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HOW POLICY ISSUES BECOME FRONT-PAGE NEWS

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by

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Abstract

There are countless problems in the world, yet the public agenda is limited. The *New York Times*, in particular, has about eight front-page stories a day. The policy issues captured in these stories send critical cues to politicians and citizens alike about which issues are important and, by exclusion, which are not. We know media attention can influence opinion and policy, but we know relatively little about the mechanisms by which this attention is distributed. How do issues become front-page news?

I develop a theory of media dynamics to explain patterns of front-page attention. With too much information, limited agenda space, and complex institutional constraints, the media processes information disproportionately. That is, the media does not attend to issues in proportion with their severity, nor does it keep pace with real-world changes over time. Instead, the agenda tends to get stuck in equilibrium, centered on the same few issues day after day. Meanwhile, information continues to unfold in all issue areas. When the information build-up about a non-agenda issue becomes too large to ignore, attention lurches to that issue, overhauling the previous status quo. The result: Front-page attention is skewed across issues; a few issues get the vast majority of coverage. Additionally, *changes* in attention are disproportionately distributed; rather than shifting incrementally, the agenda displays periods of stasis punctuated by dramatic upheaval.

Against this foundation of media information-processing dynamics, I identify eight key variables that shape the content of front-page news: real-world events, prior attention, front-page congestion, scope of discussion, journalistic obligations and norms, entrepreneurial activity, public opinion, and political context. I test my theory of how policy issues become front-page news using an original dataset of all *New York Times* front-page stories, 2000–2005, coded by issue (some 18,000 stories in all). I document the skewed distribution of attention across issues and the disproportionate changes in the agenda over time. And I develop a statistical model of front-page attention that confirms my expectations about the effects of specific variables on the news-selection process.

I give special examination to the scope of discussion—that is, the degree to which media coverage of a policy issue is concentrated on a small number of dimensions or spread across a wide range of dimensions. My analysis suggests that scope and attention have a mutually reinforcing influence on one another. An increase in media attention to an issue offers more “room” for the scope of discussion about the issue to expand. At the same time, when the scope of a debate widens the additional perspectives make the issue more salient, thereby attracting more attention to the issue. Under the right conditions, the reinforcing link between scope and attention can lead to an attention cascade.

This study shows how front-page news, while impossible to forecast on a daily basis, exhibits strong and predictable patterns over time. Usually, institutional constraints leave the media in a holding pattern, fixating on current hot issues. But this equilibrium will always be disrupted—it’s just a matter of when, and by what issue. And when the agenda changes, it does so explosively, fueled by shifts in specific event and non-event variables, including the scope of discussion. The result is that front-page attention is very difficult to control. Policy entrepreneurs hoping to manage the spin of an issue will be sorely disappointed. But for advocates wanting to raise awareness of an issue, the best strategy is clear: Instead of saying the message louder, diversify the message itself.

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Chapter 1

The Puzzle of Attention: Why Patterns of Media Coverage Matter

In the United States an estimated 15,000 people are in a persistent vegetative state, and an unmeasured proportion of these cases involve family disputes about whether or not to remove the patient's life-sustaining feeding tube (Hirsch 2005). The vast majority of these cases go unnoticed. One case, however, recently caught the attention of a nation. Theresa "Terri" Schiavo, a woman in Florida who remained for 15 years in a persistent vegetative state, died on March 31, 2005 after a seven-year battle between her husband and her parents ended in a court-ordered removal of her feeding tube.

The Schiavo case raised Americans' awareness of end-of-life medical options and directives to an unprecedented level. One measure of the political impact of the Schiavo case is the amount of public demand for Living Will Directives, which serve as legal documentation of a person's wishes regarding medical treatment in the case of incapacitation. One major nonprofit group, Aging with Dignity, distributed an average of 1 million Living Will documents in the years prior to 2005. In 2005 however, the year that Terri Schiavo died, this number doubled to 2 million, and by 2006 the surge in requests had barely declined. Similarly, the number of visits to the U.S. Living Will Registry website, averaging about 500 a day before the Schiavo case, rose to 2,500 a day by 2006 (and an astounding 50,000 a day during the center of the controversy in March

2005). Additionally, 40,000 people registered Living Will documents with this online registry in 2006, up from 10,000 in 2005 (Stacy 2006).

Out of all the other cases of heated family dispute about whether or not to remove the feeding tube of a loved one in a persistent vegetative state—each case with similar potential to affect public use of Living Will documents—this case alone prompted an enormous shift in the application of existing public policy.¹ Why did Terri Schiavo's story have such a large influence on the political system? Because this case had something that no other similar case in recent history has had: attention.

The Importance of Attention

Attention is one of the most powerful resources in the political system, and it is the topic of this dissertation. As the case of Terri Schiavo illustrates, attention can mean the difference between ignorance and action, between silence and solution. In Congress, attention is what distinguishes the policy problems that get dealt with from those that remain in disrepair. In the courts, attention is what distinguishes the judicial precedents that are deliberated from those that are left unquestioned. And in the institutional context I study here—the front page of the *New York Times*—attention is what distinguishes the policy issues that become matters of public debate from those that are ignored. To be clear, not all problems that get attention in the political system are solved, but we know one thing for sure: The only problems that *do* get solved are the ones that get attention.

¹ Actually, by the time of Terri Schiavo's death there was much to distinguish this case from other feeding tube debates in the cases of other persistent vegetative state patients. By the end, the Schiavo case had embroiled pro-life religious groups, disability rights advocates, members of Congress, at least one state Governor, the Pope, and the creators of the popular TV animated show *South Park*. (The "Best Friends Forever" South Park episode, which first aired on March 30, 2005, paralleled the Schiavo case and won an Emmy Award in 2005.) Almost all these additional actors, however, became involved only *after* the case gained a surge of media attention. In other words, attention was the cause, not the effect, of the involvement of so many individuals and organizations unique to this case.

The *real* problem, of course, is that there are so many problems in need of attention. On any given day, the world is faced with thousands of political problems demanding solutions. Poverty, prescription drug coverage, corporate corruption, war... all these issues “deserve” attention. Yet attention is as scarce as it is powerful. Each year the U.S. Supreme Court decides about 150 cases; Congress and the President work to sign approximately 350 bills into law; the average American spends, by most counts, less than 1,000 hours thinking about politics; and the *New York Times* publishes 365 front pages, each one holding about eight stories.

The policy issues that appear in these front-page stories send vital cues to judges, politicians, and citizens alike about which issues are most important and, by exclusion, which are not. Without being talked about, policy needs have a slim chance of garnering public endorsement, financial support, or legislative action. “For an item or an issue to acquire public recognition, its supporters must have either access to the mass media or the resources necessary to reach people” (Cobb and Elder 1983: 86). And when front-page focus shifts from one set of issues to another, this change matters. “No wonder policy experts often view the media with disdain or even outright hostility,” write Baumgartner and Jones. “Each time there is a surge of media interest in a given topic, we can expect some degree of policy change” (1993).

We know, in fact, that the distribution of media attention can have a profound impact on the political system through its effects on public opinion (Behr and Iyengar 1985; Dearing and Rogers 1996; Entman 1989; Iyengar 1991; Iyengar and Kinder 1987; Iyengar and McGrady 2007; Jacoby 2000; Jasperson et al. 1998; McCombs 2004),²

² But for competing evidence, see (Dalton et al. 1998).

governmental agendas (Edwards and Wood 1999; Wood and Peake 1998), and public policy (Birkland 1997).

What we do *not* know is how media attention gets distributed in the first place. Which issues get attention? Is attention distributed evenly among issues? How does the media agenda change over time? And above all else, what are the factors driving the news-selection process? For example, why did the policy issue of medical directives captured by the case of Terri Schiavo receive so much attention (more than 7% of the *Times* front-page agenda in March 2005), and why then? *In short, what determines how policy issues become front-page news?*

These are the questions of my dissertation. For answers, I present an original dataset containing all *New York Times*³ front-page articles⁴—every single one—from 2000 to 2005. This dataset of nearly 18,000 stories offers an unprecedented opportunity to examine a major media agenda in its entirety. I examine how these front-page articles are distributed across policy and non-policy topics and how the distribution of attention changes over time. I develop a theory of media attention that explains how eight key variables interact with the institutional dynamics of the media to shape the composition of the front page. I look closely at the dynamics of front-page attention to uncover patterns in how the agenda changes over time. I use a statistical model to predict front-page attention as a function of key independent variables. And I discuss how the findings I present here bode poorly for political actors trying to control news coverage and bode well for entrepreneurs trying to upend that status quo distribution of attention.

³ Hereafter referred to as the *Times* or *NYT*.

⁴ I use the terms “story” and “article” interchangeably.

Although this study focuses on the media, my findings hold implications for attention dynamics in other institutions. As we know, there are important differences in how the formal and informal institutional constraints of different institutions affect those institutions differently. Different institutions even have agendas of different sizes and agendas that change in size over time. The President's agenda, for example, has grown substantially larger over time. The Supreme Court's agenda was growing larger for many years, but since William Rehnquist became Chief Justice in 1986 the agenda has decreased again. Even the *Times* front page has changed in size over time, decreasing by a number of inches over the last hundred years. Nevertheless, all institutions face the problem of attention scarcity—of having many, many more issues needing attention than there is space on the agenda. Thus, understanding how patterns of attention operate in the *Times* front page, with its particularly big problem of attention scarcity, can give us insights into what kind of patterns of attention may exist in other institutions. My study also holds implications for questions of agenda control, contradicting the idea many political scientists—many citizens—hold that political elites have the ability to control and manipulate the agenda.

I use this introductory chapter to discuss some of the key concepts and terminology I will employ in the dissertation and to provide an overview of the chapters to follow.

Events, News, and Policy Cues

It is important at the outset that I define, both theoretically and operationally, several key terms I will be using throughout the dissertation. As with any attempt to describe and analyze a real-world system, the terminology I employ to distinguish between different

facets of the news generation process will necessarily be over-simplistic and under-specified. Yet by adopting a consistent, albeit imperfect set of nomenclature I hope to spare the reader (and myself) any more confusion than we should expect to encounter when considering these complex concepts.

Events

I define an event as any bit of new information in the world: a speech, a protest, a trend, an opinion, a bombing, a partnership, or any other signal of what is happening “out there.” Each and every front-page article contains event information, but only a fraction of events receive front-page coverage.

Public Policy

For the purposes of this dissertation, I refer to public policy as the U.S. government’s stance on—or specific rubric for handling—a given policy problem. Nearly every event has policy implications, even if the news article covering the event does not identify the implications explicitly. When a murder occurs, this event has implications for how the government (be it local, state, or federal) handles crime. When a new Japanese Prime Minister is appointed, this event has implications for U.S. foreign policy with Japan. When two businesses merge, this event has implications for governmental regulation of (or deregulation of) private corporate mergers and monopolies. Some events, like the Red Sox designated hitter adding another home run to his record, have less immediate policy implications, though some might say that even the mere mention of a player’s batting average should spark consideration of a mandatory salary cap policy in baseball (not to mention the designated hitter controversy).

Policy Problems

There are many different types of events, but policy problems are one type of event often featured in front-page news. I define a policy problem as an event (or set of related events) that a) poses concern for at least some people, somewhere, and b) has direct policy implications (i.e., some government body could take action to address the problem). The nature of the news industry is such that most front-page news articles are policy-related and most are about policy problems. Again, even if the news article never makes explicit reference to a specific policy or to government intervention in the policy problem, each news article sends cues to the public and to government officials about which problems (and, thus, which policies) are foremost on the public agenda.

Policy Areas

It is very difficult to divide policies into discrete areas, or categories, both because policies rarely fit squarely into a single category and because any system of policy categorization must be based on the identification of a policy unit—how “big” must a policy category be before it is broken into two different categories? The Policy Agendas Project Topics Codebook, developed by Frank Baumgartner and Bryan Jones, is a system of policy categorization that has been adopted as a standard by many in the policy studies community.⁵ Baumgartner and Jones are the first to admit that their coding scheme is not without flaws (Baumgartner and Jones 1993; Jones and Baumgartner 2005). Yet given the pitfalls inevitable in this kind of venture, their categorization system is both theoretically rigorous and practically advantageous. What is more, the Policy Agendas coding scheme has been adopted by so many researchers that its use offers the ability for

⁵ The complete Policy Agendas Topics Codebook can be found at <http://www.policyagendas.org/codebooks/topicindex.html>.

cross-study comparison of results. Because I have elected to employ this categorization system, throughout my study I will refer to policy areas at two levels of analysis: policy issues and policy topics. When discussing a concept that applies equally to policy issues and policy topics, I will use the encompassing term of policy area.

Policy Issues: I define a policy issue as a subtopic policy area, measured at the 4-digit level using the Policy Agendas Topics Codebook. Examples of policy issues include unemployment, prescription drug coverage, drug trafficking, nuclear arms control, and so on. Since most stories focus on specific policy issues rather than broad policy topics, when discussing the news-selection process I will refer to policy issues with the understanding that every time a specific policy issue receives attention the larger policy topic encompassing that issue also receives attention by extension.

Policy Topics: I define a policy topic as a large policy area that contains multiple policy issues, measured at the 2-digit level using the Policy Agendas Topics Codebook. For example, the policy issue of unemployment falls under the umbrella policy topic of macroeconomics, as do policy issues such as inflation, national debt, and taxation. The policy issue of prescription drug coverage falls under the policy topic of health, the policy issue of drug trafficking falls under the policy topic of crime, the policy issue of nuclear arms control falls under the policy topic of defense, and so on.

Dimensions of Debate

All policy areas—that is, both specific policy issues and major policy topics—contain what I call dimensions of debate. I define the dimensions of a policy topic as the policy issues categorized in that topic. For example, unemployment, inflation, national debt, and taxation are four of the dimensions of the macroeconomics policy topic. I define the

dimensions of a policy issue as the issue-definitions, or frames, categorized in that topic (more on this later). Theoretically, we could draw the lines of categorization such that each policy topic and each policy issue contained as many or as few dimensions of debate as we would like. But practically speaking—and as operationalized at the policy topic level by the Policy Agendas coding scheme and at the policy issue level by the framing coding schemes I will employ—each policy area tends to have around a dozen dimensions of debate.

Discussion/Debate

In discussing front-page news coverage of one or more policy-related events, I will often refer to the debate or the discussion of the given policy area. By using the terms debate and discussion, I do not mean to imply that there are always clearly defined “sides” of the policy area being considered explicitly or implicitly in the news. I merely use these terms to remind the reader that, taken collectively, front-page articles come to form an ongoing conversation of sorts—and often a conversation that is politically charged. Granted, the conversation is technically one-sided, with journalists and editors doing all the official talking and everyone else reading. But the multiple feedback processes in the news-generation process (that I will describe in detail in chapters to come) mean that citizens and political elites have a strong voice on the front page. Rather than viewing each front-page article as an isolated news report, we must remember that these articles serve as important political cues that together form a rich and complex public policy discussion, one that plays a powerful role in shaping the political system itself.

The Distribution of Attention

The distribution of attention is the process by which policy issues (e.g., prescription drug benefits, political corruption, gas prices)—and thus their umbrella policy topics (e.g., health, government operations, energy)—gain position on the public or political agenda while other policy issues (e.g., farming subsidies, schizophrenia, third world genocides) go comparatively unnoticed. There are many different agendas in the political system: the Congressional agenda, the Presidential agenda, the agenda of public opinion, and so on. And there are many different ways to measure attention: the number of bills on a particular policy issue, the number of times the President mentions the issue, the percentage of Americans who name that issue as being important, and so on. The particular agenda under study here, the *New York Times* front page, is both very small and very important.

At the core of the process of attention distribution is the fact that there are more policy-related events in the world—and policy problems in particular—than can fit onto any single agenda. This scarcity of attention keeps all but the most compelling issues from gaining access to the agenda. The result is that most of the time, most policy issues (and thus most policy topics) fall below the radars of major political agendas like the *Times* front page and are attended to instead on smaller agendas within specialized policy communities (Carmines and Stimson 1989; Downs 1972; Jones and Baumgartner 2005).

The issues that *do* achieve agenda status determine the parameters of political debate. Schattschneider laid the theoretical groundwork for studies of attention distribution through the concept of conflict displacement: the redistribution of political attention or resources from the status quo to a new division of debate (1960). Consider the “pie” of space on a given agenda. In essence, attention distribution is the process of

slicing this pie along changing division lines, distributing and redistributing the resource of attention across a small handful of policy areas selected from the larger population of policy areas. In this way, a study of attention distribution is a study of influence (Gaventa 1980; Riker 1986). In distributing attention one way or another, power is wielded by limiting the scope of the political agenda “to public consideration of only those issues which are comparatively innocuous” to members of a particular group (Bachrach and Baratz 1962).

Consider again the case of Terri Schiavo. We might like to think that a policy issue as important as medical directives would gain attention on its own merits; that if the Schiavo case hadn’t prompted public and political awareness then the next similar case would have. But attention, especially media attention, doesn’t work like that. As I will show, which policy areas gain media attention (and when) is determined not by the inherent worth or severity of a policy area but by a number of other factors in the complex news-selection process, such as how much attention is currently being consumed by other policy areas, how much attention policy entrepreneurs are paying to the policy area, the level of public concern about the policy area, and how the policy area is discussed and defined.

By any measure, the policy issue of medical directives is important. But consider that every one of the front-page *Times* articles devoted to the Terri Schiavo case in March 2005 was an article spot *not* given to competing policy issues. Remember that this single policy issue consumed more than 7% of the front-page agenda in a single month. Here is

a sampling of other policy-related events that also occurred in March 2005 that received a scant amount of front-page coverage or, in most cases, no coverage at all:⁶

- Forty-two U.S. service men and women are killed in Afghanistan and Iraq, raising the total number of U.S. troops killed in these conflicts to 1,698.
- In Angola, the death toll from the recent outbreak of the Ebola-like Marburg virus reaches 127.
- The U.S. Supreme Court rules that the application of the death penalty for juveniles under 18 is unconstitutional.
- Pentagon officials admit to holding “ghost detainees”—enemy combatants detained without any record—at Abu Ghraib, including several women and juveniles as young as 11 years old.
- More than 200 people die in floods in Afghanistan.
- In Pakistan, five of the men accused of gang raping a woman at the order of a Pakistani tribal council (in retaliation for another rape falsely attributed to the woman’s brother) are acquitted.
- U.S. chess champion and fugitive Bobby Fischer is granted Icelandic citizenship.
- The United Nations releases a report concluding that malnutrition rates in Iraqi children have nearly doubled since U.S. troops entered the country.
- The arrests of 15 South Darfur officials constitute the first arrests on charges of ongoing war crimes in the region.
- Ukrainian officials reveal that 18 nuclear-capable missiles were smuggled into Iran and China by Ukrainian arms dealers between 1999 and 2001; the current location of the missiles is unknown.

Again, the point here is not that the issue of medical directives did not warrant attention, but rather that the news-selection process is just that: a process by which a small number of issues and topics are selected for attention and a much, much larger number are ignored.

Disproportionate Information Processing

Given the enormity of the information flow and the limited size of the agenda, how does the media process information? One hypothesis is that the media processes information evenly; that when a new piece of information enters the system it is prioritized in relation

⁶ Readers who recognized the name Terri Schiavo may be interested to see how many of the items in this list they also remember hearing about. All of these events were important; only a small number got attention.

to all the other pieces of information and then the agenda is updated accordingly. Under this model, attention would be distributed across policy issues in proportion with the (at least subjective) severity of the problems at hand. Over time, the agenda would change gradually through a churning process of issue-replacement. As new problems arise and old problems are dealt with, the new problems would gradually replace the old, such that the size of the changes in the agenda would be normally distributed over time.

Sometimes, with no major new developments in the political system, the agenda would experience only small changes; other times, during a crisis or other major event, large changes would occur; but most of the time, changes would be medium in size. In short, the distribution of attention would be proportional across issues, and *changes* in the agenda would occur proportionally over time.

But this model does not reflect what theory tells us about how an institution like the media should process information, nor does it fit the real world. Everything we know about institutions tells us that the structural constraints of those institutions will strongly shape the institution's behavior and output (Shepsle 1979a). In the case of the media, there are few formal constraints but many powerful informal ones, such as needing to maintain readers' interest, needing to compete with rival news organizations, and needing to appease politicians and other political elite so as to stay "in the know." But perhaps the single biggest constraint is the impossibility of culling the influx of information into a single publication. In the case of the front-page agenda in particular, where there is room enough for only about eight stories, the culling process is extreme.

The media, as a human-run institution, simply cannot handle all this information. There aren't enough people to attend to all the different storylines, and even if there were,

there certainly is no little black box into which all the new pieces of information can be fed and out of which comes a prioritized list of the most important issues of the day. Lacking any omniscient force or magic box to keep attention distributed in proportion with the severity of real-world problems, the human beings who comprise the media do their best to keep up. But with so much information coming in and so many pressures to match the rival paper's coverage of a hot issue, keep the readers happy, and stay in the good graces of political contacts, the media end up following a much different behavioral pattern than the null hypothesis model of proportionality described above.

In fact, given the institutional make-up of the media, a pattern of skewed attention across issues and disproportional changes in attention over time is the *only* one that could result. In brief, the pattern goes like this: Unable to keep pace with the constant flow of information, media attention will get stuck in the path of the status quo and cover the same set of issues in the same way for an extended period of time. But when mounting information in a different issue area becomes too great to ignore, the media will lurch attention over to that new problem. Over time, the result is that the agenda does not change gradually but in fits and starts. Most of the time, changes on the agenda are very small; only sometimes are changes medium in size; and there is a small but important number of changes that are very, very big. Moreover, in the aggregate, the result is that attention is skewed across policy areas; a few items receive an enormous amount of play on the agenda, but most receive barely any attention at all.

Many of the institutional constraints on the media are forces of negative feedback: When changes start to happen on the agenda, these constraints work against those changes to reinforce the status quo. Think about a thermostat set at a baseline

temperature. Each time the temperature in the room starts to get too hot, the air conditioning kicks in to cool things back down. Each time the room starts to get too cold, the heat comes on to warm things up. In the media, the need to maintain readership by competing with rival sources to cover the hot topics of the day is one example of a negative feedback factor. Hypothetically, if the *Times* started to pay less attention to the current hot issue (like the Terri Schiavo case) and pay more attention to an important but neglected issue (like agricultural subsidies or tribal-sponsored retaliatory rapes in Pakistan), some portion of the readership would respond by switching to a different news source in order to get their fix of the hot issue coverage. The *Times*, in turn, would respond to this loss of readership by reversing strategies and covering the hot issue once again—this is negative feedback. In reality, this kind of give and take rarely occurs, because editors and journalists are acutely aware of the constraints of their business; they wouldn't need to try the agriculture subsidies experiment to know that it would never fly.

The biggest negative feedback factor in the media system, however, is the media's imperfect information processing. The institution lacks the processing capacity to keep up with new information as it comes into the system, and so instead of changing through a pattern of gradual issue replacement, it stays fixed on one set of issues for an extended period of time. Meanwhile, information continues to press at the agenda, but without the capacity to handle all this information, the media has no systematic way of distinguishing which issues should get picked up on the agenda and which should be left off. Some issues will be selected randomly onto the front page, but without strong impetus to switch directions the media agenda will naturally follow in the path of the status quo.

Eventually, however, the agenda will change. The status quo will give way to new issues, and when this change occurs it will be dramatic and abrupt. Why? Because in addition to strong factors of negative feedback serving to reinforce the status quo, the media system includes strong factors of positive feedback serving to reinforce change. For example, one variable that influences media attention is the activity of policy entrepreneurs (politicians, lobbyists, etc.). And when policy entrepreneurs see a change on the agenda—the introduction of a new policy issue—they have incentives to update the distribution of their own resources and attention in such a way that they spend *more* energy, not less, on the new issue gaining attention. The additional attention by policy entrepreneurs in turn leads the media to pay even more attention to the issue, and if conditions are right, attention can spiral out of control.

Thus, most of the time media attention remains relatively fixed on a status quo set of topics, with limited opportunity for new issues to gain even a scrap of attention. Yet every once in a while, as with the case of Terri Schiavo, an issue will burst onto the agenda in a fad-like wave of popularity; a “cascade” of attention in the nature of fashion trends, stock market crashes, residential segregation, and collective action (Jones and Baumgartner 2005). The previous status quo is broken only by a massive overhaul of the agenda, since when media attention shifts, it does so suddenly and explosively. This dynamic pattern is appropriately termed “punctuated equilibrium” (Baumgartner and Jones 1993). The result is a system of front-page attention that changes in disproportionate amounts over time.

Moreover, in the aggregate, the distribution of attention across policy areas is skewed. Because of the way it processes information, the media ends up giving most of

its attention to hot issues already on the status quo agenda or to issues that, through the self-reinforcing change of positive feedback, have been recently launched onto the agenda. Some issues, like war or government scandal, are much more likely to be one of these hot issues. Other issues, like agricultural subsidies, are much less likely. Thus, while we would naturally expect some level of unevenness between the issues of war and agriculture, in a system of disproportionate information processing the discrepancies are exacerbated. Yet while the distribution of attention will nearly always be skewed across all issues, it will not always be the same issues that get the bulk of attention; sometimes war will dominate the agenda, sometimes health care, and even agriculture will occasionally take center stage.

The Scope of Discussion

One of the positive feedback factors with strong influence over the content of the front-page agenda, and to which I give special consideration in this dissertation, is a variable I call the “scope of discussion.” The scope of a policy discussion is the degree to which the debate is narrowly focused on a small number of dimensions of the policy area or widely encompassing of multiple dimensions.

The principle at work here is that policy areas—both specific policy issues and major policy topics—are multi-dimensional. Every policy area can be defined and understood along multiple dimensions, and how a policy issue or topic will be defined is never obvious. The topic of civil rights, for example, can be considered along the dimensions of freedom of speech and religion, right to privacy, voting rights, racial discrimination, sex discrimination, sexual orientation discrimination, etc. And each of these issues in turn can be considered in terms of a smaller set of composite dimensions.

The issue of sexual orientation discrimination, for example, can be defined—or “framed”—in terms of morality (e.g., whether or not homosexuality is a sin), family values (e.g., “homosexuality destroys the family” vs. “hate is not a family value”), equality (e.g., whether or not gays deserve equal opportunity in housing, employment, and spousal benefits), and so on.

The scope of a policy discussion refers to how concentrated or diffuse the discussion is across these dimensions. We can think of each policy discussion as a “pie” of attention separate from the larger pie of the front-page agenda. Issue-definition, or framing, is the process of slicing this pie along changing division lines; distributing and redistributing the resource of attention across all the dimensions of evaluation that could define the policy area.

The division of a policy discussion along the component dimensions has long been recognized as an important part of the political process. The public does not respond to real-world problems themselves so much as to the collective definitions society adopts for those problems (Best 1995; Blumer 1948; Hilgartner and Bosk 1988; Spector and Kitsuse 1973, 1977). As Kingdon puts it, “conditions become defined as problems when we come to believe that we should do something about them” (1995). Because of the scarcity of attention on the agenda, what matters is not whether a policy area is important but whether it is important enough, compared to all other policy areas, to pass a “threshold of urgency” as defined by the congestion of the agenda (Jones and Baumgartner 2005). Issue-definition is a mechanism able to propel a policy area above this threshold of urgency (Cobb & Elder 1972; Kingdon 1995; Baumgartner & Jones 1993 and 2002). In particular, an expanding debate—one that moves from being defined

along a single dimension to being defined across a range of dimensions—can lead to a cascade of attention.

The scope of discussion, then, refers to how narrowly or widely a major topic or specific issue is discussed across its component dimensions. Over time, the distribution of attention within each policy discussion (be it at the broad topic level of civil rights or the issue level of sexual orientation discrimination) follows the same pattern of punctuated equilibrium that governs the larger agenda. Policy discussions usually remain dominated by a small number of dimensions for extended periods of time. But change can come seemingly out of nowhere. When a debate expands in scope, it does so very quickly.

With expansion comes an increase in attention. The attention cascades I have described—where the agenda will suddenly be flooded with attention to a different policy area—almost always arrive on the vehicle of debate expansion. In fact, the scope of discussion and the amount of attention a policy area receives share a mutually reinforcing relationship. The more attention a policy receives, the more discussion of the debate will expand. Career-minded journalists have incentives to find fresh new dimensions in the current hot issue rather than moving on to different topics, and policy entrepreneurs can ride the coat tails of heightened attention by pushing additional dimensions of the issue. Simultaneously, the more the scope of a policy debate expands the more attention it will receive. An expanded debate is more compelling and salient for the public than a narrowly-focused debate, and so the public will want more attention paid to debates with wide scope. Policy entrepreneurs can (again) ride the coattails of an expanding policy discussion by redistributing even more attention and resources to the policy area. And

journalists and editors respond to the public and entrepreneurs by giving more attention to debates with wider scope.

This dissertation offers an important empirical examination of the hypothesis that *how* a policy area is discussed and *how much* it is discussed are causally linked, but the idea that scope and attention are related is not new. As Schattschneider said nearly half a century ago: “The definition of the alternatives is the supreme instrument of power” (1960).

In the 1950s, for example, discussion about nuclear power was dominated by talk of scientific advancement: the “atoms for peace” frame. But in the late 1960s it was reframed in terms of environmental danger, health risk, and military arms proliferation, and this shift in emphasis had an immediate and enormous impact on public perception of and policy response to the issue (Baumgartner and Jones 1993). But what was important about the shift in definition was not merely a swap of one set of frames for another. The new frames realigned the debate not just through their substance but through their sheer number; the scope of the debate had expanded.

Similarly, capital punishment in the United States has traditionally been defined as a matter of morality (e.g., “eye for an eye” vs. “killing in the name of vengeance is a sin”) and constitutionality (e.g., whether or not the death penalty constitutes cruel and unusual punishment). In the late 1990s, however, the debate was upended by a new dominant frame: innocence. In a system run by bureaucrats, this frame goes, 100% accuracy is unlikely; in the matter of a policy that is quite literally irreversible, we cannot afford the chance of error. The innocence frame turned the death penalty debate on its head, and dramatic declines in public support for the death penalty and application of the

policy itself quickly followed. Perhaps most surprisingly in the case of the death penalty, however, were the patterns in attention to other frames when the innocence frame became dominant. For example, there are a handful of anti-death penalty frames—the death penalty is racist, the death penalty is classist, there aren't enough safeguards against inadequate representation—that were not new frames to the debate in the late 1990s. These frames had each been raised at multiple points before, at least as far back in the debate as the 1960s. But none of these frames gained any traction in the debate until the innocence frame took hold in the late 1990s. Since that point, however, these frames have received more attention than ever before (Baumgartner et al. 2008). It appears as if moments of issue re-definition are prompted in large part by the widening of the debate. When the dimensions of a policy area piggyback off of one another, they gain more leverage on the larger agenda together than they would have apart. As I will show in Chapter 6, the social cascade in the death penalty debate in the late 1990s was concurrent with a rapid expansion of the scope of discussion.

Importantly, the mutually reinforcing link between scope and attention applies not only in the context of specific policies like nuclear power or capital punishment but also in the context of major topic areas, like the overarching discussions of energy or law and crime. For example, it is no coincidence that the surge in attention to the Terri Schiavo case was preceded in the previous month by a rapid expansion in the scope of the larger health debate, which increased by exactly 100% between November 2004 and February 2005. This widening of scope had nothing to do with Terri Schiavo—there wasn't a single front-page article about her case published during these preceding months—and yet the expansion of the debate heightened the salience of health topics for citizens,

policy entrepreneurs, and journalists. In other words, had the scope of the larger health debate not expanded the Schiavo case would likely still have received some amount of media coverage, but not the cascade of attention that we observed.

Chapter Outline

The dissertation proceeds as follows. In Chapter 2, I dive directly into an analysis of what front-page news looks like. I present my original dataset consisting of every article appearing on the front page of the *New York Times*, 2000–2005, and describe the process of coding all 18,000 or so articles according to the primary policy (or non-policy) area being addressed. I examine the distribution of attention across topics and discover that the agenda is highly skewed. While a few topics consume an enormous share of the attention pie, most topics receive very little coverage.

Looking at how the agenda changes over time, I find strong patterns of disproportionate change. The front-page agenda does not operate through a system of issue-replacement, where new problems are slowly churned onto the front page as old ones are churned off. Rather, the front-page seems to fixate on a set of topics for an extended period of time with little or no change in the agenda but then shift suddenly and dramatically to pay attention to a new topic or set of topics. Throughout this chapter, I offer several examples taken directly from the front-page dataset to illustrate how the news-selection process can produce very different results under different circumstances.

In Chapter 3, I lay the foundation for my theory of how media attention gets allocated across policy areas. I identify and discuss eight key variables that together shape the composition of the front page, and I discuss how each variable operates within the overarching system of institutional dynamics I will discuss in greater detail in Chapter

4. First, front-page news is strongly driven by real-world events. Second, the more prior attention that was paid to a policy area in the previous time period, the more path dependency will urge the policy area back onto the agenda in the current time period. Third, the more congested the front-page agenda is with mega issues consuming attention, the more difficult it will be for competing policy areas to gain attention. Fourth, the wider the scope of discussion about a policy area—that is, the more the policy is defined diversely across a multitude of dimensions—the more the policy area will resonate with the public, with policy entrepreneurs, and with journalists themselves, and the more front-page attention it will receive. Fifth, journalistic norms and obligations shape the news in the ways already described, and even journalistic bias can influence the composition of the front page. Sixth, the more attention and resources policy entrepreneurs give to a policy area, the more pressure there will be on the media to attend to the policy area, and the more front-page stories the policy area will receive. Seventh, the more concerned the public is about a policy area, the more incentive journalists will have to cover the policy area in order to keep the readership engaged, and the more articles will feature the policy area. Eighth, the current political context (such as how much time there is until the next Presidential election) can help to shape the news-selection process. Together, these eight variables provide a foundational theoretical model of how policy areas become front-page news.

In Chapter 4, I complete the theoretical model by examining the dynamics of front-page attention. The theory of media dynamics that I advance builds on past research in policy agenda allocation and social cascades to explain how the patterns I observe in Chapter 2 are produced by an underlying system of disproportionate

information processing. I explain how positive feedback elements (such as the scope of discussion, entrepreneurial activities, and public opinion that reinforce changes when they occur) interact with negative feedback elements (such as institutional constraints that mute change and reinforce the status quo) to produce the skew in attention—and the disproportionality in change over time—that we observed on the *Times* front page in Chapter 2. The limited size of the front-page agenda and several institutional constraints mean that the media does not process information in a steady and proportional manner, but rather fixates on a “hot” issue or set of issues for a relatively long period of time. However, periods of equilibrium are interrupted periodically by enormous amounts of change on the agenda, often caused by positive feedback elements in the system that serve to reinforce initial changes and spiral the agenda out of control. I present distributional change analysis proving that the front-page agenda does not change incrementally, but rather in the pattern of punctuated equilibrium that we observed informally in Chapter 2.

Also in Chapter 4, I present computer simulation evidence showing that the skewness we witnessed in Chapter 2 can be explained, and can only be explained, by the combination of both positive and negative feedback as theorized. Using the skewness observed in Chapter 2 as a litmus test, the computer simulations offer mathematical validation of the theory of disproportionate information processing. While simplistic, the computer model is fundamental to the story of media attention dynamics I advance. Specifically, in order to test the hypothesis that the news-selection process is driven not only by events and negative feedback factors but also by positive feedback factors, I construct a simple formal model representing the front-page news-selection process and

then illustrate this model through computer simulations. By adjusting the parameters of the model, I construct three alternate scenarios of reality—one in which events alone drive front-page news; one in which events and negative feedback forces drive front-page news; and one in which events, negative feedback forces, and also positive feedback forces drive front-page news. I then compare the patterns of front-page attention that result from each scenario against the patterns of skewed attention that we have already observed on the real front page. Evidence from the computer simulations shows not just that positive feedback elements *can* lead to the skewed distribution of attention that we witness on the front page, but in fact that this kind of skewness could *only* be produced in the presence of positive feedback. Moreover, the presence of even just one positive feedback element in the system is enough to produce the vast skewness we observe in how front-page attention is distributed. Positive feedback, in other words, is the linchpin of the news-selection process.

In Chapter 5, I develop a statistical model of front-page attention as a function of six of the key explanatory variables identified in Chapter 3. I present findings from estimating this model in three ways: first, across all policy topics; second, across domestic policy topics only; and third, across foreign policy topics only. In all three models, I find support for my theory of front-page media attention. In addition to presenting the raw statistical results of these models, I offer a number of graphs that show how these values translate into real articles on the front page of the *New York Times*.

While the influence of each explanatory variable holds across contexts examined, I find that front-page attention to foreign policy topics is two to three times more susceptible to the effects of the explanatory variables in my model than is front-page

attention to domestic policy topics. Key factors like prior attention, the scope of discussion, and especially the level of public concern about the topic wield a much stronger influence on how much front-page coverage is devoted to a foreign policy topic.

In Chapter 6, I discuss the mutually reinforcing relationship between the scope of discussion and the amount of front-page coverage. When attention to a policy topic increases, journalists will try to find new spins on an already “successful” front-page topic. Policy entrepreneurs will also coattail the attention wave by devoting even more of their own attention and resources to topics already on the front page, in large part by introducing new dimensions of the policy debate that highlight their particular concerns. Thus, as attention to a policy debate increases, the scope of the debate will expand. Yet, at the same time, scope also has a powerful causal influence on attention. When the scope of a policy discussion expands, the new dimensions activated in the debate will draw more attention in general from the public, from policy entrepreneurs, and from journalists. A policy debate that is wide in scope is inherently richer and more interesting than a narrow debate, and in particular the multitude of activated dimensions will make the topic more salient to a larger number of citizens and political actors, who in turn will demand more attention paid to the policy area. Thus, as the scope of a policy debate widens, attention to the debate will increase. Often, the positive feedback relationship between attention and scope leads to a cascade of media coverage that spins the previous agenda on its head.

Finally, in Chapter 7, I synthesize the project by discussing what the pattern of agenda stasis interrupted by attention cascades means for the political system. I discuss how, despite significant effort, policy entrepreneurs simply cannot control the media

agenda. Why? Because it is not a question of whether the status quo agenda will collapse and attention to an issue will spiral out of control, but when. Policy entrepreneurs with their hands on the levers of media influence will get burned. If agenda control is a priority, the best strategy is to stay off the agenda altogether. Short of that, political actors may want to consider an evolutionary learning approach to handling the media. On the flip side, while media attention is highly skewed across policy problems such that most problems most of the time get almost no attention, the volatility of the system means that, under the right circumstances, otherwise obscure policy problems can often take center stage on the wave of an attention cascade. Policy entrepreneurs hoping not to control the agenda but to break the agenda wide open and raise awareness to a particular problem should thus work to diversify the policy topic of interest.

Chapter 2

The Problem of Attention Scarcity: The Composition of the *New York Times* Front Page

The front page of the *New York Times* is approximately 22 inches tall and 13.5 inches wide: just big enough to wrap a fish. Big enough too for about eight stories—six or seven when news is slow, nine or ten on busy days. In Chapter 1, I discussed why the stories printed on this single sheet of newsprint are so important, how the media agenda wields tremendous influence over the rest of the political system, and how understanding the process by which policy areas gain (and lose) front-page attention contributes to our understanding of politics more broadly.

The purpose of the current chapter is to document what the front page of the *New York Times* has looked like in recent history. I take a close look at the front-page stories, working systematically to uncover any patterns that may exist in how attention is distributed across topics and how this distribution changes over time. My goal is to identify the key characteristics of the front-page agenda so that, in later chapters, I may bring these characteristics to bear in testing my theories about the news-selection process. Here, I present data collected from all front-page articles in the *Times* from 2000 through 2005. This dataset, consisting of nearly 17,000 full-text stories, provides a comprehensive view of the topics of debate that are most salient in the United States at any given point in time. If there are patterns related to which policy areas become front-page news and how the news evolves over time, these patterns will be apparent in this dataset.

As I present this dataset, I begin to formulate ideas about how the front-page agenda operates based on the patterns I observe. Thus, this chapter is theory-building in nature and will provide important groundwork for analyses to follow. By seeing how attention is distributed across topics statically and dynamically, we can develop expectations about the underlying data generation process. Later chapters will bring statistical analyses to bear on the question of how policy areas become front-page news, but the focus here is to provide an initial overview: to gain a sense of what front-page attention looks like in the first place. Again, my task is to search for patterns—the features that define the dynamic content of the front page.

The bulk of the current chapter, then, will be spent looking at descriptive statistics that together paint a detailed picture of what gets talked about on the *NYT* front page, what doesn't, and how attention within and between policy debates has changed across the last six years. Many of the observations contained in these data will be unsurprising. The nation talks more about war, for example, than about agriculture subsidies—no shock there. Other findings may be more startling, such as the concrete measurement of exactly *how much* agenda space the war consumes (or how little, depending on one's perspective). Among the many costs of war, the reduction in agenda space available to important domestic policy issues is worth noting. In any case, this dataset offers a systematic and thorough measure of the front-page agenda.

Perhaps most importantly, these data allow us to develop not only a glimpse of what the news looks like on an average day but also an idea of how this picture shifts over time. As I discussed in Chapter 1 and will discuss much more in Chapter 4, the disproportionate information processing system—which I argue determines how real-

world events get winnowed into today's front-page news—also dictates the dynamic path the agenda will trace from today to tomorrow, to next month, to next year. We cannot understand why the agenda looks the way it does without first understanding the underlying dynamics of the media as an institution.

The Universe of the Front Page

Rather than sample articles from the *Times* as a whole, I limit my analysis to the front page. The eight or so stories appearing on this page each day occupy the topmost echelon of societal awareness—exactly the core of attention that I want to study. To be sure, dealing only with stories appearing on one page of this very thick newspaper limits the immediate generalizability of my study to just that—the front page. Yet using only the front page offers the enormous benefit of a fine-grained yet exhaustive (i.e., non-sampled) dataset. In this way, the front page is an especially attractive subject of study, serving as a self-contained “universe” of observations.

Still, my choice to use only the front page of the *Times* was not based on sampling considerations but rather on the particular *kind* of observations located in this universe. My goal is to understand how real-world problems get processed and defined in the political system and how it is that some problems penetrate political consciousness while others go unnoticed. The front page is the most appropriate medium for my endeavor. Front-page stories are the ones that Americans read first and, generally, the ones to which Americans pay the most attention. And to the extent that the *Times* drives the agendas of other media outlets, these front-page articles will be the most likely to overlap other sources and, thus, to be most indicative of national media coverage.

