Herbert R. Northrup, "Corporate Campaigns: The Perversion of the Regulatory Process," *Journal of Labor Research* 17(1996): 345-58.

159. Aaron Bernstein, *Grounded: Frank Lorenzo and the Destruction of Eastern Airlines* (New York: Simon & Schuster, 1991); Jean T. McKelvey, *Cleared for Takeoff: Airline Labor Relations Since Deregulation* (Ithaca, New York: ILR Press, 1988); Thomas Petzinger, Jr., *Hard Landing: The Epic Contest for Power and Profits that Plunged the Airlines into Chaos* (New York: Random House, 1995); Jack E. Robinson, *Freefall: The Needless Destruction of Eastern Air Lines and the Valiant Struggle to Save It* (New York: Harper Collins Publishers, 1992); Martha Dunagin

Saunders, *Eastern's Armageddon: Labor Conflict and the Destruction of Eastern Air Lines* (Westport, Connecticut: Greenwood Press, 1992)

160. Henry Gasque, James Spellane, F/O Wil Renuart and Carol Renuart, "Creating Awareness," *Air Line Pilot* 1989: 14-20.
161. Bernstein, *Grounded*, *supra*, p. 121; Edward H. Kolcum, "Eastern Refuses to Deal with ALPA Until Pilots End Safety Campaign," *Aviation Week & Safety Technology* 127(November 9, 1987): 37-39. Pennzinger, *Hard Landing*, *supra*, p. 326.
162. See *e.g.*, William Stockton, "Tearing Apart Eastern Airlines," *The New York Times Magazine*, November 6, 1988, pp. 36-39, 82-86, at 82-83.
163. Statement of Stephen J. Kolski, Staff Vice President and Counsel for Regulatory Compliance, Eastern Air Lines, Inc. in *Safety and Re-Regulation of the Airline Industry*, Committee on Commerce, Science, and Transportation of the United States Senate, U.S. Congress, 1<sup>st</sup> Sess., 100<sup>th</sup> Cong., October 15, November 14 and 18, 1987, p. 88-98.
164. Bernstein, *Grounded*, *supra*, p. 129.
165. "Bushwacking Texas Air," *The New York Times*. (Apr 15; 1988), p. A34.
166. Agis Salpukas, "F.A.A. Inspection of Eastern Fleet Uncovers No Significant Problems," *The New York Times* April 20, 1988, A 19:1; Richard Witkin, "Eastern Airlines and Continental are Termed Safe; Labor Battle a Concern; Government Finds Divisions at Eastern May Present Future Air Safety Risk," *The New York Times* June 3, 1988, A 1:3.
167. Paul Proctor, "FAA Increases Texas Air Investigation to Include Continental Airlines," *Aviation Week & Space Technology* 128(April 25, 1988): 97-98. Paul Proctor, "Eastern Traffic Dips As FAA Probes Texas Air," *Aviation Week & Space Technology* 128(May 2, 1988): 124.
168. "Eastern Strike Solution Eludes Lawmakers," *Congressional Quarterly Almanac*, 1989 45: 346-348.
169. Saunders, *Eastern's Armageddon*, *supra*, p. 78.
170. Bernstein, *Grounded*, *supra*, p. 125.

(Chapter Three: Perceiving and Monitoring Public Opinion)

171. Benjamin Page and Robert Shapiro, *The Rational Public: Fifty Years of Trends in Americans' Policy Preferences*. (Chicago, Illinois: University of Chicago Press, 1992), pp. 385, 388-390, 393.
172. *Id.*, p. 39.

173. *Id.*, Tables 2-1 and 2-2.  $\{(655+125)/1128\} *100$ . See also, Benjamin Page and Robert Shapiro, "Effects of Public Opinion on Policy," *American Political Science Review* 77(1983): 175-190. Text, p. 177, Table 3, p. 180.  $\{(357+47)/606\}$ . The later work updates the analysis of the classic article.

174. *Id.*, p. 58.

175. CBS News/The New York Times, CBS NEWS/NEW YORK TIMES Monthly Poll # 1, June 1995 [Computer file] ICPSR Version. New York, New York: CBS News (producer), 1995. Ann Arbor, Michigan, Interuniversity Consortium for Political and Social Research (distributor), 1997. As the data do not provide information on the appropriate surveys weights, the cited statistics are unweighted. The precise wording of the question asked in the survey was as follows: "In the past year, have you canceled or changed your plans to fly because of fear of flying?" (This final question was asked only of respondents who said that they had flown or who didn't know whether or not they had flown.)

176. Page, Shapiro, and Dempsey. "What Moves Public Opinion?" *supra*; Zaller *Nature and Origins of Mass Opinion, supra*.

177. Mutz, *Impersonal Influence, supra*, p. 100.

178. *Id.*, p. 109.

179. *Id.*, p. 146.

180. CBS News/The New York Times, CBS NEWS/NEW YORK TIMES Monthly Poll # 1, June 1995, *supra*. The reported percentages are unweighted. The question asked was this: "As far as you know, in 1994, were there more airplane accidents, fewer airplane accidents, or about the same airplane accidents as there were a few years ago?"

181. Because the analysis here turns on a very small number of surveys, an alternative explanation for their apparent volatility merits mention. There may well be only a small fluctuation in the true, underlying dimensions of public opinion. The differences in the sample results may well be regression toward a much more slowly moving, but fluctuating mean. While undercutting the claims on the exceptional volatility of opinion on air safety, this unlikely interpretation of the surveys leaves the other assessments offered here – on the connection between media and public opinion – largely unaffected.

182. *Uncontrolled Collision with Terrain: Flagship Airlines, Inc. dba American Eagle Flight 3379, BAe Jetstream 3201, N918AE, Morrisville, North Carolina, December 13, 1994* (Washington, D.C.: National Transportation Safety Board, 1995).

183. The accident referenced is described more fully in *Inflight Icing Encounter and Loss of Control: Simmons Airlines, d.b.a. American Eagle Flight 4184, Avions de Transport Regional (ATR), Model 72-212, N401AM, Roselawn, Indiana, October 31, 1994* (Washington, D.C.: National Transportation Safety Board, 1996)

184. Henry J. Price, "Pena Finalizes Commuter Rule to Meet One Level of Safety," *FAA News* Federal Aviation Administration Department of Transportation Office of Public Affairs, 1995.
185. The cover story appears in connection with the article, Stephan J. Hedges, Richard J. Newman, and Peter Cary, "What's Wrong with the FAA?" *U.S. News & World Report* 118(June 26, 1995): 28-33, 36-37.
186. Melinda Beck, Mark Hosenball, Mary Hager, Karen Springen, Patrick Rogers, Anne Underwood, Daniel Glick, and Theodore Stranger. 1995. How Safe is this Flight? *Newsweek* 125(April 24, 1995): 18-29.
187. Passenger-Carrying and Cargo Air Operations for Compensation or Hire, 53 Fed. Reg. 39852-39873. (Proposed October 12, 1988).
188. David Hughes, "NTSB Launching Study on Commuter Safety," *Aviation Week & Space Technology*, 140(March 7, 1994): 29-30; "Safety Board Recommends – And FAA Agrees To – One Standard For Air Carriers" *Aviation Daily* 318(November 16, 1994): 255-256; Edward H. Phillips, "NTSB: Regionals Need Higher Standards," *Aviation Week & Space Technology* 141(November 21, 1994): 34-35; Subcommittee on Aviation, Committee on Public Works and Transportation of the U.S. House of Representatives, *Adequacy of Commuter Airline Safety Regulations* 103<sup>rd</sup> Cong. 2<sup>nd</sup> Sess., February 9, 1994.
189. "Hinson Wants More AIP Money; FAA Eyes Regional Airline Safety Standards," *Aviation Daily* 318 (November 8, 1994): 213.; "Washington Outlook, FAA Receptive," *Aviation Week & Space Technology* 139(August 23, 1993): 21.
190. Committee on Commerce, Science, and Transportation of the United States Senate, *Oversight Hearing on Aviation Safety*, 104<sup>th</sup> Cong., 1<sup>st</sup> Sess., January 12, 1995, pp. 7, 17.
191. "One Level of Safety," *FAA Aviation News* 35(March, 1996): 20-23; "DOT Issues Commuter Safety Regulations," *Aviation Daily* 319(March 27, 1995): 478.
192. Les Blattner, "Creating A One Level of Safety Miracle," *Air Line Pilot*, 64 (June/July, 1995): 10.
193. Lisa Miller, "Commuter Airline Industry Resists Safety Regulations," *The Wall Street Journal* June 27, 1995, at B1.
194. "ALPA Wins Big As FAA Backs Its Safety, Equipment and Work Agendas," *Aviation Daily* 322(December 15, 1995): 419; "
195. Edward H. Phillips, "Costs Key Factor in Part 121 Upgrade," *Aviation Week & Space Technology* 144(May 20, 1996):59, 61, p. 59.
196. Kirby J. Harrison, "New 'Commuter Safety Rule' from FAA Draws Plaudits and Brickbats," *Aviation International News*, 27(June 1, 1995): 22-28, 23.