There are three important characteristics unique to the front page, which distinguish it from the full *New York Times* and which we should understand at the outset of this investigation. First, the front page has a much *higher salience threshold* than the full paper; that is, issues must be very, very important to appear here. Issue “competition” is even higher on the front page than on pages A2 and beyond, and space is even more limited. For policy entrepreneurs wanting to *gain* media attention, the front page can be an elusive goal. For elites hoping to *avoid* media attention, the front page can be a deathtrap. Either way, this single sheet of newsprint serves to signal, among all the problems in the world, which ones are perceived to be the most critical facing society.

The second important characteristic of front-page news not shared by stories in the full newspaper is the *higher disparity in attention* given to different policy areas. As I will demonstrate, the topics that gain space on the front page fall into two main categories: those that receive sparse attention—a few stories a month at most—and those that receive an enormous amount—dozens and dozens of stories. The full paper, too, has great variance in terms of the amount of attention paid to different policy areas, but the distribution of attention there is not as disproportionate. This difference means that the front page, even more than the paper as a whole, deals in what I call “mega issues”—issues that consume the vast bulk of attention, as much as 65% of the agenda in a given month. What appears as a mega issue at one point in time will not necessarily be one in the next time period; for example, we will see that stories about Hurricane Katrina consumed 48% of the front-page stories in September 2005, but at no other point does a weather event or natural disaster take up more than 7% of the agenda. Other issues—like the U.S. conflicts in Afghanistan and Iraq—function as mega issues for long stretches of

time. But as we will see, the front-page is almost always dominated by mega issues of one kind or another, forcing all other problems to the margins.

The third important difference between the front page and the rest of the *Times* is that the front page has a *greater tendency to showcase bad news* over good news. The routine human interest article or sports report keeps the front page from reading like an unrelenting doomsday account, but nearly all the policy issues on the front page are there because of problems. The tendency to report bad news over good is true of most news sources, including the full text of the *Times*, but it comes to bear even more on the front page with its high salience threshold. Thus, by restricting my analysis to front page articles only, I am focusing not only on those policy areas of greatest perceived importance by the American media but on the most important *problems*. When policies are working, they rarely make the news; they almost never make the front page. When important policies fail, or show threat of failure, however, they are much more likely to gain top billing as front-page stories. And when the policy is especially important and the failure especially large, it is common to see a mega issue emerge and, thus, attention to all other issues decline.

Measuring the Media Agenda

The subject of this study is the media agenda—the set of policy areas appearing in the news, and on the front page of the *New York Times* in particular. As the unspoken witness to events and the predominant vehicle of information between citizens and elites, the media agenda reflects real-world activities, public concerns, and government operations, among other things. Yet the media agenda is neither a perfect transcription of events nor an exact conduit of the public or government agendas. As we will see, the

news captures only a fraction of what is happening in the world, and the fraction it captures is often portrayed through a select lens. Similarly, while the media plays an important role as a conveyor of public sentiment, the problems that appear as front-page news are not synonymous with the public agenda, which might be defined distinctly as the set of problems deemed most important by the majority of Americans; as the collection of “water cooler” topics discussed among friends and co-workers; or as the cluster of issues named on the most-visited Internet blogs (to name a few).

Likewise, the media agenda often reflects the “systemic” agenda of government operations, which is the general set of policy controversies viewed as falling within an institutional body’s range of legitimate consideration.⁷ When the majority of Congress decides that a problem is worth talking about, for example, chances are good that the problem will make it onto the media agenda as well. Yet there is never perfect correspondence between the media agenda and the systemic agenda of any governmental branch. And there is even less coherence between the media agenda and any governmental “institutional” agenda, or the set of concrete, specific topics scheduled for formal consideration by an institutional body. There are many things on the Congressional calendar, for example, that will never see the front page.

Yet perhaps the most important difference between the media agenda and the public or governmental agendas is that the media agenda—and as I have discussed, especially the front-page agenda—has a uniquely high salience threshold. It takes a special event, a strong public sentiment, or a dramatic governmental stance to capture front-page attention. While human interest stories have their place, the bread and butter

⁷ For the original discussion of systemic and institutional agendas within decision-making bodies of government, see (Cobb and Elder 1972).

topics of the front-page agenda are those that are most salient, most electrifying, and most consequential. Again, this means that a study of the front-page agenda is, by definition, a study of topics that are—or at least, have been deemed to be—very, very important.

I utilize the *New York Times* as a proxy for national media coverage because my goal is to trace shifting agenda allocation within the universe of all articles on the front page of a single news source at a month-by-month (and sometimes even day-by-day) level. I use the *Times* in particular because, despite some suggestions that the *Times* has a liberal bias (Fritz et al. 2004; Kuypers 2006), research more consistently indicates that the *Times* is the single best indicator of national media trends; even in the Internet age, the *Times*' agenda continues to drive the agendas of other newspapers (national and local), of network and cable television, and even of Internet news (Althaus et al. 2001; McCombs and Reynolds 2002; Soroka 2002; Van Belle 2003; Winter and Eyal 1981; Druckman 2005; Woolley 2000); see also (Druckman 2005); but for competing evidence, see (Woolley 2000). Of course, each newspaper has unique attributes and no single newspaper can be a perfect proxy for national media coverage, but the *Times* is arguably the single most influential news source in the United States. Smith's (1992) study of media coverage in times of crisis indicates that the *Times* serves as one of the two most important sources of detailed and reliable information for policy makers in the wake of crisis events (the second being the *Washington Post*). And a comparison of the *Times* with other major national newspapers in the case of the death penalty suggests that both levels of attention and type of issue-definitions, or frames, employed in the *Times* are consistent with other major newspapers (Baumgartner et al. 2008).

In 1981, Winter and Eyal wrote of the *New York Times*, “It is *the* elite U.S. newspaper” (Winter and Eyal 1981). Over the intervening quarter century, much about the *Times* and much more about the U.S. mass media in general has changed. Readership of the *Times* is on the decline, for example, and it is yet to be seen whether a TV or Internet source will take the place of the *Times* as the epicenter of American media (Dimmick et al. 2004), or whether the media of the future will adopt an entirely new institutional structure. Yet, for now at least, the accuracy of Winter and Eyal’s statement remains intact. Today, in a world of podcasts, blog spots, on-demand TV, and satellite radio, the *Times* is still—and quite remarkably so—*the* elite news source. It is consistently an accurate proxy of national news attention. Just as importantly, citizens and elites (and academics too) continue to perceive the *Times* as the unspoken newspaper of record.

Data Collection

Aided by a dissertation support grant from the National Science Foundation (No. SES-0617492) and a team of undergraduate research assistants, I retrieved all front-page stories in the *New York Times* from January 1, 2000 through December 31, 2005; a total of 16,828 stories. These articles were coded according to a detailed scheme of topic and subtopic categories.⁸ There are several ways to measure inter-coder reliability, but in this case all measures tell the same story, namely that the inter-coder reliability of the dataset

⁸ In order to maximize reliability and consistency, coders underwent extensive training on sample articles before being allowed to code raw data. In addition to communicating specific questions to me as the questions arose, coders met weekly as a group throughout the coding process to discuss coding interpretations and questions. These meetings allowed me to maintain a view of the larger project, making coding judgment calls when needed that would ensure conformity across the data. Additionally, after each article was assigned a code by an initial coder, the articles were compiled into one massive dataset and then cleaned by more experienced coders, such that each article was assessed by at least two people (in addition to the bird’s eye view I kept of the dataset as a whole).

is consistently above .90 at the major topic level and above .85 at the subtopic level (the topic and subtopic levels are described below).⁹

The coding scheme I employed was Baumgartner and Jones' Policy Agendas Topics Codebook.¹⁰ The advantage of using this codebook is that the front-page *NYT* data I have collected may be analyzed in comparison with the expansive datasets already collected by Baumgartner and Jones and colleagues using this same coding scheme, including Congressional data on budgets, roll call votes, bills, and laws; executive data on State of the Union addresses and executive orders; Supreme Court decision data; full *New York Times* data (stories sampled from the entire paper); and Gallup "most important problem" survey data. In fact, I will perform just such a comparison later in this chapter.

At the macro level, the Policy Agendas Topics Codebook consists of 27 major topic categories (coded at the 2-digit level): Macroeconomics (topic code 01), Civil Rights & Liberties (02), Health (03), Agriculture (04), Labor & Employment (05), Education (06), Environment (07), Energy (08), Transportation (10), Law & Crime (12), Social Welfare (13), Community Development & Housing (14), Banking & Business (15), Defense (16), Science & Technology (17), Foreign Trade (18), International Affairs (19), Government Operations (20), Public Lands (21), Culture & Entertainment (23), State & Local Government (24), Weather & Natural Disasters (26), Fires (27), Sports &

⁹ The measures of inter-coder reliability that support these results include basic correlation, Cohen's Kappa, and Krippendorff's Alpha.

¹⁰ The Policy Agendas Topics Codebook, designed initially for coding of Congressional budget and hearing data, is understandably imperfect in its application to news stories. The codes are easy enough to apply to articles at the major topic level, as the Policy Agendas Project did in collecting its sampled *NYT* dataset, but the task of assigning the more fine-grained subtopic codes to news stories requires forethought and judiciousness. See, for example, the "Admitting Defeat" section of Baumgartner, Jones and MacLeod's paper entitled "Lessons from the Trenches: Quality, Reliability, and Usability in a New Data Source" (1998). To address this challenge, I developed an annotated version of the Policy Agendas Codebook complete with explicit instructions on how to apply the codes to the specific demands of newspaper text analysis. Appendix A contains the complete annotated codebook.

Recreation (29), Death Notices (30), Churches & Religion (31), and Human Interest & Miscellaneous (99).¹¹ These 27 topic areas are divided into 227 subtopics (at the 4-digit level). For example, within Macroeconomics, there are subtopic codes for Inflation and Interest Rates (subtopic code 0101), Unemployment (0103), Monetary Supply (0104), National Budget & Debt (0105), Taxation (0107), and so on. This dataset, then, provides rich illustration of which policy areas have—and which have not—received attention over the last decade.¹²

How Is Attention Distributed across Topics?

Which policy areas hit the front page? Table 2.1 shows how the 16,828 *New York Times* front-page articles I collected are distributed across the 27 major topics. The “Total” and “Percent Total” columns list the number of stories on that topic and the percentage of the agenda devoted to that topic, respectively, from 2000 through 2005. The remaining columns provide summary statistics for each topic category by month. For reference, there are approximately 235 front-page stories in the *Times* in an average month. This table illustrates important variance in topic “type,” from a few topics that dominate the debate to the majority of topics that, while important, receive sparse (if any) attention.

(Insert Table 2.1 about here)

The first thing to notice from Table 2.1 is that the pie of the front-page agenda is not apportioned equally across topics. Three topics in particular—International Affairs, Defense, and Government Operations—consume the bulk of the attention. As shown in

¹¹ The original Policy Agendas Codebook, used to code Congressional, Presidential and Supreme Court documents as well as the Gallup “most important problem” survey data, contains only the first 19 topic categories in this list. Baumgartner and Jones added the remaining eight topics for the task of coding articles sampled from the full *NYT*. Unlike the original 19 topics, these eight do not contain 4-digit subtopic categories.

¹² In general, from this point forward I use the term “topic” to refer to the 27 major topic categories and the term “issue” or “subtopic” to refer to the 227 subtopic categories, though in broad discussion of the news-selection process I employ all three terms.

Table 2.1, my dataset spans 72 months of time and represents approximately 2,160 front pages. Consider Government Operations, which includes articles on subtopics such as Bureaucratic Oversight, Nominations & Appointments, IRS Administration, Presidential Impeachment & Scandal, and—the largest subtopic in this category by far—Elections.¹³ The fact that Government Operations received 1,931 stories from 2000 to 2005 tells us that, on average, there is a story primarily focused on the national government on nearly every front page. One article a day (remember, out of about eight in total) is an awful lot; Government Operations, then, and elections in particular, are naturally at the core of political discourse. With 2,743 stories, Defense takes an even larger slice of the pie. Unsurprisingly, over the course of this dataset, War (subtopic code 1619) is responsible for the vast majority of this attention.¹⁴ Although not every front page during this time carried war coverage (the war didn't even start until midway through the dataset), during the last four and a half years the front page was often saturated with two, three, four, or even five articles about the war *in a single day*. And International Affairs, with 3,742 stories, shows even higher levels of coverage. On average, there were nearly two stories about International Affairs each day, across the entire period. This number, of course, was even higher after the events of September 11, 2001 and subsequent occupation of Afghanistan and then the occupation of Iraq in the spring of 2003.

¹³ Note that there are many issues we might normally think of as “government operations” that are not contained in the Government Operations topic category, like the administration of taxes, social security stipends, and Medicaid benefits. These policy issues are categorized according to the substantive nature of the problem they address—so taxes fall under Macroeconomics, social security falls under Social Welfare, and Medicaid falls under Health. The Government Operations topic deals rather with the structural functions of national government, like elections, nominations, intergovernmental relations, impeachment, and other government scandal. Importantly, these issues are still policy-related.

¹⁴ Code 1619 is used to capture all stories about U.S. military actions in the “war on terror,” including military operations in Afghanistan beginning in 2001 and operations in Iraq beginning in 2003.

Figure 2.1 presents the data from Table 2.1 as a pie chart. This simple graphic shows clearly how International Affairs, Defense, and Government Operations take the lion's share of attention. Together, these three topics account for precisely 50% of the entire agenda space over the last six years; these are quintessentially “mega” topics. The next six topics in size—Health, Law & Crime, Banking, Sports, State Government, and Macroeconomics—constitute another 26% of the agenda space, meaning that the final 24% (just over the percentage taken up by International Affairs alone) is divided among all 18 remaining topics. Note how little agenda space is consumed by topics not directly related to politics or policymaking—Sports, Culture, Churches & Religion, Weather, Human Interest, Death Notices, and Fires.¹⁵ Beyond the routine articles on snowstorms, football games, and festivals, the front page pays most of its attention most of the time to pressing political problems. In fact, these seven non-policy and non-government topics consume less than 12% of the entire agenda. Nearly 90% of front-page attention, then, is paid to policy and government matters of domestic and international concern; this is the stuff of politics.

(Insert Figure 2.1 about here)

Figure 2.2 shows the distribution of front-page attention again, but this time the pie is limited to domestic policy topics only, with percentages given for each. At focus here are those topics, within the U.S., that have clear policymaking implications: the problems in our country that citizens look to government to solve. Eliminated from this figure are International Affairs, Defense, Foreign Trade, State & Local Government,

¹⁵ I categorize Churches & Religion (code 31) as non-policy because this topic is used for stories about churches, churchgoing, and religiosity generically, while more policy-related stories about religious freedom and separation of state are coded in the topic of Civil Rights & Liberties (code 02).

Sports & Recreation, Culture & Entertainment, Weather & Natural Disasters, Churches & Religion, Human Interest, Death Notices, and Fires.¹⁶

With non-policy topics, international topics, and the state and local government topic excluded, we drop from 16,828 observations in Figure 2.1 to 7,958 observations in Figure 2.2. Front-page attention, it seems, is only partially focused (36%) on domestic policy concerns. Figure 2.2 shows that, as with the full agenda seen in Figure 2.1, the domestic policy agenda is dominated by four “mega topics”—this time Government Operations, Health, Crime, and Banking/Business—which together consume more than half of all attention. The domestic policy agenda, however, is more evenly distributed than the full agenda. Whereas in Figure 2.1 we see that the top 75% of the overall agenda space is taken up by only 1/3 of the major topics (9 out of 27), Figure 2.2 shows that it takes nearly half the domestic policy topics (7 out of 16) to constitute the top 75% of the domestic policy agenda.

(Insert Figure 2.2 about here)

What does it mean that the front-page agenda is so unevenly distributed, even when considering domestic policy topics alone? To answer this question, let us first consider Figure 2.3, which shows the distribution of attention across major topics, with each bar representing the total number of stories devoted to that major topic across the full range of the dataset. These bars are arranged in ascending order of size, so the topic with the least amount of coverage (Topic 4, Agriculture) is on the far left, and the topic with the most coverage (Topic 19, International Affairs) is on the far right, with all other

¹⁶ I exclude State & Local Government from the domestic policy topics shown in Figure 2.2 for the sake of consistency. Since the State & Local Government topic is not broken down into smaller subtopic issues, I will not include it in my analysis of front-page policy attention in later chapters. Thus, Figure 2.2 perfectly parallels the set of domestic policy topics I will investigate further in Chapter 5.

topics between arranged in order of overall attention. Figure 2.4 shows the same distribution of attention at the subtopic level. In both graphs, we see a long line of topics or subtopics at the left-hand side of the graph, all with a paucity of attention; then only a few topics or subtopics that receive what could be considered a moderate amount of attention; then finally a very few topics or subtopics at the right-hand side with a wealth of attention. Most importantly, the progression from low to high attention is not in any way gradual. When the line of the chart finally begins to curve up on the right, there is a sudden and steep climb from low to high attention; the steepness of the climb represents the dramatic skew in the agenda. If attention were distributed uniformly—that is, if each topic received the same number of stories across the dataset—these graphs would each show a level plane of bars, all the same height. If attention followed a normal distribution, the heights of the bars would increase much more gradually from left to right. Instead, we see a long tail of small counts on the left before a sudden sweep up to the few “mega” topics or subtopics with monstrous counts on the right. If one were to look at these graphs without knowing what they are, one might think them to be graphs of global income disparity—this is how skewed front-page attention is.

(Insert Figure 2.3 and Figure 2.4 about here)

So what does the skewness of front-page attention tell us? It tells us that there must be a particular kind of data-generating process at work such that we observe these kinds of outcomes. To be clear, there was no reason to expect a uniform distribution from this data, since when Baumgartner and Jones developed the Policy Agendas Topics Codebook that I used to categorize front-page *NYT* articles by topic and subtopic, they never claimed to be creating topic categories of equal size. But it would have been

reasonable to expect to see attention distributed across topics and subtopics in a manner approximating a normal distribution. Since there are so many important problems in the world, this argument would go, it would make sense for the media to give only a small bit of play to less important policy areas, give a mean portion of its attention to a bulk of policy areas, and give a slightly larger amount of attention to a few particularly pressing concerns, with gradation in between. Instead, we see something far from normal. In Chapter 4, I will talk more about the nature and characteristics of this distribution, which I will identify as a Pareto, or power law distribution. For now, however, it is enough for us to know that attention is skewed across topics and that the degree of this skewness is much too pronounced to attribute to heterogeneity in the size of Baumgartner and Jones' topic categories.

How Does the *Times* Front Page Compare to Other Agendas?

We can test this last assertion empirically by comparing the concentration of attention across topics in my dataset to the concentration of attention in other institutional datasets coded using the same Policy Agendas coding scheme. There is a simple measure of concentration we can employ for this task called the Herfindahl-Hirschman Index (HHI). The HHI is calculated by first calculating the amount of the agenda taken up by each topic as a percentage of the whole, then summing the squares of these proportions across all topics. The higher the HHI, the more the agenda in question is concentrated around a small group of topics—that is, the greater the skew of attention. Table 2.2 presents HHI values across different datasets, specifically the Congressional agenda, the Presidential agenda, and Gallup's measure of public opinion regarding the “most important problem”

facing the nation today.¹⁷ Table 2.2 shows that, other than the Most Important Problem measure, the *NYT* front-page is the most concentrated of all the datasets. This finding makes sense, given that the salience threshold a topic has to pass in order to appear on the front page should be lower than the salience threshold required to appear on “the top” of Americans’ minds,¹⁸ but slightly higher than the threshold required to appear anywhere in the *Times* and much higher than the thresholds to show up on the Congressional or Presidential agendas. The high salience threshold of the *Times* front page is evidenced by the fact that the majority of major topics contribute negligibly to the HHI score; twelve of the nineteen topics, for example, contribute less than 0.001 points (or 1%) each to the combined HHI of 0.137. Echoing the skewness we have already witnessed, the HHI shows that attention is strongly concentrated around International Affairs (contributing .070 points, or 48%), Defense (0.036 points, or 26%), and Government Operations (0.018 points, or 13%). Most importantly, the purpose of Table 2.2 is to demonstrate that the skew of the *Times* agenda is not a byproduct of the coding scheme—in fact, the *Times* is one of the most dramatically skewed agendas coded under the uniform Policy Agendas rubric. Rather, the skewed attention of the *Times* is symptomatic of the data-generating process by which problems become front-page news.

(Insert Table 2.2 about here)

Figure 2.5 and Figure 2.6 show a different view of the comparison between the *Times* front page and the other agendas listed in Table 2.2. In Figure 2.5, we see the

¹⁷ The Congressional agenda data presented here is averaged across data for bills (taken from the Congressional Bills Project), hearings, roll call votes, and laws. The Presidential agenda data averages executive order data with State of the Union data.

¹⁸ In fact, there are five topic categories that go virtually unmentioned by Americans in response to the question of what the most important problem is facing the country: Banking & Business, Transportation, Housing, Agriculture, and Public Lands. The absence of these five categories dramatically increases the concentration—and thus, the HHI measure—of the public opinion agenda.

distribution of the front-page agenda compared with the distribution of the full *Times* agenda. For reference, the front-page dataset is presented first using the full 2000–2005 set of observations, then again using only 2000–2003 front-page data to provide a direct comparison with the 2000–2003 full *Times* dataset shown. We can see that there are important differences between the front page and the full newspaper. Most notably, the mega topics of International Affairs, Defense, and Government Operations consume a much higher proportion of the front page than of the full paper, whether we are considering the 2000–2005 or the truncated 2000–2003 front-page data. In contrast, topics such as Foreign Trade, Law & Crime, and most especially Banking & Business occupy a much larger share of the full paper’s attention than the front page’s. These differences remind us that the analysis I will conduct on my front-page data will not be generalizable to the full *Times* newspaper, or to other full newspapers for that matter. This is as it should be. Again, my aim is to unpack the characteristics and dynamics of front-page attention, representing the most salient core of the public agenda. Thus, for our purposes, the most important thing to notice about Figure 2.5 is the discrepancy between the distribution of attention between the front page and the full paper. This figure is arranged in ascending order of attention based on the front-page 2000–2005 dataset, showing again the dramatic skew of front-page attention across policy topics. The full *Times* dataset, in contrast, is slightly more even in its distribution.

(Insert Figure 2.5 about here)

Figure 2.6 shows the distribution of the front-page 2000–2005 dataset again, but this time compared with one measure of the Presidential agenda (in the form of executive orders), one measure of the Congressional agenda (in the form of public laws), and one

measure of the public's agenda (in the form of Gallup's "most important problem" survey responses). The Congressional and Presidential agendas appear more evenly distributed than the *Times* front-page, with large amounts of attention given to some of the policy areas that dominate the front page but also strong attention given to specific domestic policy areas. Labor has a stronger position in executive orders than on any of the other agendas shown, and Public Lands issues consume an astounding 31% of the public laws during this time range. The "most important problem" data, however, shows perhaps the greatest disconnect from the rest of the agendas. Unlike any of the other venues, the public puts the most emphasis on Macroeconomics and Law & Crime. For whatever reason, none of the other agendas respond to these public concerns in kind.

(Insert Figure 2.6 about here)

There are many caveats, of course, to comparing these very different datasets to one another in this fashion; these agendas surely represent not just apples and oranges, but bananas and kiwis too. Still, Figure 2.6 suggests that neither Congress, nor the President, nor even the media are talking about those topics of greatest concern to Americans. Most importantly, this figure suggests that the distribution of attention on the *Times* front-page agenda is equally if not more skewed in comparison with these other agendas.

How Does Attention Vary over Time?

How does the front-page agenda change? Figure 2.7 offers a broad view of front-page attention dynamics, showing the distribution of stories across all major topic categories by year. This picture, of course, is deceptively smooth. As anyone who follows the daily news knows, the media cycle is much more volatile than the fairly steady lines of

Figure 2.7 imply. Yet the figure tells us something interesting and important about the resiliency of front-page attention: In the long-range scheme of things, the agenda is relatively stable. If we pick a topic category at random, for example, and then follow the thickness of its layer of the agenda over time, in *most* cases the layer will retain approximately the same thickness from left to right on the graph. That is to say, to the naked eye at least, the distribution of attention across major topics in any given year looks largely like it did the year before or like it will the year after... with a few notable exceptions.

(Insert Figure 2.7 about here)

These exceptions appear throughout the range of topic areas, but of course they are most easily identified in the largest topics (i.e., those shown at the bottom of Figure 2.7). Consider, for example, the three largest topics at the very bottom of the graph. We see that attention to International Affairs dropped from 866 stories in 2002 to 603 stories in 2003, a 30% decline. Even more dramatically, attention to Defense increased from 94 stories in 2000 to 418 stories in 2001, a 345% increase, and then continued to rise.¹⁹ And attention to Government Operations surged during both Presidential election years in the dataset: first in 2000, with 691 stories, and then again in 2004, with 429 stories (a 206% increase from 140 stories in 2003).

In relative terms, these changes are no more dramatic than the dynamics we witness in the much smaller topics at the top of the graph; Agriculture for instance, the

¹⁹ The increase in attention to Defense between 2000 and 2001 represents the largest year-to-year change in attention to any major topic in the dataset in terms of raw frequency (an increase of 324 stories). This increase in attention, of course, coincides with the U.S. military operations in Afghanistan and broader discussion of military actions following the terrorist attacks of September 11, 2001. Considering that the attacks only affected news coverage for the last three and a half months of 2001 (meaning the first 8 months of 2001 likely reflect the same levels of attention to Defense as in 2000), the surge in attention to Defense after September 2001 is colossal.

topic with the least amount of overall coverage, increased by 150% between the eight stories it received in 2002 and the 20 stories it got in 2003. We also see a relative surge in Energy in 2001, rising 100% from the previous year (from 40 stories up to 80) and then declining by 86% (down to 11 stories in 2002); this surge corresponds with the rolling blackouts in California that year. And we can discern a 400% increase in Weather in 2005, concurrent with Hurricane Katrina, from 30 stories in 2004 to 140 stories in 2005. We can also make out noteworthy blips in other topics, such as increases in Banking & Business and in Religion, both during 2002; this year was made infamous by both the Enron scandal and the Catholic Church sex abuse scandal.

Overall, an examination of the layers of Figure 2.7 tells us that agenda scarcity matters a great deal. When attention to one topic goes up, attention to other topics go down. Every extra article given to an issue is one fewer article available for all the other important problems pressing at the agenda. The reason, then, that attention to Government Operations declines so sharply after the 2000 and 2004 election years is not because the workings of government become any less important in the off-election years, but because the agenda cannot sustain the high levels of attention to government that occur during races for the White House.

Thus, what agenda scarcity really means for front-page dynamics (and media dynamics in general) is that increases in attention will almost always take the form of surges, not prolonged change. There is a powerful equilibrium evident in Figure 2.7. It takes an unusually strong event or political force to displace the distribution of the agenda. And, with the notable exception of the ongoing U.S. conflicts in Afghanistan and Iraq, almost no force is strong enough to change the shape of the long-term agenda.

After almost every surge in attention, every deviation from the status quo, the agenda seems to reset itself back into equilibrium.

Even with its deceptive smoothness, Figure 2.7 does not tell a story of gradual change, or long-term change at all for that matter. This figure tells us that when change occurs it will occur dramatically, at which point the system will return immediately to equilibrium. In other words, long-term stability will give way to dramatic upheaval, followed by more long-term stability.

Note, however, that the post-change equilibrium need not always be identical to the pre-change equilibrium. The clearest example of a shift in the underlying baseline is the fundamental and long-term redistribution of the agenda that appears to have occurred after the terrorist attacks of September 11, 2001. There is not enough data prior to the attacks to test this conclusion, but Figure 2.7 suggests that after the initial surge in attention to Defense and International Affairs in 2001, the system reset itself into equilibrium as usual, but this time the equilibrium is profoundly different from what it was before.

If we were to view the same data presented in Figure 2.7 but this time at a daily level, the image would look much different. I do not include a daily figure here because it would be illegible, a smeared mess of static.²⁰ But an analysis of daily news reveals the same dynamic patterns observed in Figure 2.7, only in starker contrast. Usually, daily news is stable, and the front page looks an awful lot like it did the day before. But

²⁰ At a daily level, there is so much “noise” in the front-page agenda that it is nearly impossible to trace the movement of any single topic area across time. This is not, however, “noise” in the traditional time series meaning of the word. The flurry of dynamics in the daily front page does not represent the presence of too much marginal error but rather the absence of any enduring agenda control. This is a fine theoretical line, perhaps statistically indistinguishable, but important nonetheless.

sometimes—quite often, in fact—punctuations occur. The front page agenda follows a strong equilibrium, yet one that is also highly susceptible to dramatic change.

This dynamic pattern does not go without saying. The null hypothesis, in fact, is that the agenda should change gradually from day to day—that a core agenda of the most important problems endures until those problems are solved and new ones gradually take their place. Each day, this story goes, the front page showcases the most pressing topics of the day. And as these topics evolve over the course of the next several days, the front page continues to cover them. Only when a topic fades away or the problem is solved is it replaced, slowly and gradually, day by day, with a new topic.

But this is not the case. Instead, the daily unit of analysis confirms what casual observers of the news already suspect: Usually, the media covers the same “hot” topics, day after day, but when the news changes it turns on a dime. One day, the eight or nine stories on the front page can be distributed across eight different topics, while the next day eight out of nine stories can be consumed by a single topic that may or may not have been on the previous day’s front page.

Figure 2.8 shows another image of front-page attention dynamics, this time aggregated by month.²¹ While the monthly analysis looks much different from the yearly study shown in Figure 2.7 or the daily analysis too noisy to include, the dynamic patterns observed in those other levels of analysis are even more evident here. There is enough

²¹ We might see Figure 2.8 as a perfect compromise between the more blunt measurement shown in Figure 2.7 and the daily analysis that was too noisy even to warrant a figure. Yet this monthly level of aggregation is just that—a different level of aggregation. Of the three levels I have considered—year, day, and month—the monthly analysis provides the best medium for our human brains to “get a handle on the data” and, thus, to discern patterns of dynamics. But it simply offers us a view of front-page attention from a different perspective, one that is no more or less accurate.

detail in Figure 2.8 to isolate short periods of equilibrium punctuated by spikes in attention.

(Insert Figure 2.8 about here)

Figure 2.8 also illustrates the strong relationship between the coded dataset and what we know has actually happened in the real world during the last six years. For example, Figure 2.8 shows the spike in attention to Government Operations that occurs around the 2000 election; the spike in International Affairs corresponding with the September 11th terrorist attacks in 2001; the consequential deployment of U.S. troops into Afghanistan captured in the surge in attention to the topic of Defense; the even larger spike in attention to Defense in early 2003 representing the U.S. deployment to Iraq; the surge again in attention to Defense when the Abu Ghraib torture scandal breaks in April 2004; and the brief but intense increase in attention to Weather when Hurricane Katrina strikes in the fall of 2005. The monthly level of analysis maps well against our general memory of the real-world events of the last six years... at least in terms of problems. Earlier, I posited that the front page, even more than the *Times* as a whole, tends to focus on bad news over good. The blips in coverage we see in Figure 2.8 are almost exclusively related to bad news—be it news of policy failures, natural disasters, or horrific events.²²

Figure 2.9 shows the same data from Figure 2.8, but as with the second pie chart shown in Figure 2.2, I have reduced the topics to the set of domestic policy topics only. This figure offers a more detailed study of how these policy topics fluctuate over time. Again, we see strong and frequent punctuations in the status quo agenda. Some of these

²² The notable exception is the attention paid to Government Operations (the vast majority of which is given to elections); stories about elections usually come as bad news only to about half the country.

spikes in attention were not readily visible in Figure 2.8, but which we can recognize as corresponding with real-world events. For example, there is a surge of attention to Energy in May 2001, during the rolling blackouts in California. As noted in earlier, January and February 2002 (and later months) show increased attention to Banking & Business during the Enron scandal. We also see an attention spike for Law & Crime in October 2002, when the Washington DC area was under threat of sniper attacks. In April and May 2003, attention to Health surges during the SARS outbreak.

(Insert Figure 2.9 about here)

To summarize the findings thus far, we have made two major observations about the front-page agenda. First, the agenda is distributed very unevenly across topics. Second, changes in the agenda also occur unevenly; the front page changes either dramatically or hardly at all. Next, I present a series of over-time figures, each constructed for a single subtopic issue area (4-digit level). Examining these figures will help to solidify our understanding of these two important characteristics of the front-page agenda.

Tracing Attention to Individual Issues

In the collective graphs of Figure 2.10, I chart the dynamics of 16 distinct subtopic issues. I ask the reader's indulgence in wading through so many graphs, but the insights gained from this exercise will be worth the effort. In looking at front-page attention to so many specific subtopics, my goal is to familiarize us with the dataset at a more fine-grained level and, most importantly, to identify any dynamic patterns that may exist.

I chose these 16 subtopic issues specifically because they represent the high variance of issue attention on the front page. At the subtopic level, the mean number of

front-page stories an issue receives across the entire dataset (2000–2005) is 70, but the median number is only 15. This is what we learned from Figure 2.4: Attention is skewed across policy areas, especially at the subtopic issue level. A few get the bulk of attention, while most get barely any. Six of the 16 subtopic issues presented in Figure 2.9—War, National Elections, Terrorism, the Middle East, Sports, and Corporate Management & Fraud—are the largest in the dataset. Each received nearly ten times as many stories as the mean; these constitute mega issues at the subtopic level. The remaining 10 issues represent the vast bulk of the issues in this dataset, namely those that get significantly less attention. Six of the smaller issues presented here—Asia, State Government, Religion, Weather, National Budget & Debt, and Immigration—represent the upper level of the non-mega issues. If we were to rank all subtopic issues in descending order of attention, these six issues would all be in the top 15%, yet the decline in attention from the first six mega issues to these six is stark. These issues, for example, received only two to four times as many stories as the mean of 70. The final four issues—Tobacco Abuse, Nuclear Energy, IRS Administration, and Drinking Water Safety—are even smaller. In terms of total attention, all four issues fall below the mean of 70 stories, and the last three are lower than the median of 15. Together, these 16 issues give a fair portrayal of the variety of issue attention seen on the front page.

Of these 16 issues, some (like Immigration and Tobacco Abuse) are policy issues and some (like Weather and Sports) are not. Some (like Terrorism and the Middle East) have an international focus, while others (like State Government and IRS Administration) center on the U.S. But all 16 issues have something in common: they are important to someone with influence in the political system, whether this actor is a segment of the

population, a DC lobbyist, a journalist, or the *Times* editor himself. The people who care about these issues may want them in the news, or they may not. Yet an argument could be made, based on the objective “worth” of these issues, that each and every issue warrants front-page attention every day. That, of course, does not happen. In the 2,192 days represented by this dataset, only one day—January 10, 2005—contained 12 front-page stories. One hundred seventy-five days (8% of the total) contained 10 or 11 stories, while 90% of the days contained between six and nine stories. There is not enough room, not nearly enough, for everything that is important. The graphs in Figure 2.10 exemplify how different issues in the same political system can behave very differently when put in the limelight of the very limited front-page agenda.

(Insert Figure 2.10 about here)

I will turn to examining each graph in turn in a moment, but first I will spoil the punch line by saying here that I identify three main types of dynamics in front-page attention to specific issues. First, “erratic dynamics” result from those issues that, barring a major real-world occurrence, are generally not the object of much attention. Events influence agenda attention to all issues, but erratic issues are particularly susceptible to circumstance. Long successions of important events may keep these issues on the front page for long periods of time (indeed, in some cases, for the duration of the data presented here), but erratic issues have no unwritten reservation on the front page. Second, “seasonal dynamics” result from those issues that *do* make repeated and often predictable appearances on the front page—that is, they are all but guaranteed a non-zero portion of attention—but only during regularly recurring events, such as national elections and Congressional budgetary approvals. Third, “routine dynamics” result from

those issues that, because of their perpetual worth as items of common interest, maintain a near-constant but usually modest position on the front page. A single subtopic may exhibit different dynamic patterns as the nature of the issue changes—and all issues are erratic to some degree—but in general each issue corresponds with a single type of attention dynamic.

One final note before examining the graphs of Figure 2.10 in detail: The 16 issues, as I have said, represent very different amounts of attention. Within each of the three categories of dynamics, issues are presented in descending order of total attention. I encourage the reader to notice the size of the y-axis for each subtopic, ranging from War with a y-axis of 160 to Tobacco Abuse and Drinking Water Safety, each with a y-axis of two. It may be helpful to remember, throughout the following discussion, that if we were to plot these 16 time series on a single figure with a y-axis of 160 to accommodate the war, only the top six issues would be discernible.

Erratic Dynamics

Most subtopics (and major topics) fall in the category of erratic dynamics. Of the 16 subtopics presented in Figure 2.10, 10 fit most comfortably in the erratic category: War, Terrorism, Middle East, Corporate Management & Fraud, Asia, Religion, Immigration, Nuclear Energy, Tobacco Abuse, and Drinking Water.

The first image in Figure 2.10 shows the largest issue, War (a), as a prime example of an erratic issue. This series is characterized by wide fluctuation and, in particular, dramatic spikes in attention that correspond with major occurrences, such as the U.S. military deployment to Afghanistan in October of 2001, the deployment to Iraq in March of 2003, and the release of the Abu Ghraib prison torture photos in April of

2004. What is important to notice here is the *kind* of dynamics at work—the pattern of dramatic bumps and dips the series exhibits.

Terrorism (b), the Middle East (c), and Asia (e) represent three other internationally-focused issues that strongly resemble the type of dynamic pattern observed in attention to the War (a). These series share a high volatility of attention, which we may presume is related to the highly volatile nature of the events these issues contain. When there is nothing of particular relevance to these issues going on in the world, as with War and Terrorism prior to September 11, 2001 (from the U.S. perspective), the issue is almost nonexistent on the *Times* front page. When events are active, the issue is hot. These are erratic issues.

Notice that the issue of Corporate Management & Fraud (d) shares nearly the same dynamic pattern. We know there are important differences between these issues—most evidently that Corporate Management is a domestic policy issue—and yet the attention dynamics work similarly. Corporate Management, like the other three issues, seems to fall off the agenda during times when no major events are occurring. We see two major spikes of attention in 2002; the first is the initial Enron scandal, which broke in January and February of that year; the second is the consequent trial of the Arthur Anderson accounting firm. Other smaller surges in attention are also evident (though none resulting in more than 18 stories in a month), but between these erratic surges little or no attention is given to the issue. There are several periods where the issue receives fewer than five stories a month, and often it receives none at all.

The five remaining erratic issues—Religion (f), Immigration (g), Nuclear Energy (h), Tobacco Abuse (i), and Drinking Water (j)—are all domestic in nature. While one

could argue (many lobbyists do) that each of these subtopics is or should be a core issue of American political discussion and concern, none exhibit the dynamic consistency of routine issues. Sometimes these issues are on the agenda, though rarely with more than a few articles each month; often they are off. And each issue displays the volatility that characterizes the other erratic issues. Sometimes this volatility produces large surges of attention, such as the spike in Immigration in April of 2000, during the Elian Gonzales custody dispute; the spike in Religion in March and April of 2002, when the Catholic priest abuse scandal broke; and the later spike in Religion in April of 2005, with the death of Pope John Paul II and the election of Pope Benedict XVI. The issues of Nuclear Energy, Tobacco Abuse, and Drinking Water gain so little front-page coverage that differentiating surges in attention can be difficult, but the dynamics of these issues are undoubtedly erratic, as evidenced by their rare and inconsistent appearance on the front page.

Seasonal Dynamics

Four of the issues presented in Figure 2.9—National Elections, State Government, National Budget & Debt, and IRS Administration—fall in the seasonal dynamics category. Like erratic issues, these issues are prone to surges and dips in attention based on circumstances, but in this case attention is structured around real-world events that occur regularly and predictably.

National Elections (k) offers a perfect example of seasonal dynamics. While elections always have some place on the public agenda, we can see a telltale spike surrounding the November elections in each even-numbered year. The largest spike, of course, is the 2000 election. The 2002 national election, lacking a Presidential race, was

naturally less salient. And while the 2004 election was arguably just as meaningful to most Americans as the 2000 election (perhaps even more so), the presence of an ongoing war left much less attention to be spared on the domestic political race.

The two biggest surges in attention to State Government (l) come in 2001 surrounding the New York City Mayoral race (illustrating one of the quirks of using the *Times*) and in August of 2003 during the California recall (notably an event which, at least so far as we would like to think, occurs neither regularly nor predictably). While strongly influenced by events, these issues exhibit a fundamentally different kind of dynamic pattern from erratic events; they may appear on the front-page more often than we might expect, but they will never fail to show up for their regularly scheduled appearances.

Finally, the graphs for National Budget and Debt (m) and IRS Administration (n) show two much smaller examples of issues that suggest a pattern of seasonal dynamics. In both, we can see the hint of “spikes” in attention during those seasonal times of year when the budget and taxes, respectively, have an accustomed place on the agenda. For example, National Budget & Debt gets a dose of attention most Januarys, presumably in concert with the President’s State of the Union address, as well as each April, presumably in conjunction with tax season. Interestingly, we do not observe consistently high levels of attention every September, at the end of the national fiscal cycle. Looking at IRS Administration, we can postulate that this issue receives seasonal attention every April as we would predict—half of the “spikes” in this figure fall in April—but in this graph as with the National Budget & Debt graph, there simply is not enough data to tell a clear story. This fact on its own indicates something important: Without high salience (or

perhaps a strong policy advocate to provide a boost onto the agenda), even those issues that we might think have a seasonal “place” on the front page can disappear in the wake of larger issues. It’s not that taxes are not “in” this season, but rather that there is no room left; the agenda is full to overflowing.

Routine Dynamics

The remaining two subtopics in Figure 2.9—Sports and Weather—represent issues governed by routine dynamics. These are issues that, while rarely given large amounts of attention, never fall off the agenda for long. Like all other issues, routine issues are driven largely by events. But unlike other issues, they have an all-but-guaranteed position on the front-page, since the events in these issue areas are of perpetual significance and interest in readers’ daily lives. Even in the wake of dramatic and traumatic world events, readers still want to know about sports scores and storm warnings. Still, as we have seen, these issues occupy a small minority of the front page.²³ Other routine issues include Death Notices, Culture & Entertainment, and Religion that, by nature of their subject matter, have a firm though modest hold on the agenda. Notice that all these issues could be categorized as non-policy issues; that is, they are not directly governed by governmental decision-making. Yet although they receive very little attention, these are issues of perpetual salience to the American public. A constant

²³ Sports (e) shows modest surges in attention around regularly-scheduled major sporting events (the biggest spike in attention comes during the 2002 Winter Olympics in Salt Lake City), but in between these surges the topic remains a constant fixture on the agenda. Although Sports only receives an average of approximately nine stories each month, only once in the period from 2000 through 2005 was there a month without a Sports story. The graph of Weather (j) tells a similar story. The overall number of stories devoted to Weather in this dataset is quite low, and yet the topic retains an almost constant presence on the front page. We can see a modest spike in attention to Weather in December 2004, corresponding with the Indian Ocean earthquake and resulting tsunamis across South and Southeast Asia. The second, much larger, spike happens in August 2005, concurrent with Hurricane Katrina.

stream of related events always manages to propel a few articles on these issues each month. Nothing is certain on the front page, we might say, except death, taxes, New York snowstorms, and the Super Bowl.

What Is the Role of Events?

In all, the graphs of Figure 2.10 illustrate a multi-faceted news-selection process. With regard to our hunt for attributes of the front-page agenda, these graphs suggest that the occurrence of an event is a *necessary but insufficient* prerequisite for media attention; other variables are also at work. Quite often, news coverage tracks events with predictable magnitude, such as the spike in attention to National Elections in November of 2004 or the repeated surges in attention to War as troop movements in Afghanistan and Iraq unfold. At other times, an event receives an amount of attention that seems disproportionate with the “objective importance” of that event, either receiving more or less attention than might be warranted, relative to larger trends. The Elian Gonzales dispute, the debate over whether or not to remove Terri Schiavo’s feeding tube, the kidnapping of Elizabeth Smart, and the arrest of Senator Larry Craig for lewd conduct in a men’s bathroom are all examples of sensationalized cases that received more attention than another event of the same variety but in different circumstances (or involving a different type of antagonist or protagonist) would likely receive. At the other end of this spectrum, human trafficking in China (one article in this entire dataset),²⁴ female genital mutilation in Africa and the Middle East (no stories), the humanitarian crisis in the Sudan (21 stories), and domestic abuse in the United States (one article) stand as unfortunate examples of events that receive a scarcity of attention in comparison with their

²⁴ Numbers in parentheses give the total number of front-page *NYT* stories devoted to each issue, 2000–2005.

significance, by any quantifiable standards. In this entire *NYT* front-page dataset of 16,828 stories, only 67 stories focused on human rights concerns *across all nations*. Clearly, attention is not always or necessarily proportionate to the substantive importance of the issue.²⁵

Why do these important issues receive so little attention? The answer lies in the data generation process underlying the front-page agenda. As I will discuss in more detail in subsequent chapters, the front-page agenda is driven by a particular kind of information processing mechanism driven by more than just real-world events. Other factors, such as the inertia of attention, the amount of agenda congestion, the scope of the policy discussion, and the efforts of policy entrepreneurs play large roles in shaping front page news. And at a very basic level, we can expect the news-selection process to give preference to issues that have one or more of the following characteristics: immediate relevance to the American public, the breakdown of a U.S. policy, and clear-cut issue concepts (Alvarez and Brehm 2002). All else being equal, we should expect issues outside the U.S., outside the direct jurisdiction of American policy, and involving difficult or technical concepts to receive significantly less attention—and to stay on the agenda for a much shorter time—than issues that hold the characteristics listed above. Each of the important but under-attended issues listed above, for example (human trafficking, female genital mutilation, Sudan, and domestic violence), has few if any of these characteristics. The U.S. public is far removed from most of these problems. Only in one case (domestic abuse) is the policy issue one that has failed under America's

²⁵ In other words, these numbers illustrate the earlier assertion that while every front-page article reflects a real-world event, events are not sufficient to make front-page news. Just because something important is going on in the world does not mean it will get picked up by the media, and this fact is especially true of the front page with its high saliency threshold.

jurisdiction. But this issue, like the others mentioned here, can be emotionally complex and difficult to understand.

Consider, for example, front-page attention to Weather, as we have just seen in Figure 2.9 (j). A comparison of the attention given to the East Asian tsunamis and the attention paid to Hurricane Katrina yields two interesting observations. First, attention to Katrina was much, much higher than the attention paid just eight months earlier to the tsunamis in Asia, even though the tsunamis resulted in approximately 163 times as many deaths.²⁶ Second, attention to both disasters deteriorated almost as dramatically and abruptly as it began.

The first observation speaks to the U.S.-centered focus held by the national media, a focus which is unsurprising but which reminds us that while all news stories are driven by events, the occurrence of an event in no way guarantees the publication of a news article. No one could say that Hurricane Katrina did not warrant each and every article it received—indeed, many would argue that not nearly enough attention was paid to the disaster—but the decided contrast between coverage of Katrina and coverage of the tsunamis (more devastating in terms of the human death toll) demonstrates case in point how national news is simply not an objective representation of world events.

The second observation, that attention to both disasters fell away so suddenly, offers empirical documentation of the hunch we all probably hold, that the news cycle has a *very* short attention span. As I will discuss in more detail in the next chapter, the brevity of the media's attention span stands as partial demonstration of disproportionate information processing at work. Whether or not Americans would respond favorably to

²⁶ Nearly 1,900 people lost their lives in the 2005 Hurricane Katrina. The 2004 tsunamis in South and Southeast Asia killed approximately 300,000 people.

sustained high levels of attention paid to the effects of Hurricane Katrina in the months and years after the storm, with thousands of other issues waiting “on deck,” the media cycle could never accommodate a prolonged storyline of this nature. Only in the most extreme cases—such as a war—is the media able to devote a sizable portion of the agenda to a single storyline over an extended period of time. And even in the case of a war, there are unwritten but nevertheless firm rules of media conduct that dictate how the storyline must stay fresh by evolving over time. In any case, there are costs associated with devoting so much agenda space to one storyline over a long period of time—costs both in terms of the agenda space available to other important issues and, potentially, in terms of readership if the storyline runs dry.

Still, while most individual issues are unable to maintain a significant presence on the agenda for a sustained period, war is different. Figure 2.7 and Figure 2.8 showed the dramatic increase in attention to the topic of Defense after the attacks of 9/11. We can measure this increase by comparing the overall distribution of front-page attention before and after 9/11, as shown in Figure 2.11. The first pie chart shows data from January 1, 2000 through September 10, 2001. The second pie chart shows data from September 11, 2001 through December 31, 2005. Since September 2001, attention to Defense has increased four-fold, from 5% of the agenda prior to 9/11 to 21% of the agenda since. The vast bulk of these Defense stories, of course, represent the single subtopic issue we have already discussed: War (code 1619).

(Insert Figure 2.11 about here)

The effect of this mega issue is that the space available for all other topics combined is reduced by the same amount that attention to Defense has increased (from

95% to 79%). Government Operations takes the biggest hit, dropping from 19% of the pre-9/11 agenda to only 8% of the post-9/11 agenda. A sizable portion of this decline can likely be attributed to the high levels of attention paid to the 2000 national election that were not extended to the 2004 national election. Consider, for example, the work of an advocate in the area of education. Education has never, and probably will never, receive as sizable a portion of the attention pie as Defense. But since 9/11, attention to this topic has been cut in half, from 4% to 2%. The narrowing of agenda space in this manner has had a profound impact on the policy system. There are many costs of war, but one cost rarely discussed by pundits is the dramatic reduction in agenda space available to other important problems.

In large part, the increased attention to War can be tracked against the unfolding of war events on the battlefield. But as with Weather, we see that events are not the only driving force in determining front-page attention. Figure 2.12 maps attention to the war on terror against the number of U.S. troop deaths in Afghanistan and Iraq, combined. Usually, the lines in this graph follow each other closely. At other times, however, there is clear divergence. These are the areas of variance I endeavor to explain through the theory of media attention dynamics that I develop in Chapter 3 and Chapter 4 and the empirical tests of this theory I present in Chapter 5.

(Insert Figure 2.12 about here)

Does Attention Vary More by Issue or over Time?

This chapter has demonstrated how the front page of the *Times* looks different from different angles. Having sliced the data several different ways, we have a sense that the agenda operates differently at different points in time and differently for different issues

and topics over time. But we can measure the relative importance of these two types of variance quite precisely. Does front-page attention vary significantly over time? Does it vary significantly by issue? And which element—changes in time or issue heterogeneity—explains more of the variance in how much front-page attention an issue receives?

Consider what these questions mean for the news coverage we observe on the front page. It is possible—in fact, it is our null hypothesis—that attention between issues and attention within issues over time are both homogenous, producing no significant difference in variance in each dimension. On the other hand, perhaps there is enough variation between issues, within issues over time, or in both dimensions to produce statistically different amounts of front-page attention depending on the issue or time period at hand.

What is at stake? If heterogeneity across issues explains most of the variance in the attention that issues receive across the dataset, we could infer that the amount of attention a given issue receives at a given point in time is due primarily to *which* issue it is. Come rain, shine, or major events, this argument goes, an issue's chance of landing on the front page has everything to do with the general perception of the issue (is it important or is it not?) and little or nothing to do with the context of time. A few issues would *consistently* get the bulk of attention. If you were a policy entrepreneur championing a smaller issue, say education reform or agriculture subsidies, not only would you know that your issue will generally receive only a small slice of attention, but you would know that the size of this slice is unlikely to increase (or decrease) over time. You might want to find a different issue, or a different job.

However, if most of the variance occurs within issues over time across the dataset, this finding would suggest that the number of stories an issue receives is due primarily to context, and that all issues have fundamentally the same chance of becoming front-page news. As a policy advocate, you would know that the amount of attention your issue receives can change dramatically depending on context. Under the right set of circumstances, your issue could gain a massive surge in attention... or it could be pushed off the agenda altogether.

There is a simple way to consider these questions empirically. I examine the results of an unparameterized time-series pooled cross-sectional model of the number of front-page stories issue i receives at time t using a fixed-effects estimator. The results are presented in the simple bar graph of Figure 2.13. Calculated at the major topic level, 64% of the variance in front-page attention is due to group-level variation in means and 37% of the variance is due to temporal variation in means. Calculated at the subtopic issue level, group-level variation accounts for only 43% of the variance, while time accounts for 57%.²⁷

(Insert Figure 2.13 about here)

These results tell us that both the issue *and* the timing matter in determining how much front-page attention an issue receives. Some issues—those deemed more “important” or more intriguing—will simply have an easier time landing a place on the front page than others. But all issues, even the biggest issues, can be knocked off the

²⁷ Calculated in Stata, at the major topic level the coefficient for σ_u (space) is 11.97 and the coefficient for σ_e (time) is 8.94. Calculating $\rho = \sigma_u^2 / (\sigma_u^2 + \sigma_e^2)$, we see that the fraction of the variance due to u_i is 0.64. The F test that all $u_i = 0$ is statistically significant ($F(26, 1917) = 129.03$; $\text{Prob} > F = .0000$), meaning that we can reject the null that all issues are homogenous. Similarly, at the minor topic level, $\sigma_u = 2.73$ and $\sigma_e = 3.12$, so $\rho = 0.43$. Proportion of variance tests yield similar results when tested only on major topic policy areas (i.e., excluding major topic codes 24-99; $\rho = 0.64$). At the major topic level $\rho = .65$, and at the minor topic level $\rho = 0.44$. The F-statistic for ρ is significant in all cases at the 0.0000 level.

agenda by context. Similarly, even the most oft-ignored issue can catch a wave now and then, when circumstances align to propel it to the center of attention. The relative balance between the weight of issue variance and the weight of time variance in the dataset tell us that we must pay attention to issue heterogeneity as well as temporal dynamics as we look for patterns of attention in the front-page agenda.

Summary

In this chapter I have sliced the data on *New York Times* front-page attention in many ways. Along the way, we have collected a number of observations about the characteristics of front-page attention—both static and dynamic—that will serve us well in the chapters to follow. Most importantly, we have uncovered two main characteristics of the front-page agenda: 1) The distribution of attention is vastly skewed, such that only a few topics and issues receive the majority of attention; 2) Changes in the agenda are skewed in a different way, with periods of equilibrium punctuated frequently by dramatic upheaval. We have also learned that both issue variance and time variance are important contributors to how much attention a given issue receives. With regard to time variance, I have demonstrated how circumstances—especially real-world events—can radically affect the amount of front-page attention an issue receives. Yet events, as we have seen, are insufficient to warrant attention; other factors are also at play. In Chapter 3, I identify eight specific variables that together shape front-page news. In Chapter 4, I discuss and test the dynamic characteristics of the news-selection process. Together, the two chapters that follow offer an explanation for findings we have observed here.

Table 2.1 *NYT* Front-Page Attention across Major Policy Topics (2-Digit Level)
with Summary Statistics by Month, 2000–2005.

Code	Major Topic Category	Total, 2000–2005	Percent Total	Monthly Mean	Monthly Std Dev	Monthly Min	Monthly Max
19	International Affairs & Foreign Aid	3,742	22.2%	51.97	19.23	19	108
16	Defense	2,743	16.3%	38.10	27.24	2	153
20	Government Operations	1,931	11.5%	26.82	22.10	1	123
03	Health	960	5.7%	13.33	6.27	4	36
12	Law, Crime, & Family	882	5.2%	12.25	6.98	2	43
15	Banking, Finance, & Domestic Commerce	868	5.2%	12.06	9.65	2	55
29	Sports & Recreation	661	3.9%	9.20	6.70	0	47
01	Macroeconomics	544	3.2%	7.55	4.82	0	21
17	Space, Science, Technology, & Communications	432	2.6%	6.00	6.06	0	45
06	Education	429	2.5%	5.96	3.18	1	17
23	Culture & Entertainment	414	2.5%	5.75	3.11	1	15
02	Civil Rights, Minority Issues, & Civil Liberties	402	2.4%	5.58	4.22	0	24
05	Labor, Employment, & Immigration	327	1.9%	4.54	4.11	0	24
24	State & Local Government Administration	321	1.9%	4.46	4.40	0	19
31	Churches & Religion	305	1.8%	4.24	5.42	0	30
26	Weather & Natural Disasters	269	1.6%	3.74	10.47	0	87
10	Transportation	257	1.5%	3.57	2.51	0	15
14	Housing & Community Development	215	1.3%	2.99	2.31	0	11
07	Environment	192	1.1%	2.67	2.30	0	9
08	Energy	193	1.1%	2.68	4.33	0	22
21	Public Lands & Water Management	138	0.8%	1.92	1.68	0	8
99	Human Interest, Other, & Miscellaneous	123	0.7%	1.71	1.74	0	8
13	Social Welfare	104	0.6%	1.44	1.55	0	8
18	Foreign Trade	101	0.6%	1.40	2.33	0	16
30	Death Notices	101	0.6%	1.40	1.51	0	6
27	Fires	90	0.5%	1.25	2.02	0	10
04	Agriculture	84	0.5%	1.17	1.40	0	7
	TOTAL	16,828	100.0%	8.7 avg	6.2 avg	1.9 avg	35.8 avg

Table 2.2 A Comparison of the Skewness of Different Institutional Agendas.

Dataset	Documents Used	HHI
“Most Important Problem”	public opinion responses to the question, “What is the most important problem facing the nation today?”, 1947–2004*	.140
<i>NYT</i> front page	all front-page <i>New York Times</i> stories, 2000–2005	.137
<i>NYT</i> complete	sample of all <i>New York Times</i> stories, 1946–2003*	.132
President	executive orders, 1945–2003*; State of the Union speeches, 1946–2005*	.078
Congress	Congressional bills, 1947–2000**; Congressional hearings, 1946–2005*; public laws, 1948–2004*; roll call votes, 1946–2000*	.073

Calculating the Herfindahl-Hirschman Index: The HHI is calculated by taking the sum, across all issues, of the squares of the proportion of attention accounted for by each issue; that is, $\sum_{i=1}^n s_i^2$, where s is the share of the agenda taken up by issue i and n is the number of issues. All datasets used here are restricted to the 19 major policy topics only. Using the Gallup “Most Important Problem” data, for example, I arrive at the HHI by first calculating the proportion of respondents across the entire dataset who reported that Macroeconomics issues (e.g., the national debt, homelessness) were the most important problem facing the nation (0.22), then the proportion who said that Civil Rights issues (e.g., racism, sex discrimination) were the most important problem (0.04), and so on. Across all topics, these proportions sum to 1. Next, I take the square of each of proportion. Finally, I sum all the squares. In the case of the President and Congress datasets, I averaged the percentages across document types before squaring and then summing. The HHI scores range from $1/N$ (in this case, $1/19$ or 0.053) to 1.0.

Interpreting the Numbers: The higher the HHI, the more concentrated that agenda is on a few key issues. A HHI value of 0.053 (the minimum) would indicate that each of the 19 major topics receives exactly the same amount of attention; this is perfect dispersion (i.e., zero concentration). A HHI value of 1.0 would indicate that one topic receives 100% of attention: perfect concentration, zero dispersion. Thus, we see that the President and Congressional agendas are somewhat concentrated; some topics receive a larger share of attention than others. Yet the other three agendas—Most Important Problem, *NYT* front page, and *NYT* complete—are nearly twice as concentrated, though even these agendas are only a fraction as concentrated as they could be in theory, since the maximum HHI is 1.0.

* Source: Calculated from Policy Agendas Project
(<http://www.policyagendas.org/index.html>)

** Source: Calculated from Congressional Bills Project
(<http://www.congressionalbills.org/index.html>)

Figure 2.1 *NYT* Front-Page Attention across All Major Topics (2-Digit Level), 2000–2005.

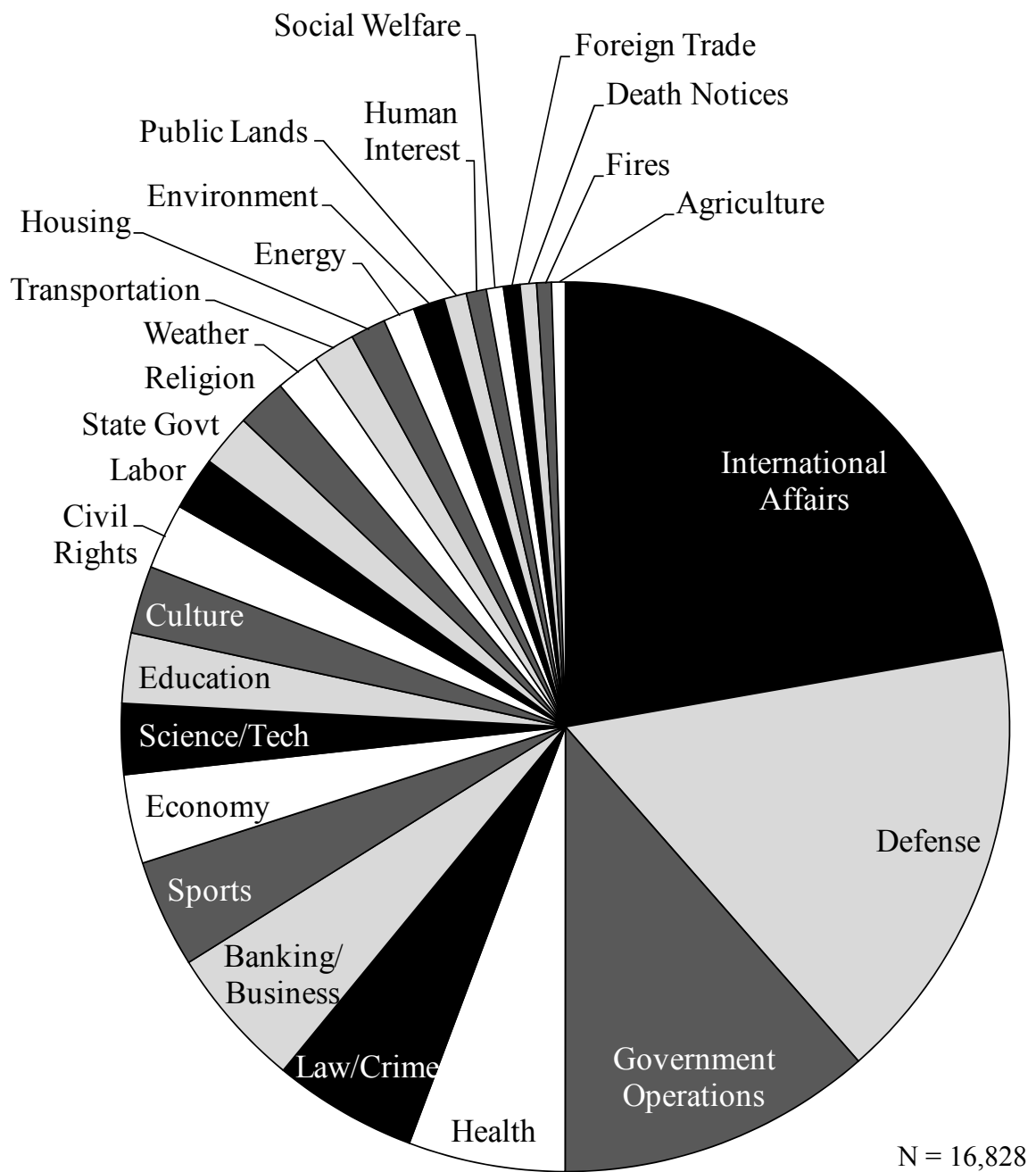


Figure 2.2 *NYT* Front-Page Attention across Domestic Policy Topics, 2000–2005.

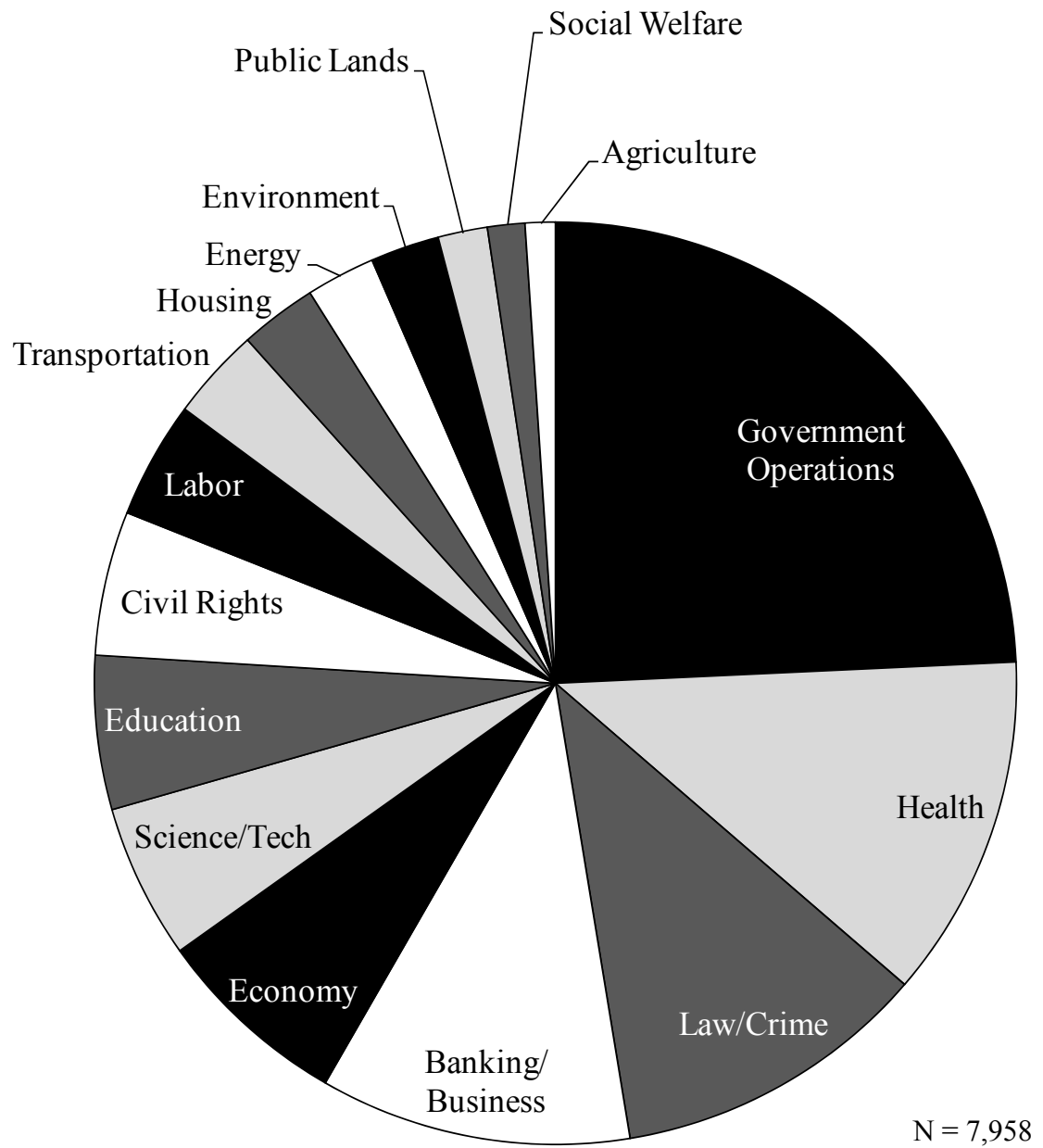


Figure 2.3 Number of *NYT* Front-Page Stories per Major Topic (2-Digit Level), 2000–2005.

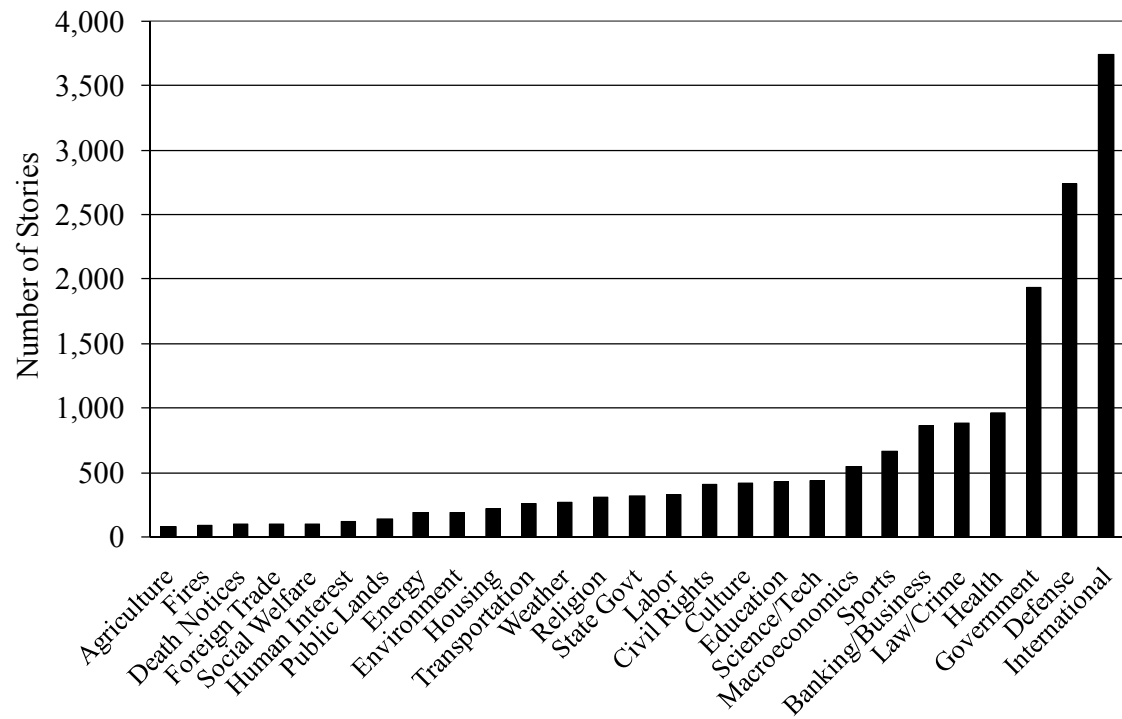


Figure 2.4 Number of *NYT* Front-Page Stories per Subtopic (4-Digit Level), 2000–2005.

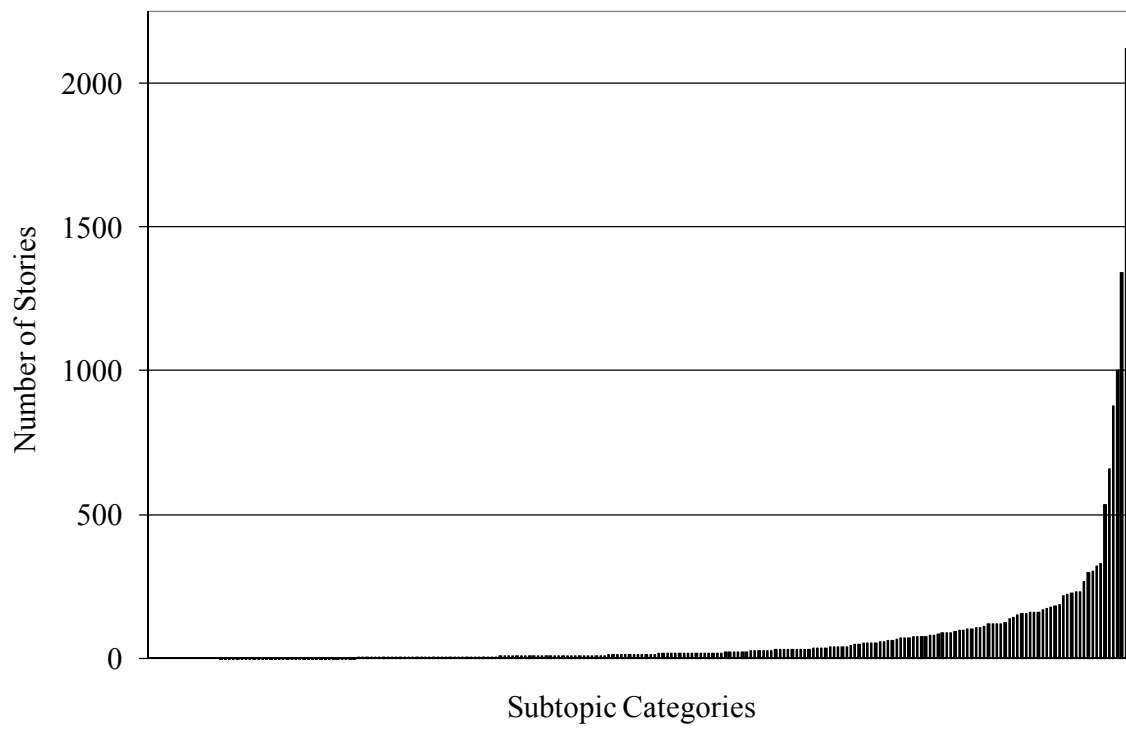
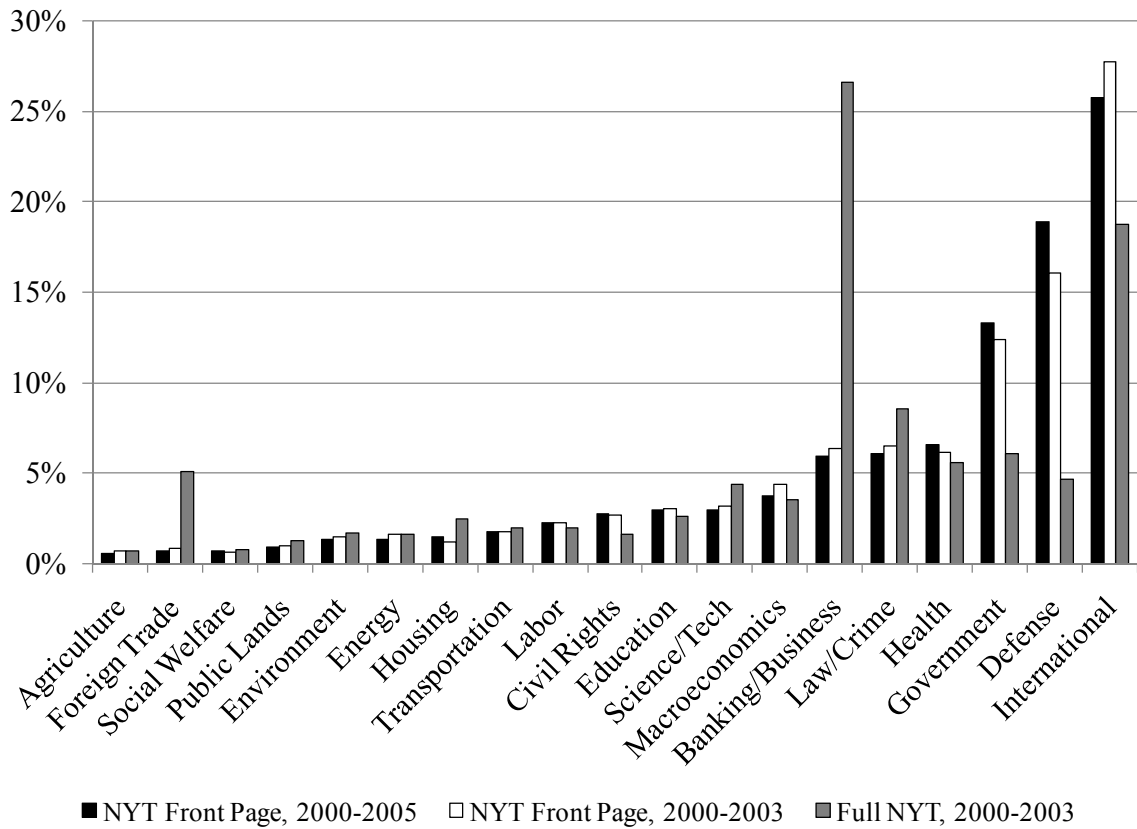
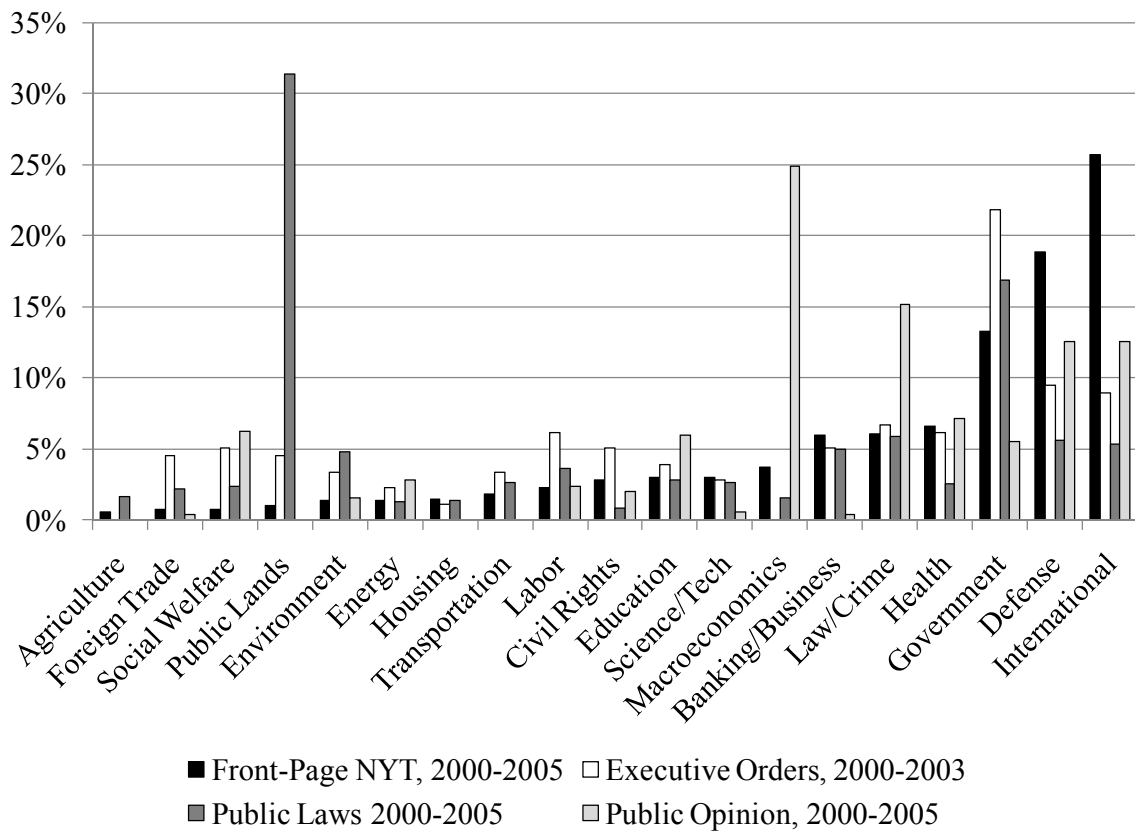


Figure 2.5 The *NYT* Front-Page Agenda Compared to the Full *NYT*.



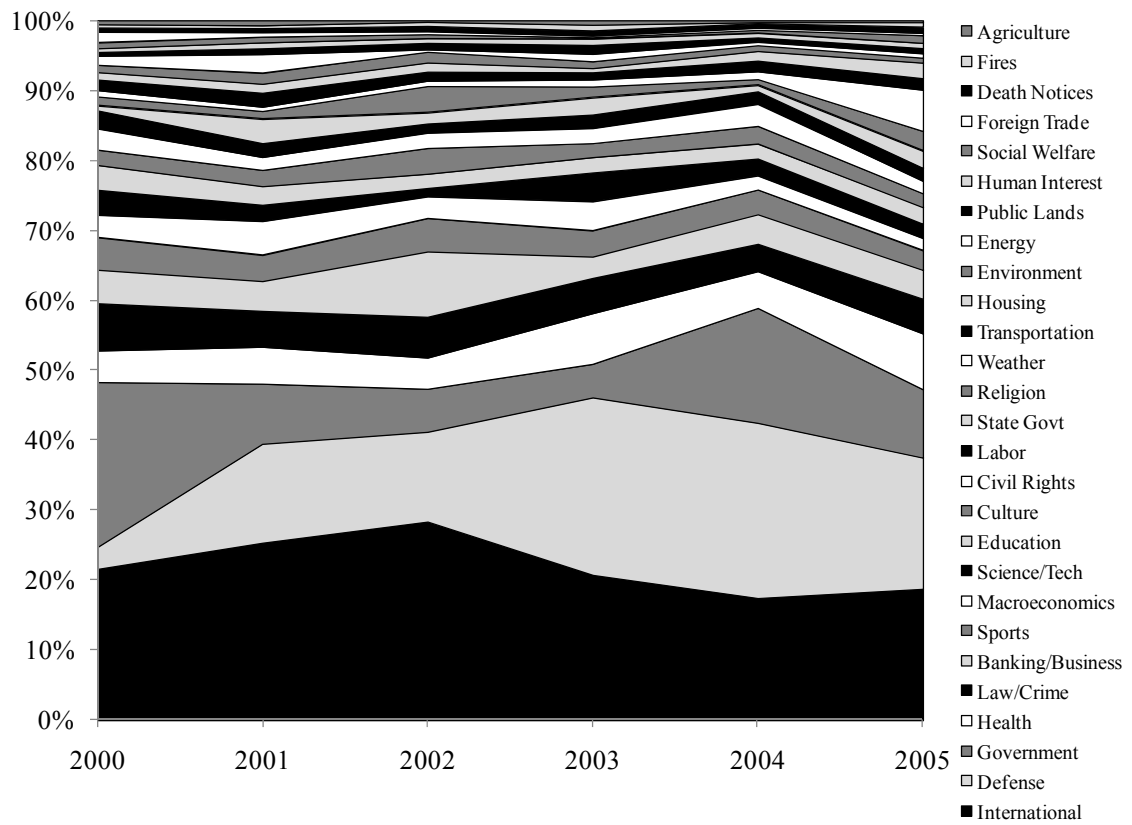
Note: The full *New York Times* values are calculated from the Policy Agendas Project's *New York Times* sampled dataset, truncated here to a 2000–2003 time range (<http://www.policyagendas.org/index.html>).

Figure 2.6 The *NYT* Front-Page Policy Agenda Compared to Other Policy Agendas.



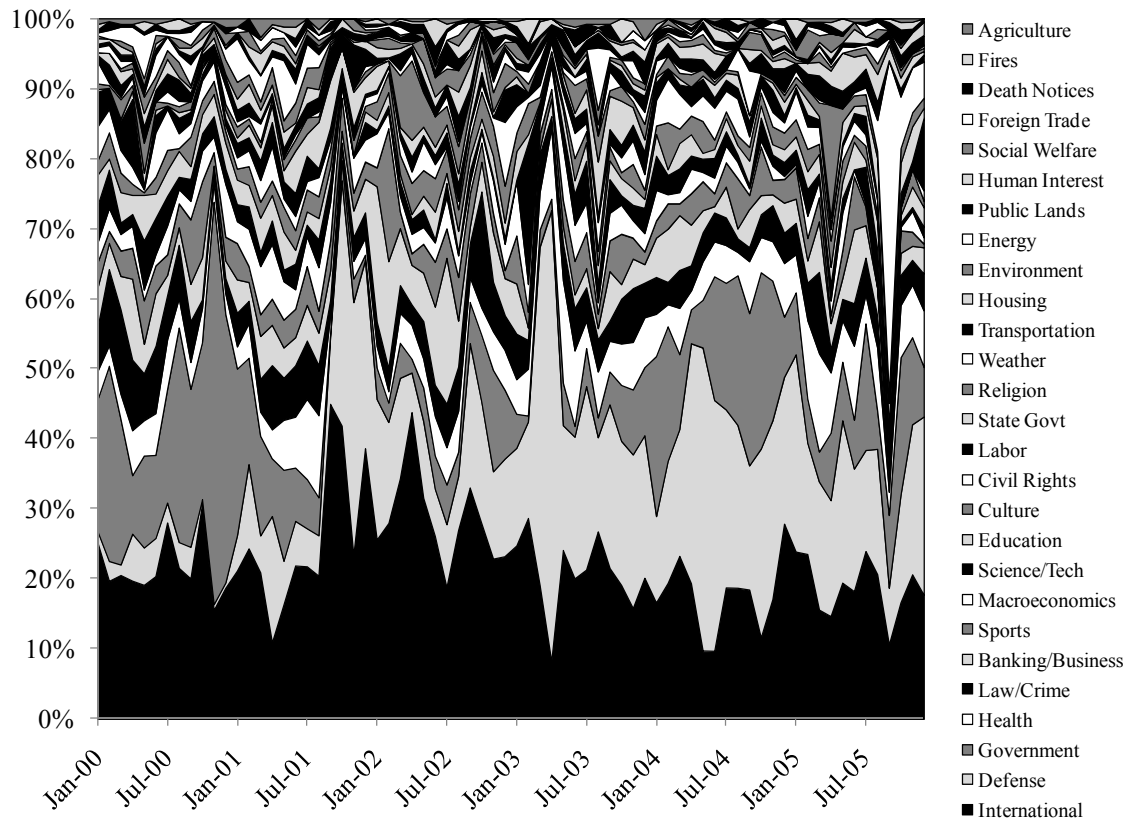
Note: The Executive Orders, Public Laws, and Public Opinion values are calculated from the Policy Agendas Project's executive orders, laws, and most important problem datasets, respectively, each truncated here to begin in 2000 (<http://www.policyagendas.org/index.html>).