197. **Commuter Operations and General Certification and Operations Requirements**, 60 Fed. Reg. 65832 et seq., (Final Rule, December 20, 1995); **Flight Crewmember Duty Period Limitations, Flight Time Limitations and Rest Requirements**, 60 Fed. Reg. 65951 (Notice of Proposed Rulemaking, December 20, 1995).
198. *Air Taxi Safety Study* (Washington, D.C.: National Transportation Safety Board, Report No. NTSB-AAS-72-9, 1972); *Special Study: Commuter Airline Safety, 1970-1979* (Washington, D.C.: National Transportation Safety Board, Report No. NTSB-AAS-80-1., 1980); *Commuter Airline Safety – Safety Study* (Washington, D.C.: National Transportation Safety Board, Report No. NTSB/SS-94/02, 1994). The specific recommendations are: for flight-duty time: 1972 Recommendations A-72-178; A-72-179; 1980 Recommendation: A-79-81; 1995 Recommendation A-94-193. *See also*, 1995 Study, pp. 17-24. The training recommendations appear at - 79-80, A-94-195, A-94-196, A-94-197, A-94-198, A-94-199.
199. *Air Taxi Study, supra*, A-72-175, *Commuter Airline Safety, supra* A-94-201.
200. Karl M. Ruppenthal, *The Air Line Dispatcher in North America* (Stanford, CA: Stanford University Press, 1962).
201. *Air Taxi Study, supra*, Industry Recommendation, #7; *Special Study, supra*, A-80-70; *Commuter Airline Safety, supra*, pp. 25-28.
202. AvWeb Short Final,30 August 1998, Available: <http://www/avweb.com/other/shfinal.html> [Accessed: October 15, 2001].
203. Howard Aylesworth, Jr., Director of Airworthiness and Regulation, Aerospace Industries Association, Comment dated July 27, 1995; William H. Schultz, Vice President, Engineering and Maintenance, General Aviation Manufacturers Association, Comment dated June 27, 1995; Jack Morgan, Chief of Aviation Safety and Air Worthiness, Fairchild Aircraft, Statement at *Public Meeting, Commuter Operations and General Certification and Operation Requirements*, Las Vegas, Nevada, June 21, 1995, at pp. 43-64l. All filed at Commuter Operations and General Certification and Operations Requirements, Federal Aviation Administration Rules Docket No 22480.
204. Regulatory Review Program; Air Taxi Operators and Commercial Operators, 43 Fed. Reg. 46741 et seq. (Final Rule, October 10, 1978), p. 46742; Henry J. Price, "Pena Finalizes Commuter Rule to Meet One Level of Safety," *FAA News* Federal Aviation Administration, Department of Transportation Office of Public Affairs, (December 15,1995).
205. Martha Derthick and Paul J. Quirk, *The Politics of Deregulation* (Washington, D.C.: The Brookings Institution, 1985).
206. Clinton V. Oster ., John S. Strong, and C. Kurt Zorn, *Why Airplanes Crash: Aviation Safety in A Changing World* (New York: Oxford University Press, 1992), p. 19, n.2.

207. Commuters were, in the words of one Republican Congressman, "the darling of deregulation" and the "belle of the ball." Elliott H. Levitas (D-GA), "Luncheon Remarks," in *First Commuter Air Carrier Safety Symposium* (Washington, D.C., Federal Aviation Administration, Department of Transportation, January 16-17, 1980), pp. 157-165, p. 157. Assurances that deregulation would not diminish the safety of air travel were pivotal for economic deregulation. However, proponents of deregulation also had a stake in making sure that an unduly restrictive safety regime did not undo the effects of economic deregulation. For example, they took care to discourage the FAA from raising safety standards so high that widely used commuter aircraft could not be used in the deregulated air transportation system. Additional Airworthiness Requirements: 10 or More Passenger Airplanes, 42 Fed. Reg. 56702 *et seq* (Withdraw of Part of Notice of Proposed Rulemaking, October 27, 1977). This withdraw followed a speech by Senator Howard Cannon (D-NV), Chairman of the Senate Transportation Committee, on the floor of the Senate. In this speech, Chairman Cannon stated that he had been assured by the General Aviation Manufacturers Association "that those aircraft have as good a mechanical record of performance as the larger jet aircraft..." Howard Cannon, Federal Aviation Act Amendments, 123 *Congressional Record* 34660-34665 (October 20, 1977). In late 1994 and 1995, the concerns of political leaders were focused more intensively on aviation safety.

208. Gallup, Jr. George Gallup, Jr., *The Gallup Poll: Public Opinion 1995*. (Wilmington, Delaware: Scholarly Resources Inc, 1996), p. 205.

209. The precise question is noted on Table 3-2, *infra*.

210. Washington Post/Associated Press Poll, January 29, 1995, pp. 1-2. The precise question asked was: "Would you be willing to pay 10% more for airline tickets if the money were used to increase safety and security?" The answers were "Yes," (76%); "No," (24%) and "No Opinion," (1%). The poll was from a national sample of 1026 adults and the margin of error was  $\pm 3.5\%$ .

211. CBS News/The New York Times, CBS NEWS/NEW YORK TIMES Monthly Poll # 1, June 1995 [Computer file] ICPSR Version. New York: CBS News (producer), 1995. Ann Arbor, Michigan, Interuniversity Consortium for Political and Social Research (distributor), 1997. As the data does not provide information on the appropriate surveys weights, the cited statistics are unweighted. The precise wording of the questions asked in the survey were as follows:

"Whatever your personal feelings about flying, how would you rate the overall SAFETY record of commercial airline travel - excellent, good, only fair, or poor?"

"Everybody has fears about different things. How do you feel about flying in an airplane? Would you tell me whether you are afraid of it, whether it bothers you slightly, or whether you're not at all afraid of it?"

"In the past year, have you canceled or changed your plans to fly because of fear of flying?" (This final question was asked only of respondents who said that they had flown or who didn't know whether or not they had flown.)



212. Miller, "Commuter Airline Industry," *supra*.
213. See notes 89-91, *infra*.
214. Air Transport Association
215. Regional Airline Association (formerly, the CAAA or Commuter Airline Association of America).
216. Air Line Pilots Association.
217. Airport Operators Council International.
218. Airplane Owners and Pilots Association.
219. General Aviation Manufacturers Association.
220. Esperison Martinez, Jr., "In the Public's Opinion . . ." *Air Line Pilot* 60(February/March, 1992): 18-20. Of course, there were other studies on trends in air travel demographics.
221. David Hinson, Administrator, Federal Aviation Administration. Federal Aviation Administration, Statement at *Public Meeting, Commuter Operations and General Certification Requirements*, Municipality of Anchorage Borough Assembly Chambers, Loussac Library, Anchorage, Alaska, May 18, 1995. Filed at Commuter Operations and General Certification and Operation Requirements, Federal Aviation Administration Rules Docket No. 22480, p. 13 (sic).
222. David R. Hinson, "Global Issues and Challenges Affecting the Future of Aviation," *AIAA Air & Space*, May 2, 1995, pp. 4-5; David R. Hinson, Talking Points for Meeting with *Atlanta Constitution* Editorial Board Meeting, January 31, 1995. (Available, Office of Public Affairs, Federal Aviation Administration).
223. Commuter Operations and General Certification and Operations Requirements, 60 Fed. Reg. 16230 *et seq.*, (Notice of Proposed Rulemaking, March 29, 1995).
224. Commuter Operations, December 20, 1995, *supra*.
225. Commuter Operations, March 29, 1995, *supra*, p. 16232.
226. *Id.*, p. 16232.
227. *Id.*, p. 16273.
228. *Id.*, p. 16274.
229. *Id.*, p. 65836.

230. *Id.*, p. 65910.
231. Commuter Operations, March 29, 1995, *supra*, pp. 16232, 16273-74; Commuter Operations, December 20, 1995, *supra*, p. 65836.
232. *Readers' Guide to Periodical Literature, 1994* (New York: H.W. Wilson Co., 1995), pp. 42-43.
233. William H. Schultz, Vice President, Engineering and Maintenance, General Aviation Manufacturers Association, Comment dated June 27, 1995, and filed at Commuter Operations and General Certification and Operations Requirements, Federal Aviation Administration Rules Docket No 22480.
234. Commuter Operations, December 20, 1995, *supra*, p. 65835.
235. Morgan, *supra*, p. 48; Robert Hallford, President, Alaska Air Carriers Association, Statement at *Public Meeting, Commuter Operations and General Certification Requirements, Municipality of Anchorage Borough Assembly Chambers, Loussac Library, Anchorage, Alaska, May 18, 1995*; Morton S. Beyer, President, Morton S. Beyer and Associates, Comment of July 14, 1995; A.C. Jackson, Group Manager, Product Design Assurance, Raytheon Aircraft, Comment of June 27, 1995, Filed at Commuter Operations and General Certification and Operation Requirements, Federal Aviation Administration Rules Docket No. 22480.
236. Miscellaneous Operational Amendments, 57 Fed. Reg. 42661 *et seq.* (Final Rule, September 15, 1992). In citing an economic analysis as the rationale for its decision, the FAA said, "This analysis concluded that mandatory use of a child restraint would reduce substantially the safety benefit as the additional cost to parents results in less air travel and more – but less safe – highway travel." *Id.*, p. 42665.
237. Commuter Operations, December 20, 1995, *supra*, p. 65836.
238. A classic pluralist might contend the differences in interest group alignment in 1995 as compared with that of 1978 is dispositive in explaining the different outcomes of the two rulemaking proceedings. The view is not without merit, but it ignores the concern with and involvement by interest groups in producing mass media attention and public opinion. Moreover, as the next two chapters show, by 1995 trade association members themselves had already made substantial changes in their operations such that in large measure, they already met the new higher standards before they were adopted.
239. Please refer to the references at note 15, *supra*.
240. Robert Britt Mattes, *The Politics of Public Opinion: Polls, Pollsters and Presidents* doctoral dissertation (University of Illinois at Urbana-Champaign, 1992), pp. 337-42.