Figure 2.7 *NYT* Front-Page Attention to All Major Topics by Year, 2000–2005.



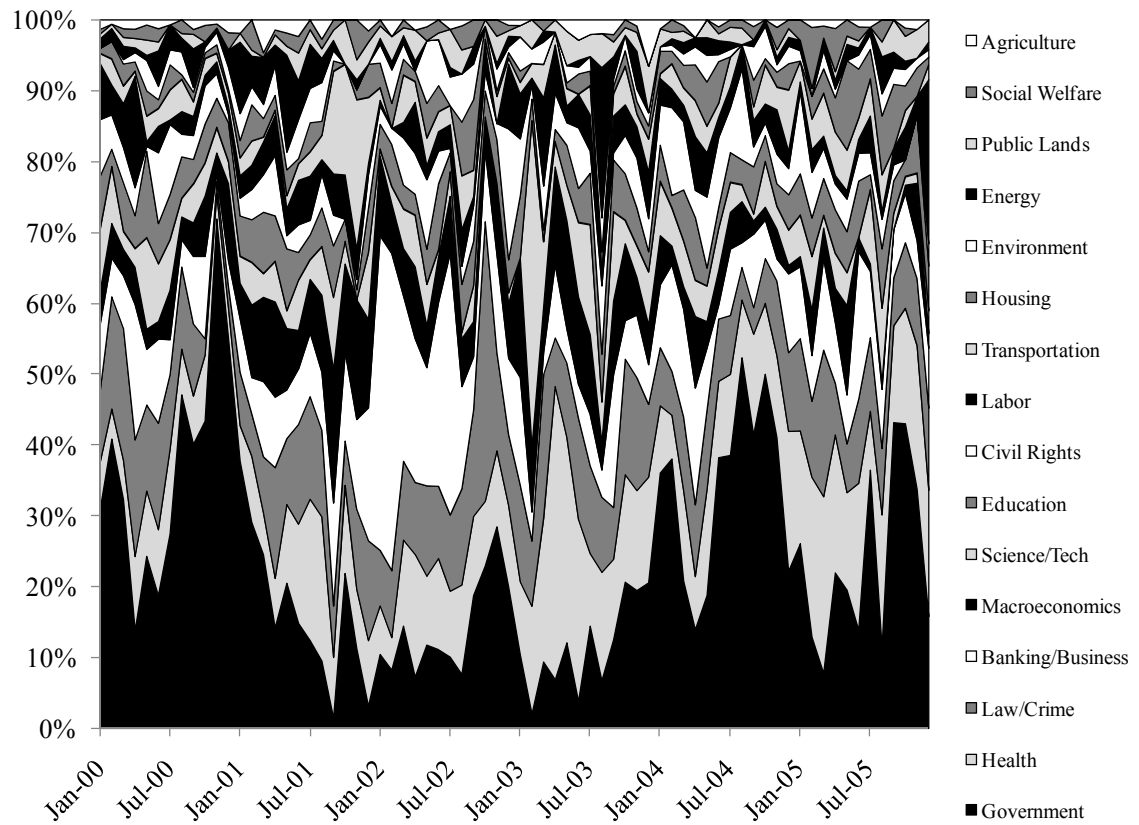
Note: Topic categories in the legend are listed top to bottom in ascending order of frequency.

Figure 2.8 *NYT* Front-Page Attention to All Major Topics by Month, 2000–2005.



Note: Topic categories in the legend are listed top to bottom in ascending order of frequency.

Figure 2.9 *NYT* Front-Page Attention to Domestic Policy Topics by Month, 2000–2005.

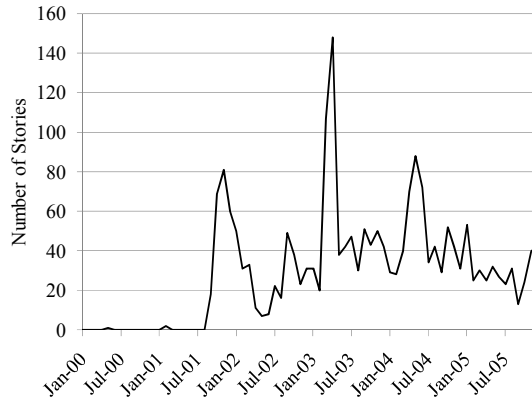


Note: Topic categories in the legend are listed left to right top to bottom in ascending order of frequency.

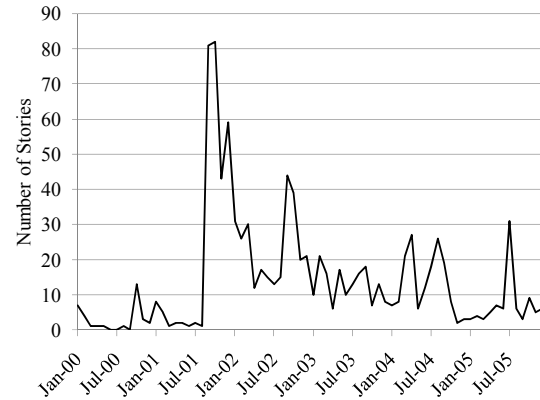
Figure 2.10 *NYT* Front-Page Attention across Individual Subtopic Issues, 2000–2005.

Erratic Dynamics

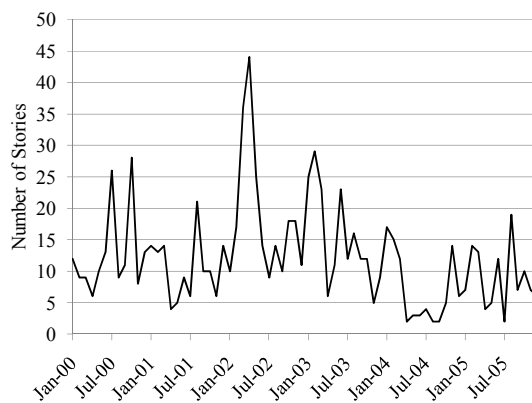
a. War (Code 1619)



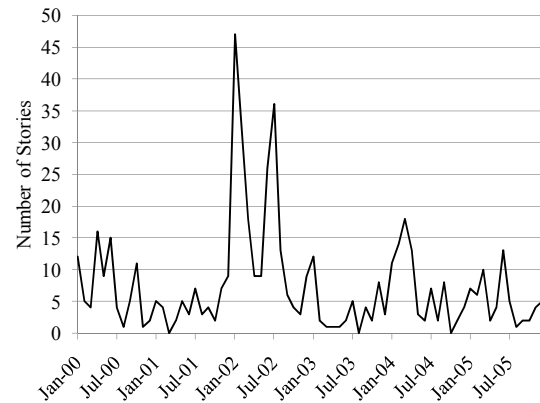
b. Terrorism (Code 1927)



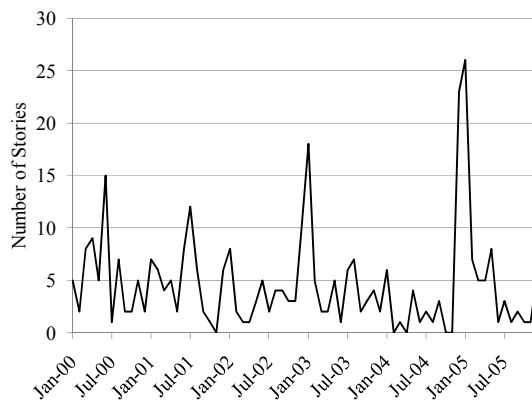
c. Middle East (Code 1920)



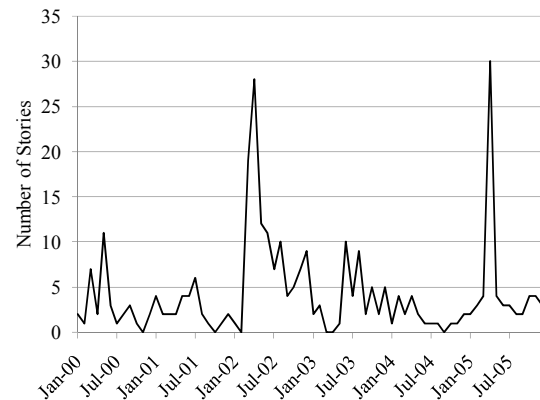
d. Corporate Mgt & Fraud (Code 1520)



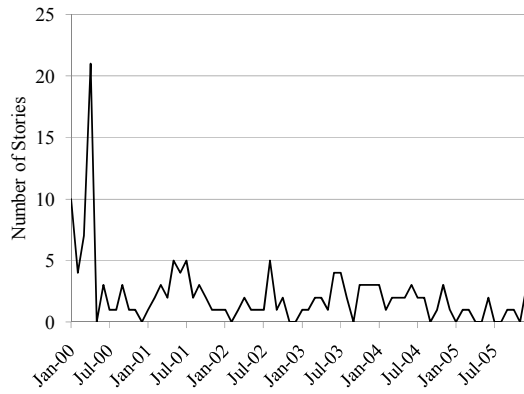
e. Asia (Code 1919)



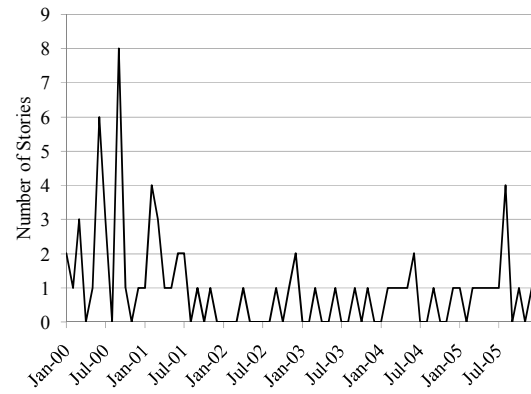
f. Religion (Code 3100)



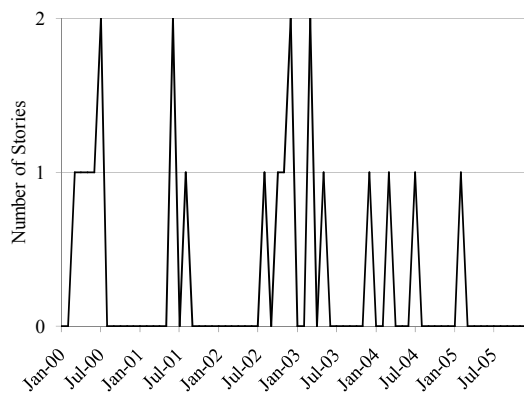
g. Immigration (Code 530)



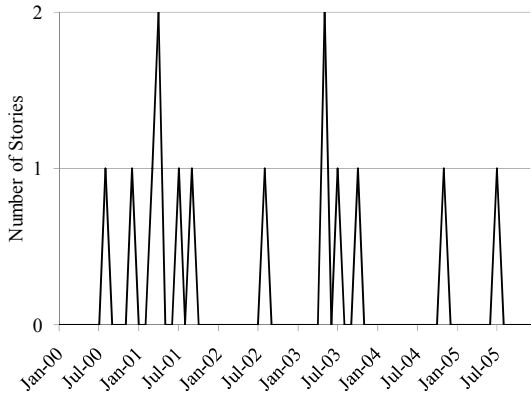
h. Nuclear Energy (Code 801)



i. Tobacco Abuse (Code 341)

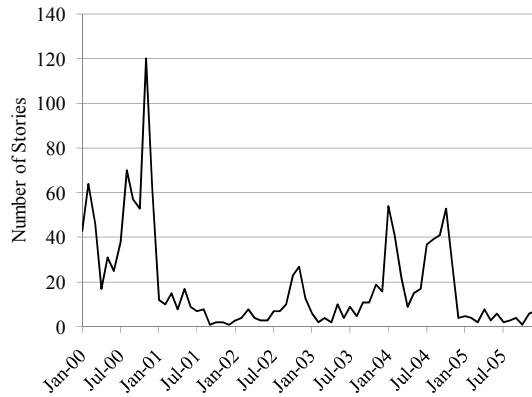


j. Drinking Water Safety (Code 701)

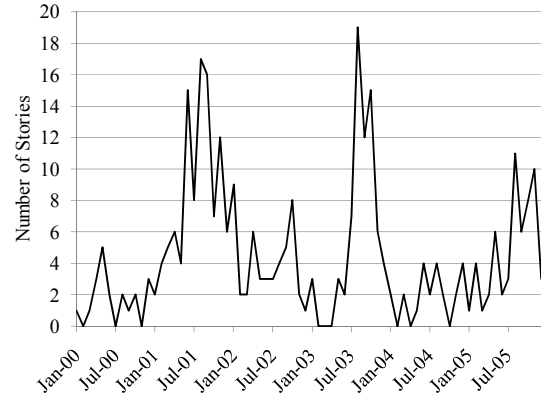


Seasonal Dynamics

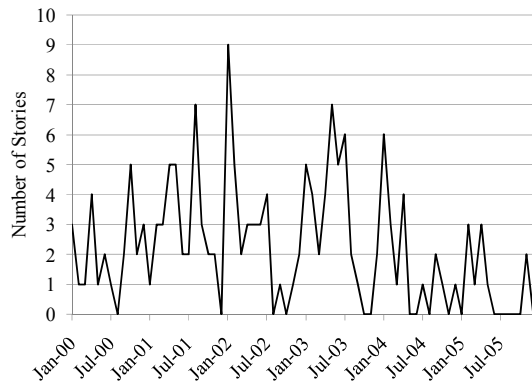
k. National Elections (Code 2012)



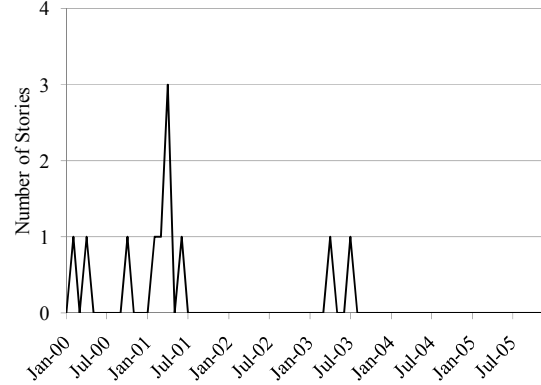
l. State Government (Code 2400)



m. National Budget & Debt (Code 105)

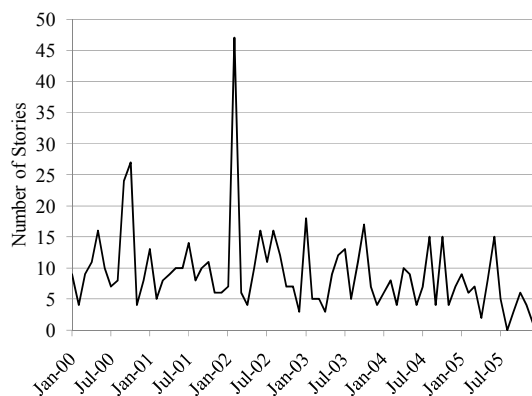


n. IRS Administration (Code 2009)



Routine (Non-Policy) Dynamics

o. Sports (Code 2900)



p. Weather (Code 2600)

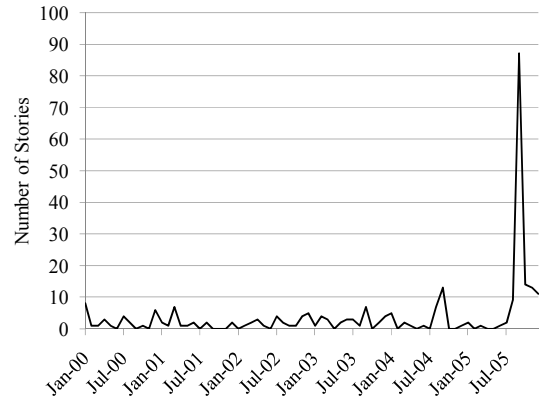


Figure 2.11 Comparing the Front-Page Agenda Before and After September 11, 2001.

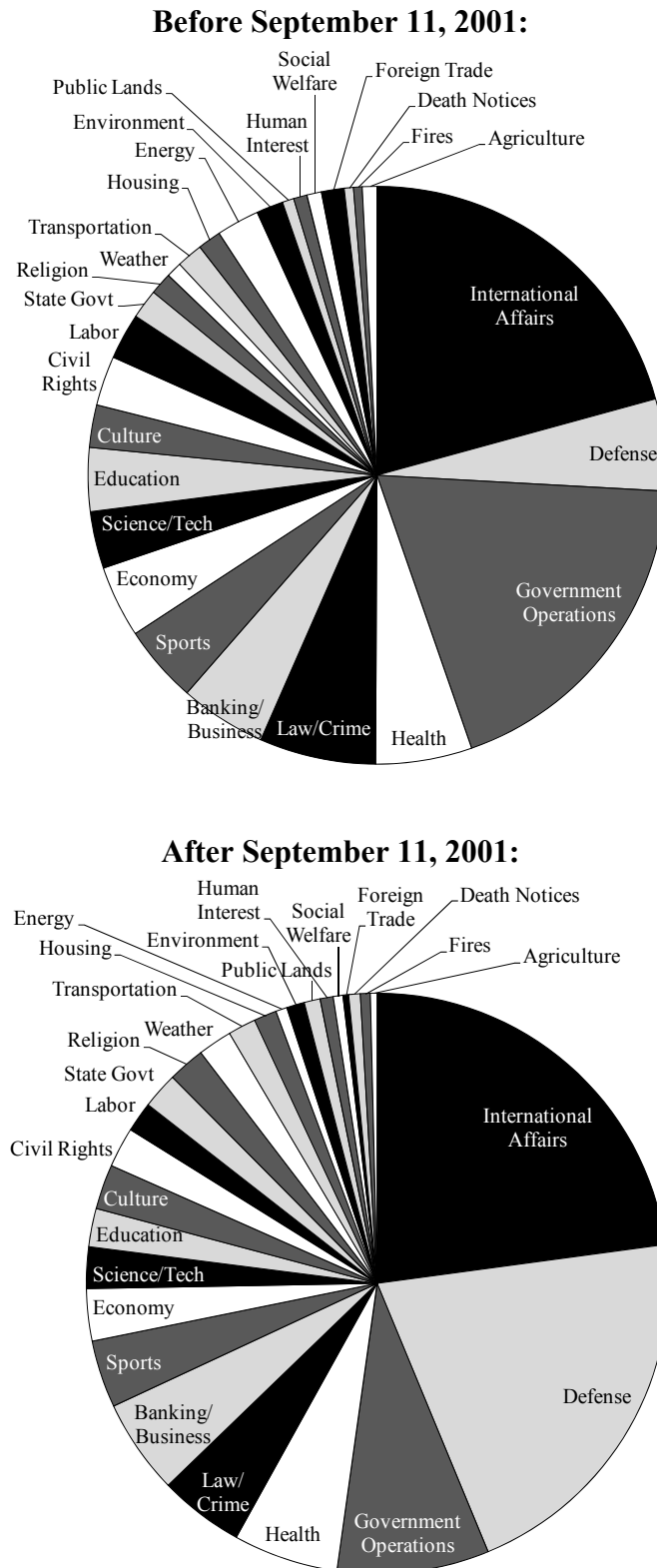
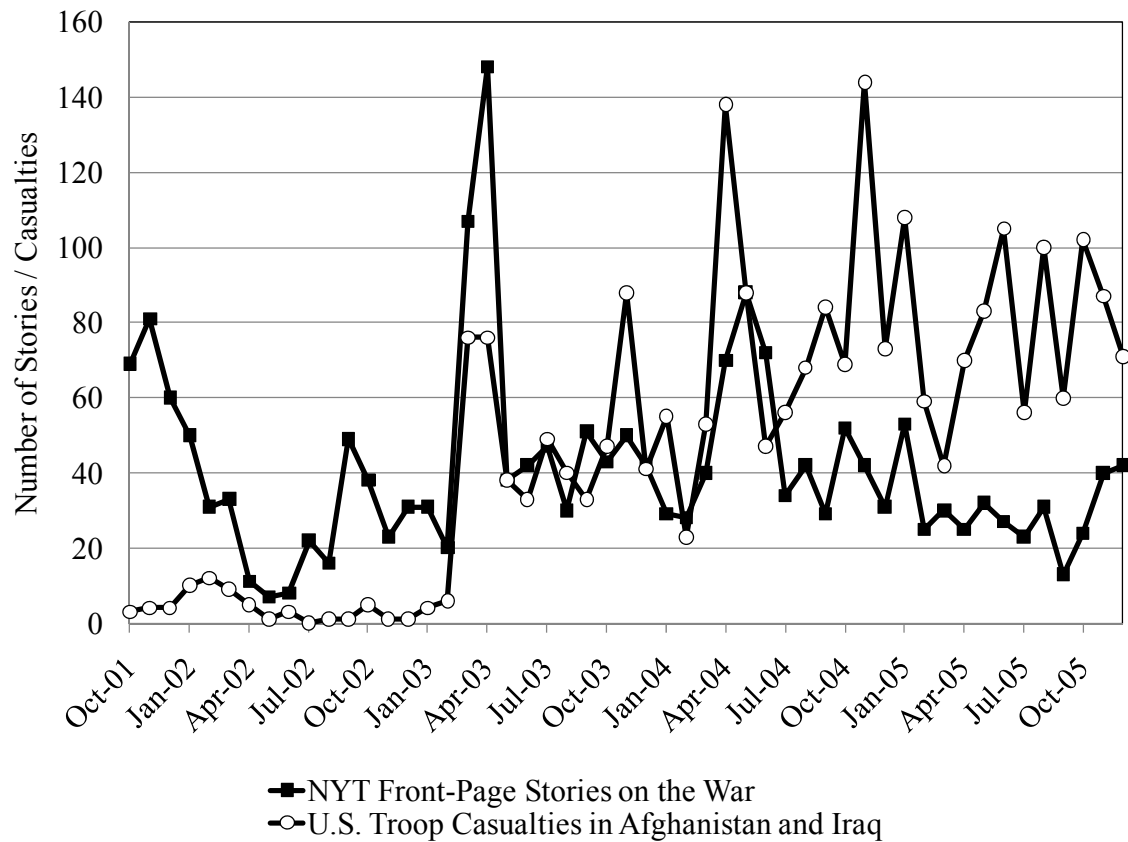
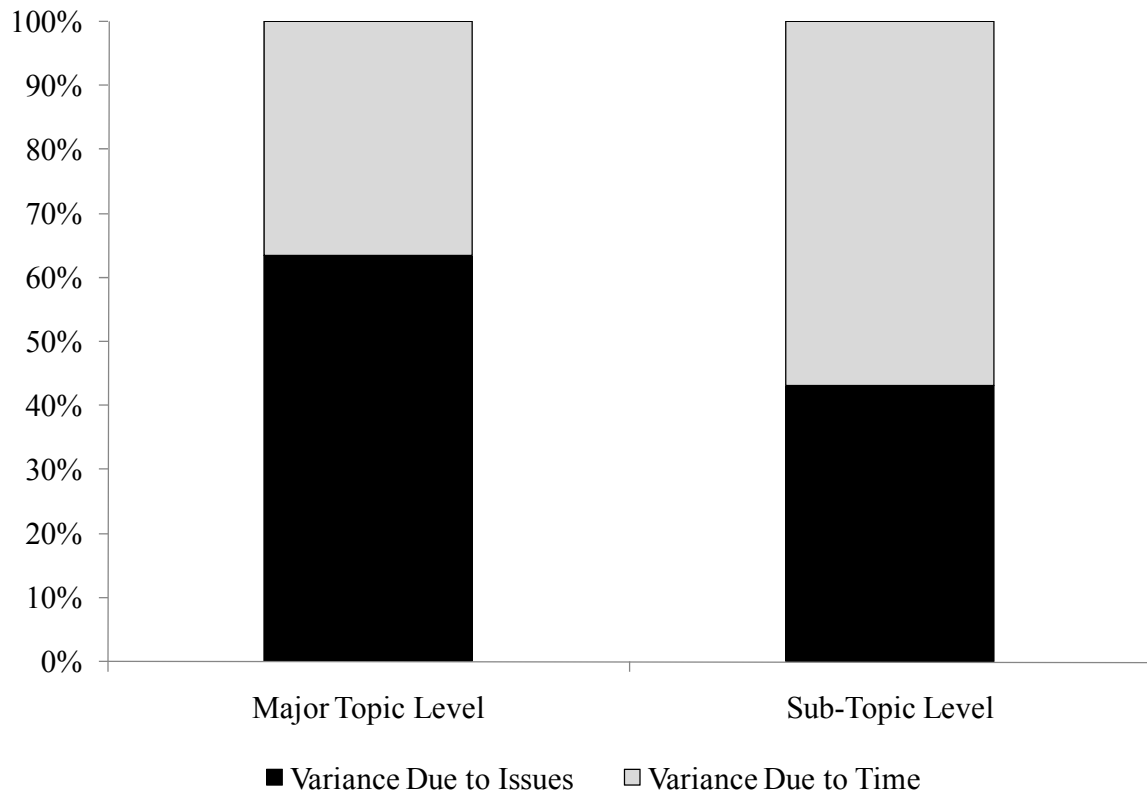


Figure 2.12 Comparing Deaths of U.S. Soldiers in Iraq to *NYT* Front-Page War Coverage, March 2003–December 2005.



Note: Data on U.S. Troop Casualties calculated from the Department of Defense's Military Casualty Information (2007). Retrieved August 12, 2007 from http://siadapp.dmdc.osd.mil/personnel/CASUALTY/oef_date_of_death_list.pdf and from http://siadapp.dmdc.osd.mil/personnel/CASUALTY/oif_date_of_death_list.pdf.

Figure 2.13 Amount of the Variance in Number of Front-Page *NYT* Stories As Explained by Variance in Issues and Variance in Time.



Chapter 3

“Part Science, Part Art, with a Little Serendipity” How Eight Key Variables Affect Front-Page Attention

Imagine being the editor of the *New York Times*. If anyone has control over front-page news, you do. At the daily page one meetings, members of your senior editorial staff pitch their article ideas for the next day’s front page. Always, there are many more stories—important stories—than front-page slots. It’s up to you and your staff to choose. How do you decide? Bill Keller, current editor of the *Times*, describes the process this way: “It’s part science, part art, with a little serendipity” (Keller 2006).

In fact, there are several specific variables we can identify as having a direct and significant impact on front-page news. I use this chapter to discuss eight such variables, arguably the most important in the news-selection process.

In detailing these eight variables, my goal is to unpack the findings presented in Chapter 2 and to lay a theoretical groundwork for the chapters to follow. Chapter 2 showed us that there are several patterns at work in front-page news, but my discussion centered on two key findings. First, the front-page agenda is unevenly distributed across issues; a few items get the bulk of attention, while most get very little. Second, there are strong dynamic patterns at work on the front page. In particular, changes in the agenda occur unevenly over time. Most of the time, the front-page agenda holds steady, in relative equilibrium. But when attention shifts it tends to do so quickly and explosively.

What explains these findings? Why isn’t front-page attention distributed more evenly across issues? And why doesn’t the agenda change more gradually over time?

To begin to answer these questions, I use this chapter to develop a comprehensive theoretical model of the eight main variables that drive front-page attention. Together, these variables help to explain the patterns of uneven attention and uneven change in the front-page agenda that we witnessed in Chapter 2. This theoretical model of eight key variables will provide a foundation for my discussion of the dynamic and evolving nature of the news-selection system in Chapter 4. In that chapter, I will develop and test my theories about media dynamics, showing how specific institutional features of the media—combined with the eight variables I discuss here—lead to the patterns of front-page attention we have observed. The knowledge we gained in Chapter 2—that front-page attention is distributed unevenly across issues and that this distribution changes unevenly over time—is useful only to the extent that we understand *why* attention behaves this way. This chapter and the next are devoted to untangling the theoretical workings of the front-page news-selection process.

This task is not a small one. Media attention would be a complex phenomenon even in a vacuum, and the process is complicated further by the systems of national and world politics in which it operates. But my aim is not to parse out every factor influencing the selection of every article on every front page. The individual results of the news-selection process (e.g., which issues will appear on the front page next Tuesday) are largely unpredictable. But just as genetic adaptations—individually unpredictable—comprise a larger process of evolution exhibiting clear patterns that can be understood in the aggregate, or at the population level, so too do the unpredictable day-to-day decisions of front-page news aggregate to a much larger system with distinct patterns of operation and change.

Media communications research finds that front-page news-selection is a highly complex process (Bennett and Entman 2001; Berkowitz 1997; Cook 1998; Graber 2007; Iyengar 1991; Lawrence 2000; McCombs 2004; McCombs and Shaw 1972; Skewes 2007). In fact, there are many competing theories about how news content is determined, and different communications researchers have identified different factors that should be expected to affect how much media attention an issue receives. Yet five variables stand out from the literature, and most communications scholars suggest that these variables can interact in complicated ways. These five variables are: *real-world events*; *journalistic obligations, norms and bias*; *the efforts of policy entrepreneurs* (i.e., politicians, lobbyists, and other policy advocates); *public opinion*; and *political context* (e.g., the state of the economy, how close we are to the next national election, or whether the country is at war). Absent from this list are three key variables that, I argue, also shape front-page news: *prior attention* (i.e., how much attention a given issue received in the previous time period); *congestion* (i.e., how open or restricted the agenda is to additional issues, depending on how consumed the agenda is with mega stories); and the *scope of discussion* (i.e., how concentrated or diffuse the discussion of an issue is across the component dimensions of that issue). Thus, I posit that there are eight main categories of variables (not counting Keller's graceful nod to serendipity) that combine to determine how front-page attention is distributed:

1. Events
2. Prior attention
3. Congestion
4. Scope of Discussion
5. Journalistic Obligations, Norms, and Bias
6. Entrepreneurial Activity
7. Public Opinion
8. Political Context

Some of these variables are measurable; some of them aren't. The importance of this distinction will become clear in Chapter 5 when I build an empirical model to explain the variance in the amount of front-page attention an issue receives as a function of some of these explanatory variables.

More to the immediate point, some of these variables are exogenous, or stochastic, meaning that they are not driven by the status quo. Others are endogenous, or at least partially so, meaning that the state of the variable at time $t-1$ has some direct influence on the variable at time t . The distinction between exogenous and endogenous variables is important because of the underlying institutional dynamics of the media. I will discuss these dynamics in more detail in Chapter 4, but in short I argue that the news-selection process is driven not just by negative feedback factors, which serve to dampen change and fortify the status quo, but also by positive feedback factors, which reinforce change when it occurs, propelling the system into a flurry of activity.

In other words, there is inertia as well as stability in the system of front-page attention stemming from the nature of the media as an information processing system. The result: An agenda that is highly skewed in its distribution and also highly disproportionate in its change. Instead of an even allocation of attention, we see a handful of topics and issues dominating the agenda. Instead of gradual shifts in the agenda over time, we see punctuated equilibrium dynamics.

The fact that the front-page selection process is driven by positive as well as negative feedback rests in large part on the presence of endogenous explanatory variables. If the dynamics of the system were entirely random—that is, if the distribution of front-page attention today was completely independent from the distribution of

yesterday's front-page attention—we would see a very different pattern of change result. Namely, change would be much more incremental, and we would not observe such dramatic punctuations. Moreover, at any given time point, the distribution of attention across topics would be much more even. But as it is, change on the front-page agenda is not incremental, and punctuations and skew do result. The observations we made in Chapter 2 reflect friction and order in the process, not randomness. In particular, our observations of the front-page agenda imply the presence of both exogenous and endogenous explanatory variables.

To be clear, the process of allocating the front-page agenda is much too complex to be captured by any list of variables. Even if I were to expand the list to the hundreds, perhaps thousands, of factors that have some nuanced influence on the news-selection process, the nature of the exercise would be misguided. Media attention is an elaborate system. It is not, however, the product of a finite set of explanatory variables—a complicated machine that could be explained if only we could identify all the cogs and levers. Rather, media attention is a constantly evolving process, full of infinite dynamic connections. This shift in thinking—like moving from questions of physics to questions of biology (Ormerod 1998)—may seem trivial, but in fact it is critical to the current endeavor. Our goal should not be to isolate every element that influences the news-selection process, because this goal misses the larger picture of connectivity between the variables in the system and, most importantly, the dynamic relationships that are born out over time.

In fact, we should expect several of the eight variables I have identified to combine in the process of shaping front-page news. The activities of policy

entrepreneurs, for example, have a direct effect on front-page attention but also an indirect influence through journalistic norms. Moreover, it is likely that the relationship some of these variables have with media attention is mutually reinforcing—that is, that x and y both affect each other. In particular, we should expect a relationship of dual causality to exist between media attention and each of the following three variables: scope of discussion, entrepreneurial activity, and public opinion. Just as public prioritization of policy issues helps to shape which issues appear on the front page, for example, the content of the front page surely affects which problems the public considers the most important.

Since the question at hand is how policy issues become front-page news, I limit discussion in this chapter (and my empirical analysis in Chapter 5) to the influence of each explanatory variable on front-page attention, and not vice versa. But the point is that the theoretical model we construct in this chapter must be flexible. While tethered to eight specific variables, our understanding of how the media processes information and turns this information into front-page news must allow for the combinations between variables, the simultaneous influence of media attention back on at least three of these variables, and most of all the dynamic nature of this evolving, complex system.

In the next section of this chapter, I return to Editor Bill Keller's description of how stories are selected for the front page and use this description to introduce the eight variables I have identified. I then discuss each variable in greater detail in turn.

An Illustration of the News-Selection Process

When *New York Times* Editor Bill Keller said that the process of choosing front-page news stories is “part science, part art, with a little serendipity,” this statement was part of a larger discussion he offered in 2006 about the process of crafting the front page:

“There is no rigid formula to the selection of stories and photographs for the front page. We—an argumentative group of editors—try every day to assemble a selection of articles that are important and interesting, but many variables influence the outcome. Some days, we gather for our Page 1 meeting with no doubt about the main stories of the day. Sometimes an event that is undeniably important falls short of the front page because it is unsurprising. Conversely, an event that initially seems like more of the same can seem major when you take into account all the circumstances. (An example: the deaths of 71 Iraqis [on April 7, 2006]—an undeniably important but sadly familiar piece of news—would not automatically be a Page 1 story. It led the paper on the day in question because of the apparently sectarian nature of the carnage and because it came at a time of mounting anxiety that the conflict between Sunnis and Shiites may be spinning out of control.) Most days we have room for six stories and an ‘Inside’ box on the front page, so every candidate jostles with competing news. We try, moreover, not to have an overly homogeneous page—ALL foreign stories, or ALL business stories, or ALL Washington stories. We think stories about how we live often outweigh stories about what happened yesterday. We think it’s okay to include in our front-page portfolio something that is fun, human, or just wonderfully written. It’s part science, part art, with a little serendipity” (Keller 2006).

This description helps to illustrate the eight key variables I will discuss in more detail in the sections to follow. First, real-world *events*—in this case, the deaths of 71 Iraqis—clearly matter. Without a war going on, for example, it is extremely unlikely that the journalist responsible for the article Keller mentions would have written an article about war in the first place.

Second, we see that the *prior attention* an issue received should affect the current attention it receives. In this case, previous stories on the war have laid a familiar narrative groundwork and vocabulary, making it easier for a journalist to write stories on this issue and, thus, resulting in more war stories vying for space on the front page than if prior attention had been lower. A high amount of prior attention to the war also means that the issue today is more salient in the minds of editors and readers alike, making it more likely that readers expect to see follow-up stories and, thus, more likely that editors print those stories.²⁸

Third, the amount of *congestion* on the front page affects how much front-page attention a given issue will receive. As Keller says, “every candidate [i.e., article] jostles with competing news” (Keller 2006). The greater the volume of stories competing for attention, the harder it is for any single article—and, thus, for any single issue—to find space on the front page.

Fourth, the way an issue is defined clearly plays a role in determining how much front-page attention the issue receives. For example, Keller tells us that the deaths of 71 Iraqis only made the front page on the day in question “because of the apparently sectarian nature of the carnage and because it came at a time of mounting anxiety that the conflict between Sunnis and Shiites may be spinning out of control” (Keller 2006). In other words, the article offered a new way of perceiving the conflict, namely as a sectarian issue. This new way of defining and understanding the issue widens the *scope* of the issue debate by increasing the number of dimensions of the issue at work in the discussion. As the scope of the discussion expands, the issue becomes more interesting

²⁸ Inversely, note Keller’s point that the fear of running “familiar” news might in some instances mean that prior attention actually has a negative influence on the likelihood of front-page attention.

and informative. Widening the scope of debate can often serve to displace the lines of conflict in the debate (Schattschneider 1960). And debates that are in the midst of redefinition and debate expansion are intrinsically more compelling than static debates. Editors know this, and thus they are more likely to give front-page space to issues when the debate surrounding those issues is rich with a multitude of dimensions—that is, when the scope of discussion is wide.

Fifth, we should expect the front-page selection process to be influenced by *journalistic obligations, norms, and bias*. For example, the tendency of journalists to cover issue “beats” means that some issues, like the war, will tend to get more coverage than others. Once a reporter is sent to a remote location like the Baghdad green zone, that reporter will start producing stories on the war and nothing but the war. And while most journalists work hard to maintain neutrality in their reporting, there is always a possibility that the policy beliefs of journalists and editors will consciously or unconsciously affect the amount (and type) of attention an issue receives.

Sixth, *policy entrepreneurs* can also influence the amount of attention an issue receives. Entrepreneurs such as the President and his staff, members of Congress, lobbyists, military personnel, and think-tank researchers can shape the news directly by petitioning journalists to write stories about their favored issues and by petitioning editors to publish those stories (thereby heightening the role of journalistic obligations and norms just mentioned). For example, the *Times* undoubtedly receives significant pressure from policy entrepreneurs of all stripes to cover (or not cover) the events of the war, and to frame these events in particular lights. Entrepreneurs can also influence the news-selection process indirectly by bringing more attention to issues “out in the world,” even

instigating new events relevant to an issue debate and thereby heightening the probability of media attention to the issue.

Seventh, *public opinion* too can affect the front-page selection process. As the media's consumer base, the public influences the news by way of the journalistic obligations and norms discussed above. Newspapers need readership. While seeking to maintain high standards of professional journalism, editors are also under pressure to print news that will cater to the human desire for hot topics, sensationalism, and scandal along with in-depth substantive reporting. Additionally, the public can influence the news indirectly, simply by shifting its attitudes. A change in public sentiment, such as the rapid decline in support for the war, constitutes a realigning debate and, thus, an event to be reported.

Eighth and finally, the *political context* in which the article is written affects the relevance of the issue and, thus, the amount of attention the issue is likely to receive. The fact that the U.S. is at war, for instance, gives the article of the 71 Iraqis a contextual relevance for *Times* readers that deaths of foreign citizens simply would not have otherwise, thus increasing the likelihood that the article will get front-page billing.

I move now to a more thorough discussion of each variable in turn. Throughout my discussion, I encourage the reader to consider how each variable might interact with the institutional dynamics I have mentioned, which I will investigate in more detail in Chapter 4.

Events

The most obvious force affecting the distribution of the front-page agenda is the set of events occurring in the real world. I use the term event as a catch-all for any bit of new

information: a speech, a protest, a trend, an opinion, a bombing, a partnership, or any other signal of what is happening “out there.” Whatever its other ambitions, the media endeavors to keep the public informed by reporting the “news”—that is, by scanning the world for new information and then covering it. Thus, our faith in the media would have to be low indeed if we did not believe that real-world events have a sizable impact on the front-page agenda.

In fact, some scholars believe that events explain the variance in news coverage perfectly. In journalism, “mirror theory” is the idea that the press does nothing more nor less than to reflect the state of the world (Gans 2004; McCombs et al. 1991). Under this theory, the media acts as a neutral vehicle; when an event occurs, the media conveys it to the public directly and without alteration.

Yet the news is far from a perfect mirror of reality (Patterson 1994; Grusin and Utt 2005; Parenti 1986). The fundamental problem of attention scarcity that I have discussed illustrates the flawed logic behind mirror theory. There simply isn’t enough space in the news—in the entire world media system, much less on the front page of the *New York Times*—to capture all the world’s events. Because of the limited agenda space, an event is a *necessary* but an *insufficient* criterion for the appearance of a news article on the front page. Some kind of winnowing process must occur. If we were to believe that there is an equal-opportunity winnowing process at work—that the stories on the front page represent a random sample of the information in the world—then mirror theory would hold more water. But while we can accept the premise that events are randomly generated, we cannot believe that the selection process is random. As the example Bill Keller offers about the 71 Iraqis makes clear, the news-selection process is undoubtedly

affected by variables such as congestion, the scope of discussion... and all the other variables I am about to discuss.

The nature of an event also affects the amount and type of media attention the event receives. Scholars have identified several elements that may affect an event's "news value," including timeliness, proximity, prominence, consequence, human interest, conflict, novelty, and sensationalism (Gans 2004; MacDougall and Reid 1987; Molotch and Lester 1974). This last factor, sensationalism, is especially important. In his landmark book on the news-selection process in TV and magazine media, Herbert J. Gans claims that major news outlets attempt to enlarge their audiences by "resorting to 'sensationalism' and 'yellow journalism'... only when the economic indicators fall drastically" (Gans 2004). This claim may have been true of the media Gans studied in the 1960s and 1970s; if so, it is less true today. Modern news viewers have seen enough media hype paid to stories about politicians and members of the Hollywood A-list embroiled in sex scandals, drug abuse charges, or general corruption to know that even the most upstanding news sources are susceptible to sensationalism.

The people involved in an event also matter. Armstrong, Carpenter and Hojnacki (2006) show that the media pays significantly less attention to diseases that disproportionately afflict blacks compared to whites. And Gans' study revealed that the vast majority of the news stories he analyzed focused on people with political power and status ("knowns"), whereas only a slim proportion of stories focused on "unknowns" (Gans 2004). And of course stories about "knowns" that also involve some kind of scandal are particularly ripe for media attention. Be it the mysterious death of Anna Nicole Smith and ensuing custody battle, the Bill Clinton and Monica Lewinsky affair,

Larry Craig's game of footsie in the men's bathroom, or Eliot Spitzer's involvement in an inter-state prostitution ring, some storylines just have that magic buzz.

Beyond the blatant sensationalism of high-profile people doing bad things, more subtle elements of event type can also have a sizable impact on the amount and type of attention the event receives. For example, in their study of the page placement of stories about social movements, Rafail, Walker, Tripp and McCarthy find that the level of violence of a social movement event—such as whether the event results in violence, property damage, or arrests—has a significant effect on where a story about the event is placed in the paper. The more violent the event, the closer to the front page of the paper the article appears. Moreover, while disruptive protests generally receive prominent coverage, anti-corporation claims-making events tend to receive short shrift in terms of page placement (Rafail et al. 2008).

In short, events are stochastic, or exogenous. The features of an event—such as the actors involved, the level of conflict implied, and the overall sensationalism of the article—affect the likelihood of that event gaining attention over all the other events of the day (Berry et al. 2007). Whatever the distribution of newsworthiness across events, however, we know that events are only part of the news-selection process. Again, an event is a necessary but an insufficient condition for front-page attention. And toward the aim of modeling the news-selection process empirically, because events are stochastic we can treat the variance in event newsworthiness as being akin to random error. This treatment, which I will employ in Chapter 5, in no way minimizes the influence of events on the news, but it allows me to focus on examining the possible effects of non-stochastic variables on the front-page agenda.

Prior Attention

I define prior attention as the amount of attention a given issue received in the previous time period (i.e., $t-1$). Prior attention represents the most direct form of inertia in the system. The notion here is one of path dependency: An issue is more likely to receive attention if the path for that attention has already been laid. The issues featured on the front page yesterday (or last week or last month) are the most likely candidates to appear there today, while those that were ignored before are likely to be ignored again.

The reason that attention at time t is so strongly driven by attention at time $t-1$ is rooted in the dynamics of the system. During periods of negative feedback—the long periods of relative stasis that we observed in Chapter 2—institutional incentives work to keep the system stable. The status quo is reinforced; change is not. Each deviation from the current distribution of the agenda is dampened, and so the distribution holds steady in a state of near equilibrium. In other words, during periods of negative feedback the single best predictor of the front-page attention an issue will receive tomorrow is the attention it received (or did not receive) today.

During periods of positive feedback—the short but explosive moments of change that we saw in Chapter 2—change does not occur randomly but as a direct function of each preceding time point. Deviations from the current distribution of the agenda are “rewarded,” meaning that an issue that gets a few more stories on the front-page this week than last week should be expected to get even more in the following week. Positive feedback leads to rapid change and, usually, to a brief but powerful redistribution of agenda space that is even more skewed than usual. Remember that the basis of this change is the current agenda; positive feedback acts to exaggerate the skew of the front page. In other words, while the attention an issue receives today may not be the *best*

predictor of the attention it will receive tomorrow during periods of positive feedback, it should still be a solid predictor. The difference is that during periods of positive feedback the progression of an issue from oblivion to the limelight, or vice versa, will happen very quickly.

In short, while the amount of inertia between prior attention and current attention fluctuates throughout the agenda cycle, the influence of prior attention on current attention never disappears. I control for prior attention in the empirical analyses in Chapter 5.

Congestion

Congestion refers to how clogged or open the agenda is to new items. As already described, the discrepancy between the volume of information the media has to process and the media's processing capacity creates a problem of attention scarcity. This scarcity means that issues must "compete" for space on the agenda, and the intensity of the competition has a profound effect on the chances an issue has of finding a place on the front page.

The importance of congestion means that the exact same event, occurring on two different days, can get very different amounts of front-page coverage. During periods of low congestion, even "small" issues like agricultural subsidies or wind energy have a shot at front-page attention. But when congestion is high, usually in the presence of a mega issue unfolding, only the most severe or sensational issues will make the cut to Page A1. In the immediate aftermath of Hurricane Katrina, for example, the front page was highly congested with stories about the crisis, leaving very little attention to go around to other issues.

Thus, in determining how much front-page attention will be paid to an issue event like a social protest, a Supreme Court decision, or even a football game, the question is not whether the event is “big” enough to make the front page. The question is whether the event is big enough to pass the particular threshold set by that day’s level of agenda congestion. For example, if the Supreme Court releases a decision with relatively minor or obscure Constitutional implications, a story reporting on the decision will be unlikely to make the front page unless the day’s congestion is extremely low. But if the Court overturned *Roe v. Wade* or put an effective moratorium on the death penalty, even high congestion in the wake of a focusing event like Hurricane Katrina or the invasion into Iraq would be unlikely to keep the Supreme Court article off the front page altogether.

In short, when congestion is high, stories that would normally lead the paper can be relegated to later pages. On slow news days, when congestion is low, stories that would normally be on page A6 or B4 might squeeze onto page A1. Thus, the congestion of the agenda should demonstrate a strong influence on the amount of attention an issue receives. The models I present in Chapter 5 include a measure of front-page congestion.

Scope of Discussion

The *scope of discussion* refers to how concentrated or diffuse media attention is across different component dimensions of the topic or issue. Sometimes the scope of a policy debate is quite wide, encompassing a multitude of component dimensions. At other times, discussion focuses on one or two dimensions alone. Take the environment. Like all policy topics, the environment is multi-dimensional. It can be talked about in terms of air pollution, water pollution, toxic chemical regulation, endangered species protection, land conservation, waste disposal, recycling, global warming, and so on. But not all the

dimensions of the debate are always in play. Sometimes, when the scope of the environmental debate is wide, all the dimensions listed above and more will be discussed, or “activated” in the debate. At other times, when the scope is very narrow, discussion might focus on air pollution alone, at the exclusion of all other dimensions.

The multi-dimensionality of policy discussions doesn’t just apply to major policy topics like the environment, labor, or health care. Issues come in many sizes, and smaller issues are every bit as multi-dimensional as large ones. For example, just as endangered species protection is one dimension of the environment debate, endangered species protection for its part can be discussed and defined in terms of the moral obligation to protect earth’s creatures, the financial costs of species protection, the needs of loggers and other laborers in environmentally contested areas to feed their families, and so on. Communication scholars often refer to this fine-grained level of policy discussion as “problem-definition” or “issue-framing.” Framing is indeed a form of agenda-allocation. The distribution of attention across different dimensions, or frames, of the endangered species debate is very similar to the distribution of the whole agenda across major topics like the environment, education, defense, and so on. No matter how we define the size of an issue, that issue is always multi-dimensional.

And whatever the size of the issue, the wider the scope of discussion, and the more attention the issue will garner.²⁹ When front-page coverage of the environment incorporates many dimensions—air pollution, water pollution, toxic chemical regulation, endangered species protection, land conservation, waste disposal, recycling, global warming, and so on—the environment will begin to receive more attention than if the

²⁹ Evidence I present in Chapter 6 actually suggests that the relationship between scope and attention is mutually reinforcing. I focus here on the influence of scope on attention then address the simultaneous influence of attention on scope in Chapter 6.

same front-page attention—by means of the same *number* of stories—had focused narrowly on one or two of these dimensions alone. Likewise, when media discussion of endangered species is wide in scope—encompassing dimensions like moral obligations, financial costs, labor considerations, the dangers of human intervention in “natural” selection, and the ramifications of species extinction on the food chain—the issue will start to gain more attention than if the same number of stories had concentrated on only one or two of these frames.

Wide or narrow, the scope of attention to an issue affects how much attention the issue receives. Research in the policy area of capital punishment suggests that the dimensions of a policy debate piggyback, or resonate, off of one another. As the scope of a policy debate expands to include additional dimensions, it makes it easier for even more dimensions to gain traction on the agenda. An expanding debate is an exciting debate, and as the scope of discussion widens, attention increases. In particular, the expanding scope of an issue debate is a strong contributing factor in attention cascades (Baumgartner et al. 2008).

Many scholars have noted the importance of the scope of discussion in politics.³⁰

Schattschneider says that “the outcome of all conflict is determined by the *scope* of its

³⁰ In fact, we can look to disciplines as far flung as human systems dynamics and neurobiology to find analogous support for the idea that a wider scope of discussion should lead to more attention. Scott Page’s book, *The Difference*, makes the case that the diversity of a group of people is more important than the net intelligence or abilities of the group in predicting the group’s success (Page 2007). James Surowiecki makes a similar argument to a more popular audience in his book, *The Wisdom of Crowds* (2005). Page’s basic argument is that when the members of a group have a variety of mental tools at their disposal, the group’s decision-making process is less likely to get mired in suboptimal solutions, and thus more likely to attain a higher level of success in the task at hand, than when the group is homogenous. In neurobiology, one implication of the “global workspace theory” (Baars 1988, 1997) is that the process by which information becomes conscious in the human brain is directed by a set of “work-space” neurons, which broadcast the information across several areas of the brain at once. When the information is simultaneously accessible to multiple brain functions (e.g., memory, language, perceptual categorization, action-planning), it is easier to process into conscious form (Dehaene et al. 2003). The parallels between the scope of media attention, the scope of human mental tools, and the scope of neural accessibility are admittedly nebulous.

contagion” (1960). Schattschneider uses the term scope to refer to the amount of public attention paid to a debate (i.e., the number of people involved).³¹ The more people involved in a debate, the wider the scope of the conflict. In order for the outcome of the debate to shift—that is, for the losing side of the debate to become the winning side—the dividing line of the debate must be displaced and redrawn, such that the scope of the previously losing side is expanded while the scope of the other side is diminished (Riker 1986; Schattschneider 1960).

My focus here is on the number of active dimensions in a debate, not the number of people involved, but the concept is the same. New dimensions mean new ways of thinking about an issue and, thus, a greater likelihood of resonating with more segments of the public and displacing the current line of conflict in the public issue debate. Each time a new dimension is activated in an issue discussion, the line of debate is necessarily redrawn. Sometimes the shift will be minor. Sometimes it will realign the entire debate. But every change in the dimensional structure of an issue discussion threatens the status quo.

The traditional model of attention in political science places the distribution of agenda space across topics or issues and the scope of discussion within individual debates in sequential order (Jones and Baumgartner 2005). First the agenda is allocated, then issues are defined. Whatever the context of political attention under study, we tend to think of the process in just this way: First, which issues get attention? Does immigration

Nevertheless, the common theme across these vastly different research areas—that diffusion/variety/diversity has a positive relationship with the “success” of the process under discussion (i.e., the ability of an issue to gain traction on the agenda, the ability of a group to perform a collective task, and the ability of the brain to make information conscious)—is intriguing.

³¹ As Schattschneider writes: “The scope of conflict is an aspect of the scale of political organization and the extent of political competition. The size of the constituencies being mobilized, the inclusiveness or exclusiveness of conflicts people expect to develop have a bearing on all theories about how politics is or should be organized” (1960: 20).

make it onto the agenda? Does homelessness? Second, which dimensions are used to define each issue discussion? In other words, only when each topic or issue has received its slice of the attention pie are the dimensions of a debate selected and the scope defined.

Yet the allocation of attention and the scope of each debate are reciprocal. Jones and Baumgartner note that the distribution of attention and problem characterization stages of their model “do not have to occur in sequence” (2005). While the amount of attention devoted to an issue certainly has some effect on how the issue is discussed, the scope of an issue debate has just as strong an influence on the amount of attention the issue receives. After all, the scope of discussion controls the line of debate. And, as Schattschneider says, conflict displacement is “*the most devastating kind of political strategy*” (1960, emphasis in original).

Another way to think about the relationship between scope and attention is to consider Kingdon’s idea of “policy windows,” which are short-lived but critical opportunities for change in the political system (Kingdon 1995). A shift in the scope of an issue discussion is one factor that can, under the right circumstances, prompt a policy window to open (Durant and Diehl 1989; Kingdon 1995; Rochefort and Cobb 1994; Zahariadis 1998; Carmines and Stimson 1989). When new dimensions are introduced into an issue debate, the parameters of the debate change and the likelihoods of competing outcomes shift in turn.

In their discussion of policymaking, Baumgartner and Jones talk about how introducing new dimensions (what they call “principles”) of an issue debate can alter policy outcomes. “When a general principle of policy action is in place,” they write, “policymaking tends to assume an incremental character. When new principles are under

consideration, the policymaking process tends to be volatile, and Kingdon's model is most relevant" (1993). In other words, the scope of a discussion is a prime vehicle for agenda change. When the scope of a debate expands, it softens the ground for a critical juncture of attention redistribution. I include a measure of scope in the models I present in Chapter 5.

There are three primary mechanisms by which the scope of discussion affects the distribution of attention: 1) the inertia of "spillover" or "piggybacking," by which an increase in the number of activated dimensions in an issue debate begets more activated dimensions, 2) the heightened public prioritization of an issue that occurs when the scope of a debate expands, and 3) the strategic updating on the part of policy entrepreneurs in response to a widening scope of discussion. The journalistic response to all three of these mechanisms is to give more agenda space to the issue in question. The greater the scope of discussion, the more attention the issue will receive.

Spillover

Under the right circumstances, the expansion of the scope of an issue or topic discussion can be a self-reinforcing process, one that results in rapid continued expansion. Because of the inherent interconnectivity of social problems and policy considerations, each new dimension activated in a policy discussion can have a spillover effect, triggering the activation of even more dimensions. And when the right dimensions are activated in an issue debate, complementary and even contradictory frames can begin to piggyback off of one another, expanding the debate even more (Baumgartner et al. 2008). Thus, it isn't just the case that an increase in the scope of a debate yields an increase in attention. Rather, an increase in scope yields an increase in attention, but under the right conditions

an increase in scope can start to snowball, meaning that the resulting increase in attention is not a gradual effect but a cascade.

The reason is that the dimensions of an issue debate are interconnected. For example, if the issue of labor is currently being discussed in terms of two dimensions—worker safety and pension plans—and a third dimension of labor immigration is introduced, this additional dimension does more than add a single new way of considering the labor issue. Simplistically speaking, labor is now being discussed not only in terms of worker safety, pension plans, and immigration, but also in terms of how worker safety relates to pension plans, how worker safety issues apply to immigrants, and how immigration affects worker pension plans. In other words, each new dimension that is “activated” in an issue discussion increases the number of ways the issue is likely to be discussed not by one, but by a factor of the number of connections the dimension has with all other activated dimensions. Moreover, the activation of immigration in the labor debate may increase the probability that yet another closely related dimension, such as labor unions, is also activated. In this way, an increase in the scope of a debate can become self-reinforcing, and the playing field can widen exponentially in a very short period of time.

Public Prioritization

When the scope of a policy discussion is wide, it draws more attention from the public than when only one or two dimensions are employed. The reason is simple yet powerful: More diversified debates offer more angles from which to view the debate and, thus, more ways for people to connect with the issue and register it as an important problem worthy of public concern.

Through affecting public and political prioritization of the issue, the scope of discussion strongly affects how much traction an issue will gain on the front-page agenda. The more dimensions that are activated in an issue debate, the more individuals will begin to think about the issue, and the more the issue will register in the public's awareness as a social problem. And the higher the problem status of an issue in the social consciousness, the more front-page attention it will receive.

For example, imagine there are ten front-page stories in a month about health care. If all ten stories focus on the dimension of prescription drug coverage, at the end of the month people who care about prescription drug coverage have health care squarely on their radar, but people who are not directly affected by drug coverage are unlikely to register the larger health care issue as a problem of concern. Yet if the same ten stories were distributed across multiple dimensions of the health care debate, we would see a different outcome. Let's say that three stories are on prescription drug coverage, three more stories are on medical fraud and abuse, two stories are on insurance reform, one article is on health care for mental illness, and one article is on communicable diseases. At the end of the month, people who care about prescription drug coverage again have health care squarely on their radar (three stories are more than sufficient to spark their interest), but so do people who care about fraud, insurance reform, mental illness, and disease. Moreover, the public in general (those who care about health care and those who don't think much about it one way or another) see these ten stories, ranging across five dimensions, as signs of a larger trend: Something important is happening in health care. The result: When the scope of health care discussion expands, net public attention to health care—the average level of salience the issue holds in people's minds—increases.

Consider how the scope of discussion operates at an individual level. Each additional dimension that is activated in an issue debate offers a new way of thinking about the issue. When defined in terms of air pollution, the issue of the environment stimulates a very different set of thoughts and concerns in our minds than when defined in terms of endangered species protection. There is some overlap of course (animals don't like smog any more than we do), but the immediate images that appear in our minds are quite different. How these images affect us depends on our social and psychological makeup. The question of species protection may trigger a core value in one person but have almost no effect on someone else, just as the discussion of air pollution will mean different things to different people. But for many people, hearing the same issue discussed from multiple angles will heighten the salience of that issue. If hearing news about air pollution registers the environment as an issue of concern a person's agenda to any degree, then hearing news about air pollution alongside news about species protection will almost certainly raise the issue on the person's agenda by a notch or two, because this second dimension has likely triggered a second core value. And when the front page is filled with stories about city smog, the spotted owl, contaminated drinking water, the ozone layer, and global warming, the environment will probably move close to center on the person's radar. In other words, it isn't just the case that an increase in scope will yield an increase in the number of people concerned about an issue; the *degree* of concern for the average individual will also increase.

Thus, in the aggregate, the phenomenon is even more pronounced. As individuals move issues on and off of their radars, social dynamics can turn some issue debates into a social cascade. Just as bell bottoms and hush puppies caught fire, so too can policy

issues. Often front-page stories on air pollution next to front-page stories on endangered species won't cause more than a blip in the social consciousness, no matter how many individuals start paying more attention to the discussion. But every once in a while, enough news stories published on enough dimensions of an issue will spark a cascade of attention, every bit as powerful as it is unpredictable. And even though the net amount of public concern on the issue might not have been any higher than in the previous scenario, the cascade itself will greatly increase the number of individuals concerned about the environment, as well as the individual degree of concern.

In short, the presence of each additional dimension in an issue discussion changes the conditional parameters of the discussion. Specifically, each new dimension that becomes activated increases the probability 1) that additional segments of the population will perceive the issue as a social problem, and thus 2) that the line of debate in the debate will be redrawn in a way that redistributes public and elite opinion on the issue. And whatever else the media might be, it is not afraid of conflict. When the scope of an issue discussion increases, media attention to the issue will follow.

Entrepreneurial Strategy

Meanwhile, policy entrepreneurs, who monitor both the spillover of dimension activations across debates and the public response to media coverage of issues very closely, adjust their strategies accordingly. When the scope of a policy debate expands, policy entrepreneurs involved in the debate seek to profit from the expansion.

Entrepreneurs adjust their strategies by redistributing their resources in order to maximize their expected gains. When an issue debate expands, entrepreneurs who were right in the middle of the issue debate to begin with will concentrate even more energy on

the issue, hoping that with more dimensions activated in the debate there will be more hooks on which to hang their side of the story—a kind of media attention coat tailing. For the same reason, even entrepreneurs not directly involved in the issue debate but focused on related issues will turn more attention to the issue in question when the scope of the discussion expands, thus diverting resources from all other issues.

In addition to turning more energy and resources to an issue when more dimensions are activated in the discussion, policy entrepreneurs are likely to introduce yet additional dimensions into the fray in an attempt to carve out a niche in the discussion for their particular policy concerns. Thus, a widening issue discussion will attract additional entrepreneurial energy, which in turn will expand the discussion further still.

The Media as a Conduit

The intermediary between these three mechanisms of scope and the allocation of front-page news, of course, is the group of journalists who write the stories and the group of editors who ultimately select and place these stories in the daily news. Journalists and editors maintain close tabs on the spillover inertia of scope expansion, on public response to scope expansion, and on entrepreneurial updating in response to scope expansion, and the news-selection process is influenced as a result. For example, the more individual citizens start paying attention to a policy topic, the more likely journalists and editors are to write and then print stories about that topic. First, because journalists and editors need to tailor their selection of news stories, at least to some degree, based on the priorities of their constituents, the readers. Broadly speaking, the more a newspaper responds to public priorities, the more newspapers (and, thus, ad space) it will sell. Second, because journalists and editors are citizens too. They are linked into the social consciousness, and

so a growing public awareness about an issue affects their own personal perceptions of the issue just as much as any other people's—probably even more so because of their professional sensitivity to social trends.

Putting these reasons together, when a few stories on the environment result in a minor blip in the social consciousness, journalists and editors have little incentive to keep the environment as a high priority when writing and selecting future news stories. This pattern, again, is negative feedback. But when—for any combination of stochastic reasons—the same few stories on the environment result in a swell of social consciousness, journalists and editors have very good reasons to put the environment front and center on the media's agenda. And of course, the more the media focuses on the environment in this scenario, the more public consciousness will shift to focus on the issue, and the more likely a true social cascade will be to occur. This is positive feedback, when the media responds to the first hint of a rising trend of policy concern in the social consciousness and, in doing so, makes the possibility of a social cascade a self-fulfilling prophecy.

These effects hold true at the level of large topic debates, like health care, labor, or defense, as well as at the level of smaller issue areas, like prescription drug coverage, immigration, or the war on terror. When the war is defined, or framed, for example, in terms of democratization, troop deaths, weapons of mass destruction, and humanitarian aid, the dimensions begin to piggyback off of one another, the issue becomes more salient to the public, and policy entrepreneurs give more energy to the issue than when the war is defined in terms of democratization alone. Journalists, in turn, respond to these factors

by concentrating more stories on the war, and editors push the stories higher up in the page placement queue.

Schattschneider writes: “There is nothing intrinsically good or bad about any given scope of conflict. Whether a large conflict is better than a small conflict depends on what the conflict is about and what people want to accomplish. A change of scope makes possible a new pattern of competition, a new balance of forces, and a new result, but it also *makes impossible a lot of other things*” (1960, emphasis in original). In the context of media attention, a change in scope makes possible new patterns of attention. As the scope of a policy debate widens, media attention will gravitate toward that issue, neglecting other issues in the process. Thus, changes in the scope of media attention will provoke changes in the distribution of that attention, and skewness results.

The relationship between the scope of an issue discussion and the amount of attention the issue receives holds important implications for our understanding of politics. Research has shown that media attention can have a strong influence on the public’s prioritization of issues (Althaus and Tewksbury 2002; Erbring et al. 1980; Jasperson et al. 1998). While an increase in media attention to an issue does not always result in an increase in public concern about the issue, it often does. Transitively, if the scope of media discussion about an issue affects how much media attention the issue receives, then the scope of an issue debate also has an indirect effect on public prioritization of the issue. And for policy entrepreneurs trying to draw attention to a specific issue, the practical implication is clear. Instead of advocating “louder,” resources would be better spent widening the scope of the discussion.

Journalistic Obligations, Norms, and Bias

The next set of variables we should expect to have an influence on the news-selection process is the collection of journalistic obligations, norms, and biases that govern the media industry. These variables, which fall under the “organizational theory” of communication studies, are nearly impossible to measure (Gans 2004). Nonetheless, it is important that our theoretical model of the news-selection process accounts for the organizational factors that shape the news industry.

Kovach and Rosenstiel capture the important role of journalistic obligations—and also how these obligations vary little over time—in the introduction to their recent book:

“As anthropologists began comparing notes on the world’s few remaining primitive cultures, they discovered something unexpected. From the most isolated tribal societies in Africa to the most distant islands in the Pacific, people shared essentially the same definition of what is news. They shared the same kind of gossip. They even looked for the same qualities in the messengers they picked to gather and deliver their news. They wanted people who could run swiftly over the next hill, accurately gather information, and engagingly retell it. Historians have pieced together that the same basic news values have held constant through time” (Kovach and Rosenstiel 2007: 1).

In every age, the media resides in the context of the surrounding institutional environment. Like the more traditionally defined institutions (the Presidency, Congress, the courts, etc.), the media operates as a joint function of its formal constraints—the laws governing media operations in the United States—and its informal constraints—the unwritten set of incentives and consequences that hold the media in check. While the formal rules regulating media functions are relatively few, the actions of the media are restricted by a large number of unwritten factors governing its activities.

The financial goal of a newspaper is to sell copies and ad space. This obligation has several implications for the news-selection process, such as putting pressure on editors to give front-page coverage to stories that offer readers a new and fresh perspective on “hot” topics. Although there are no formal regulations saying that journalists must cater to the public, the need to make a profit serves as a powerful informal constraint (Hoskins et al. 2004; Kovach and Rosenstiel 2007; Molotch and Lester 1974). There are also career incentives for journalists who have their articles prominently published (ideally on Page A1). This constraint can influence the news-selection process by encouraging journalists to write on hot topics and, in doing so, to come up with new angles for discussion. As McCombs, Einsiedel, and Weaver write, “Seeking social support and verification for professional judgments about the news of the day is not unusual behavior, especially when a decision about how to lead a story has to be made in a highly ambiguous situation” (1991).

The need for editors to sell papers and for journalists to see their stories published (and placed well) also creates an incentive to distribute today’s agenda in the same way as yesterday; that is, to maintain the status quo (Hoskins et al. 2004; Kovach and Rosenstiel 2007). These constraints can lead to the highly-criticized norm of “pack journalism,” in which journalists adhere to the status quo and refrain from asking the tough questions (Bennett et al. 2007; McCombs et al. 1991).

The result is an inertia of attention that has a considerable influence on the distribution of the agenda, as it lends a built-in reward system for issues that have already been featured on the front page. We should not suppose that reporters or editors intend anything like a positive feedback process, but we can imagine that news people, like the

rest of us, re-shuffle the distribution of their own attention each day, updating the priority of issues in their minds as a result of which issues received the most recent spotlight and, thus, are most salient. It makes sense that journalists would want to jump on the bandwagon of a hot issue and that editors would want to display these stories prominently. After all, if the issues placed on yesterday's front page managed to sell papers, the best bet of selling papers tomorrow is probably to stick with the same issues; why mess with a good thing? The result is that, as we have seen, attention becomes skewed across issues. A minority of issues consume the majority of attention. As I will demonstrate with simulation evidence I present in Chapter 4, in an environment where journalists—or policy entrepreneurs, or readers, or any other actor—give more attention today to those issues that received attention yesterday, an initial random allocation of attention will lead quickly to only a few issues dominating the debate.

There are also well-established avenues of information (and obligation) among journalists and between journalists and policy entrepreneurs (Bennett et al. 2007; Graber 2007; Skewes 2007). While policy entrepreneurs have no formal power over the free press, the tit-for-tat information game forces journalists who want to stay “in the know” to stay also in the good graces of other journalists and the political elite (Bennett et al. 2007). A newsperson who angers the White House or the Pentagon, for example, is a newsperson without access (and maybe without a job).

Entrepreneurs often make their petitions through what Oscar Gandy (1982) calls “information subsidies,” often in the form of concise press releases and even boilerplate stories. By providing policy-related information, these entrepreneurs offer journalists and editors a way of reducing their costs associated with seeking and obtaining information

on their own. Of course, journalists and editors must perceive the information subsidies as being accurate and unbiased (Kollman 1998). But the more a policy entrepreneur can reduce journalists' acquisition costs by providing trustworthy policy-related information, the greater the probability that journalists and editors will consume the preferred information and give it priority in the news-selection process. This policy-related information, then, serves to subsidize the additional gain in attention that the policy entrepreneur receives for his or her chosen issue (Gandy 1982). While boilerplate stories would never make their way onto the front page, the established avenue of contact provided by policy entrepreneurs makes it easy for journalists to turn to those familiar entrepreneurs when looking for an exclusive interview or inside scoop. Either way, information subsidies pay off.

The relationships within the news profession can prove particularly complicated for the news-selection process. While journalists in the same news organization often have positive working relationships with colleagues, there is a strong element of competition for article placement. Additionally, there is heavy competition between rival news organizations. For example, during the fierce competition between the *New York Times* and the *Herald Tribune* in the 1960s, the managing editor of the *Times* had a habit of changing the content of the front page at the last minute, once he viewed the early edition of the *Tribune* (McCombs et al. 1991).

In addition to the constraints already mentioned, there is a vast set of unwritten but nonetheless powerful professional norms that govern the news industry. For example, it is common for journalists to be assigned a "beat" that narrows the range of their attention to a specified topic. Senior journalists are sometimes given deference

when it comes to selecting an article for a prominent position, like a page one slot. Even the norm of accurate and reliable journalism can constrain how much attention an issue receives.

Finally, while most journalists aim at neutral, unbiased reporting, bias—intentional or unintentional—can occur. Journalists who walked into the job thinking they would be able to hand-craft the news are in for a reality check. Still, bias is a nearly inevitable factor of human information processing. There is evidence to suggest that major national news outlets have a general class bias that favors the status quo (Gans 2004), and even a most reputable paper like the *Times* is not immune from allegations of slant (Fritz et al. 2004; Kuypers 2006), though most research supports the use of the *Times* as a representative proxy of national coverage more broadly (Althaus et al. 2001; Baumgartner et al. 2008; McCombs and Reynolds 2002; Van Belle 2003; Winter and Eyal 1981; Soroka 2002). These and many other elements of the journalism industry have the potential to influence which real-world problems make it to the front page.

Yet, while journalistic norms play a significant role in shaping the news-selection process, there is little reason to think that norms have changed significantly in the last decade. Certainly the *Times*, like most other major news outlets, has undergone the transformations and vagaries of different leadership epochs and generational shifts (Diamond 1993). And while smoother than many previous transfers of power, the change in executive editorship from Joe Lelyveld to Howell Raines in 2001 and then from Raines to Bill Keller in 2003 has made its mark on the culture of the paper; the Raines regime was somewhat contentious, for example, though certainly not as much as previous reigns (Diamond 1993). Yet the journalistic norms that are the true driving

force behind the front-page agenda are those institutional constraints that transcend all editorial regimes, like the need to retain readership and ad dollars and to stay in the President's good favor. Without any evidence of structural breaks occurring during the transfers of power in 2001 and 2003, I treat any editorial bias the three editors had during the time period of my study as stochastic. Thus, as with events, I exclude a measure of journalistic norms from my empirical analyses in Chapter 5.

Entrepreneurial Activity

Like journalists and editors, policy entrepreneurs can also influence the media's agenda. As Baumgartner and Jones write, "Media coverage does indeed correspond to official concerns" (1993: 49). Unlike members of the press, however, policy entrepreneurs spend little energy attempting to appear neutral. The term "policy entrepreneur" encompasses a wide cast of characters, including the President and the White House staff, members of Congress, military officials, intelligence agents, lobbyists, consultants, partisan think tank staff, and other sundry political elites. Each entrepreneur operates under a distinct set of institutional constraints, but all share a common goal: to shift political focus toward those issues and policy proposals they believe deserve the most attention (and away from those issues and policy options they would rather the public not consider).

Policy entrepreneurs are smart. They know the power of the media. So it should come as no surprise that there are well-established inroads between the people who make policy and the journalists who report on it (Bennett et al. 2007; Graber 2007; Skewes 2007). As already discussed, journalists have strong incentive to stay in the good favor of powerful policy entrepreneurs. Entrepreneurs are more likely to grant future access to privileged information to those journalists and editors who have a) published stories on

the entrepreneur's favored issues and b) presented the entrepreneur's policy perspectives on those issues in a favorable light. For this reason, the media generally pays attention to the actions and statements of policy entrepreneurs, just as entrepreneurs pay attention to the media.

Gandy's (1982) notion of "information subsidies," discussed above, is particularly useful in understanding the influence that policy entrepreneurs have on the media. Journalists and editors work on tight schedules, where every minute counts. It is impossible to have all the information. So news people—like the rest of us—take a boundedly rational approach to their research; they satisfice. As long as the information is perceived to be accurate and unbiased, each bit of reliable information that policy entrepreneurs provide to journalists and editors potentially reduces the costs that journalists and editors must pay in order to find and synthesize new information (Kollman 1998). Information subsidies pay off for entrepreneurs either in the form of immediate increased attention or in the form of communication inroads between policy entrepreneurs and news people. In looking for information or policy perspectives, journalists are more likely to turn to policy entrepreneurs with whom they already have established relationships, like those developed through information subsidies.

In particular, there is strong evidence that the media's agenda is directly influenced by the President, Congress, and the Supreme Court (Edwards and Wood 1999; Flemming et al. 1997; Flemming et al. 1999). While the influence of the policy entrepreneurs in these institutions on media attention is not consistent across issue domains, in general we should expect that the issue prioritizations of politicians—as well as those of powerful lobbyists, military personnel, judges, and other members of the

political elite—should affect the composition of the front page. When the President proposes a Constitutional amendment banning same-sex marriage, when members of Congress speak out against illegal immigration, or when the Supreme Court accepts a death penalty case, these policy questions become front-page issues. In the empirical models I develop in Chapter 5, I include measures of the prioritization given to policy issues in the Presidency and in Congress.

In addition to considering the broad impact that the priorities of policy entrepreneurs have on the front-page agenda, it is also important to understand the dynamic patterns of entrepreneurial influence. Policy entrepreneurs rarely have all their eggs in one basket. Even if they focus all their attention on a single policy issue, entrepreneurs attack the issue from many angles. When policy entrepreneurs see a front-page article on an issue of concern to them, they have three response options: 1) maintain the status quo distribution of their resources across issues, 2) redistribute their resources to pay *less* attention to the issue they saw on the front page (i.e., the “don’t need to worry about that one anymore” approach), or 3) redistribute their resources to pay *more* attention to the issue on the front page. Entrepreneurs have strong incentives to choose this last strategy and pour even more resources into the issue area already on the agenda. Entrepreneurs are smart; they understand inertia. They know it will be easier to get their message on the agenda by riding the coattails of the current attention. Thus, policy entrepreneurs are constantly updating their issue prioritization, giving greater weight to those issues that received prior attention. This updating of resources acts as a positive feedback process. The more media attention an issue receives, the more entrepreneurial energy will be devoted to pushing the issue onto journalists’ and editors’ radars and the

more subsequent media attention the issue will then receive. The result, once again, is a skewed distribution of attention across problem areas, as well as a dynamic pattern of stable equilibrium punctuated frequently by dramatic change.

Public Opinion

Although the avenues of influence between the public and the newsroom may be less direct than those established by policy entrepreneurs, still the public has a strong influence on which issues get media attention. The public has two main forms of influence on the media: influence as a consumer base and influence as society.

The public's influence as a consumer base stems from the fact that, especially in today's media-saturated environment, people can afford to be selective in choosing their news sources. Media outlets struggle under the indelible pressure to retain and increase readership and, thus, advertising revenue. Each news source is acutely aware of its competitors. As Gans writes, "competition is endemic to the profession" (2004). Since media outlets are in the business of selling news, journalists and editors need to pay at least some deference to public perception of which issues and which angles are most important when selecting and crafting their stories. Otherwise, news sources risk losing readership and advertising dollars to the competition (Hoskins et al. 2004).

The public's influence as society centers on the mechanism of political feedback already discussed, in which journalists and policy entrepreneurs interact with public sentiment. The media produces the news; the public reads the news; journalists and editors keep their fingers on the pulse of consumer response to the news for the reasons just described; policy entrepreneurs also watch the public to see how it reacts, since the public serves as a constituent base of one kind or another for most entrepreneurs;

entrepreneurs reshuffle their priorities accordingly and advance their own opinions about what tomorrow's news should hold by lobbying journalists and editors (or simply by creating more news themselves); and journalists and editors base the selection of tomorrow's news in part on how the public responded to today's stories as well as on the pressures they receive from policy entrepreneurs.

Of course, the causal arrow runs in the opposite direction as well. Public perceptions of which issues in the world are most important—and how we should perceive each issue—are strongly shaped by the news. Be that as it may, the more priority the public places on an issue, the more attention the issue is likely to receive. Chicken or egg, the result is the same: an agenda governed by a powerful negative feedback equilibrium but overhauled frequently as the result of unstoppable and fast-paced positive feedback loops. And if conditions are right, the feedback loop will create more than a standard bump in coverage; it will translate into a cascade of public and media attention. I include a measure of the public's prioritization of issues in the empirical models I develop in Chapter 5.

Political Context

All the while that events unfold, that journalists navigate the norms of their profession to write compelling stories about those events, that policy entrepreneurs urge their favored issue (and spin) into journalists' line of sight, and that public opinion reverberates back into the newsroom... the political landscape is also changing. As Klaus Bruhn Jensen writes, "The news depiction of social reality has been decisively shaped by economic, political and organisational forces at various levels of the social structure" (Jensen 1986).

The same event, occurring in different political contexts, will receive different amounts and types of attention, contingent on the economic, social, and political elements at work.

Gans identifies several communication theories that explain the news-selection process “with forces outside the news organization” (Gans 2004). Economic determinists believe that the national economy is key in shaping the news. Ideological determinists argue that the media tailors the news to the political ideology of the political elite currently in power. Cultural determinists make a broader argument, claiming that journalists select stories that reinforce the current values of the national culture.

For example, compare the *Times* front-page coverage of Iraqi civilian deaths in the current war with Times front-page coverage of the Soviet War in Afghanistan, 1979–1988. The Soviet-Afghan War was fought between Soviet forces supporting the Marxist People’s Democratic Party of Afghanistan and the Mujahedeen resistance, which found international support from a number of nations, including the United States, Saudi Arabia, and Pakistan. By the end of the war, between approximately 15,000 Soviet troops had been killed. Estimates put the number of Afghan civilian casualties between 1 and 2 million. A search of the *New York Times* Historical Index shows that during the nine-year Soviet-Afghan War, there were 38 front-page Times stories reporting on Afghan civilian deaths. Compare that number to front-page attention to the current U.S. military conflicts in Iraq and Afghanistan, in which approximately 4,500 U.S. troops have been killed and, depending on the source, somewhere between 100,000 and 500,000 Afghan and Iraqi civilian war-related deaths, combined. During the six years between the U.S. occupation of Afghanistan and the end of 2007, there were 447 front-page *Times*

stories reporting on Afghan or Iraqi civilian deaths.³² The discrepancy between the 38 front-page stories on civilian deaths during the Soviet-Afghan War and the 447 front-page stories on civilian deaths during the current war is simple to explain: Americans (and American newspapers) pay more attention to news that directly involves and affects Americans. When the U.S. is not at war, civilian casualties in other parts of the world get significantly less coverage than when the U.S. is engaged in military action in those same regions. And the U.S. is by no means unique in this regard. In any country, the personal relevance of an event should be expected to influence the amount of national attention the event receives.

In short, political context matters. Context variables—like the state of the national economy, the time until the next Presidential election, and whether or not the U.S. is at war—cast the rest of politics in a particular light, and in doing so affect the media’s agenda. During the heat of a Presidential election, for example, media attention gravitates toward the horse race and whatever issues the horses happen to be talking about. The front-page agenda will reflect an increase in public debate about defense, education, tax cuts... any topics the candidates can use to increase their own popularity and diminish their opponents’. Similarly, periods of recession will be marked by surges in front-page attention to jobs, housing prices, and other economic issues, just as periods

³² To estimate the number of front-page *Times* stories reporting on civilian casualties during the Soviet-Afghan War, I searched within document text for the search string [(Afghan* AND civilian* AND (death* OR died OR kill*)) AND Soviet] between 12/27/1979 and 5/15/1988. To estimate the number of *Times* stories reporting on civilian casualties in Afghanistan and Iraq during the U.S. conflicts there since 2001, I searched within document text for the search string [((Afghan* OR Iraq*) AND civilian* AND (death* OR died OR kill*)) AND (U.S. OR “United States” OR “American”)] between 10/7/2001 and 12/31/2007. I also performed a simple comparison of overall coverage of the wars by searching for the string [Afghan* AND Soviet] between 12/27/1979 and 5/15/1988 and for the string [(Afghan* OR Iraq*) AND (U.S. OR “United States” OR “American”)] between 10/7/2001 and 12/31/2007. Based on these general search strings, there were a total of 660 front-page *Times* stories on the Soviet-Afghan War during its nine years, whereas the first six years of the U.S. conflicts in Afghanistan and Iraq produced 2,535 front-page *Times* stories.

of economic prosperity will be reflected in a front page that focuses more on non-economic issues. And when the U.S. is engaged in a military conflict, the front page will adjust to make room for stories about battles, soldiers, international negotiations, proud homecomings, grieving families, and all the other parts of war. But of course, as already noted, the amount of attention paid to soldier and civilian casualties in war is highly contingent on context; namely, whether the U.S. is directly involved. In the models I present in Chapter 5, I include a measure for the time to the next Presidential election, and in additional results I offer in Appendix B, I control for the state of the U.S. economy and whether or not the U.S. is at war.

Summary

The process of news-selection is staggeringly complex. There are many moving parts interacting with one another, many institutional constraints forcing activity in one direction or another, and many unknowns. Returning to the analogy of evolution, trying to predict the selection of stories for tomorrow's front page is like trying to predict what genetic mutations will affect the next generation of flamingos. But when we pull out to look at all the front pages over time, patterns emerge.

These patterns—a skewed distribution of attention and disproportionate change over time—can be explained when we understand the primary components of the system. On any given day, we cannot predict exactly whether a policy entrepreneur's efforts to gain front-page attention for an issue will pay off, whether journalists will heed public opinion or ignore it, or whether an expanding scope of debate will fade out or lead to a cascade of attention. But we can understand the patterns of how this complex and dynamic system works.

Together, and taken in context of the media's institutional dynamics, these eight variables—*events*, *prior stories*, *congestion*, *the scope of discussion*, *journalistic norms*, *entrepreneurial activity*, *public opinion*, and *political context*—explain the overarching process by which front-page attention is distributed across issues and how this distribution changes over time.

Chapter 4

Shocks, Slow News Days, and Social Cascades: The Institutional Dynamics of Front-Page News

All of politics is dynamic, and the news is no exception. But what *kind* of dynamic system is media attention? Does change in the media agenda occur incrementally? Exponentially? Cyclically? Not at all? In a system as complex as front-page attention, anything might be possible. But in fact, the nature of the media attention system I outlined in Chapter 3 tells us that anything is *not* possible. While complex and sometimes confusing, media attention represents a very specific system of institutional and societal factors. In the current chapter, I examine the dynamic patterns of front-page news much more closely. I show how the media system I outlined in Chapter 3 could *only* produce a particular type of dynamics: the pattern of recurring stasis broken by frequent upheaval that we saw in Chapter 2. Moreover, this set of dynamics could *only be* produced by the kind of media system that I described in Chapter 3, including elements of negative and positive feedback.