241. Robert Leslie Cohen, *The Perception and Evaluation of Public Opinion by Decision Makers: Civilian Nuclear Power in the United States* doctoral dissertation (Columbia University, 1982) pp. 345-346.
242. Kenneth Warren Kollman, *Outside Lobbying: Public Appeals by Interest Groups* doctoral dissertation (Northwestern University, 1993), p. 103 (Table 4: Frequency of Interest Group Tactics).
243. Mattes, *Politics of Public Opinion*, *supra*, p. 332 (quoting Bernard Roshco)
244. Robert Cohen, *Perception and Evaluation of Public Opinion*, *supra*, pp. 345-346.
245. *Id.*, p. 363-364.
246. Kollman, *Outside Lobbying*, *supra*, p. 126.
247. Robert F. Rich, *Social Science Information and Public Policymaking*. (San Francisco: Jossey-Bass Publishers, 1981).
248. *Id.*, pp. xvi-xvii, 108.
249. *Id.*, p. xvii.
250. *Id.*, p. 121.
251. MacAlister Brown, "The Demise of State Department Public Opinion Polls: A Study in Legislative Oversight," *Midwest Journal of Political Science* 5(1961): 1-17; Bernard Cohen, *The Public's Impact*, *supra*, p. 44-46. Robert E. Elder, "The Public Studies Division of the Department of State: Public Opinion Analysts in the Formulation and Conduct of American Foreign Policy," *The Western Political Quarterly* 10(1957): 783-792.
252. Bernard Cohen, *The Public's Impact*, *supra*, pp.45-46.
253. *Id.*, pp. 79-131.
254. Please refer to the references at note 18, *supra*.
255. Herbst, *Reading Public Opinion*, *supra*, pp. 150-152.
256. Powlick, "Sources of Public Opinion for American Foreign Policy Officials," *supra*.
257. Herbst, *Reading Public Opinion*, *supra*.
258. Arnold B. Elkind, Former Chairman, National Commission on Product Safety, Testimony at Hearings before the Subcommittee on Commerce and Finance of the Committee on Interstate and Foreign Commerce on H.R. 8110, H.R. 8157, H.R. 260 (and identical bills) H.R. 3813 *Part 1 Consumer Product Safety Act* 92<sup>nd</sup> Cong. 1<sup>st</sup> and 2<sup>nd</sup> Sess., p. 307.

259. James F. Young, Vice President, General Electric, Statement at Hearings before the Subcommittee on Commerce and Finance of the Committee on Interstate and Foreign Commerce on H.R. 8110, H.R. 8157, H.R. 260 (and identical bills) H.R. 3813 *Part 3 Consumer Product Safety Act* 92<sup>nd</sup> Cong. 1<sup>st</sup> and 2<sup>nd</sup> Sess., p. 1065.
260. R. Josh Lanier, National Insulation Certification Institute, Testimony at hearings before the Subcommittee for Consumers of the Committee on Commerce, Science and Transportation, *Consumer Product Safety Commission Reauthorization* U.S. Senate, 97<sup>th</sup> Cong. 1<sup>st</sup> Sess., p.86.
261. Jan Amundeon, Assistant General Council, National Association of Manufacturers, Statement at *Consumer Product Safety Commission Reauthorization*, *supra*, p. 28.
262. Aaron Lockner, U.S. Chamber of Commerce, Written Response to Questions of the Committee, *Consumer Product Safety Commission Reauthorization*, *supra*, p. 18.
263. Jan Amundeon, Written Response to Questions of the Committee, *Consumer Product Safety Commission Reauthorization*, *supra*, p. 29.
264. The classic statement of this tendency of the aviation industry is that of Herbert Hoover, "It is interesting to note," he wrote in a letter, "that this is the only industry that favors having itself regulated by Government." Nick A. Komons, *Bonfires to Beacons, Federal Civil Aviation Policy Under the Air Commerce Act, 1926-1938* (Washington, D.C.: Smithsonian Institution Press, 1989), p 22. (Quoting letter of Hoover to Frederick C. Hicks). This sentiment was echoed in connection with the hearings on increasing the penalties for non-compliance with the federal air regulations by Duane H. Ekedahl of the Commuter Airline Association of America, *Providing Additional Civil and Criminal Penalties for Aviation Safety Violations*, *infra* p. 105.
265. Langhorne Bond, Administrator, Federal Aviation Administration, Testimony before the Subcommittee on Aviation of the Committee on Public Works and Transportation, *Providing Additional Civil and Criminal Penalties for Aviation Safety Violations*, U.S. House of Representatives, 96<sup>th</sup> Cong. 2<sup>nd</sup> Sess., pp. 55-56.
266. Colloquy between Duane H. Ekedahl and Hon Barry M. Goldwater, Jr. (R-AZ), *Providing Additional Civil and Criminal Penalties for Aviation Safety Violations* *supra*, pp. 110-111.
267. John H. Winant, President, National Business Aircraft Association, Testimony at *Providing Additional Civil and Criminal Penalties for Aviation Safety Violations*, *supra*, p. 201.
268. Robert W. Baker, Senior Vice President Operations, American Airlines, "Surveillance Requirements of the 1980s," Speech Delivered at The Transportation Center, Northwestern University, Evanston, Illinois, June 24, 1987.

269. Donald D. Engen, Administrator, Federal Aviation Administration, Speech delivered to Professional Women Controllers, Long Beach, California, May 1, 1987.

270. Ernest Gellhorn, "Adverse Publicity by Administrative Agencies," *Harvard Law Review* 86(1973): 1380-1441.

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Adverse Publicity and Public Opinion)

271. W. Kip Vicusi, *Regulating Consumer Product Safety* (Washington, D.C.: American Enterprise Institute for Policy Research, 1984), p. 2.

272. W. Kip Vicusi, John M. Vernon, and Jr. Joseph E. Harrington. *Economics of Regulation and Antitrust*, 2nd ed. (Cambridge, Massachusetts: The MIT Press, 1998) p. 755.

273. Peter Asch, *Consumer Safety Regulation: Putting a Price on Life and Limb* (New York: Oxford University Press, 1988) pp. 50-53.

274. Vicusi, *Regulating Consumer Product Safety*, *supra*, p. 6.

275. Dirk C. Gibson, "Public Relations Considerations of Consumer Product Recall," *Public Relations Review* 21 (1995): 225-40.

276. George J. Siomkos, "On Achieving Exoneration After a Product Safety Industrial Crisis" *Journal of Business & Industrial Marketing* 14(1999): 17-27.

277. Severin Borenstein and Martin B. Zimmerman, "Losses in Airline Demand and Value Following Accidents," in Leon N. Moses and Ian Savage, eds. *Transportation Safety in an Age of Deregulation*. (New York: Oxford University Press, 1989), pp. 50-55, p.50.

278. *Id.*, p. 55.

279. Virginia Stouffer, "Commercial Aviation Safety and Risk," *Transportation Research Record Public Sector Aviation Issue* (1990-1991): 1332-47.

280. Borenstein and Zimmerman, "Losses in Airline Demand," *supra*, p. 55. There is an alternative but related explanation for these findings. The effects of increased media attention on the public may not be instantaneous. For example, in the regression study presented in Chapter Seven, the number of articles on aviation safety in a given month appears to have little impact on the number of inspections in that month. On the other hand, the cumulative number of such articles over the preceding six months was associated with the number of safety inspections of air carriers.

281. *Id.*, p. 53.

282. *Id.*, pp. 54-55.
283. Brent Fisse and John Braithwaite, *The Impact of Publicity on Corporate Offenders* (Albany, New York: State University of New York Press, 1983), p. 213-226.
284. Pailen-Johnson Associates, Inc., "An Econometric Model of the Impact of Terrorism on U.S. Air Carrier North Atlantic Operations," (Prepared for Aircraft/Interactivity & Safety Branch, Federal Aviation Administration, Washington, D.C., 1987), p. 40-45.
285. *Id.*, p. 64-65.
286. Of course, relative to the air transportation industry revenue loss following the events of September 11, 2001, this revenue effect is somewhat modest. After the hijackings of that date, however, *all* major air carriers were prohibited from flying. In the usual case, the revenue loss comes, directly or indirectly, from consumer choices.
287. *Id.*, p. 75.
288. Trans World Airlines, Inc., Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1985, (Washington, D.C.: Securities and Exchange Commission, April 1, 1986), p. 8.
289. Petzinger, *Hard Landing*, *supra*, pp. 359-360.
290. Judith Valente, "U.S. Carriers Offer Deals to Europe to Offset Bomb Fears," *The Wall Street Journal* (February 24, 1989), p. B1. *But see*, "Pan Am Seeks to Lure Travelers to Europe," *The Wall Street Journal* (January 17, 1989), p. C14.
291. Pan American World Airways, Inc., Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the Fiscal Year Ended December 31, 1989 (Washington, D.C.: Securities and Exchange Commission, April 2, 1989), p. 1.
292. *Certain All-Terrain Vehicles From Japan: Determination of the Commission Investigation in Investigation No. 731-TA-388 (Final) Under the Tariff Act of 1930, Together With the Information Obtained in the Investigation*, (Washington, D.C.: U.S. International Trade Commission, April 1, 1989).
293. *Id.*, pp. 22-23.
294. *Id.*, p. A-16.
295. John D. Graham, "Product Liability" *supra*, p. 121.
296. *Id.*, p. 128.

297. *Id.*, p. 179.
298. Gregory Roberts, Memorandum to Nicholas V. Marchica, Update of ATV Market Trends, September 24, 1986, in Nick Marchica, Memorandum to the Commission, Report of the All-Terrain Vehicle Task Force, United States Consumer Product Safety Commission, September 30, 1986, p. 1.
299. Graham, "Product Liability," *supra*, p. 170 (Figure 4-4).
300. *Readers' Guide to Periodical Literature*, various years, *supra*.
301. See, e.g., Page, Shapiro and Dempsey, "What Moves Public Opinion," *supra* Zaller, *Nature and Origins of Mass Opinion*, *supra*.
302. Delli Carpini and Keeter, *What Americans Know About Politics*, *supra*, p. 81.
303. Graham, "Product Liability," *supra*, p. 174; Rogers, Memorandum, *supra*.
304. Graham, "Product Liability," *supra*, p. 174.
305. Edward F. Glynn, Assistant Vice President of Motorcycle Sales, American Honda Motor Co., Inc., Testimony before Subcommittee Commerce, Consumer and Monetary Affairs of the Committee on Government Operations of the U.S. House of Representatives, *Consumer Product Safety Commission's Response to Hazards of All-Terrain Vehicles (ATV's)* 99<sup>th</sup> Cong., 1<sup>st</sup> Sess., May 21, 1985, pp. 299-300.
306. Mike Bishop, Chairman, California Off-Highway Motor Vehicle Recreation Commission for State of California, Testimony before the United States Consumer Product Safety Commission, *In re: Public Hearing on Safety of All-Terrain Vehicles*, Los Angeles, October 17, 1985, p. 72.
307. "Three-wheelers likely to be history in a few years," *Successful Farming: The Magazine of Farm Management* 85(April, 1987) p. 18.
308. Gregory B. Rodgers, "All-Terrain Vehicles: Market Reaction to Risk Information," *Economic Inquiry* 31(1993): 29-38, p. 30.
309. *Id.*, p 33.
310. *Id.*, p. 36.
311. *Id.*, pp.35-36. Rogers dates the availability of public information about ATVs from the presentation of a CPSC staff report. This view, of course, ignores the publicity about ATVs before that date.
312. *Id.* The media count figures Rogers reports are used in the critique that follows.

313. Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, Revised and Extended ed. (New York: Verso, 1991), pp. 22-23; Diana Mutz, *Impersonal Influence: How Perceptions of Mass Collectives Affect Political Attitudes* (New York: Cambridge University Press, 1998), pp. 18-19.
314. Richard M. Perloff, "Third Person Effect Research, 1982-1992: A Review and Synthesis," *International Journal of Public Opinion* 5(1993): 167-84. James T. Tiedge, Arthur Silverblatt, Michael J. Havrice, and Richard Rosenfeld. "Discrepancy Between Perceived First-Person and Perceived Third-Person Mass Media Effects," *Journalism Quarterly* 62(1991):141-54.
315. Diana Mutz, "Effects of Horse Race Coverage on Campaign Coiffers: Strategic Contributing in Presidential Primaries," *Journal of Politics* 57(1995): 1015-1042.
316. W. Phillips Davidson, "The Third-Person Effect in Communication. *Public Opinion Quarterly* 47(1983):1-15., pp. 13-14.
317. Arnold Barnett and Anthony J. Lofaso, "After the Crash: The Passenger Response to The DC-10 Disaster," *Management Science* 29(1983): 1225-36, 1225.
318. *Id.*, p. 1235.
319. Arnold Barnett, John Menghetti, and Matthew Prete, "The Market Response to the Sioux City DC-10 Crash," *Risk Analysis* 12(1992): 45-52, 51.
320. *Id.*, p. 56.
321. "Commercial Aviation: Concerns About Airline Safety Rise, But Air Travel Still Seen as Relatively Safe." *The Gallup Report* 287: 18-19. "Air travelers" and "More frequent flyers" were asked, "Are there any particular types of airplanes that you try to avoid? Which?" Twelve percent of all air travelers and seventeen percent of more frequent flyers answered, "Yes, DC-10s."
322. "Lawn Darts Are Dangerous to Children," *Consumer Product SAFETY ALERT* (Washington, D.C.: U.S. Consumer Product Safety Commission, May, 1985), p. 1.
323. File 870415WES5054 Available: U.S. Consumer Product Safety Commission, Freedom of Information Act Request Files (Lawn Darts).
324. *Id.*; "Consumer Product Safety," *Congressional Quarterly Almanac 1988*, (Washington, D.C.: CQ Press, 1989), pp. 580-581; David A. Snow, Testimony before Subcommittee on Commerce, Consumer Protection and Competitiveness of the Committee on Energy and Commerce, *Consumer Product Safety Commission Reauthorization (Part 2)* U.S. House of Representatives, 100<sup>th</sup> Cong., 1<sup>st</sup> Sess., (October 27, 1987)pp. 66-95; David A. Snow, Testimony before Subcommittee on Commerce, Consumer Protection and Competitiveness of the Committee on Energy and Commerce, *Consumer Product Safety Commission Reauthorization* U.S. House of Representatives, 100<sup>th</sup> Cong., 1<sup>st</sup> Sess., (June 4, 1987), pp. 4-17.



325. Lawn Dart Ban, Pub. L No. 100-613, 102 Stat. 3183 (1988).
326. Larry J. Franklyn, President, Franklyn Sports Industries, Inc., Letter to Office of the Secretary, Lawn Darts, p. 2.
327. Robert, M. Archer, Kent Sporting Goods Company, Inc., Letter to Consumer Product Safety Commission, August 8, 1988, Available Available: U.S. Consumer Product Safety Commission, Freedom of Information Act Request Files), p. 2.
328. Shelly Waters Deppa and Sharon White, Memorandum to Elaine A. Tyrrell, January 29, 1988, U.S. Consumer Product Safety Commission, (Available: U.S. Consumer Product Safety Commission, Freedom of Information Act Request Files).
329. Archer, Kent Sporting Goods, *supra*, p. 1.
330. Thomas M. Marchant, III, Vice President, Stone Manufacturing Co., Testimony before U.S. Congress. Senate. Subcommittee on Separation of Powers of the Committee on the Judiciary. 1981. *Claims for Losses Resulting from Ban on Tris*, S. 823. 97th Cong., 1st Sess., May 4 and 5, 1981., p. 20.
331. Dorothy A. Canter, Bureau of Biological Science, Memorandum to Robert M. Hehir, Director, Bureau of Biological Science, Consumer Product Safety Commission, July 21, 1976. [Microfiche], p.1.
332. Paul F. Hoffman, Chairman, Velsicol Chemical Corporation, Testimony before Subcommittee on Oversight and Investigations of the Committee on Interstate and Foreign Commerce, *Regulation of Cancer-Causing Flame Retardant Chemicals and Governmental Coordination of Testing of Toxic Chemicals*, U.S. House of Representatives, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess., pp. 238-239.
333. Ernst & Ernst, Report on Sales of Tris by Members of the Fire Retardant Chemical Association submitted in testimony of Bergman, William S., Executive Vice President, Flame Retardant Chemicals Association, U.S. Congress. House of Representatives. Subcommittee on Antitrust, Consumers and Employment of the Committee on Small Business. 1978. *Banning Distribution of Tris*. 95th Cong., 1st Sess., April 28 and May 19, 1977, pp. 132-133.
334. Public concerns about Kepone, benzene, polychlorinated bipheynls and other chemicals probably entered into the thinking of chemical manufacturers and others. As *The Wall Street Journal* observed as the chemical Tris first became a matter of government concern, "Congress is making its third attempt in five years to devise legislation cracking down on industrial chemicals suspected of causing cancer or other harm to humans." See "Senate Votes New-Chemical Safety Tests, Fresh U.S. Powers on Perilous Substances," *The Wall Street Journal*, March 29, 1976, p. 4.
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476. "CPSC Bans Tris-Treated Children's Garments," *News Release* (Washington, D.C.: U.S. Consumer Product Safety Commission, Office of Public Affairs, April 7, 1977.)
477. The ban appears in the *Federal Register*. "Children's Wearing Apparel Containing TRIS; Interpretation as Banned Hazardous Substance," 42 *Federal Register* 68 (April 8, 1977), pp. 18849-18854.
478. Alan C. Shakin, Memorandum to the Commission dated February 25, 1977, enclosed for the record in letter of S. John Byington, Chairman, U.S. Consumer Product Safety Commission, U.S. Congress. House of Representatives, Subcommittee on Commerce, Consumer and Monetary Affairs of the Committee on Government Operations, *Consumer Product Safety Commission's Ban on Tris*. 95th Cong., 1st Sess., April 4 and May 17, 1977, p. 119.
479. *Id.*, pp. 105-110 (Federal Hazardous Substances Act); pp. 111-116 (Consumer Product Safety Act). The memorandum also briefly discusses the Flammable Fabrics Act. In a footnote, the memorandum notes that cancer hazards do not fall within the ambit of the statute, but it argues, "[T]he Congress could not have intended that a standard could not be modified to reduce or prevent some non-flammability hazard that it has increased or even created.", 116-117, n. 4.
480. The Shakin memorandum notes that review of a rule under the Federal Hazardous Substances Act would take place under a "substantial evidence on the record" standard of review. *Id.* at p. 119. Proceeding under the various provisions of the Consumer Product Safety Act, the memorandum suggests, would be more complex. Although the act allows for informal, notice and comment rulemaking, judicial review also takes place under a "a substantial