After three chapters of using terms like “stasis,” “upheaval,” and “punctuated equilibrium,” the idea that media attention follows this kind of dynamic pattern might not seem very novel. But in fact, the notion that the media are driven by this particular set of dynamics—indeed, that media attention exhibits any discernible dynamics whatsoever beyond random noise—should knock us off our chairs. Just think: With all the complexities of stochastic events and other variables influencing the system, *the patterns of front-page news are predictable*. We can model attention.

One hypothesis is that media attention changes gradually over time. News is driven by events; events occur stochastically; changes in the news occur incrementally. According to this hypothesis, policy and non-policy topics are shuffled on and off the front page each day according to the relative importance of each item. When a problem on the agenda has been dealt with, or when another topic becomes more pressing, attention shifts gradually as the second item slowly replaces the first, one article at a time, over a period of days or weeks. If we were to calculate the change in the agenda in each time period, positive and negative, and then arrange those change values in order from lowest to highest (such that the mid-point of the scale represents zero change), we would expect to see a normal distribution. The hypothesis of gradual replacement is the presumptive conclusion about media attention that dominates much of political science.

This null hypothesis is incorrect. When we look at how the front page changes over time, we see a very different and very specific kind of dynamics. Over time, we see a pattern of punctuated equilibrium. And if we calculated the changes in the agenda at each time point and arranged the values in ascending order, as I will do later in this chapter, we see that the distribution of change in the front-page agenda is far from normal: Small amounts of change are much more prevalent, medium amounts of change occur much less often, and enormous change happens much more frequently. Most importantly, there is a repeating pattern of when each type of change occurs: Extended periods of stasis give way to brief but explosive change, which in turn gives way to the next equilibrium, and so on.

What these dynamics mean is that we have unexpected—and thus far, largely unexplored—explanatory power in the realm of media attention. We can model front-

page news. Why? Because the dynamic patterns we observe tell us that front-page news must be driven by more than just events; there must be both negative feedback elements and positive feedback elements in the system. Understanding the component parts of the complex media system and being able to explain why and how front-page news looks the way it does opens the door for new avenues of political science research and a whole new outlook on the nature of political attention.

I proceed with this chapter in three main parts. First, I discuss the institutional dynamics at work in today's media. Second, I analyze the distributional properties of change on the front page and document the non-normal dynamics that media attention exhibits. Third, I test the key assumption of the theory I develop in this chapter—that the process of allocating front-page attention is governed by positive as well as negative feedback—by constructing a simple formal model representing the front-page news-selection process and then illustrating this model through computer simulations.

The Institutional Dynamics of Media Attention

In Chapter 3, I identified the eight main variables responsible for shaping media attention. But without also understanding the institutional dynamics that govern the media, using a static understanding of these eight variables to explain front-page news would be akin to explaining the movements of buoys in an ocean without tracing the system of currents and tides.

The patterns of change in any institutional system are products of the system itself. The structural constraints of each institutional system—its formal rules and incentives, as well as its informal norms and cultural mores—define the system's dynamics: the patterns of how often the institution will experience change and how

sudden and large that change will be. Of course, there is considerable variance in the formal and informal constraints governing different institutions and their parts, and this variance plays out in the distinct dynamics of each institution (Shepsle 1979b; Shepsle and Weingast 1981, 1987). Yet one fact at least remains constant: The amount of information that needs to be processed in each institution far exceeds the institution's capacity. As Gans writes of the media, "The news determines the news organization more than the news organization determines the news" (Gans 2004).

Information Processing and Attention Scarcity

Simply put, the primary goal of every institution, while manifested in very different forms, is the same: to process information. The world is full of information. And the job of an institution is to take this information in, process it, and then produce a result. Put simply, the job of Congress is to process information about problems in the country and produce policy change in answer to those problems. The job of the Supreme Court is to process information about the application of laws and produce rulings to bring those applications into alignment with the Constitution. The job of a national newspaper is to process information from the world and produce a publication that conveys the essential elements of that information.

In each case, the job of processing information is complicated first and foremost by the oversupply of information. And in each case, the amount of incoming information far surpasses the institution's agenda space, or processing capacity (Jones and Baumgartner 2005). There are too many policy problems in the country for Congress to address. There are too many petitions for writs of certiorari for the Supreme Court to consider. And there are certainly too many pieces of information in the world for the

media to cover in the news. Even if journalism had the human and financial resources to keep track of the billions of new pieces of information generated in the world each day, there literally isn't enough space in newspapers and television combined for all that information. As I mentioned earlier, the front page of the *New York Times* can accommodate only about eight articles each day. The media, like every other institution, is forced to prioritize. Which problems are most pressing, most important? And how urgent must an issue be, relative to all the other issues, in order to gain not just one front-page story but two, or three, or eight?

This problem—of too much information and too little agenda space—is not unique to institutions. Human beings face the same problem of needing to distribute a limited amount of attention across a multitude of priorities. People cope with the problem of attention scarcity through bounded rationality (Simon 1957; Kahneman 2003). Instead of trying to utilize all the information in the world in order to maximize our utilities, we examine a reasonable number of considerations using the information and heuristic devices immediately accessible to us, and then we take our “best guess.” And just like institutions, we compensate for the particular problem of attention scarcity through prioritization. Using the information at hand, we do our best to winnow the list of possible concerns down to a much smaller set that are of the greatest importance to us.

If we learned nothing else from *The Macro Polity* (Erikson et al. 2002), we learned that the jump from micro to macro is never as simple as taking the sum of the parts. But the basic concept of bounded rationality holds true at the institutional as well as the individual level (Jones 2001). Institutions, including the media, use a boundedly rational selection process to reduce the billions of bits of information in the world down

to a manageable amount. “As human decision makers are fallible,” Jones and Baumgartner note, “so too are political systems” (2005). Journalists and editors often err in this winnowing process, overvaluing the importance of a small event, undervaluing the importance of a large event, letting emotion rather than discretion dictate which issues make the cut, or simply missing an important event or trend in the vast flow of information.

The discrepancy between information and capacity results in a system driven alternately by negative feedback (when change is dampened) and positive feedback (when change is reinforced). With more information coming in than a given institution can process, the institution’s rules and norms help to sift and filter the information, winnowing it down to a more manageable form. But institutions and their rules are imperfect, and the compensation for this imperfection is bounded rationality (Padgett 1980; Jones 2001). Instead of filtering information in a way that gives a proportionate amount of attention to each piece of information (based on its severity, for example), most of the formal and informal constraints governing the selection process serve to reinforce the status quo, whatever it may be. Some important pieces of information get attention, but some much less important ones also get attention, and many very important ones get ignored. In general, the more constraints that govern an institution, the more resistant the institution will be to change, and the more disproportionate the institution’s information processing will be.

Some would call institutional resistance to change “gridlock,” but Jones and Baumgartner have a new take on the process and use the term “friction” instead (2005). Whereas gridlock implies stasis, friction implies dynamism, since even high levels of

friction will eventually be overcome, resulting in institutional change. The reason is that while an institution is busy multi-processing the small number of problems it can handle at any one time, information builds up in other problem areas as changes in those situations continue to unfold. Sooner or later, a problem will become a crisis—too large to ignore—and the institution will swerve focus to attend to it. The greater an institution's friction, the more the day-to-day winnowing of information will reinforce the status quo and ignore other problems (negative feedback), and the less often change will occur. But when change in high-friction institutions does happen, it will be all the more dramatic because of the force of information that has built up in other issue areas during the long equilibrium period. That is to say, the greater the friction in an institution, the more susceptible that institution will be to a dynamic pattern of long periods of relative stasis broken up by punctuations of change (Jones et al. 2003).

Once a problem becomes too large or important to ignore—often in the form of a “focusing event” such as a scandal or tragedy—the agenda pays attention to that issue in spades. The previous equilibrium is punctuated, and the sudden shift in attention causes a kind of lurching momentum. During these lurching moments of change, attention to a new problem becomes self-reinforcing (positive feedback) and can build so quickly that it cascades. The key point here is the interconnectivity of the variables in the system over time. If the front-page agenda at time t was independent of the front-page agenda at time $t-1$, then cascades would never occur. But in an endogenous system like media attention, the result of positive feedback is often a flood of media coverage that is as much a surfeit of attention to the problem (relative to all the other problems needing attention) as the previous lack of coverage was a deficit. In other words, friction produces extended

periods when the system under-reacts to problems but also brief but explosive periods when the system over-reacts to problems. If the system processed information proportionally, these patterns would never result (Jones and Baumgartner 2005).

Since all institutions have a system of constraints and, thus, some degree of friction, all institutions are subject to lurching rather than incremental change. The frequency and abruptness of the lurches, or punctuations, depend on how much friction an institution contains. In the case of the media, there are relatively few formal institutional constraints but many informal norms, meaning that while there is considerably less friction in the media than, say, in Congress, the friction is still considerable. Just like every other institution, the media represent an imperfect information processing system. And as such, its movements are governed by the dynamics just described: periods of relative stasis interrupted by abrupt and volatile change that can snowball into attention cascades.

In this way, the media (again, like all institutions) is governed by what Jones and Baumgartner call “disproportionate information processing” (2005). As the phrase suggests, the system processes information disproportionately, meaning that there is no fixed relationship between the importance, or urgency, of a problem and the amount of media attention it receives. In political institutions in general, the result of disproportionate information processing is a pattern of extreme stability that is punctuated at intervals by surges of innovation. Jones and Baumgartner’s theory can help us understand the skewness of the agenda across issues. Dynamically, their theory can help us understand the disproportionality of agenda change. Disproportional information processing theory explains why the front-page agenda is not allocated more evenly across

issues and why it does not change incrementally but, instead, through a pattern of “punctuated equilibrium.”

The theory of disproportionate information processing rests on the interplay between negative feedback processes, which reinforce the status quo and resist change, and positive feedback processes, which challenge the status quo and reinforce change. “Negative feedback damps down. Positive feedback produces explosions” (Jones and Baumgartner 2005). These two self-reinforcing processes are very different, but they are not mutually exclusive in the political system. In fact, their combination is what causes such dramatic disproportionality in change in the agenda over time.

In particular, Jones and Baumgartner (2005) identify three major types of self-reinforcing processes at work in disproportional information processing systems: sieves, cascades, and friction. All three processes can generate disproportionate distributions of change like what we observed on the *Times* front page in Chapter 2, where instead of occurring incrementally change occurs either hardly at all or all at once. These three processes can happen alone or simultaneously, and they may be very difficult to parse out in the real world. Yet “the isolation of these three stochastic mechanisms has the decided advantage of specifying complexity. Rather than claiming that everything is contingent, contextual, and complex, we can begin to try to reason through just what mechanisms are responsible for the observed complexity in any given case of policy change” (Jones and Baumgartner 2005)—or, in this context, in any given case of media attention change. In the sections that follow, I discuss each of these processes in turn and how they interact to generate the larger patterns of a skewed distribution of the front-page agenda and disproportionate levels of change in the agenda over time.

Sieves

“Sieve processes,” Jones and Baumgartner write, “come about when decision makers apply ever greater constraints to a decision-making process. Adding constraints rules out options, causing greater changes from the status quo when adjustments finally do occur” (2005). The decision makers at stake here are policymakers. But sieve processes can occur in the context of media decision makers (i.e., journalists and editors) as well.

The basic notion of sieves is that when decision makers are faced with a problem, such as how much attention to pay to an issue, they review the possible options using “serial judgment” as opposed to comprehensive, incremental review (Padgett 1980, 1981). Decision makers begin by identifying the constraints of the situation, such as retaining readership or maintaining favor with the White House in the current political context, and then they “cycle through the available options until one option satisfies the constraints of the situation” (Jones and Baumgartner 2005). In applying serial judgment, decision makers are likely to begin by considering options close at hand that would mean a small step away from the status quo, and only begin to consider more radical options after cycling for a while.

If the constraints on an institution are small, then it likely won’t take very long for decision makers to arrive at a satisfactory solution to their problem. The more demanding the constraint, however, the more decision makers will need to cycle through additional alternatives before arriving at an acceptable solution. In general, then, simple constraints will lead to decisions that fall close to the status quo, while difficult constraints will require larger deviations from the status quo. In this way, the constraints that instigate a sieve process act as negative feedback, dampening the likelihood of change in the system. At the same time, constraints force decision makers to look to

increasingly more dramatic options in order to satisfy the constraint criteria, meaning that when change occurs it will be much more explosive than if no constraints existed or if decision makers used incremental rather than serial judgment. Since journalists and editors must satisfy a number of formal and informal constraints in making their daily decisions about the news, media attention is highly susceptible to sieve processes and to the disproportional patterns of change that result.

Cascades

Jones and Baumgartner define a cascade as a “process in which one action begets other actions, independent of the nature of the external event stimulating the initial action” (2005). Once started, cascades take on a life of their own, propelling a snowball-like sequence of reactions that are often out of proportion with whatever the original seed of the cascade may have been.

At the core of the cascade process is positive feedback. Positive feedback is an all too familiar phenomenon in financial markets, when a drop in stock prices can sometimes cause another drop in stock prices, which leads to yet another drop, and so on until the market crashes. We can also observe positive feedback in the world of children’s toys, where even the most sophisticated supply and demand computer models are rarely able to predict which toy will be the hot item of the season, selling out in every store and sending parents into a near-frenzy. In politics, we see positive feedback in action every time bandwagoning occurs around a popular candidate or policy issue (Baumgartner and Jones 1993).

A cascade is simply a positive feedback process that continues for long enough to become a noticeable swell of attention, rather than a minor blip. The “spillover” effect

that can occur in policymaking, where policy entrepreneurs use the inertia of an initial policy innovation to push through their own versions of the policy initiative and, as a result, the policy spreads like wildfire, is a good example of a cascade (Kingdon 1995). Cascades have been documented in numerous venues, including social fads (Bikhchandani et al. 1992), overcoming collective action problems (Granovetter 1978), human herd behavior (Shiller 1995), residential segregation (Granovetter and Soong 1988; Schelling 1972), economic trends (Shiller 2000; Sornette 2003), restaurant patronage (Banerjee 1992; Becker 1991), presidential primaries (Bartels 1988), policymaking (Baumgartner and Jones 2002; Jones and Baumgartner 2005), media attention to the death penalty (Baumgartner et al. 2008), and the success of the QWERTY keyboard (David 1985).

We cannot predict when cascades will occur, but we can understand why they develop. The biggest key to understanding cascades lies in human networks (Barabasi 2003). We are, all of us, linked. People are connected to one another through family bonds, friendships, jobs, hobbies, politics, and any number of other shared social nodes. In perceiving the world, we look less to objective indicators and more to our perceptions of the real world based on how the other people in our innermost network are responding. Jones and Baumgartner call this process of basing your response to the world on the responses you see around you “monitoring and mimicking” (Jones and Baumgartner 2005).

Relying on other people for information does not mean we are stupid or unsophisticated or apathetic. In fact, social networks minimize information-gathering costs and provide a built-in heuristic mechanism for making efficient evaluations about

the world. But this reliance on human networks does mean that public response to an issue or event can spiral out of control, like the collapse of a sand dune under the weight of that one extra grain. Because everyone is connected, each person in a network holds social influence not only over their closest person in the network but, to varying degrees of magnitude, *everyone* else in the network. Often a wave of reaction will decay and die out, but occasionally it will result in a massive chain reaction. There are many factors that influence how far-reaching an initial response will be, including threshold effects (Granovetter 1978)—or what Malcolm Gladwell has termed “tipping points” (2000)—and the embeddedness of the smaller network in other networks (Granovetter 1985; Penn 2007).

For example, Mark Penn argues that microtrends, not macro trends, are the driving force in today’s society. “There are no longer a couple of megafactors sweeping us all along,” he says. “Instead, America and the world are being pulled apart by an intricate maze of choices, accumulating in ‘microtrends’—small, under-the-radar forces that can involve as little as 1 percent of the population, but which are powerfully shaping our society” (Penn 2007). From this perspective, how far-reaching a response will be thus depends in part on how closely connected the segment of the social network (e.g., soccer moms, union workers, Hollywood elite, etc.) that experiences the initial response is to those other segments of the network most likely to mimic that response.

The point is that whatever the domain—economic, social, political, or the media—positive feedback can produce cascades. And cascades rely on the interconnectivity of the system. If people and institutions and organizations all worked independently of one another, cascades would not occur. But as it is, everything is highly

connected. When conditions are right, massive changes—like overhauls of the front-page agenda—can occur. The result is pronounced disproportionality in the amount of change the system experiences over time.

Friction

“Institutional friction occurs when institutions retard change, but result in a large-scale ‘jump’ when the built-in friction is overcome” (Jones and Baumgartner 2005). Most institutional constraints, be they formal regulations or informal norms, serve as negative feedback mechanisms, reinforcing the status quo and deflecting alternatives. Because all institutions operate under some system of constraints, all institutions have friction. The greater the friction, the harder it will be for the system to change.

Yet friction has its limits. The question is simply how much it will take—and how long it will take—for mounting political and social forces to offset the friction and produce change. Institutions with high friction will change much less often than institutions with low friction, but when it finally happens, the change in high-friction institutions will be even greater. Thus, while all institutions are disproportionate information processing systems, high friction institutions will demonstrate even more pronounced patterns of stasis punctuated by upheaval.

The media are governed by considerably fewer formal constraints than Congress, the Presidency, or the Supreme Court. In this way, the media has less friction than these brick-and-mortar institutions. Thus, while the media follows a pattern of punctuated equilibrium, this pattern will be less dramatic in the media than in higher friction institutions (Jones et al. 2003). That being said, media outlets are unusual among institutions in that their constraints operate on a highly fast-paced cycle. The decision-

making process of journalists and editors is measured in hours and minutes, not days, weeks or months. So in terms of cycle duration, the media are even more susceptible to punctuation than other institutions. The equilibria of media attention are less stable and, thus, shorter lived. In terms of degree, the media should still demonstrate less pronounced patterns of punctuated equilibrium (i.e., less dramatic punctuations) than higher friction institutions. Yet its equilibria will generally be shorter and its punctuations more frequent than institutions with longer decision-making cycles.

The Result: Disproportionate Information Processing

In processing information imperfectly, each institution ends up ignoring most issues as it focuses sustained attention on the narrow set of problems that withstood the winnowing process—the top priorities. These static periods are governed by a process of negative feedback, like a thermostat increasing or decreasing the heat as necessary in order to maintain a fixed temperature. Negative feedback is self-reinforcing. During these periods the system continually corrects itself, counterbalancing each deviation from the status quo with a nudge back to equilibrium.

While an institution is attending to its top few priorities, however, information continues to build in the problem areas being ignored. Eventually, the information in some area will exceed a crisis threshold, and the institution will not have a choice but to shift attention—in a sudden and lurching manner—to the problem in crisis. In punctuation, the system is governed by a process of positive feedback, during which time change begets more change. Each deviation from the status quo is reinforced by a further deviation in response. In these moments, change tends to cascade, leading to a swell of change that uproots and redistributes the entire agenda. Although punctuations are

usually as brief as they are dramatic, when the dust settles the institution will have settled into an equilibrium state that is fundamentally different from its previous status quo.

The media are no exception to this pattern. During periods of equilibrium, the path dependency of the media's agenda means that the allocation of attention is highly inertial under the governance of negative feedback; the number of stories an issue receives today is strongly a function of how many stories it received yesterday. And when information in an issue area not currently on the front page hits critical mass—often in the form of a focusing event such as a scandal or tragedy—media attention lurches to that problem. Again, the system during punctuations is highly inertial, but this time positive feedback holds the reins. Self-reinforcing change will lead to a surge of attention, often large enough to be called a cascade.

Distributional Change Analysis

In this section, I analyze the *Times* dataset to assess the distributional properties of change in front-page attention. The dynamic patterns in the figures from Chapter 2 were easy enough to see with the naked eye. Consider Figure 2.8, Figure 2.9, or the individual graphs of Figure 2.10. There is no gradual movement here. We see periods of equilibrium—when the agenda holds relatively steady for a few months—and many periods of overhaul—when attention in one topic area spikes, thereby redistributing the entire agenda.

There are simple tests to determine whether these dynamics really do constitute a pattern of punctuated equilibrium. I begin with the front-page *Times* data aggregated at the major topic (2-digit) level by month. Thus, each cell in this dataset gives a value for the number of front-page stories that issue i received at time t . Next, I calculate a change

series for each topic by subtracting the number of articles in each month, t , from the number in the previous month, $t-1$. For example, if 100 stories were written on the topic of Defense in the first month of 2004 (t_1), then 70, 80, and 80 in the second, third, and fourth months respectively, the change series for months three through five would be $t_2 = -30$, $t_3 = +10$, and $t_4 = 0$.

To examine the distributional properties of this change series, we can examine a histogram of its values. Figure 4.1 shows all the values of the change series, arrayed from lowest (negative) to highest (positive). The x-axis represents the amount of change. For example, a value of 20 on the x-axis means that there were 20 more front-page stories on a given topic in month t than there were in month $t-1$. A value of -20 means the topic decreased by 20 stories. The y-axis represents the frequency of observations with that degree of change. A normal distribution line, drawn from the same mean and standard deviation as the data, is overlaid on the histogram.

(Insert Figure 4.1 about here)

The tall and slender central peak of Figure 4.1 that rises well above the normal distribution line shows that the vast bulk of observations on the front page represent very small amounts of change (or no change at all). These are the periods of equilibrium. Moving out from center, we see that the shoulders of the histogram are much weaker than those of the normal distribution; these weak shoulders tell us that the front-page agenda experiences many fewer instances of “medium” levels of change than it would if change occurred incrementally.

The wide tails of the histogram, far off to the left and right sides of the graph, are difficult to discern because the frequencies of those extreme observations are too low to

register on the y-axis. But Figure 4.1 is formatted so that the x-axis accommodates the most extreme observations on both sides, ranging from -109 to +86. In fact, the small but important clusters of observations at the tails of Figure 4.1 represent more than 120 observations less than -50 or more than +50. These extreme observations represent instances when front-page coverage on *a single topic* increased or decreased by more than 50 stories in *a single month*. These are the punctuations—those rare instances of dramatic change. The normal distribution contains nowhere near as many extreme values. The distribution shown in Figure 4.1 is anything but normal. The combination of high amounts of small change, low amounts of medium change, and high amounts of extreme change shown here is called a leptokurtic distribution.³³

Beyond trusting our eyes' interpretation of the histogram in Figure 4.1, there is a simple statistical test we can perform to determine whether the distribution of the change series calculated from the *Times* front-page data is statistically different from a normal distribution. A kurtosis score is a measure of the peakedness present in a distribution. A change series with a kurtosis value of less than three ($k < 3$) is one that, when plotted as a frequency distribution, appears as a flat mound, with almost as many instances of medium change as of small or no change. A change series with a kurtosis value of about three ($k = 3$) presents the well-known sloping normal distribution, with small or no change being more frequent than medium amounts of change, but gradually so. A change series with a kurtosis value of more than three ($k > 3$) will display a highly peaked distribution with very wide tails. Here, the tall and slender central peak represents the very predominance of instances of small or no change (equilibria), the weak “shoulders” of the

³³ Histograms created by calculating the percentage of the agenda changed each month (as opposed to the change in article counts), as well as histograms calculated at the weekly level and/or the subtopic (4-digit) level of analysis, show the same kind of leptokurtotic distribution as seen in Figure 4.1.

distribution represent the infrequency of medium amounts of change, and the long tails represent the small but very important number of instances of extreme change (punctuations). A kurtosis score of $k > 3$ is called a leptokurtic distribution. The larger the kurtosis score—the more leptokurtic the change distribution—the more the series is governed by punctuated equilibrium dynamics. The kurtosis score of the change series seen in Figure 4.1 is $k = 34$, meaning that this distribution is highly leptokurtic.³⁴

Finally, we can analyze the distributional properties of front-page attention by examining a semi-log and a log-log plot of the change series. When we are considering the positive values of a change series only, if the distribution of change on the front page agenda is normal, then the scatter plot will reveal a concave curvilinear pattern (i.e., curved downward) when either one or both of the axes of the graph are scaled as logs. The log scale stretches a normal distribution out of the linear pattern it would form on a standard axis, thus producing the curvilinear pattern. If change on the front page is distributed exponentially, the plot will appear concavely curved on the log-log plot but nearly straight on the semi-log plot, since by scaling the y-axis as a log but leaving the x-axis normal we have perfectly accounted for the rate of increase in the exponential distribution. Yet if the semi-log plot reveals a *convex* curve and the log-log plot appears as nearly straight, then we can conclude that the front-page agenda follows a Pareto, or power law, distribution. The power law distribution, containing both a predominance of low change values but also an unusually large number of extreme change values, is even more “wild” than the exponential distribution

³⁴ In order to avoid possible inflation, I also re-calculate the kurtosis score after dropping all zeroes (i.e., all occurrences of no change) from the change series. Even with all zeroes removed, $k = 28$.

Figure 4.2 shows the *Times* front-page change data in the form of a semi-log plot. The standard x-axis represents the degree of change, again measured in number of front-page stories. The y-axis is scaled in log values, which represent the frequency of observations of the given number of stories. Each dot in the graph represents the number of observations in the dataset when front-page attention to a given topic changed from one month to the next by the number of stories indicated on the x-axis. The plot in Figure 4.2 shows a convexly curvilinear plot, suggesting that changes in the front-page agenda occur even more dramatically than in an exponential distribution.

(Insert Figure 4.2 about here)

Figure 4.3 contains exactly the same data offered in Figure 4.2. The only difference here is that both the x-axis and the y-axis are displayed as log scales. The plot is slightly concave, but much straighter than the plot from Figure 4.2. The near-straightness of Figure 4.3 tells us that the front-page agenda embodies a power law distribution, characterized by a strong equilibrium punctuated periodically by dramatic change.³⁵

(Insert Figure 4.3 about here)

Evidence from Computer Simulations

It does not go without saying that front-page attention should look the way it does.

Under different circumstances—namely, in a different political system, with different institutional constraints on the media or with a media industry designed to process

³⁵ The data presented in Figure 4.2 and Figure 4.3 represents the inverse cumulative frequencies of the *Times* front-page change series, using only the positive change values. As with Figure 4.1, the data is aggregated at the major topic (2-digit) level, by month. However, results from additional semi-log and log-log plots generated from different versions of this data—aggregated at the subtopic 3-digit level, using a weekly level of analysis, or including only the negative change values—offer the same conclusions that we have drawn from Figure 4.2 and Figure 4.3.

information differently—front-page attention and changes in that attention might look quite different. The most dramatic findings drawn from Chapter 2 are, first, that the front-page agenda is unevenly distributed across policy issues and, second, that changes in front-page attention follow a pattern of punctuated equilibrium. These two findings tell us a great deal about how the media processes information and about the nature of the factors that influence the process. In particular, these patterns reveal that front-page media attention is the product of more than just exogenous, normally distributed, stochastic variables, like events or journalistic norms. Endogenous influences must also exist, or else we would observe very different results. In other words, the findings we have observed thus far are evidence the front-page attention operates through both positive and negative feedback. A system comprised of negative feedback alone would result in an agenda that is distributed nearly proportionally across issues and a dynamic pattern showing change that is much more incremental over time. The patterns we have witnessed can only be the result of positive as well as negative feedback in the media's information processing system.

In Chapter 3, I developed a theoretical explanation of how specific variables in the political system, such as congestion, entrepreneurial activities, and the scope of discussion, combine with one another to shape front-page news. In Chapter 5, I will show that this theory bears up under statistical analysis of real-world data. Yet my theory hinges on the idea that the news-selection process is shaped by forces of both positive and negative feedback. Left unexamined, this notion should raise concern for readers looking at the statistical results introduced in Chapter 5. Without vetting this idea in some systematic fashion, I would be ill-equipped in the next chapter to conclude that the

statistically significant variables I find are actually responsible for the allocation of media attention in the real world and that they are not, rather, disguising the presence of some unmeasured variable—like events—that is the only driving force behind the news.

And so, in this final section of the current chapter, I examine more closely the hypothesis that positive feedback plays a role in shaping the front-page agenda. I design a simple model to represent the front-page news-selection process using theoretical variables, and I test my hypothesis using evidence gathered from computer simulations.

Computer simulation, a type of formal modeling, reduces real-world complexities to a much smaller number of moving parts, which we can control. By formalizing an equation linking independent variables to the dependent variable and by specifying the exact rules by which the system updates over time, a researcher can create a mathematical model showing how different starting assumptions about how the world works yield different results as the system evolves over time. Multiple simulation “runs,” each based on different starting seed values, provide a large N that allows us to generalize the resulting behavioral patterns of the dependent variable.

Even before examining the simulation results, the theoretical formalization required by this method is beneficial. Simulation modeling demands articulation of those assumptions that I am (and am not) making about the system under study. And of course the results themselves are helpful too. By varying the assumptions about the initial state of the front page and the nature of front-page dynamics, generating the unfolding behavioral patterns of a model front page, and then comparing these patterns to those we observe in real-world data, we can assess which set of “rules” the real front-page system follows. Coupled with statistical models—like those I will provide in Chapter 5—

simulations offer a clearer view of how the “assumed” system in question is operating than statistical analysis alone can provide. As a kind of thought experiment in electronic form, simulations allow us to ask the “what if’s” of other realities that real-world data can rarely support and, through simulation results, to understand more fully the institutional constraints and operating behavior of the political world in which we do live.

In short, simulations allow me to show formally the conditions under which front-page attention should demonstrate the skewed distribution of attention that, in fact, it does. What are the different parameter configurations that lead to this kind of skewness? Could skewness result, for example, if front-page news was driven purely by events and other negative feedback elements? Or must positive feedback also be present?

Simulation Design and Hypothesis Testing

There are several different ways that the allocation of media attention could happen in the real world, but I focus here on two key factors that separate the alternate scenarios. The first factor to consider is whether the news-allocation system contains exogenous variables only—those variables that behave independently of the state of the world in the previous time period—or whether endogenous variables must also be at work, meaning that at least part of the media attention system updates itself based on prior behavior. *If* endogenous variables do contribute to the news-selection process, the second factor to consider is whether these endogenous variables are strictly of the negative feedback variety, meaning that they tend toward the status quo and resist change, or whether some of the endogenous variables are also positive feedback elements, which deviate from the equilibrium by reinforcing change.

Thus, between these two main considerations we have three primary possibilities for how front-page news operates in reality: First, all variables in the news-selection system are exogenous. Second, the news-selection system contains endogenous as well as exogenous variables, and all the endogenous variables constitute negative feedback processes. Third, the news-selection system contains endogenous as well as exogenous variables, and the endogenous variables represent positive feedback as well as negative feedback elements.

The theory of media attention I have developed supports the last scenario. I believe that many of the variables that affect media attention behave endogenously, and we should expect several of these variables—such as prior attention, the scope of discussion, public opinion, and entrepreneurial activity—to operate specifically as positive feedback forces. These positive feedback elements, I argue, are responsible for both the skewed distribution of front-page attention across topics and the disproportionate patterns of agenda change over time, since in the absence of positive feedback these patterns would never occur.

Hypothesis: *The distribution of front-page attention operates as a function of positive feedback forces (as well as negative feedback forces and exogenous forces).*

To test this hypothesis, I develop a model of the front-page news-selection process and compare the outcomes of estimating this model with and without the presence of a positive feedback element. I start with a very basic world, in which front-page news is driven purely by random, exogenous events. Then I compare how the front page behaves in this event-driven world to how it behaves in two other worlds, both of which include an additional explanatory variable: the activities of policy entrepreneurs.

In the first of the two scenarios, void of any positive feedback processes, policy entrepreneurs pay *less* attention today to issues featured on yesterday's front page. In the second scenario, policy entrepreneurs operate under a positive feedback system, giving *more* attention today to those issues that made the front page yesterday. These different models produce very different simulation results. By comparing the different results to the real-world results observed in Chapter 2, I can identify which world we actually live in, so to speak. In other words, the simulation results offer evidence not only of why we see what we see, but also of why we don't see what we don't see.

Importantly, the role of entrepreneurial activity in the negative feedback and positive feedback systems is a proxy for a range of explanatory variables we could consider. For example, we could just as easily compare the basic event-driven scenario to two other scenarios featuring the scope of attention, where in one model the scope of attention *narrows* for those issues that were featured on yesterday's front page, while in the second model the scope of attention *expands* for these issues. Whether the theoretical variable being considered is the activity of policy entrepreneurs, the scope of each policy debate, public opinion, or anything else, the question at hand is still the same: When we compare how front page attention unfolds when influenced by 1) events only, 2) events and negative feedback forces only, and 3) events, negative feedback forces, and positive feedback forces, which of these scenarios best describes reality?

Simulation Model

All the computer simulations I perform involve ten distinct policy issues (A through J) competing for three story spots on my artificial front page. All simulations begin, at $t=0$,

with issues A, B, and C each receiving one story.³⁶ At each subsequent time point (1 through 500), the potential each topic has for receiving a front-page story is calculated as a function of other variables in the system as shown below.³⁷

$$\text{Attention Potential} = \beta_1 \text{Prior Attention} + \beta_2 \text{Events} + \beta_3 \text{Entrepreneurial Activity} + \varepsilon$$

The resulting “Attention Potential”³⁸ formula is the core of my simulation system. Attention Potential is a continuous variable with a minimum observed value of zero and a maximum observed value of approximately 2.25 across my simulation results. No matter which explanatory variables (Prior Attention, Events, and/or Entrepreneurial Activity) are accounted for in calculating the Attention Potential of each policy issue at each time point, the Attention Potential values are what are used to calculate which issues receive the three story spots for that time period.

This model assumes that events are stochastic. Of course, individual series of events are often non-random. A religious suicide bombing, for example, can often beget more tit-for-tat bombings. But the population of events that serve as the input into the media information processing system is enormous. We’re talking about billions of bits of information. Even within a series of events such as the realm of suicide bombings, in today’s world events operate (quite unfortunately) on the magnitude of tens and often hundreds of attacks each year (Pape 2003, 2005). As per the tenets of the Central Limit Theorem, the large body of information pouring into the media system is nearly normal

³⁶ I could just as easily have assigned one article each at time $t = 0$ to issues D, E, and F, or A, G, and J, or so on; the simulation results are not affected by the assignment of these three initial stories.

³⁷ Because the estimated values of Attention Potential are not important in their own right but only so far as they contribute to my purpose of examining the differing effects of including and not including each variable in the model, I do not include an intercept term in the model.

³⁸ Throughout this section, I try to help the reader keep track of the different variables of my simulation system by capitalizing each reference to a variable.

in distribution. In this way, we are safe in treating events—at least for the purposes of simulation and statistical analyses—as being stochastic in nature.

Variables of the Model

I capture a portion of the real-world complexities of the media system by incorporating six variable components into my simulation models that can be altered to represent different scenarios of which “rules” govern the news-selection process: a Prior Attention variable, an Events variable, an Event Threshold, an Entrepreneurial Activity variable, an Entrepreneurial Updating Mechanism, and an Importance Threshold. I will discuss each of these parameters in turn as I describe the workings of the simulation model.

Here’s how the model works: If the amount of attention an issue received previously affects the amount of current attention it receives (i.e., if $\beta_1 = 1$), the simulation model incorporates the Prior Attention variable, which is simply the number of stories—0, 1, 2, or 3—that issue i received at time $t-1$. This variable is intended to capture the strong path dependency in media attention, which tends to gravitate to those issues already in the news. We should expect the number of stories an issue received on yesterday’s front page to directly influence the number of front-page stories it receives today.

We might assume that events don’t matter in shaping front-page attention ($\beta_2 = 0$), or we might assume that they do ($\beta_2 = 1$). If we assume that events matter, then whether or not an event actually occurs is assumed to be random. For each issue at each time period, I draw a number between 0 and 100 and define an event to have occurred relevant to that issue in that time period ($\text{Event} = 1$) if the random draw is greater than some

number, namely the Event Threshold, which I pre-define between 0 and 100. The larger this Event Threshold value, the less events are assumed to influence front-page coverage.

There is a large and loud community of policy entrepreneurs, including the President, White House Staff, members of Congress and their staffers, lobbyists, and other political elite, who seek to influence the media's agenda both directly and indirectly. Maybe these people are just spinning their wheels, with no effect on the media's agenda ($\beta_3 = 0$). But if front-page news is influenced by policy entrepreneurs ($\beta_3 = 1$), then my model accounts for the effects of entrepreneurial activities, conditional on the information updating mechanism that entrepreneurs are assumed to employ after viewing the state of the agenda at each time point.

The Entrepreneurial Activity variable is calculated as the average proportion of attention that ten artificial policy entrepreneurs give to policy issue i at time t . At $t=0$, each entrepreneur's attention is divided randomly across the ten policy issues A through J. Issue A might receive 82% of a given entrepreneur's attention, for example, and Issue B might receive only 10% or 1% or 0%, but the parts of attention an entrepreneur pays across all ten issues—these are the individual Entrepreneurial Activity variables—always sum to 100%.

I designed my model such that I have the ability to manipulate the Entrepreneurial Activity variable by adjusting another parameter, which I call the Entrepreneurial Updating Mechanism. This mechanism is a simple decision rule by which the artificial policy entrepreneurs update the distribution of their attention across the ten policy issues at each time point. In the *positive feedback model*, each entrepreneur at each time point pays $X\%$ more attention to those issues that received front-page attention in the prior time

period. And because each entrepreneur's attention must sum to 100%, when each proportion is re-calculated the result is that the policy issues that did *not* receive front-page space at time $t-1$ end up receiving a smaller share of entrepreneurial attention at time t . In the *negative feedback model*, the updating decision rule is exactly the opposite; each entrepreneur at each time point pays $X\%$ *less* attention to the issues that received front-page stories in the prior time period, meaning that the issues left off the front-page yesterday receive consolation in the form of increased entrepreneurial attention today.

Finally, I designed the Importance Threshold as a parameter that allows me to adjust the congestion restrictions of my artificial front page. As in the real world, just because a policy issue has a strong urgency for attention (here, a large Attention Potential value) doesn't mean that it will appear on the front page. Because the agenda space is so small, it's not enough for an issue to be "big" in order to make the front page; the issue must be one of the biggest. Congestion matters. In a low-congestion environment, an issue with an unusually low Attention Potential may be able to grab one of the three front-page story spots. In a high-congestion environment, however, an issue needs to have an Attention Potential that is either the largest or very close to the largest in order to gain a story spot.

It's possible that media attention operates in such a way that the stories on each front page are portioned out evenly across the most pressing issues of the day, without any one issue "double-dipping," no matter how important that issue is. When the Importance Threshold is set at 0, the three story spots are simply given to the three issues with the greatest Attention Potential values, regardless of the gap between them: Story #1 is given to the issue with the greatest Attention Potential, Story #2 is given to the issue

with the second greatest Attention Potential, and Story #3 is given to the issue with the third greatest Attention Potential.³⁹ Yet perhaps media attention does not work like this. In fact, it seems more likely that front-page stories are not allocated in a distribution of wealth manner, but rather that stories are given to whichever issue or issues dominates public and political attention on that day. Sometimes several issues will be perceived as being equally salient, and each issue will receive one front-page story. But often one issue will dominate the agenda in the form of three, four, or even more stories. If this is how media attention works, then in order for a mega issue to share the front page with any other issue, the competing issue must meet some minimum amount of urgency in comparison with the mega issue in order to squeeze onto the agenda. When the Importance Threshold parameter is greater than 0, the system requires those policy issues with the second and third largest Attention Potential values to exceed X% of the top issue's Attention Potential in order to receive a story spot.

Table 4.1 shows three hypothetical examples of the Importance Threshold in the simplified environment containing only three policy issues, A, B, and C, and three story spots. I have assigned each issue in this table a hypothetical Attention Potential value that remains constant across all three Importance Threshold scenarios.⁴⁰ The first set of columns shows how an Importance Threshold of 0% allows each issue to receive a single

³⁹ I use the numbers 1, 2, and 3 to distinguish between the three front-page article slots for the purposes of explanation, but there is no ranking distinction between the different article slots in the simulations. In other words, there is no greater utility for a policy issue in receiving Article #1 than in receiving Article #2.

⁴⁰ Note again that, because of how it is calculated in the computer simulations, the Attention Potential is a continuous variable ranging from an observed minimum of zero to an observed maximum of approximately 2.25. The theoretical maximum value for this variable is 13. Yet this theoretical max would only be achieved if Prior Attention was assumed to matter ($\beta_1 = 1$); issue i received all three article spots at time $t-1$; Events were assumed to matter; a random draw (set at whatever Event Threshold) indicated that a relevant event occurred ($\beta_2 = 1$); Entrepreneurial Activity was assumed to matter ($\beta_3 = 1$); and, most improbably, issue i at time t received 100% of attention and resources from all ten policy entrepreneurs. Thus, $\text{Attention Potential} = (1*3) + (1*1) + (1*10) = 13$.

story spot; there is no minimum ratio between Attention Potential values that must be satisfied. But when the Importance Threshold is set at 50%, things change. In this case, Issue B and Issue C must have Attention Potentials at least half as large as the Attention Potential of Issue A in order to receive a story spot. In the case of the hypothetical values I have assigned to each issue in Table 4.1, Issue B exceeds the Importance Threshold but Issue C does not. Thus, Issue A is assigned Story #1, Issue B is assigned Story #2, and then Issue A also receives Story #3, in the absence of an Issue C that meets the Importance Threshold criterion. Thus, Issue A ends up with two stories, Issue B gets one, and Issue C gets none. The last set of columns in Table 4.1 show what happens when the Importance Threshold is set at 90%. In this case, neither Issue B nor Issue C is 90% as “large” as Issue A. Issue A thus receives all three stories, and Issues B and C receive none.

(Insert Table 4.1 about here)

Together, the six variable parameters I have described allow me to run my simulation model under a wide variety of scenarios, each representing a different kind of real-world system of media attention. From Table 4.1, we know that the *New York Times* produces a front-page agenda that is highly skewed across policy issues. Earlier in this chapter, I used Jones and Baumgartner’s (2005) theory of disproportionate information processing to explain this finding. But my theoretical discussion rested on the presence of positive feedback as well as negative feedback in the media information processing system. By seeing how the simulation model plays out under different assumptions about how the media operates, I can test my hypothesis that the skewed distribution of attention

we have observed in the real world could *only* have been produced by a system that contains positive feedback.