evidence" standard. *Id.*, p. 122. In administrative law, usually, the term "substantial evidence" implies review of an on-the-record, formal rulemaking proceeding. Informal rulemaking is usually reviewed under an "arbitrary and capricious standard." Either way, the difference between these standards of review may well only have been semantic. In the 1970s, courts were quite willing to give informal agency actions a "hard look." Jeffrey S. Lubbers, *A Guide to Federal Agency Rulemaking*, 3<sup>rd</sup> ed. (Chicago, Illinois: American Bar Association, 1998), pp. 347, 317, 318, 319-320.

481. A well-studied example in this regard is the CPSC's attempt to regulate formaldehyde especially as compared with the efforts of OSHA or EPA to regulate the same substances. John D. Graham, Laura C. Green, and Marc J. Roberts, *In Search of Safety: Chemicals and Cancer Risk* (Cambridge, Massachusetts: Harvard University Press, 1988). In the same book, the authors also assess the efforts of OSHA and EPA to regulate another carcinogen, benzene.

482. U.S. Consumer Product Safety Commission, Annual Report, Fiscal Year, 1977, Appendix K: Litigation, 181-189.

483. Shakin memorandum, *supra*, pp. 120-121.

484. *Id.*, pp. 108-109.

485. *Id.*, p. 107.

486. Subcommittee on Antitrust, *Banning Distribution of Tris*, p. 80-81.

487. Shakin, Alan C. Memorandum to the Commission dated February 25, 1977, enclosed for the record in letter of Byington, S. John, Chairman, U.S. Consumer Product Safety Commission, U.S. Congress. House of Representatives. Subcommittee on Commerce, Consumer and Monetary Affairs of the Committee on Government Operations. 1977. *Consumer Product Safety Commission's Ban on Tris*. 95th Cong., 1st Sess., April 4 and May 17, 1977, p. 119.

488. *Spring Hills*, 434 F. Supp. at 435.

489. C.A. No. 77-682 in the United States District Court for the District of Columbia. Copy of final order available in "TRIS and Fabric; Yarn or Fiber Containing Tris; Additional Interpretations as Banned Hazardous Substances, 42 Fed. Reg. (May 5, 1977) 22878-22879.

490. *Id.*

491. *Spring Hills*, *supra* at p. 423.

492. 42 *Federal Register*. at p. 22878. (Quoting from order.)

493. "Tris: Firms Can Recoup Materials Cost." 1977. *Women's Wear Daily* 134(87): 1, 18.

494. "Tris and Fabric," 42 *Federal Register*, *supra* p. 22878.
495. *Spring Hills*, 434 F. Supp at 424.
496. "Tris and Fabric," 42 *Federal Register*, *supra* p. 22879.
497. *Spring Hills*, 434 F. Supp at 434.
498. *Id.*, p. 421, n.4.
499. *Id.*, p. 430.
500. Byrne, John A. 1977. "Tris Judge Poo-Poos Charges of Conflict." *Women's Wear Daily* 134(125): 1, 11.
501. "Hazardous substances: CPSC Agrees to Permanent Injunction Against Prosecuting Several Tris Cases." 1978. *Product Liability & Safety Reporter* 6(29): 593.
502. *Id.*
503. "Federal court refuses to enjoin retailer from selling Tris sleepwear." 1977. *Product Safety & Liability Reporter* 5(42): 771.
504. *Riegel Textile v. Celanese Corporation*, *Consumer Product Safety Decisions* ¶ 75, 253, pp. 60,676-60685 (S.D.N.Y. 1990).
505. Alan A. Parker, Assistant Attorney General, U.S. Department of Justice, Letter to Hon. Strom Thurmond, Committee on the Judiciary, October 2, 1979, In "Payments of Losses Incurred As A Result of The Ban on the Use of the Chemical Tris," Report to Accompany S. 823., Senate Report 97-130, June 3, 1981, p. 8.
506. Colloquy of Hon. Benjamin S. Rosenthal with witness, Hearings of the Commerce, Consumer, and Monetary Affairs Subcommittee of the Committee on Government Operations, *Consumer Product Safety Commission's Ban on Tris*, House of Representatives, 95<sup>th</sup> Cong., 1<sup>st</sup> Sess., April 4 and May 17, 1977, pp. 69-70.
507. Jimmy Carter, "Tris Bill Veto" *Congressional Quarterly Almanac*, Vol. 34 (Washington, D.C.: Congressional Quarterly, Inc., 1979), p. 67-E.
508. Senator Strom Thurmond, (R-SC) noted "Although there is no direct evidence Tris to cancer in humans, based in large part on its very preliminary data," the agency issued regulations banning fabrics yarns and fibers treated with Tris. (sic). Representative Carroll Campbell (R-SC) complained, "Several years after forcing chemical treatment on children's sleepwear manufacturers in spite of the industry's documented warning of unknown health hazards, the same Federal Government then required the manufacturers to recall those garments and pay for millions of dollars worth of goods which they were required by Federal regulation to treat chemically in the first place." Testimony before Subcommittee on Administrative Law and Governmental Relations of the

Committee on the Judiciary, *Payment of Losses Incurred As A Result of the Ban on Tris* U.S. House of Representatives, 97<sup>th</sup> Cong., 2<sup>nd</sup> Sess., June 16, 1982, pp. 10-13.

509. Tris Indemnification Act, Act of Dec 30, 1982, P.L. 97-395, 96 Stat. 2001.

510. As controversy on regulating Tris crested, CPSC Chairman John Byington observed that the problems in regulating Tris were illustrative of more general problems in regulating chemical hazards. (May 16) More specifically, he wrote that the country needed a national cancer policy on hazardous products. This would help agencies evaluate, "the difficult scientific and socio-economic trade offs involved in regulatory decisions." John Byington, Chairman of the Consumer Product Safety Commission, Letter to The President, May 6, 1977, Available: U.S. Consumer Product Safety Commission, Freedom of Information Act Archives. Certainly, this letter is a plea for government provision of more of the sort of information contained in industry standards about reasonable choices to make in on safety and economic considerations.

511. "Air Transportation Regulation," 47 Fed. Reg. 41486-41501 (Notice of Proposed Rulemaking, September 20, 1982), p. 41486.

512. Howard Ball, *Controlling Regulatory Sprawl: Presidential Strategies from Nixon to Reagan* (Westport, Connecticut: Greenwood Press, 1984); Barry Friedman, *Regulation in the Reagan Bush Era* (Pittsburgh, Pennsylvania: University of Pittsburgh Press, 1995).

513. "Air Transportation Regulation," *supra* p. 41486.

514. *Id.*

515. The search for administration influence became almost silly. As one Deputy General Counsel had noted, E.O. 12291 came from the administration, but the specifics were written in the FAA. Another manager explained, "The current regulatory climate tries to set the stage for what the FAA is proposing," but he adds, "The term 'compliance by economic factors' is not something the FAA has decided that they want to comply with. . ." for the FAA is governed in what it does by the Federal Aviation Act and "setting safety as its priority" *Faberman, supra*. Statement of Dan Beaudette, Assistant Manager, Office of Flight Operations, Air Transportation Division. In United States Department of Transportation, Federal Aviation Administration, Meeting of Allied Pilots Association Proposed Air Transport Regulation Rules Docket, December 7, 1982, p. 3. Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.; U.S. House. Subcommittee on Government Activities and Transportation of the Committee on Government Operations. *FAA's Regulation by Objective Proposal* Hearings 22 and 23 Nov. 1982. Washington: Government Printing Office (Administrator Helms, p. 31; Associate Administrator Luffsey, p. 76).

Colloquy between Kenneth S. Hunt, Director of Flight Operations; Walter J. Sullivan, Manager of Safety Regulations Division; Dan Beaudette, Assistant Manager of Air Transportation Division, Flight Standards Office; and Ed Faberman, Deputy Chief Counsel, Federal Aviation Administration, Transcript of Proceedings, Department of Transportation, Federal Aviation Administration,



Public Meeting, Part 120 Air Transportation Regulation, November 30, 1982, Los Angeles, California, pp. 59-62. Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.

The search for administration influence got almost silly. After Congressman Burton asked for the second time, he said, "I am not, you know, looking for any plot. I was just kind of curious." To which the response was, "No plot." Hearing, *supra*, p. 76.

516. "Air Transportation Regulation," *supra* p. 41486-41487.

517. Colloquy between Edward S. Downs, Continental Airlines and Dave Potter, Air Transport Division, Flight Standards In Department of Transportation, Federal Aviation Administration, In the matter of the Public Meeting on Regulation by Objective, 1709 New York Avenue, N.W., Washington, D.C., November 30, 1982, at p. 52. Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.

518. Jim Williams, Elmhurst, Illinois, to Dan Beaudette, Air Transportation Division, Question in *Transcript of Proceedings*, Department of Transportation, Federal Aviation Administration, Public Meeting, Part 120 Air Transportation Regulation, November 30, 1982, Los Angeles California, p. 59. Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.

519. Lawrence Tierney, Spokesman, Professional Air Traffic Control Association, Statement *In the Matter of the Public Meeting on the Air Transportation Regulation*, Washington, D.C. December 9, 1982, 9:00 A.M.; Brian A. Wogan, President, International Federation of Flight Dispatchers, Comments dated June 12, 1983; Ken Hagstette, President, Professional Airline Flight Control Association, Comments dated October 5, 1982; Monica Kaufmann, Secretary/Treasurer, Independent Federation of Flight Attendants, Comments dated June 3, 1983; Bruno Paluk, President, Association of Professional Flight Attendants Comments dated June 9, 1983; Bonnie Harris McKenna, Central Safety Chairperson, Union of Flight Attendants; Nancy Garcia, Director of Health & Safety, Airline, Aerospace & Allied Employees, Teamsters Local 2707, Comments dated June 17, 1983; John F. Peterpaul, General Vice President, Transportation Division, International Association of Machinists, Comments dated June 15, 1983, Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.

520. Alan R. Stephan, Vice President, Operations, Regional Airlines Association, Comment of June 16, 1983, Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.

521. Peter G. Hardy, United Airlines, In Department of Transportation, Federal Aviation Administration, *In the matter of the Public Meeting on Regulation by Objective*, 1709 New York Avenue, N.W., Washington, D.C., November 30, 1982, at p. 80-81. Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.

522. E. Joel Hall, President, Allegheny Commuter, p. 3 Comment of June 20, 1983, The same phrase appears in the comments of the Regional Airline Association dated June 15, 1983 at p. 11. Both documents are filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.
523. LeMoyné Stitt, Aeronautics Program Specialist, Division of Aeronautics, Department of Transportation, Washington State. *But see* Paul E. Burket, Aeronautics Administrator, Aeronautics Division, Oregon Department of Transportation, Comment of June 16, 1983, Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.
524. Jim Burnett, Chairman, National Transportation Safety Board, Comment of June 16, 1983 p. 4, Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.
525. Matthew H. Finucane, Director Consumer Aviation Project (December 11, 1983) in Comment of Matthew H. Finucane, Director, Aviation Consumer Action Project, May 11, 1983, Filed at Regulation by Objective, Federal Aviation Administration Rules Docket No. 22480.
526. "Air Transportation Regulation; Withdrawal," 48 Fed. Reg. 28118 (Withdrawal of Notice of Proposed Rulemaking, June 20, 1983), p. 28118.
527. Robert W. Crandall, "Viewpoint: Has Reagan Dropped the Ball?" *Regulation* 5(September/October, 1981): 15-18; Robert W. Crandall, "Forward," in Robert E. Meiners and Bruce Yandle, eds., *Regulation and the Reagan Era: Politics, Bureaucracy and the Public Interest* (New York: Holmes & Meier, 1989).
528. The Regulation by Objective proposal was pending between September, 1982 and June, 1983. The number of articles on aviation safety is depicted in Table 3-1: Total Number of Articles on Aviation Safety, *supra*.
529. William Tripplet, "An Industry Held Hostage," *Air and Space Smithsonian* 7(February/March, 1993): 26-38.
530. "President's News Conference of June 18, 1985," *Weekly Compilation of Presidential Documents*, Monday, June 24, Vol 21 No 25, p. 806. (Emphasis added.)
531. Jan W. Steenblik, "Sky Marshals, No; Air Marshals, Yes: What's in a Word?" *Air Line Pilot* 55(April, 1986):15.
532. Thomas Ashwood, Vice President, Air Line Pilots Association, Testimony at Hearing of the Subcommittee on Government Activities and Transportation of the Committee on Government Operations, U.S. House of Representatives, *FAA's Civil Aviation Security Program*, 99<sup>th</sup> Cong., 1<sup>st</sup> Sess., June 27, 1995, p. 35.
533. Billie H. Vincent, Director, Office of Aviation Security, Federal Aviation Administration, *FAA's Aviation Security Program*, *supra*, pp. 4-6; Billie H. Vincent, Director, Office of Aviation Security, Federal Aviation Administration,

Testimony at Hearing before the Subcommittee on Aviation of the Committee on Commerce, Science and Transportation, U.S. Senate, *International Airport Security and Anti-Hijacking Measures*, 99<sup>th</sup> Cong., 1<sup>st</sup> Sess., June 27, 1985, p. 60.

534. Transportation of Federal Air Marshals, 50 Fed. Reg. (July 8, 1985) 27924-27925 (Final Rule with Request for Comments).

535. *Id.*

536. James E. Landry, Senior Vice President and General Counsel, Air Transport Association, Testimony at Hearing before the Subcommittee on Aviation of the Committee on Public Works and Transportation, U.S. House of Representatives, *Oversight of Airport and Airline Security Programs*, 99<sup>th</sup> Cong., 1<sup>st</sup> Sess., July 11, 1985, p. 62.

537. Comment of Mary Ann Miller, Director, Safety, Health, Legislation & Communication, Independent Federation of Flight Attendants, August 9, 1984; Comment of William A. Gill, President, Flight Engineers International Association, unk., Filed at Transportation of Federal Air Marshals, Federal Aviation Administration Rules Docket, 24714.

538. Comment of Henry A. Duffy, President, Air Line Pilots Association, July, 17, 1985, Filed at Transportation of Federal Air Marshals, Federal Aviation Administration Rules Docket, 24714.

539. Jan W. Steenblik, "Combating Terrorism," *Air Line Pilot* 55(April, 1986):14-17, 16

540. J. Pointe, Jr., "Airborne Lawmen," *Air Line Pilot* 48(November, 1979): 28-31, p. 28-29; *See also*, Steenblik, *supra*, p. 16; C.V. Glines, "Federal Air Marshals, At Your Assistance," *Air Line Pilot* 63(May, 1994): 18-21.

541. Pointe, *supra*. However, the FAA's Director of Office of Aviation Security testified that the sky marshal program was phased out in 1974. Less important than the precise date is the recognition that the program was not effective.

542. "Certain Toys Intended for Use by Children; Classification as Banned Hazardous Substances," 35 Fed. Reg. (December 19, 1970) 12966-12967 (Final Rule).

543. J.S. Tay and J.S. Garland, "Serious Head Injuries from Lawn Darts," *Pediatrics* 79(February, 1987): 261-263; R.A. Armoury, "Lawn Darts Peril Underlined," 80(August, 1987): 307.

544. "Lawn Darts; Advance Notice of Proposed Rulemaking; Request for Comments and Data," 52 Fed. Reg. (October 20, 1987) 38935-38939, 38936-37.

545. Elaine Tyrrell, Project Manager, Children's and Recreational Products Program *et al.*, Memorandum to The Commission, Subject: Lawn Darts: Follow-Up to Advance Notice of Proposed Rulemaking, February 8, 1988, pp. 8-9 Elaine Tyrrell, Project Manager, Children's and Recreational Products Program *et al.*,

Memorandum to The Commission, Subject: Options Package - Lawn Darts, September 10, 1987, p. 6.

546. David Schmeltzer, Associate Executive Director, Directorate for Compliance and Administrative Litigation, Memorandum to Douglas Noble, Office of Program Management and Budget, Subject: Lawn Darts, July 15, 1987, p. 6.

547. Shelly Waters Deppa, EPHF, *et al.*, Memorandum to Elaine A. Tyrrell, EX-PB, Subject: Evaluation of Lawn Dart Effectiveness Provisions, January 29, 1988, p. 3.