Results

In a World Where Events Alone Drive Front-Page Attention:

I begin with a simple demonstration of what front-page news would look like if exogenous forces—namely, events—were the only factors to influence front-page attention. Assume that Events affect front-page coverage and that neither Prior Attention nor Entrepreneurial Activity have an impact (i.e., $\beta_1 = 0$; $\beta_2 = 1$; $\beta_3 = 0$).

Figure 4.4 is based on an Event Threshold value of 10%, and shows the cumulative percentage of the front-page agenda received by the top issue on the agenda, from $t=0$ through $t=500$.⁴¹

(Insert Figure 4.4 about here)

We can see that under the event-driven model, the front-page agenda settles quickly into equilibrium, with the top issue receiving approximately 10% of the front-page story spots. Since there are ten issues, this means almost perfect proportionality. No picture could be farther from the real-world findings we saw in Chapter 2.

Figure 4.4 yields a simple yet profound conclusion: Whatever else may be driving the process of allocating front-page attention, it is necessarily something more than random events.

⁴¹ Because the simulation began with random seeds, the issue that comes to dominate the agenda could be any of the ten, A through J, and indeed the top issue turns out to be different in each simulation run. Figure 4.4, Figure 4.5, and Figure 4.6 each trace the activity of the largest issue, whatever it may be.

In a World Where Events and Negative Feedback Forces Drive Front-Page Attention:

Next, I incorporate the influence of Entrepreneurial Activity into the model (i.e., $\beta_1 = 0$; $\beta_2 = 1$; $\beta_3 = 1$). For these simulation runs, I set the Event Threshold and Importance Threshold both at their means of 50%. I also set the Entrepreneurial Updating Mechanism to adjust *downward* by a factor of 10% for each prior story.

The dashed line in Figure 4.5 shows the behavioral patterns that stem from incorporating a negative feedback version of Entrepreneurial Activity.

(Insert Figure 4.5 about here)

Examining the negative feedback line, we see that barely 100 time points into the simulation runs, the front-page agenda has equilibrated in near-perfect proportionality, with the top policy issue (and all other nine issues) receiving approximately 10% of the stories. The results of the negative feedback model look very similar to the results of the event-driven model shown in Figure 4.4. In a world where policy entrepreneurs pay more attention to issues that were previously neglected on the agenda, the result will be an almost even distribution of attention across all issues—exactly the outcome we see in a world where front-page news is generated by a random draw of events.

In a World Where Events, Negative Feedback Forces, and Positive Feedback Forces Drive Front-Page Attention:

My third set of simulation runs is based on a model that again accounts for the influence of Entrepreneurial Activity on front-page news (i.e., $\beta_1 = 0$; $\beta_2 = 1$; $\beta_3 = 1$) but this time assuming that policy entrepreneurs use a positive feedback form of information updating. Again, I set the Event Threshold and Importance Threshold both at their means of 50%. In contrast to the last model, however, I set the Entrepreneurial Updating Mechanism to adjust *upward* by a factor of 10% for each prior story.

The solid line in Figure 4.5 shows the results from this positive feedback model, which we can see look radically different from the results of the negative feedback model. With the introduction of a single positive feedback element—in this case, a policy community in which entrepreneurs gravitate *toward* issues already on the agenda, not away from them—the media attention system spirals into a skewed distribution of attention. The gap between the top issue on the agenda and the other issues widens quickly. By time point 100 the largest policy issue is already receiving about 80% of the stories, and by time point 500 this dominance has jumped to more than 95% of the agenda space, leaving less than 5% to be distributed to the remaining nine issues. Remember that the effects of Events and Prior Attention have not disappeared; they remain in the model just as before. One element of positive feedback changes the entire nature of the agenda. Considering that the real-world media agenda is likely influenced by multiple positive feedback factors, we begin to understand how front-page attention is so drastically skewed.

We can get a better idea of how the positive feedback process is working by looking at what happens to the distribution of Entrepreneurial Activity in this model. Figure 4.6 is a parallel to Figure 4.5, but instead of showing the cumulative percentage of front-page agenda space consumed by the top policy issue, it traces the cumulative percentage of *entrepreneurial resources* the top issue controls.

(Insert Figure 4.6 about here)

The story here is the same—in fact, Figure 4.5 and Figure 4.6 are nearly indistinguishable. Even with a modest updating level of 10%, the self-reinforcing nature

of how policy entrepreneurs update the distribution of their resources leads to skewed attention across issues.

While Figure 4.4, Figure 4.5, and Figure 4.6 show results averaged across all simulation runs and over 500 time points, we can take a closer look at these patterns in Figure 4.7 through Figure 4.10, each of which shows a series of individual run results presented over only 100 time points in order to give a better view of how the initial dynamics of each simulation develop.

Figure 4.7 shows how the front-page agenda space gets allocated across the ten issues in the negative feedback model. Each of the four individual runs shows a slightly different development, but the outcome is the same: a highly proportional agenda, distributed almost equally between the ten issues.

(Insert Figure 4.7 about here)

The four runs in Figure 4.8 show a very similar story, but this time the variable being illustrated is the distribution of entrepreneurial resources, not front-page stories.

(Insert Figure 4.8 about here)

Figure 4.9, however, shows something very different. Here again we see results from four individual simulation runs, each one tracing the distribution of front-page stories across the ten policy issues. The patterns are different in each. For example, Issue A ends up the top policy issue in the first simulation, whereas Issues I, J, and C dominate in the second, third, and fourth runs, respectively. Yet the dynamic outcome is identical across each run: One policy issue quickly gains control of the agenda, and attention becomes dramatically disproportionate. Rather than all ten issues splitting the front page evenly, one issue dominates attention entirely.

(Insert Figure 4.9 about here)

Figure 4.10 breaks down the positive feedback model again, but this time showing how entrepreneurial resources are allocated across issues in four different simulation runs. Again, the top issue is different in each run. In particular, note that the issue that dominates the entrepreneurial resources in each run is the same issue that comes to dominate the front-page agenda in Figure 4.9. Our conclusion is simple: By adding a positive feedback element into the model, we witness the same kind of skewed allocation of attention that we observed in Chapter 2.

(Insert Figure 4.10 about here)

The final evidence from these simulations is presented in Table 4.2. Here, I compare the outcomes of the negative and positive feedback models again, first based on the presence of Entrepreneurial Activity in the system and then based on the inertia of Prior Attention affecting current attention. I present findings at $t=100$ as well as $t=500$ to help illustrate how quickly the patterns of skewed attention or even attention emerge in each case.

(Insert Table 4.2 about here)

The values in Table 4.2 are of a different kind than those presented in the figures from above. Here, I illustrate the evenness or skewness of front-page agenda space by calculating the standard deviation of the percentage of attention across all ten policy issues. In the case of a perfectly proportional agenda, where each policy issue receives an equal percentage of attention (10%), the standard deviation would be 0%. In a system of ten policy issues, perfect skew—where one issue receives 100% of the agenda space and the other nine each receive 0%—the deviation would be 31.6%. In other words,

Table 4.2 compares the different behavioral patterns that the front-page agenda exhibits under the positive and negative feedback models, this time using a measure of skewness that ranges from a minimum of 0% to a maximum of 31.6%, where low values represent attention that is *more* evenly distributed and high values represent attention that is *less* evenly distributed.

The first set of rows in Table 4.2 show the standard deviations in the percentage of front-page attention consumed by the ten policy issues, presented at low, medium, and high levels of the Entrepreneurial Updating Mechanism for both the negative and positive feedback models. The medium row illustrates the same findings presented in Figure 4.5, but this time in standard deviation form. At each level—low, medium, and high—the positive feedback model yields dramatically larger standard deviations than found in the negative feedback model.

The second set of rows in Table 4.2 show parallel results from excluding the influence of Entrepreneurial Activity but instead incorporating the effects of Prior Attention into the simulation model. Again, in the negative feedback model the front-page agenda demonstrates high proportionality, with very little gap between the percentage of agenda space consumed by the ten policy issues. In the positive feedback model, we see the opposite: a strongly skewed agenda.

The presence of Prior Attention produces less dramatic results than Entrepreneurial Activity does, but in both cases the main finding is clear. It takes *just one* endogenous variable in positive feedback form—be it the amount of attention an issue received on yesterday’s paper, the amount of energy and attention an issue receives

from policy elites, or something else entirely—to produce high amounts of skewness in front-page news.

These simple findings provide concrete support for the theory that media attention is governed by a system of disproportionate information processing. The real-world results we saw in Chapter 2 simply could not be produced by a system absent positive feedback.

Table 4.1 Hypothetical Illustrations of the Importance Threshold Parameter.

	<i>Importance Threshold = 0%</i>		<i>Importance Threshold = 50%</i>		<i>Importance Threshold = 90%</i>	
Issue	Attention Potential	Number of Stories	Attention Potential	Number of Stories	Attention Potential	Number of Stories
A	2.0	1	2.0	2	2.0	3
B	1.3	1	1.3	1	1.3	0
C	0.5	1	0.5	0	0.5	0

Table 4.2 Positive Feedback, Not Negative Feedback, Produces a Skewed Distribution of Attention: Standard Deviation of Percentage of Front-Page Agenda Space, Averaged across All Issues and Calculated Cumulatively at Time=100 and Time=500.

		Negative Feedback Model		Positive Feedback Model	
		<i>at time=100</i>	<i>at time=500</i>	<i>at time=100</i>	<i>at time=500</i>
Entrepreneur Prioritization					
	Low	5.13%	1.28%	6.84%	17.98%
	Medium	0.63%	0.14%	24.44%	30.16%
	High	0.34%	0.07%	29.07%	31.11%
Prior Stories					
	Low	6.39%	6.16%	6.60%	6.21%
	Medium	3.14%	3.04%	9.11%	8.81%
	High	3.35%	3.04%	15.74%	16.03%

Note: All results presented above begin with a model using a 50% Event Threshold, a 50% Importance Threshold, and either the Prior Stories Coefficient *or* the Policy Entrepreneurial Prioritization Updating Mechanism, with low, medium, and high values as listed below.

Entrepreneur Prioritization: low=1% updating; medium=10% updating; high=25% updating (i.e., for the negative feedback model, the Entrepreneurial Updating Mechanism is set at the following values for one prior story: low=0.99, medium=0.90, high=0.75; for the positive feedback model, the following values are used: low=1.01, medium=1.10, high=1.25)

Prior Stories: low=0.1 coefficient; medium=0.75 coefficient; high=1.0 coefficient

Figure 4.1 Histogram of Major Topic Change (2-Digit Level) on the Front-Page Agenda, by Month.

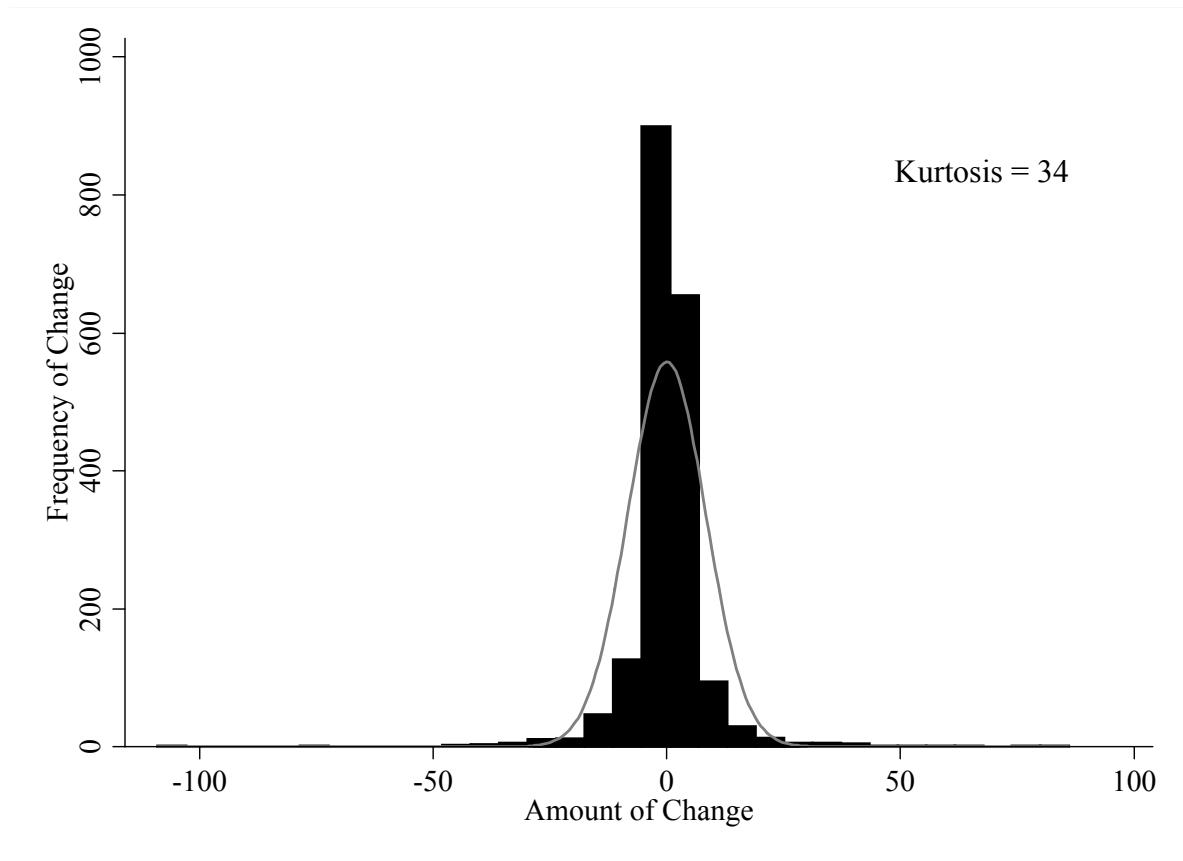


Figure 4.2 Semi-Log Plot of Major Topic Change (2-Digit Level) on the Front-Page Agenda, by Month.

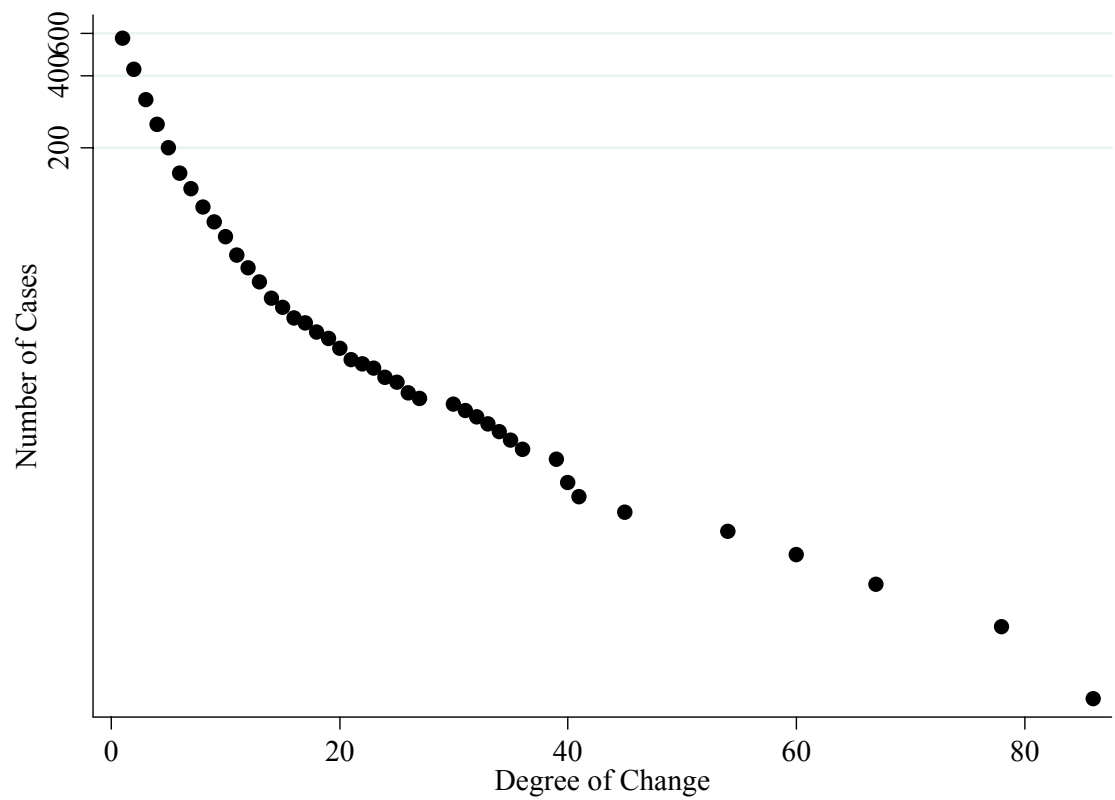


Figure 4.3 Log-Log Plot of Major Topic Change (2-Digit Level) on the Front-Page Agenda, by Month.

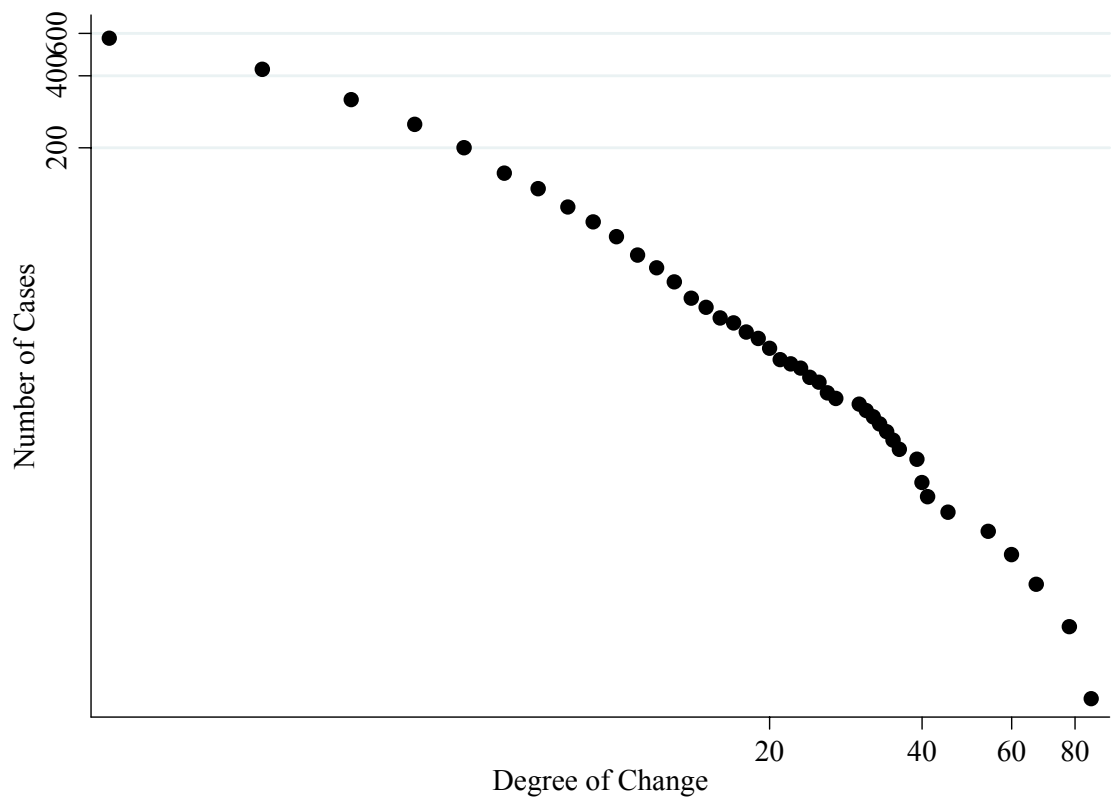
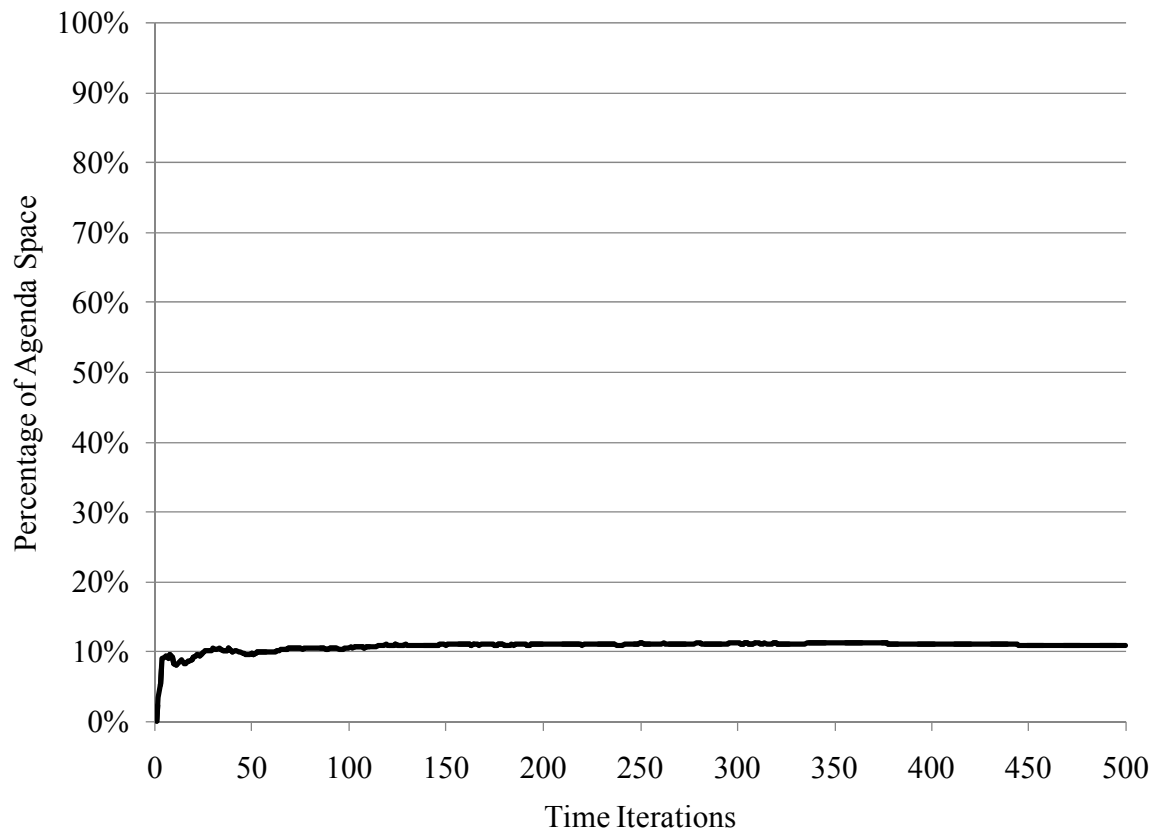
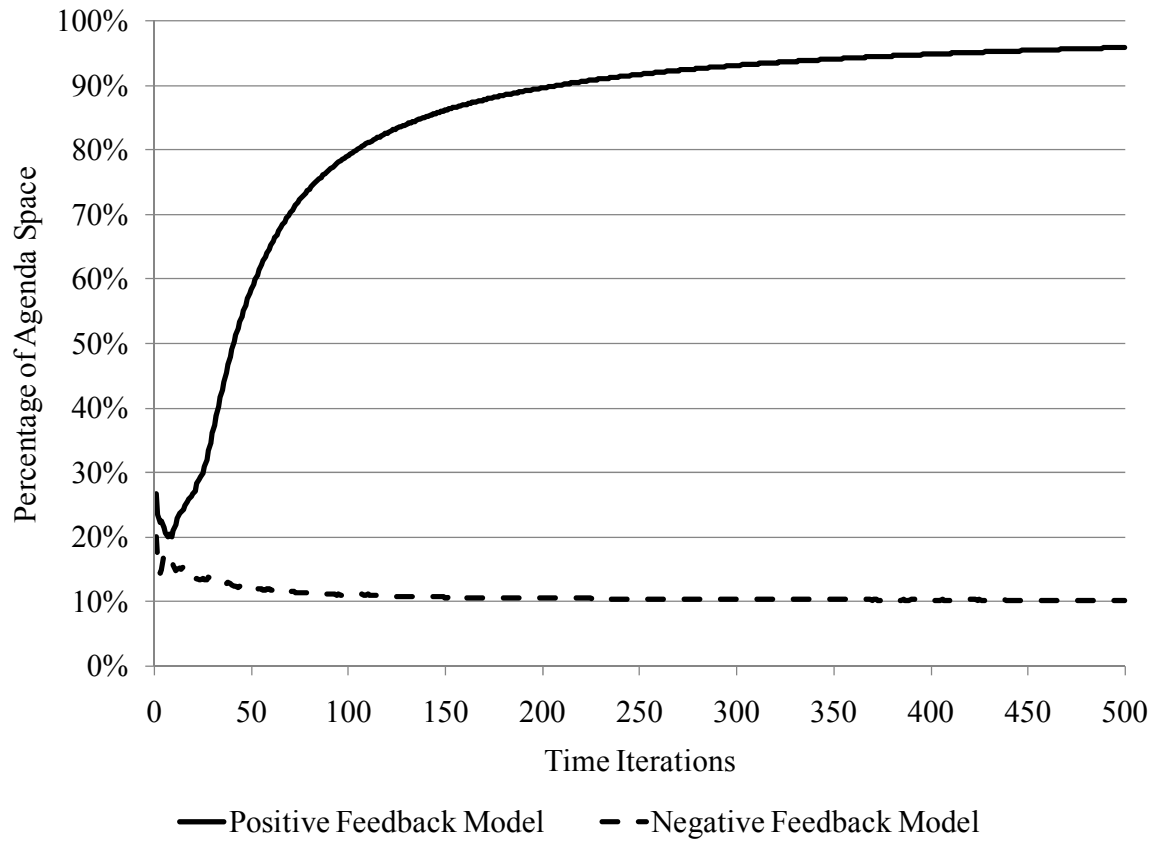


Figure 4.4 Simulation Results: Cumulative Percentage of Front-Page Agenda Space Consumed by Largest Issue in Model Driven by Events Only, Averaged across 10 Simulation Runs.



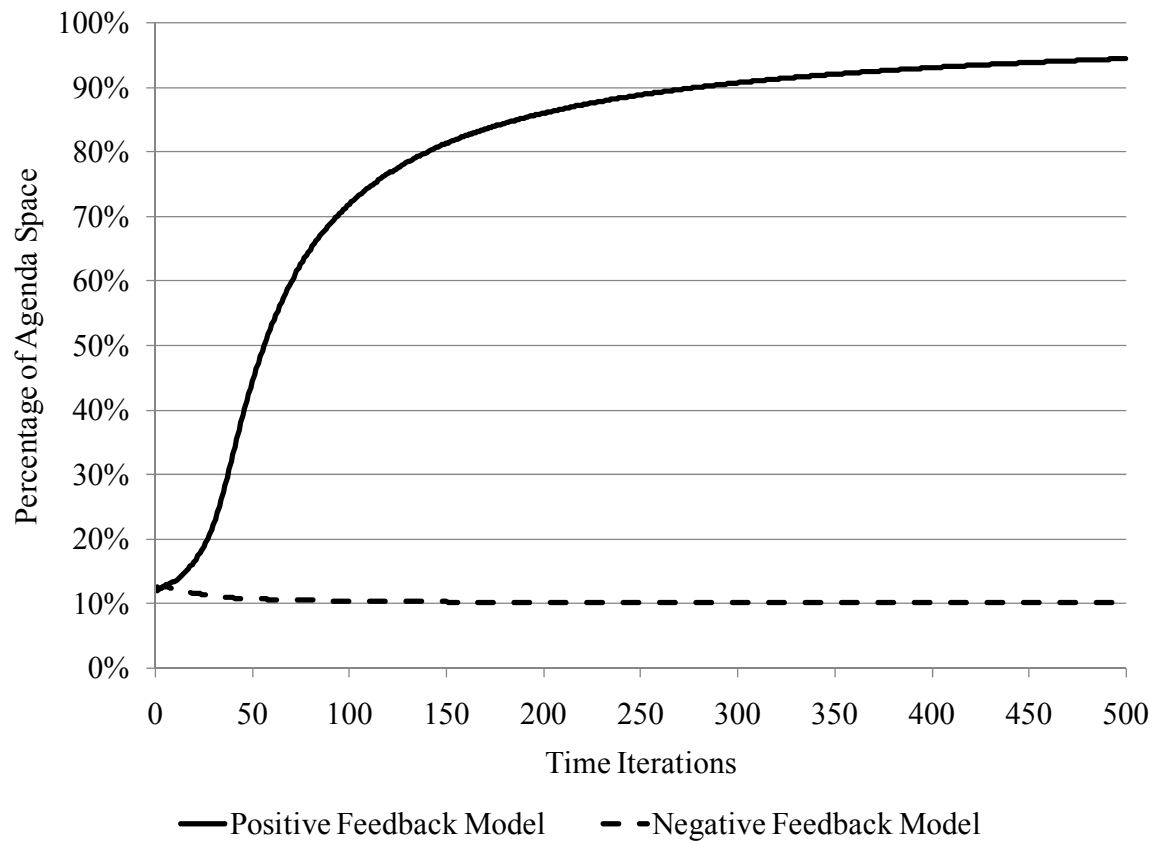
Note: The results in this figure come from a model using a 10% Event Threshold and no other variables.

Figure 4.5 Simulation Results: Cumulative Percentage of Front-Page Agenda Space Consumed by Largest Issue in Positive and Negative Feedback Models, Averaged across 10 Simulation Runs.



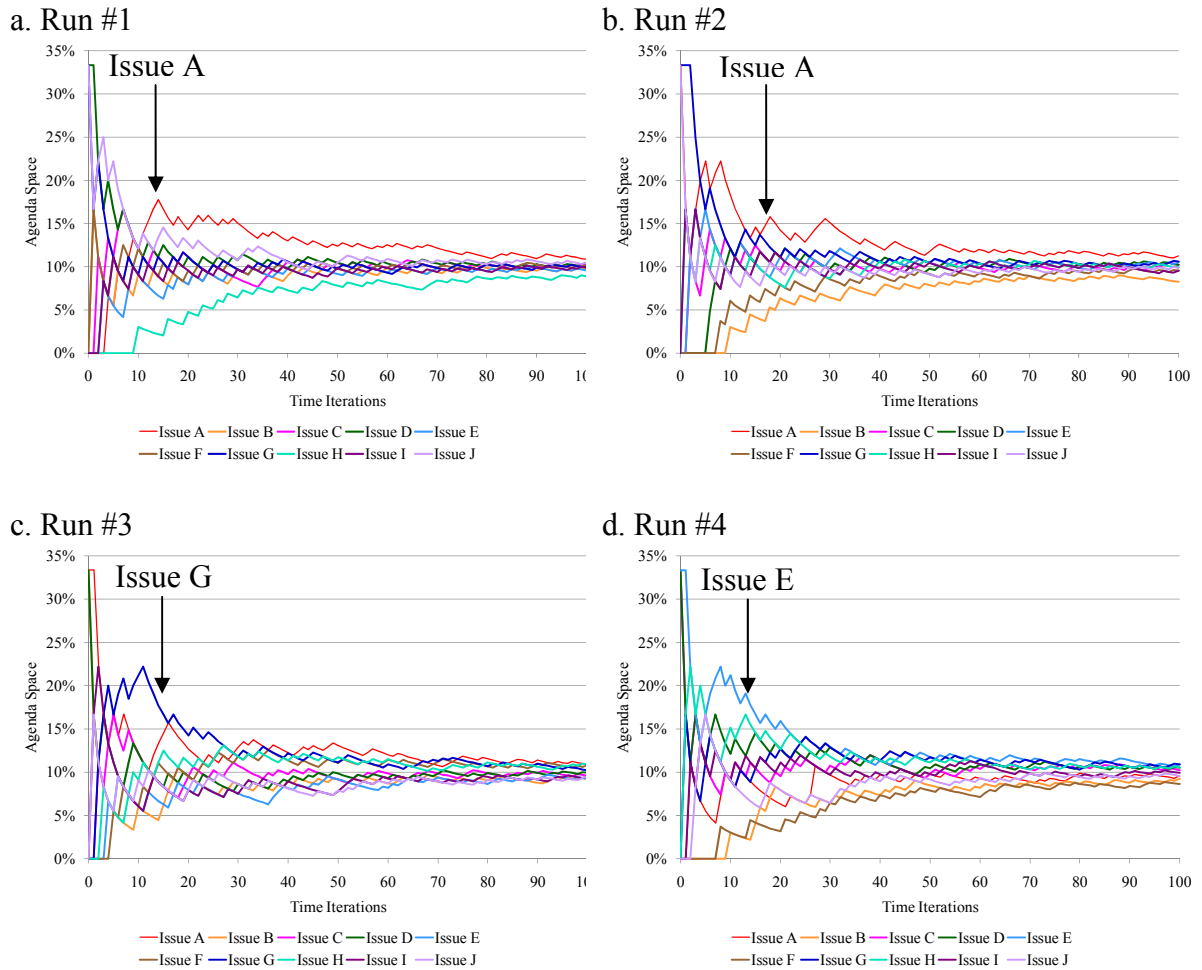
Note: The results in this figure come from a model using a 50% Event Threshold, a 50% Importance Threshold, and a 10% Entrepreneurial Updating Mechanism.

Figure 4.6 Simulation Results: Cumulative Percentage of Entrepreneur Agenda Space Consumed by Largest Issue in Positive and Negative Feedback Models, Averaged across 10 Simulation Runs.



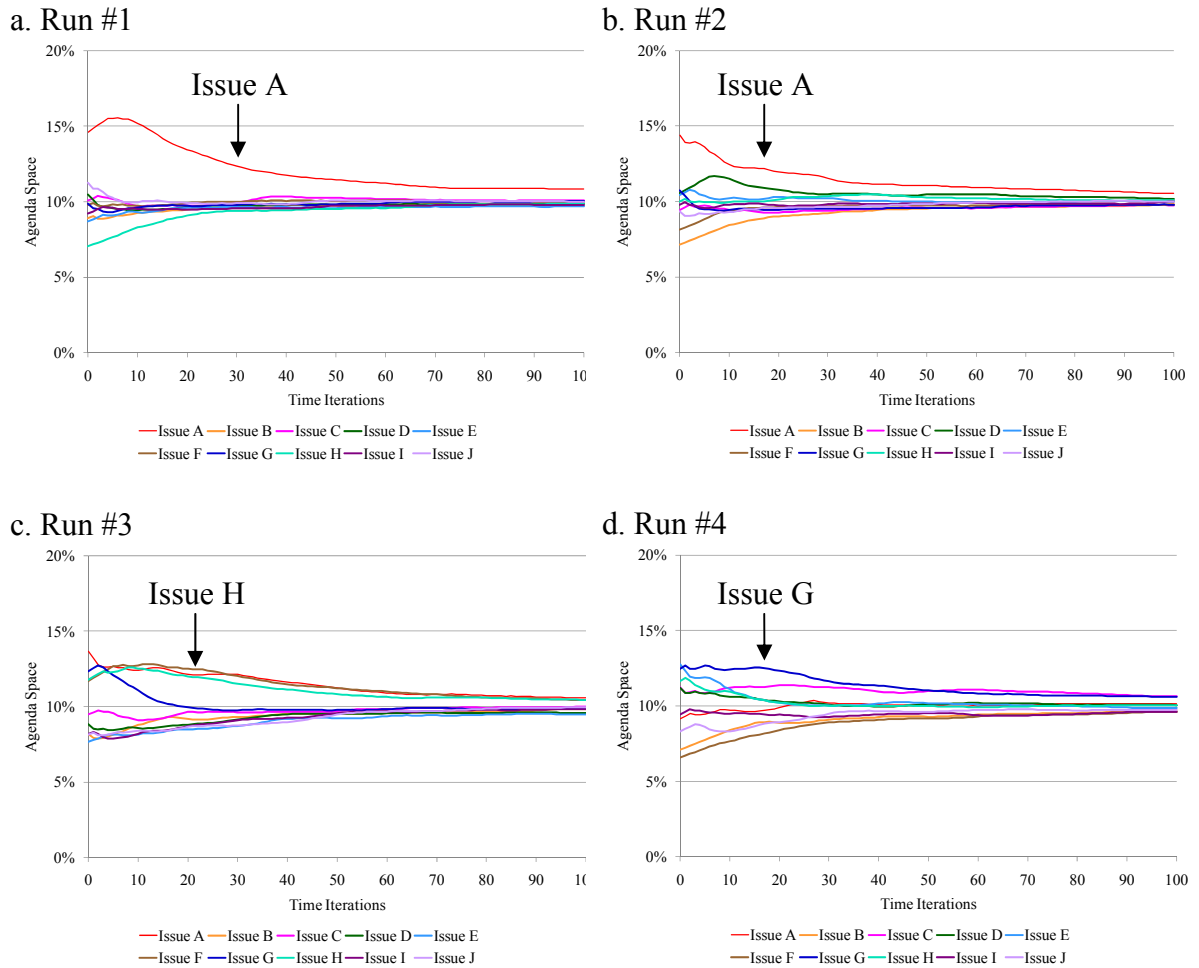
Note: The results in this figure come from a model using a 50% Event Threshold, a 50% Importance Threshold, and a 10% Entrepreneurial Updating Mechanism.

Figure 4.7 Simulation Results: Percentage of Front-Page Agenda Space Consumed by Issues A-J in Negative Feedback Model, Four Individual Simulation Runs.



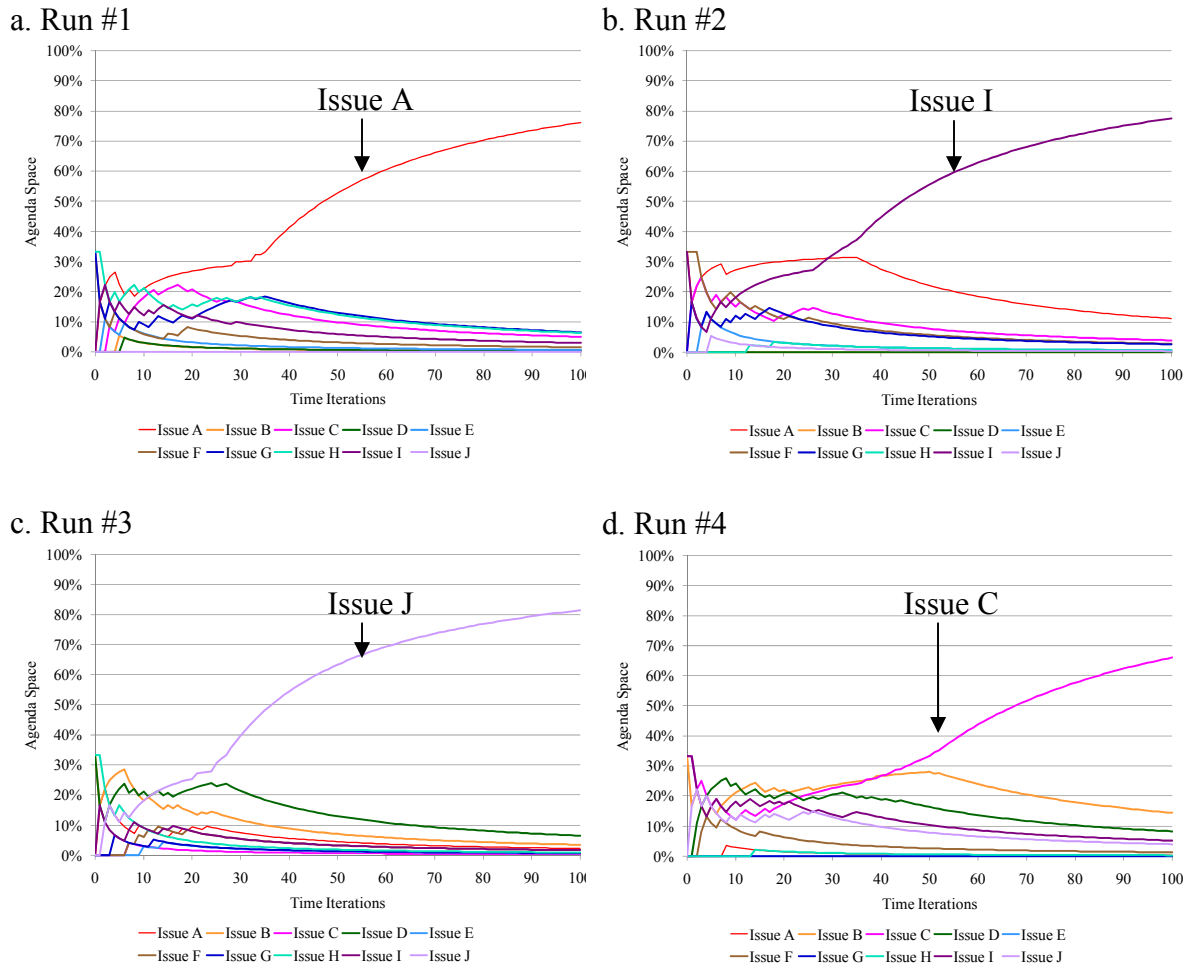
Note: The results in these figures come from a model using a 50% Event Threshold, a 50% Importance Threshold, and a 10% Entrepreneurial Updating Mechanism.

Figure 4.8 Simulation Results: Percentage of Entrepreneur Agenda Space Consumed by Issues A-J in Negative Feedback Model, Four Individual Simulation Runs.