548. Dale R. Ray, ECPA, Memorandum to Elaine Tyrrell, OPMB, Subject: Lawn Darts, August 27, 1987, p. 2. Also, the accompanying table.

549. *Id.*, p. 1.

550. Log of Meeting; December 10, 1987; Milton M. Bush, Esq., Sporting Goods Manufacturers Association, Letter to Office of the Secretary, December 17, 1987.

551. George F. Will, "Lawn Darts and the Limits of Laissez Faire," *The Washington Post*, May 8, 1988, p. B7.

552. James J. Florio, "Lawn Darts are but One Example," *The Washington Post*, May 20, 1988, p. A20.

553. "Rep. Dingell's Wife Helps Push Lawn-Dart Ban," *Congressional Quarterly Weekly Report* 46(October 22, 1988): 3079-3080.

554. Hon. John Dingell, "Providing for Amendment of Consumer Product Safety Commission Regulation Regarding Lawn Darts," 134 Cong. Rec. (Part 22) 32296-32299 (October 20, 1988), p. 32296.

555. Terrence R. Karels, ECSS, Memorandum to Chris Nelson, Subject: Lawn Darts - - - PSA # 2804, June 22, 1987, p. 2.

556. Robert M. Archer, Kent Sporting Goods Company, Inc., Letter to Consumer Products Safety Commission, August 8, 1988, p. 2.

557. "BW/Harris Poll: Travelers Come Down with a Case of the Jitters," *Business Week* 2492(April 21, 1986): 27. The precise question asked was: "Do you think the security measures that passengers have to go through when boarding an aircraft are very effective, somewhat effective, or hardly effective at all?"

558. GAO Report: Aviation Security: Corrective Actions Underway, but Better Inspection Guidance Still Needed GAO 88-160, p. 2.

559. Search of Lexis-Nexis Congressional Universe using keywords "aviation," "security" and "Federal Aviation Administration." Undoubtedly many of the hearings dealt with matters peripheral to aviation security such as budgets or civil service reform. The entry is the number of hearings and not the number of days of hearings.

560. The August, 1988 report was: Aviation Security: Corrective Actions Underway, But Better Inspection Guidance Still Needed, RCED-88-160. The half dozen earlier reports included: Aviation Security: Improved Controls Needed to Prevent Unauthorized Access at Key Airports, RCED-88-86; Security at Nation's Highest Risk Airports, T-RCED-8814; FAA's Implementation of a Performance Standard for Passenger Screening Process, T-RCED-88-4; Aviation Security: FAA Needs Preboard Passenger Screening Performance Standards, RCED-87-182; FAA's Preboard Passenger Screening Process, T-RCED 81-34; Aviation Security: FAA's Preboard Passenger Screening Test Results, RCED-87-125FS.

561. Richard Witkin, "F.A.A. to Toughen Check-In Security," *The New York Times*, December 29, 1988, p. A10.

562. James Ott, "FAA Orders U.S. Airlines to Install Bomb Detectors," *Aviation Week and Space Technology*, 131(September 4, 1989): 68-69, 68; See also, Breck W. Henderson, "Increasing TNA Sensitivity Causes Higher Number of False Alarms," *Aviation Week and Space Technology*, 131(September 18, 1989): 127-8; Karl Bremer, "Thwarting Terrorists with Technology," *Airline Executive International* 15(August, 19918): 28-33.

563. See e.g., Paul Proctor, "FAA will begin Testing Improved Security Equipment" *Aviation Week and Space Technology*, 125( November 3, 1986): 136-137; J.A. Donoghue, "Terrorist Threat Spurs Security Technology Advances" *Air Transport World* 23(June, 1986): 14-16.

564. Monte Belger, Associate Administrator for Aviation Standards, Federal Aviation Administration, Statement to Subcommittee on Aviation of the Committee on Public Works and Transportation, U.S. House of Representatives, *Aviation Security*, 101<sup>st</sup> Cong., 1<sup>st</sup> Sess., March 21, 1989 and April 25, 1989, pp. 24,33.

565. *Id.*, pp 58-59.

566. Richard F. Lally, Assistant Vice President for Security, Air Transport Association, Statement, *id.*, p. 113-114.

567. Juliette Lenoir, National Vice President, Association of Flight Attendants, AFL-CIO, Statement, *id.* p. 195; Brian K. Moreau, Vice President, Independent Union of Flight Attendants, *id.*, p. 215.

568. H.L. Bradley, Chairman, Flight Security Committee, Air Line Pilots Association, Statement, *id.*, p. 210-214.

569. Charles M. Barclay, Executive Vice President, American Association of Airport Executives, Statement, *id.*, p. 383; Jeffrey W. Hamiel, Airport Operators Council International, Statement, *id.*, p. 398. AOCI did take some pains to point out at some length the practical difficulties of TNA systems, but it did support the initial development of six experimental machines.

570. "Explosive Detection Systems for Checked Baggage," 54 Fed. Reg. (July 10, 1989) 28985 *et seq.* citing P.L. 101-45 (Dire Emergency Supplemental Appropriations and Transfers, Urgent Supplementals, and Correcting Enrollment Errors Act of 1989, P.L. 101-45, 103 Stat 97).
571. Belger, *Aviation Security*, *supra*, p. 57.
572. Explosive Detection Systems, 54 Fed. Reg., p. 28987-28988.
573. Colloquy between Richard Lally, Hon. James L. Oberstar and Hon. Sherwood Boehlert, *Aviation Security*, *supra* p. 101-103.
574. Nancy Jean Strantz, "Aviation Security and Pan Flight 103: What Have We Learned," *Journal of Air Law and Commerce* 56(Winter, 1990): 413-489, p. 434.
575. Colloquy, *Aviation Security*,. *supra*, p. 102.
576. Explosive Detection Systems, 54 Fed. Reg., p. 28986.
577. See *e.g.*, Comments of Douglas P. Boyd, President, Imatron; Martin Annis, American Science & Engineering; Southwest Research Institute. All filed at Explosive Detection Systems for Checked Baggage, Federal Aviation Administration Rules Docket, 25956. For convenience, other filings submitted in connection with this rulemaking proceeding are identified "filed at EDS."
578. Comment of Captain Peter Reiss, Chairman, National Flight Security Committee, Air Line Pilots Association, Filed at EDS.
579. Comment of Deborah Lunn, Acting Executive Director, Airport Operators Counsel International, August 7, 1989 (joint submission with American Association of Airport Executives) filed at EDS.
580. Comment of Frank M. Gilley, Standards and Procedures, Department of Aviation, City of Houston, August 4, 1989, p. 2, filed at EDS.
581. Comment of Carl J. Sanders, Manager Corporate Security, Alaska Airlines, August 7, 1989, filed at EDS.
582. Comments of Edward J. Driscoll, President, National Air Carriers Association, August 7, 1989; Deborah C. McElroy, Vice President, Regional Airline Association, August 4, 1989, filed at EDS.
583. Comment of Richard F. Lally, Vice President-Security, Air Transport Association of America, August 4, 1989, filed at EDS.
584. Comments of Representative Cardiss Collins, Chairwomen, Government Activities and Transportation Subcommittee, August 23, 1989, filed at EDS, pp. 2-3.

585. "Explosives Detection Systems for Checked Baggage," 54 Fed. Reg. (September 5, 1989) 36938 *et seq.* (Final Rule).
586. "Report of the President's Commission on Aviation Security and Terrorism," (Washington, D.C.: President's Commission on Aviation Security and Terrorism, May 15, 1990), pp. 63-67.
587. Aviation Safety Improvements Act of 1990, P.L. 101-604, 104 Stat. 3066.
588. Billie H. Vincent, Statement before the Government Activities and Transportation Subcommittee of the Committee on Government Operations, U.S. House of Representatives, 101<sup>st</sup> Cong., 1<sup>st</sup> Sess., September 25 and 26, 1989, p. 140.
589. Wilfred A. Jackson, Director of Operations, BWI Airport, *id.*, p. 197.
590. Jackson, *id.*, p. 250.
591. The report came sometime later. Commission on Engineering and Technical Systems, *Detection of Explosives for Commercial Aviation Security* (Washington, D.C.: National Academy of Science, 1993).
592. Report of the President's Commission, *supra*, p. 64.
593. *Id.*, p. 65.
594. Dire Emergency Supplemental Appropriations and Transfers, Urgent Supplementals, and Correcting Enrollment Errors Act of 1989, P.L. 101-45, 103 Stat 97.
595. Aviation Safety Improvements Act of 1990, P.L. 101-604, 104 Stat. 3066.
596. Explosive Detection Systems; Proposed Criteria for Certification, 57 Fed. Reg. (November 4, 1992) 52698-52702.

(Chapter Six: Public Opinion Effects on Enforcement of Policy)

597. John W. Kingdon, *Agendas, Alternatives and Public Policies* (Boston, Massachusetts: Little Brown, 1984), pp. 3-4.
598. Baumgartner and Jones, *Agendas and Instability in American Politics*, *supra*, pp. 118-121, 125.
599. *Id.*, p. 20.
600. George C. Edwards, III and B. Dan Wood, "Who Influences Whom? The President, Congress and the Media," *American Political Science Review* 93(2):327-44.
601. Cook, *Governing with the News*, *supra*, pp. 13-14.
602. *Id.*

603. Fay Lomax Cook, Tom R. Tyler, Edward G. Goetz, Margaret T. Gordon, David Protess, Donna R. Leff, and Harvey L. Molotch. "Media and Agenda Setting: Effects on the Public, Interest Group Leaders, Policy Makers, and Policy," *Public Opinion Quarterly* 47(1983): 16-35; David L. Protess, Donna R. Leff, Steven C. Brooks, and Margaret T. Gordon, "Uncovering Rape: The Watchdog Press and the Limits of Agenda Setting." *Public Opinion Quarterly* 49(1985): 19-37; Donna R. Leff, David L. Protess, and Stephen C. Brooks, "Crusading Journalism: Changing Public Attitudes and Policy-Making Agendas," *Public Opinion Quarterly* 50(1986): 300-315; David L. Protess, Fay Lomax Cook, Thomas R. Curtin, Margaret T. Gordon, Donna R. Leff, Maxwell E. McCombs, and Peter Miller, "The Impact of Investigative Reporting on Public Opinion and Policymaking: Targeting Toxic Waste," *Public Opinion Quarterly* 51(1987): 166-85. See also, David L. Protess, Fay Lomax Cook, Jack C. Dopplet, James S. Ettema, Margaret T. Gordon, Donna R. Leff, and Peter Miller, *The Journalism of Outrage: Investigative Reporting and Agenda Building in America* (New York: The Guilford Press, 1991).

604. Cook, et al., "Media and Agenda Setting," p. 30.

605. *Id.*, p. 32; Protess, et al., "Impact of Investigative Reporting," p. 180.

606. Protess, "Uncovering Rape,"

607. Mutz, *Impersonal Influence, supra*, p. 16.

608. Robert W. Baker, Senior Vice President Operations, American Airlines, "Surveillance Requirements of the 1980s," Speech Delivered at The Transportation Center, Northwestern University, Evanston, Illinois, June 24, 1987.

609. There are several works in this genre. See, Jonathon Bendor "Review Article: Formal Models of Bureaucracy," *British Journal of Political Science* 18(1988): 353-95. The key articles are by "McNollgast." Matthew D. McCubbins, Roger Noll, and Barry R. Weingast, "Administrative Procedures as Instruments of Political Control," *Journal of Law, Economics and Organizations* 3(1987):243-77; McCubbins, Noll, and Weingast, "Structure and Process," *supra*. See also, Randall L. Calvert, Mark J. Moran, and Barry R. Weingast. 1987. Congressional influence over policymaking: the case of the FTC" In Matthew D.. McCubbins, and Terry Sullivan, eds., *Congress: Structure and Policy*, (Cambridge, Massachusetts: Cambridge University Press, 1987), pp. 493-522.

610. United States General Accounting Office, *Aviation Safety: FAA's Safety Inspection Management System Lacks Adequate Oversight*. (Washington, D.C. GAO/RCED-90-36, 1989); United States General Accounting Office, *Aviation Safety: Needed Improvements in FAA's Airline Inspection Program Are Underway*. (Washington, D.C. GAO/RCED-87-62, 1987); United States General Accounting Office, *Aviation Safety: Problems Persist in FAA's Inspection Program*. (Washington, D.C. GAO/RCED-92-14, 1991); United States General Accounting Office, *Aviation Safety: Weaknesses in Inspection and Enforcement Limit FAA in Identifying and Responding to Risks* (Washington, D.C. GAO/RCED-98-6, 1998).



611. Office of Technology Assessment, *Safe Skies for Tomorrow: Aviation Safety in a Competitive Environment* (Washington, D.C.: Government Printing Office, 1988)
612. "National Air Transportation Inspection Program, Report for the Secretary," Department of Transportation, July, 1984; "Report of the Safety Review Task Force on Federal Aviation Administration Flight Standards Safety Program," Department of Transportation, August, 1985.
613. *Aviation Safety Commission, supra.*
614. *Winds, supra.*
615. Colloquy between Senator Paul S. Sarbanes and Herbert R. McLure, Subcommittee on Investment, Jobs and Prices of the Committee on Joint Economic Committee of the Congress of the United States. *Declining Federal Health and Safety Standards: Aviation Safety*. 99th Cong., 2nd Sess., July 21, 1986, p. 81.
616. See also, FAA's Top Problem: Stable Revenues, *Aviation Week & Space Technology* 145 (August 19, 1996): 76-79. The data for this analysis were provided by the FAA.
617. Keith T. Poole and Howard Rosenthal, *Congress: A Political-History of Roll Call Voting* (New York: Oxford University Press, 1997), pp. 46-48.
618. Tim Groseclose, Steven D. Levitt, and James M. Snyder. "Comparing Interest Group Scores Across Time and Chambers: Adjusted ADA Scores for the U.S. Congress." *American Political Science Review* 93, no. 1 (1999): 33-50.
619. The changes were calculated by taking the first order differences of the number of inspectors. This "differencing" removes the problem of estimating a regression model on non-stationary or "trending" data.
620. G.S. Maddala, *Introduction to Econometrics*, (New York: Macmillan Publishing Company, 1992), p. 239.

(Chapter Seven: Conclusion)

621. Peter V. Miller, "The Industry of Public Opinion," In Theodore L. Glasser, and Charles T. Salmon, eds., *Public Communication and the Communication of Consent*. (New York: The Guilford Press, 1995), pp. 105-131.
622. Raymond A. Bauer, Ithiel de Sola Pool, and Lewis A. Dexter, *American Business and Public Policy: The Politics of Foreign Trade* (New York: Atherton Press, 1972), pp. 3-4.
623. See references, 409-415, Chapter Five, *infra*.

(Appendix – Article Count Data)

624. By matching titles, periodicals and dates it appears that a few entries appeared as many as five times. About 22% of the entries were redundant listings of an article under different a different subject heading.

625. John T. Woolley, "Using Media-Based Data in Studies of Politics," *American Journal of Political Science* 44(2000): 156-73; Cheryl Zollars, "The Perils of Periodical Indexes: Some Problems in Constructing Samples for Content Analysis and Culture Indicators in Research," *Communication Research* 21(1994): 698-716.

626. Scott L. Althaus, Jill A. Edy, and Patricia Phalen, "Creating the Vanderbilt Television News Abstracts," 1998, Unpublished Manuscript.

627. Frank R. Baumgartner and Bryan D. Jones, *Agendas and Instability in American Politics* (Chicago, Illinois: University of Chicago Press, 1993).

628. Frank R. Baumgartner and Bryan D. Jones, "Attention, Boundary Effects and Large-Scale Policy Change in Air Transportation Policy," in David A. Rochefort, and Roger W. Cobb, eds., *The Politics of Problem Definition: Shaping the Policy Agenda* (Lawrence, Kansas: University Press of Kansas, 1994), pp.50-66.

629. Zollars, *supra*, pp. 700-704.

630. Baumgartner and Jones, "Attention, Boundary Effects," *supra* at 59.

631. Woolley, "Using Media-Based Data," *supra*, p. 163.

632. Baumgartner and Jones, "Attention, Boundary Effects," *supra* at 58.

633. Robert L. Brennan and Dale J. Prediger, "Coefficient Kappa: Some Uses, Misuses and Alternatives. *Educational and Psychological Measurement* 41(1981): 687-99.

634. *Id.*, p. 688.

635. Baumgartner and Jones, *Agendas and Instability, supra* at 225.

636. There were transcription errors made in the current study. For example, in spite of my efforts to mark all duplicates articles in the data, it appears that 0.3 of the entries marked as originals for which there was a duplicate article did not in fact have a duplicate. My view is that any error that these transcription errors may cause are immaterial; the analysis here is not so fine-grained that such errors will affect the results.

637. Vanderbilt Television News Archive, *supra*.

## Vita

Joseph John Hinchliffe received a degree in political science, *magna cum laude* from the University of Rochester in 1983. While at Rochester, he was elected to membership in Phi Beta Kappa. After college, he attended law school at Vanderbilt University in Nashville, Tennessee. He received a jurisprudence doctorate in 1986, and while at Vanderbilt, in two different courses, he received the highest mark, and thus earned for each an American Jurisprudence Award. After several years actively practicing law in the state and federal courts in and near Pittsburgh, Pennsylvania, in 1992, he left the practice of law to return to pursue graduate studies.

At the University of Illinois, his studies have emphasized public policymaking in national political institutions. While in graduate school, with his advisor Paul Quirk, Hinchliffe received the Robert Kelly-Aaron Wildavsky Award for the best article in the *Journal of Policy History*. He is the only student from the Department of Political Science to complete the requirements for the Advanced Graduate Teaching Certificate of the Graduate College, and while working on his dissertation, he held visiting faculty appointments at Illinois State University in Normal, Illinois, and at Western Illinois University in Macomb, Illinois.