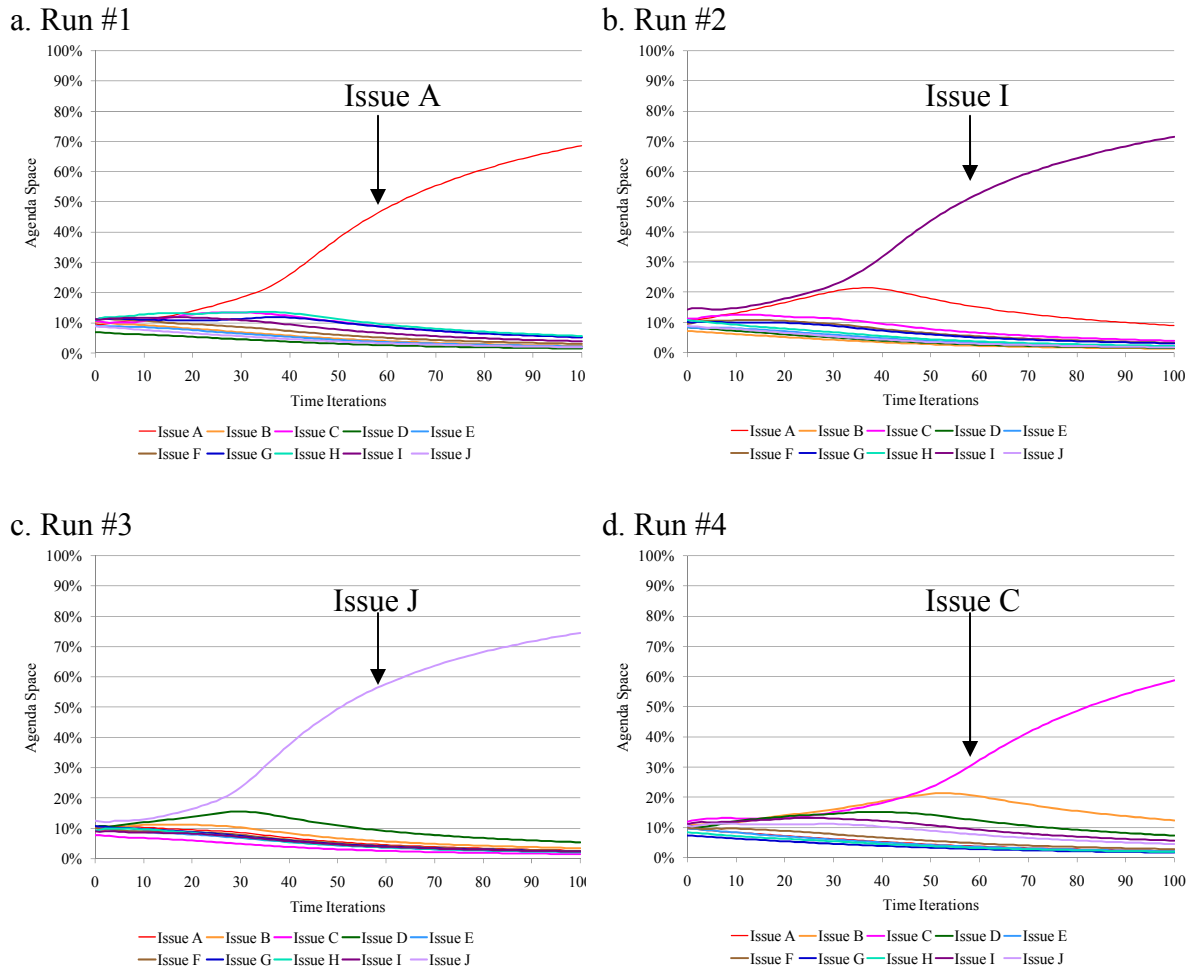
Note: The results in these figures come from a model using a 50% Event Threshold, a 50% Importance Threshold, and a 10% Entrepreneurial Updating Mechanism.

Figure 4.9 Simulation Results: Percentage of Front-Page Agenda Space Consumed by Issues A-J in Positive Feedback Model, Four Individual Simulation Runs.



Note: The results in these figures come from a model using a 50% Event Threshold, a 50% Importance Threshold, and a 10% Entrepreneurial Updating Mechanism.

Figure 4.10 Simulation Results: Percentage of Entrepreneur Agenda Space Consumed by Issues A-J in Positive Feedback Model, Four Individual Simulation Runs.



Note: The results in these figures come from a model using a 50% Event Threshold, a 50% Importance Threshold, and a 10% Entrepreneurial Updating Mechanism.

Chapter 5

Shaping the News: A Model of Front-Page Attention across Policy Topics

For people who make the news, write the news, or read the news, the idea that we could scientifically model the content of the front page of the *New York Times* seems absurd. The daily news agenda can be complex, volatile, and elusive. It is rarely predictable. How could we possibly explain, even in hindsight, which issues get attention when? When *New York Times* Editor Bill Keller said that “there is no rigid formula to the selection of stories and photographs for the front page,” he wasn’t kidding (Keller 2006). If it were possible to write an equation to predict perfectly the content of tomorrow’s front page, it would collapse the Vegas gambling industry.

Yet the findings I have presented thus far suggest that there are strong underlying patterns at work in the distribution of front-page attention. While we cannot predict the content of the front page for any single day, we can explain the cyclical fluctuations in the agenda over the long haul. Most importantly, we can test empirically the influences of specific political variables on attention, above and beyond real-world events. Just as our understanding of evolution requires a long-term perspective, we gain estimation power over media attention by considering tens of thousands of front-page stories devoted to different issues at different points in time. As it turns out, front-page news is highly predictable in the big picture. If only Vegas gave odds on long-term social science dynamics.

In Chapter 3, I outlined eight main variables that influence the news-selection process. In Chapter 4, I documented prevailing patterns in the dynamics of front-page

attention. These patterns allow for large-grained empirical modeling to reveal what influence, if any, individual variables have on the news-selection process. Here, I use statistical analysis of real-world data to test the effects of six of the variables I have identified on the composition of the *Times* front page. While coarse, the analyses presented in this chapter will yield a much clearer understanding of how policy topics “compete” for front-page attention and how factors like congestion, scope, and public opinion can have an enormous effect on the composition of the front page.

I begin by explaining the statistical method I employ. Next, I describe the measures I use for the variables included in my models. Most variables come either from my dataset of all front-page *New York Times* stories or from Baumgartner and Jones’ Policy Agendas Project datasets. All the datasets and analyses presented in this chapter are calculated at the monthly level of analysis, from January 2000 through December 2005. Finally, I present the results of three models, each of which predicts front-page attention as a function of the following variables: prior attention, congestion, scope of discussion, public attention, entrepreneurial activities (in the form of Presidential attention and Congressional attention), and a measure of the political context (in the form of the time until the next Presidential election). The first model estimates front-page attention across all 19 of the major policy topics (Macroeconomics, Health, Defense, etc.). For the second model, I restrict analysis to the 16 domestic policy topics. For the third model, I restrict analysis to the three foreign policy topics (Defense, Foreign Trade, and International Issues). Throughout all three models, each independent variable demonstrates a significant influence on the news-selection process in the expected direction.

Methods

My aim is to model statistically the distribution of front-page attention across policy topics and the changes in this distribution over time. The amount of attention a policy topic receives—and how each explanatory variable affects the distribution of attention—probably operates differently within different topic areas and differently at different points in time. Thus, I employ a pooled cross-sectional time series model, in which the major policy topics serve as panels that I estimate across 72 months.

For the purposes of this project, it is theoretically most appropriate to model front-page attention to a given policy topic as a proportion of total front-page attention rather than, for example, as a raw count of stories.⁴² The whole point of my analysis is to examine how this single, powerful agenda of a very small, fixed size gets distributed. For my dependent variable, then, I begin with a collapsed dataset that provides counts of the number of front-page stories published on each policy topic in each month, but then I transform these counts into the ratio of attention each topic receives *in relation to* the size of the agenda.

⁴² Additionally, as a count dependent variable, front-page attention is difficult to model because it is not normally distributed. Just as changes in the agenda are distributed leptokurtically (as we saw in Chapter 4), so too is the distribution of the agenda itself. If the agenda were normally distributed across policy topics, we would see that most topics most of the time receive a medium amount of attention, and only rarely do topics receive all or no attention. What we observe, however, is an overwhelming preponderance of very small amounts of coverage, a weak number of observations of medium amounts of coverage, and a much higher than normal frequency of observations where a policy topic completely dominates the agenda. One function of the leptokurtosis found in a count of front-page stories is that the variable is highly overdispersed, meaning that the distribution of the variable has a much higher variance than a normal distribution. The high frequency of zeroes in this dataset also poses a particular challenge. These zeroes cannot be ignored; they are real zeroes, representing the multitude of months in which an arguably important policy topic received absolutely no attention on the front page of the *New York Times*. In short, standard pooled cross-sectional time-series modeling is untenable using a raw count variable. Thus, by treating my dependent variable as a ratio of attention rather than a count of attention, I employ the method that is the most theoretically appropriate for my study, but one which also answers the distributional properties of the original count series. See Appendix B for the results of an alternate method, where I model the count of front-page stories using a negative binomial count model in a pooled cross-sectional time series format. This other modeling approach yields highly similar results to the modeling approach I present here.

By modeling attention in this way, we are forced to remember that front-page attention is a zero-sum game. The size of the *Times* front-page agenda varies only very slightly in terms of the total number of stories from day to day, meaning that in general each story given to one policy topic represents one fewer story available to all other topics. When comparing counts of attention to a ratio of attention the underlying data being considered are one and the same, but modeling attention relative to the size of the agenda places the emphasis of investigation where it should be: on the allocation of the scarce resource of space on the front page.

Measures

In Chapter 3, I identified eight types of variables with theoretical influence on front-page attention: events, journalistic obligations and norms, prior attention, congestion, scope of discussion, entrepreneurial activities, public opinion, and political context. As I mentioned in that earlier discussion, I exclude events and journalistic norms from my statistical analyses. While there is theoretical reason to believe that events and journalistic norms help shape front-page news, their exclusion actually poses little methodological concern. Because events can be assumed to occur stochastically and because journalistic norms can be assumed—at least for the period under consideration—to remain nearly constant over time, my models should not suffer from omitted variable bias in the absence of these measures.

Dependent Variable: Front-Page Attention

To transform story counts into the log odds of attention, I begin by calculating the proportion of front-page stories that each policy topic receives each month. For example, if 50 front-page stories appear on the topic of Defense in a month when there were 250

front-page stories in total, I calculate that Defense received 20% (0.2) of the agenda for that month. Next, for each policy topic in each month, I normalize the proportion of attention by calculating the logit of the proportion, accomplished by taking the natural log of the proportion odds, where p_{it} is the proportion of the front-page agenda consumed by issue i at time t .

$$\text{Logit}(p_{it}) = \ln\left(\frac{p_{it}}{1-p_{it}}\right)$$

This formula yields the log of the odds ratio of receiving attention, controlling for the total size of the agenda.

As Table 5.1 shows, whereas p_{it} ranges from 0 to 1, with .5 as the mid-point, $\text{logit}(p_{it})$ ranges from negative to positive values centered around 0. Notice that the logit scale magnifies differences in the extremes. For example, the gap between the log odds corresponding with $p_{it} = 0.95$ and the log odds corresponding with $p_{it} = 0.99$ is much larger than the gap between the log odds corresponding with $p_{it} = 0.50$ and $p_{it} = 0.70$. It is precisely this nonlinearity of the logit scale—linear toward the center of its range but logarithmic at the extremes—that allows me to develop a linear model of front-page attention. In a nutshell, the proportion of attention is non-linear to start out with, and only becomes linear when it is transformed into the log odds of attention. For ease of discussion, from this point forward I will refer to my dependent variable simply as front-page attention, keeping in mind that I measure this attention as a log odds ratio.

(Insert Table 5.1 about here)

After presenting the results of my empirical models, I will “back out” of the log odds measurement in order to show what my results mean in terms of real front-page

stories. The transformation from story counts to log odds and then back again is admittedly complicated, but it is the right statistical technique to use.

Independent Variables

Prior Attention

I measure prior attention by lagging the dependent variable. Thus, for each observation, prior attention is set at the previous month's value of the log odds of attention.

$$\text{Logit}(p_{it})_{t-1}$$

Congestion

To measure the congestion of the front-page agenda, I use a measure called information entropy (also known as Shannon's entropy). Information entropy measures the concentration or diffusion of attention across the component parts of a discussion.⁴³

Entropy is calculated as follows, where p_{it} is the proportion of discussion consumed by each dimension (e.g., major policy topic) i at time t , and n is the number of dimensions (major topics) available in the discussion.

$$\text{Entropy} = \frac{-\sum_{i=1}^n (p_{it} * \ln p_{it})}{\ln n}$$

The entropy measure ranges from 0 to 1, with 0 representing total concentration and 1 representing total dispersion.

Table 5.2 shows hypothetical scenarios illustrating how the entropy measure changes as the concentration or dispersion of attention varies. When attention is focused

⁴³ I employ information entropy as opposed to other measures of concentration I could use, such as the Herfindahl-Hirschman Index, because the information entropy measure has been shown to be particularly appropriate for studying the compression or dispersion of information in the context of human communications, like newspaper stories (Shannon 1950; Soofi 2000).

on a small number of policy areas, entropy is low. When attention is spread across multiple policy areas, entropy is high.

(Insert Table 5.2 about here)

We can see from Table 5.2 how the measure of entropy is scaled inversely to the concept of congestion. A highly congested agenda, as I have defined it, is one in which attention is dominated by one or two topics. Anytime the agenda is thus dominated, we know that the topics receiving attention are the type of mega storyline that pushes everything else from view. It would almost never be the case, for example, that 50% of the front page of the *New York Times* would be divided between Agriculture and Transportation. Yet it is often the case that Defense and International Affairs together take up half the agenda or more. When items like the war, Hurricane Katrina, the Presidential election, or the Enron scandal gain front-page attention, the agenda becomes highly congested, leaving very little room for other topics. The months when congestion is low are those months when attention is spread more evenly across multiple topics. For this reason, in order to measure congestion appropriately I subtract each entropy score from 1, such that high measures of this variable correspond with high congestion. The more concentrated front-page attention is on a small number of enormous policy topics, the higher the congestion. The more diffuse front-page attention is across multiple topics, the lower the congestion:

$$\text{Congestion} = 1 - \frac{-\sum_{i=1}^n (p_{it} * \ln p_{it})}{\ln n}$$

Just like the original entropy measure, the congestion measure ranges from 0 to 1, with 0 representing total dispersion across policy topics and 1 representing total concentration on a single policy topic.

Table 5.3 shows an example of congestion from the front-page *NYT* dataset, comparing front-page congestion in August 2001 and September 2001. This table illustrates how the presence of a mega storyline on the front page—like the September 11th attacks—increases the congestion of the agenda. Sometimes, as with this example, front-page congestion increases because attention shifts to a new event. Other times, congestion increases because a topic becomes dominant on the agenda not as the result of any new events per se, but as the result of other factors like increased entrepreneurial activity or an expanding scope of debate. Whatever the avenue by which policy problems come to dominate the news, once the agenda is congested it becomes very difficult for other policies to gain access to the front page.

(Insert Table 5.3 about here)

Scope of Discussion

To measure the scope—that is, the concentration or diffusion of discussion about a policy topic—I employ the entropy measure described above in its original form. Thus, scope is calculated as follows, where p_{it} is the proportion of discussion about a given policy topic consumed by each composite subtopic i at time t , and n is the number of subtopics available in that topic category.

$$\text{Scope} = \frac{-\sum_{i=1}^n (p_{it} * \ln p_{it})}{\ln n}$$

Again, the scope measure ranges from 0 to 1, with 0 representing total concentration and 1 representing total dispersion.

Table 5.4 shows an example of scope from the front-page dataset, comparing the scope of the Health discussion in April 2003 and May 2003. In April 2003 we see that discussion of health care was almost entirely dominated by a single subtopic—

Communicable Diseases—in reaction to the SARS outbreak during that same time period. In May 2003, attention to the SARS outbreak declines, from 21 stories down to 16. Notice, however, how health care discussion expands in April, widening from four subtopics to 11, arguably in part because policy entrepreneurs worked to take advantage of the recent attention to the SARS outbreak by promoting additional health policy issues even more strongly. Even though attention to the particular SARS problem declined, the scope of the larger topic debate expanded to consider additional health problems, and attention rose from 23 stories to 35—a 50% increase!

(Insert Table 5.4 about here)

All else being equal, policy topics with a high scope of discussion should receive more front-page attention than policy topics with low scope. The greater the dispersion, or diversity, of attention across the different subtopics of a policy area, the more the policy topic will resonate with the public, with policy entrepreneurs, and with journalists. As the scope of a policy debate expands, the debate will gain more and more traction on the front-page agenda.

Entrepreneurial Activity

I use two proxy variables for the activities of policy entrepreneurs (i.e., the allocation of entrepreneurs' attention and resources): executive orders and public laws, both taken from the Policy Agendas Project. Importantly, both these measures represent entrepreneurial activity in the form of official government actions. Missing from this study—but a fruitful topic for future research—would be an assessment of how non-governmental policy entrepreneurs such as lobbyists affect front-page attention.

Presidential Attention: The Executive Orders Dataset chronicles every executive order issued through 2003 by date, and the Policy Agendas Project has coded each executive order according to the 19 major policy topics.⁴⁴ I calculate attention to each topic as a proportion of the total number of executive orders and then collapse the dataset by month. Thus, in theory, the proportion of Presidential attention and resources (in the form of executive orders) that a policy topic can consume ranges between 0 and 1.0, where 0 represents no attention and 1 represents monopolized attention with no other topics on the President's agenda. For the missing months in 2004 and 2005, I use the average proportion of attention to each policy topic from the 2000–2003 portion of the Executive Orders dataset.

Congressional Attention: The Laws Dataset consists of all public laws passed through 2005 by date. Again, the Policy Agendas Project has coded each law according to the categorization system of 19 major topics.⁴⁵ Before using this dataset, I eliminated all commemorative laws (e.g., naming a building in someone's memory or proclaiming a new theme week, like National Potato Week). I collapsed the data by month and once again assigned each topic in the missing months (all of 2005) the average proportion of attention the topic received in the 2000–2004 portion of the Laws dataset. Again, in theory values range between 0 (no attention) and 1 (total attention). Because the vast majority of laws in this dataset were signed by the President (the others were vetoed by

⁴⁴ The Executive Orders Data were originally collected by Frank R. Baumgartner and Bryan D. Jones, with the support of National Science Foundation grant number SBR 9320922, and were distributed through the Center for American Politics and Public Policy at the University of Washington and/or the Department of Political Science at Penn State University. Neither NSF nor the original collectors of the data bear any responsibility for the analysis reported here.

⁴⁵ Ibid.

the President but then overridden by Congress), this dataset serves as a second measure of Presidential attention as well as a proxy for Congressional attention.

Public Attention

To measure public opinion, or concern, about each topic area, I use the Gallup Organization's "Most Important Problem" series, as collected and coded by the Policy Agendas Project.⁴⁶ The Gallup survey, usually conducted several times each year, asks respondents: "What do you think is the most important problem facing this country today?" Participants give free responses, which are then coded by the Policy Agendas Project into the 19 major domestic policy categories—Macroeconomics, Civil Rights, Health, etc.—and a proportion of attention is calculated for each topic area. Once again, values range between 0 (no space on the public agenda) and 1 (complete consumption of the public's attention). For missing months, I interpolated values by smoothing the difference between the surrounding observations. For example, if the topic of Education received 0.08 (8%) of the agenda space in January 2000 and then 0.12 (12%) in March 2000, with no survey conducted in February 2000, then I assigned Education a value of 0.10 (10%) for that missing month.

Political Context

There are a number of measures we might consider to capture the changing political environment, but here I consider just one: the proximity of the next Presidential election.

⁴⁶ The Most Important Problem data were originally collected from Gallup and coded into the 19 major topic categories by Frank R. Baumgartner and Bryan D. Jones, with the support of National Science Foundation grant number SBR 9320922, and were distributed through the Center for American Politics and Public Policy at the University of Washington and/or the Department of Political Science at Penn State University. Neither NSF nor the original collectors of the data bear any responsibility for the analysis reported here.

In Appendix B, I present additional results showing that my findings from this chapter are robust to adding other political context variables.

Time to Next Presidential Election: To measure the proximity to the next U.S. Presidential election, this variable is a simple count of the number of months between time t and the next November to host a Presidential contest. This variable ranges from 0 (in November of each election year) to 47 (in each October following a Presidential election).

Results

In this section, I model front-page attention in three contexts: 1) across all 21 major policy topics; 2) across the 18 domestic policy topics only: Macroeconomics, Civil Rights, Health, Agriculture, Labor, Education, Environment, Energy, Transportation, Law & Crime, Social Welfare, Housing, Banking & Commerce, Science & Technology, Government Operations, and Public Lands; and 3) across the three foreign policy topics only: Defense, Foreign Trade, and International Affairs. Table 5.5, Table 5.6, and Table 5.7, respectively, offer descriptive statistics for these sets of policy topics.

(Insert Table 5.5 about here)

(Insert Table 5.6 about here)

(Insert Table 5.7 about here)

In each case, I pool the major topic policies (such that each policy area serves as a panel) and then estimate a pooled cross-sectional time series model of front-page attention. Table 5.8 shows the comparative results from estimating this model in the three contexts listed above.

(Insert Table 5.8 about here)

Examining the directionality and the significance of the coefficients from all three models, I find strong support for my expectations regarding each independent variable. Prior attention is positive and strongly significant, showing evidence of the front-page inertia I have discussed. Front-page congestion is also significant but negative, telling us that, as expected, when the agenda is more congested, policy topics have a more difficult time making it onto the front page. The scope of discussion is positive and highly significant, demonstrating that a more diffuse or diversified policy discussion draws more attention than a concentrated one. The public attention variable, too, is significant and positive, telling us that the more concerned the public becomes about a policy topic, the higher the proportion of front-page attention that policy topic is likely to receive. Similarly, the Presidential and Congressional attention variables are also positive and significant, indicating that as the proportion of executive orders and public laws on a policy topic increases, the proportion of front-page attention the topic receives will also increase. Finally, the time to the next national election has a negative and weakly significant influence on front-page news. As the next election draws closer, policy topics have an increasingly difficult time competing with the Presidential campaigns to secure front-page agenda space.

The four figures at the end of this chapter offer graphical views of the influence that each explanatory variable has on front-page news. In each figure, I have transformed the log odds results shown in Table 5.8 into story counts so that we can gain a more intuitive understanding of what these results mean for the composition of the actual *Times* front page.

Figure 5.1 shows the relative effects a one standard deviation change in each variable is predicted to have on the number of front-page stories a given topic will receive in a month, calculated separately for each of the three models. For example, looking at the black “All Policy Topics” bars, we see that a one standard deviation increase in the congestion of the agenda will *decrease* the expected amount of front-page attention a given policy topic receives in a month by about half a story (-0.38), whereas a one standard deviation increase in the proportion of executive orders (Presidential Attention) that a topic consumes will *increase* the expected front-page coverage of that topic by about half a story (0.42). Most immediately evident in Figure 5.1 is the vast difference in the size of the effects. In particular, the effects of congestion and Presidential Attention are relatively low—half an article more or less in a month isn’t a whole lot—whereas the prior amount of attention and the scope of the topic discussion consistently wield a much larger influence on front-page attention. Across all policy topics, for example, a one standard deviation in prior attention or scope results in a gain of four front-page stories for a given topic in a month.

(Insert Figure 5.1 about here)

Figure 5.1 also reveals interesting variance in the relative effects of each variable compared across the three modeling contexts presented: all policy topics, domestic policies, and foreign policies. For example, the amount of attention given to a topic by the President or Congress has a much larger effect on front-page attention given to foreign policy topics than it does on front-page attention paid to domestic topics. We also see that the effect size of prior attention outweighs that of the scope of discussion for

foreign policy topics, whereas the scope of discussion has a greater influence than prior attention in the context of domestic policy topics.

In order to understand the full effects of these variables on front-page attention, we need to consider the range of values that each variable can assume. The final three figures in this chapter show—in the contexts of all policy topics, domestic policy topics, and foreign policy topics, respectively—the predicted number of front-page stories a policy topic will receive across varying conditions of each explanatory variable, holding all other variables at their mean values. Note that whereas Figure 5.1 displayed the predicted *change* in front-page stories produced by a one standard deviation increase, Figure 5.2, Figure 5.3, and Figure 5.4 show the total number of front-page stories a topic is predicted to receive in a single month. Thus, a value of 10 on the y-axis means that, on average, when the independent variable in question is set at the value indicated on the x-axis and all other variables are held at their means, a policy topic will receive 10 front page *New York Times* stories in a month.

As for the x-axes of Figure 5.2, Figure 5.3, and Figure 5.4, I have calculated the effects of each independent variable on an 11-point scale based on the observed minimum and maximum values of that variable in the *NYT* dataset. The specific values used are listed below each figure. In other words, each of these figures perfectly captures the true range of each variable. Scaling the observed range of each variable onto a commensurate 11-point axis allows for a more meaningful comparison of the relative impact each variable has on the front-page agenda.

In each figure, we see the number of stories that can be estimated by reversing our way back from transformed proportions into raw counts; that is, by taking the inverse

logit of the log odds ratio. Notice that most of the lines depicted in these three figures are curvilinear, thus demonstrating why the transformation of the dependent variable from a count to a log odds ratio was necessary in order to employ a linear model.

The results displayed in Figure 5.2 are based on the first model of Table 5.8, which includes all policy topics. This figure illustrates how the influence each variable has on front-page attention changes over the range of the variable, such that each relationship behaves very differently at the minimum values of the variable than at the maximum values. For example, the particularly large effects of prior attention and scope of discussion that we saw in Figure 5.1 only begin to distance themselves from the rest of the variables past the mid-range of their values. In other words, the influences of prior attention and scope on front-page attention are more curvilinear than the effects of the other variables. When either prior attention or scope is set at its minimum value—that is, when either there were no front-page stories on a given topic in the previous month or the scope of discussion about the topic is uniformly concentrated on a single subtopic—the topic in question will receive almost no front-page attention (an average of 0.51 stories and 1.14 stories, respectively), and in particular less attention than in the context of setting any other variable at its minimum value. However, when either prior attention is high or the scope of discussion is diffuse, or diversified, across subtopics, the resulting number of stories is higher than in any other condition. With prior attention at its maximum value and all other variables at their means, a topic will receive an average of 23.81 front-page stories. The maximum value of scope yields 20.76 front-page stories.

(Insert Figure 5.2 about here)

In other words, if we consider a hypothetical policy topic and a hypothetical month of *New York Times* front-page coverage, the statistical model presented in Table 5.8 tells us that, all else being equal, if in the previous month the topic had received the maximum amount of prior attention observed in the empirical dataset, then the topic is predicted to receive 23 *more* stories than if it had received the minimum observed amount of prior attention. Similarly, all else being equal, a diverse policy debate with the highest observed value of scope is predicted to receive nearly 20 *more* stories than if the discussion had been perfectly concentrated on a single subtopic. Keep in mind that these aren't just any news stories; these are stories on the *front page of the New York Times*. Considering that the average number of front-page stories printed in a month is 234 (not to mention the heady influence front-page stories have on the political system) these are large effects indeed.

Figure 5.2 also shows that the effects of public opinion and entrepreneurial activities (i.e., Presidential attention and Congressional attention) behave very similarly across the range of these variables. The influence of each variable on attention is curvilinear, though the rate of increase is not nearly as dramatic as witnessed with prior attention and scope of discussion. At their minimum values, these three variables predict an almost identical number of front-page stories (about three). At their maximum values the effects have spread out slightly, but still the amounts of predicted front-page attention yielded by setting each variable, in turn, at its maximum and holding all other variables at their mean are very similar (9.72 for public attention, 8.36 for Presidential attention, and 6.85 for Congressional attention).

Remember that the important story being told in this figure is how the amount of front-page coverage changes as values of a given independent variable change. So the number of stories we're dealing with here—from three at the minimum levels of these variables to seven, eight, or ten at their maximum levels—are not huge, nor should they be. Most policy topics, most of the time, get very little front-page attention. But given the pivotal role the front page of the *New York Times* plays in shaping public and political discussion, every article counts. Thus, even though the effects of public opinion and entrepreneurial activity are smaller than the effects of prior attention and scope, moving from the minimum to the maximum levels of these variables yields an additional four to seven stories in a month—a 100% to 200% increase.

As predicted, the only variable to demonstrate an increasingly negative influence on front-page attention in Figure 5.2 is congestion. The effects of congestion are almost linear across the range of its observed values. By shifting from the minimum to the maximum levels of congestion on the agenda and holding all other variables at their means, the predicted number of stories drops almost in half, from 3.99 to 2.08.

Figure 5.3 shows the same kinds of results presented in Figure 5.2, but this time values are based on the second model in Table 5.8, which examines domestic policy topics only. We see that, compared to the other variables, the scope of attention has the largest influence on front-page news in this context. A shift from the minimum to the maximum values of scope increases the predicted front-page attention a domestic policy topic receives by nearly 21 stories. The effect of prior attention is less dramatic, but still very large. Across the range of prior attention values observed in the data set, predicted front-page attention increases by more than 11 stories. The effects of Presidential,

Congressional, and public attention are less substantial, representing leaps of 5.4, 2.4, and 0.5 stories over the range of their observations, respectively. As with the full model across all policy areas, congestion has a negative influence on front-page attention, decreasing the total number of predicted front-page stories by almost two between its minimum and maximum values.

(Insert Figure 5.3 about here)

Figure 5.4 offers the counterpart to Figure 5.3, using values taken from the third model in Table 5.8 to show predicted levels of front-page attention for foreign policy topics only. The most immediate thing to notice about Figure 5.4 is that the y-axis displays a much larger scale than presented in either Figure 5.2 or Figure 5.3. The effects of scope, for example, are actually larger in the context of foreign policy topics than they are in the context of domestic policy topics, but the line representing scope appears much shorter in Figure 5.4 because the y-axis must be large enough to accommodate the relative effects of public attention and prior attention.

(Insert Figure 5.4 about here)

Notice too that *which* variables produce the largest effects varies between domestic and foreign policy topics. In front-page attention to domestic policy topics, the scope of discussion has the largest amount of influence (with regard to the range of observed values for each variable). In coverage of foreign policy topics the influence of scope is still strong—in fact, it is larger than for domestic topics—but it is nearly dwarfed by the size of the effects of prior attention and, perhaps more interestingly, public attention. The public has a much stronger “voice” in influencing front-page coverage of foreign policy topics than of domestic policy topics.

Comparing the results from domestic policy topics in Figure 5.3 with those from foreign policy topics in Figure 5.4, we see that while the general direction of the effects in both contexts are the same, front-page attention to foreign policy topics is much, much more susceptible to the influences of all six independent variables. Working from bottom to top as the lines are stacked at their maximum values, we see that shifting from the minimum to the maximum values of congestion decreases the amount of front-page attention a topic is predicted to receive by almost seven stories. The difference between the minimum and maximum values of Congressional attention accounts for an increase of 14 stories; Presidential attention for an increase of 11 stories; scope of discussion for an increase of 25 stories; and prior attention for an increase of 53 stories. Public attention, for its part, accounts for an increase of an astounding 65 stories—that's more than two *additional* front-page stories every day of the month.

In short, the effect of every single explanatory variable (including the time to the next Presidential election) is much larger in the context of foreign policy topics than in the context of domestic policy topics. Across all topics, prior attention to the topic, the scope of discussion, public attention, and entrepreneurial attention each have a positive effect on the amount of front-page attention a topic will receive in a given month; conversely, the congestion of the agenda will have a negative effect. But when the topic at hand is a foreign policy matter, a change in any one of these independent variables has a much greater impact on the system. Each additional article the topic received in the previous month, each small move toward expanding the scope of the policy discussion, each additional fraction of a percentage that the topic gains on the public or governmental agendas, and each degree of congestion on the front page—these small movements yield

statistically significant effects across all policy areas, but the effects are magnified two- or three-fold for foreign policy topics.

Summary

This chapter put my theories about the distribution of front-page attention to a test. I developed a statistical model that predicts the amount of front-page attention a topic will receive in a month as a function of six key types of explanatory variables: prior attention, level of front-page congestion, scope of discussion, entrepreneurial activity (captured through Presidential attention and Congressional attention), public attention, and political context (represented by the time to the next Presidential election). I ran this model, first, across all policy topics; second, across domestic policy topics only; and third, across foreign policy topics only. In all three models, I found strong support for my expectations about the direction and significance of each of my independent variables, as outlined in Chapter 3. Additionally, I discovered interesting variance in how each explanatory variable behaved in front-page attention to domestic policy topics as opposed to foreign policy topics. Perhaps most intriguing was my finding that every single explanatory variable has a greater effect on front-page attention paid to a foreign policy topic than on front-page attention paid to a domestic policy topic. Front-page attention is strongly shaped by each of these variables across all policy topics, but in the case of foreign policies, the news-selection process is even more susceptible to these influences.

Table 5.1 The Relationship between the Proportion of Attention and the Log Odds of Attention.

p_{it}	0.01	0.05	0.10	0.20	0.30	0.40	0.50	0.60	0.70	0.80	0.90	0.95	0.99
$\text{logit}(p_{it})$	-4.60	-2.94	-2.20	-1.39	-0.85	-0.41	0.00	0.41	0.85	1.39	2.20	2.94	4.60

Table 5.2 Hypothetical Examples of Entropy: Low Entropy Means Concentration; High Entropy Means Dispersion.

Entropy = 0.0		Entropy = 0.3		Entropy = 0.7		Entropy = 1.0	
Topic/ Subtopic	Stories	Topic/ Subtopic	Stories	Topic/ Subtopic	Stories	Topic/ Subtopic	Stories
a	10	a	5	a	2	a	1
b	0	b	5	b	2	b	1
c	0	c	0	c	2	c	1
d	0	d	0	d	2	d	1
e	0	e	0	e	2	e	1
f	0	f	0	f	0	f	1
g	0	g	0	g	0	g	1
h	0	h	0	h	0	h	1
i	0	i	0	i	0	i	1
j	0	j	0	j	0	j	1

Table 5.3 Example of Congestion: When a Mega Issue Like the Attacks of September 11, 2001 Hits the Agenda, Congestion Increases.

	August 2001 Congestion = 0.15		September 2001 Congestion = 0.34	
<i>Policy Topic</i>	<i>Stories</i>	<i>Proportion of Agenda</i>	<i>Stories</i>	<i>Proportion of Agenda</i>
International Affairs	52	20.3%	106	44.9%
Health	30	11.7%	6	2.5%
Law & Crime	18	7.0%	5	2.1%
State Government	17	6.6%	16	6.8%
Macroeconomics	16	6.3%	13	5.5%
Defense	15	5.9%	23	9.7%
Government Operations	14	5.5%	1	0.4%
Banking & Commerce	12	4.7%	10	4.2%
Science & Technology	10	3.9%	7	3.0%
Sports	8	3.1%	10	4.2%
Culture	8	3.1%	6	2.5%
Education	8	3.1%	5	2.1%
Environment	8	3.1%	1	0.4%
Civil Rights	7	2.7%	3	1.3%
Transportation	5	2.0%	10	4.2%
Energy	5	2.0%	1	0.4%
Agriculture	4	1.6%	0	0.0%
Labor	3	1.2%	4	1.7%
Housing	3	1.2%	1	0.4%
Fires	2	0.8%	1	0.4%
Foreign Trade	2	0.8%	1	0.4%
Public Lands	2	0.8%	1	0.4%
Religion	2	0.8%	1	0.4%
Social Welfare	2	0.8%	1	0.4%
Weather	2	0.8%	0	0.0%
Human Interest	1	0.4%	0	0.0%
Death Notices	0	0.0%	3	1.3%
Total	256	100.0%	236	100.0%

Table 5.4 Example of Scope: When a Policy Topic Debate Expands, Scope Increases... and So Does Attention.

Example: Health	April 2003 Scope = 0.17		May 2003 Scope = 0.65	
<i>Subtopic</i>	<i>Stories</i>	<i>Proportion of Debate</i>	<i>Stories</i>	<i>Proportion of Debate</i>
Communicable Diseases & Health	21	87.5%	16	44.4%
Insurance Reform	1	4.2%	2	5.6%
Prescription Drug Coverage and Costs	1	4.2%	1	2.8%
Medical Liability and Fraud	0	0.0%	4	11.1%
Drug Industry	0	0.0%	3	8.3%
Health Research and Development	0	0.0%	3	8.3%
Other Health	0	0.0%	2	5.6%
Mental Health	0	0.0%	1	2.8%
Long-Term Care & Terminal Illness	0	0.0%	1	2.8%
Tobacco Abuse	0	0.0%	1	2.8%
Alcohol Abuse	0	0.0%	1	2.8%
Total	23	100.0%	35	100.0%

Table 5.5 Descriptive Statistics for All Policy Topics.

	Obs	Mean	Std Dev	Min	Max
Dependent Variable:					
Front-Page Attention (log odds)	1368	-4.251	2.107	-9.210	0.600
Independent Variables:					
Front-Page Attention $t-1$	1349	-4.248	2.102	-9.210	0.600
Front-Page Congestion	1368	0.258	0.083	0.125	0.566
Scope of Discussion	1368	0.295	0.238	0	0.827
Public Attention	1368	0.049	0.072	0	0.435
Presidential Attention	1368	0.051	0.122	0	1
Congressional Attention	1368	0.053	0.071	0	0.425
Time to Presidential Election	1368	23.833	15.481	0	47

Table 5.6 Descriptive Statistics for Domestic Policy Topics.

	Obs	Mean	Std Dev	Min	Max
Dependent Variable:					
Front-Page Attention (log odds)	1152	-4.415	1.875	-9.210	0.301
Independent Variables:					
Front-Page Attention t_{-1}	1136	-4.412	1.873	-9.210	0.301
Front-Page Congestion	1152	0.258	0.083	0.125	0.566
Scope of Discussion	1152	0.290	0.234	0	0.827
Public Attention	1152	0.043	0.068	0	0.392
Presidential Attention	1152	0.048	0.121	0	1
Congressional Attention	1152	0.054	0.077	0	0.425
Time to Presidential Election	1152	23.833	15.482	0	47

Table 5.7 Descriptive Statistics for Foreign Policy Topics.

	Obs	Mean	Std Dev	Min	Max
Dependent Variable:					
Front-Page Attention (log odds)	216	-3.378	2.914	-9.210	0.600
Independent Variables:					
Front-Page Attention t_{-1}	213	-3.370	2.900	-9.210	0.600
Front-Page Congestion	216	0.258	0.083	0.125	0.566
Scope of Discussion	216	0.318	0.260	0	0.805
Public Attention	216	0.079	0.085	0	0.435
Presidential Attention	216	0.070	0.128	0	1
Congressional Attention	216	0.048	0.024	0.014	0.093
Time to Presidential Election	216	23.833	15.511	0	47

Table 5.8 Results from Pooled Cross-Sectional Time Series Models of Front-Page Attention.

	All Policy Topics Coefficients (Std Errors)	Domestic Policy Topics Coefficients (Std Errors)	Foreign Policy Topics Coefficients (Std Errors)
Front-Page Attention $t-1$	0.395*** (0.021)	0.281*** (0.024)	0.494*** (0.053)
Front-Page Congestion	-1.493** (0.477)	-1.825*** (0.497)	-2.425* (1.174)
Scope of Discussion	3.615*** (0.188)	3.992*** (0.200)	2.717*** (0.447)
Public Attention	2.887*** (0.590)	0.398 (0.643)	7.065*** (1.418)
Presidential Attention	1.009** (0.315)	1.135** (0.336)	0.948 (0.695)
Congressional Attention	2.019*** (0.550)	1.570** (0.534)	19.880*** (5.054)
Time to Presidential Election	-0.005* (0.002)	-0.006* (0.003)	-0.012* (0.006)
Constant	-3.439*** (0.208)	-3.880*** (0.218)	-3.238*** (0.554)
N =	1,349	1,136	213
<i>Months</i> =	71	71	71
<i>Policy Topics</i> =	19	16	3
<i>Front-Page Stories</i> =	14,544	7,958	6,586
Adjusted R ² =	0.559	0.486	0.806
Root MSE =	1.401	1.345	1.290

* $p < 0.1$

** $p < 0.01$

*** $p < 0.001$

Figure 5.1 The Change in Front-Page Attention Produced by One Standard Deviation Change in Each Explanatory Variable.

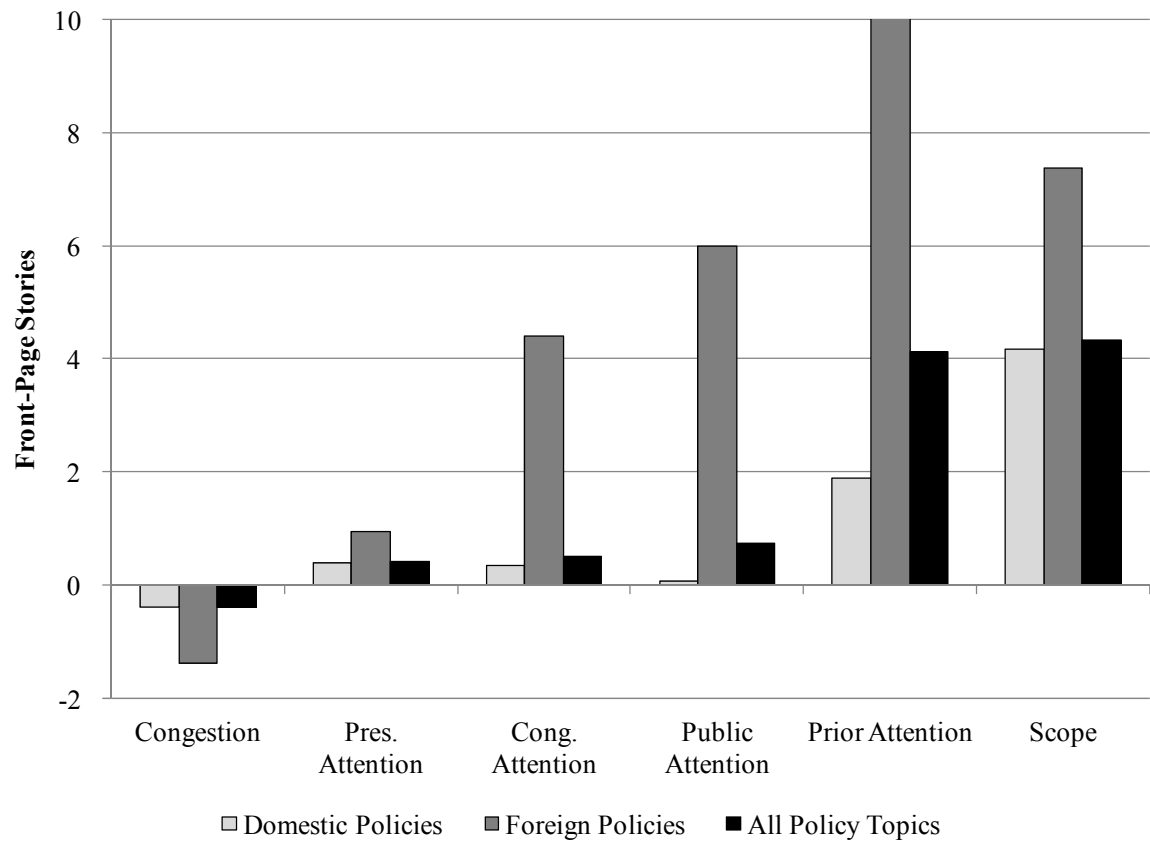
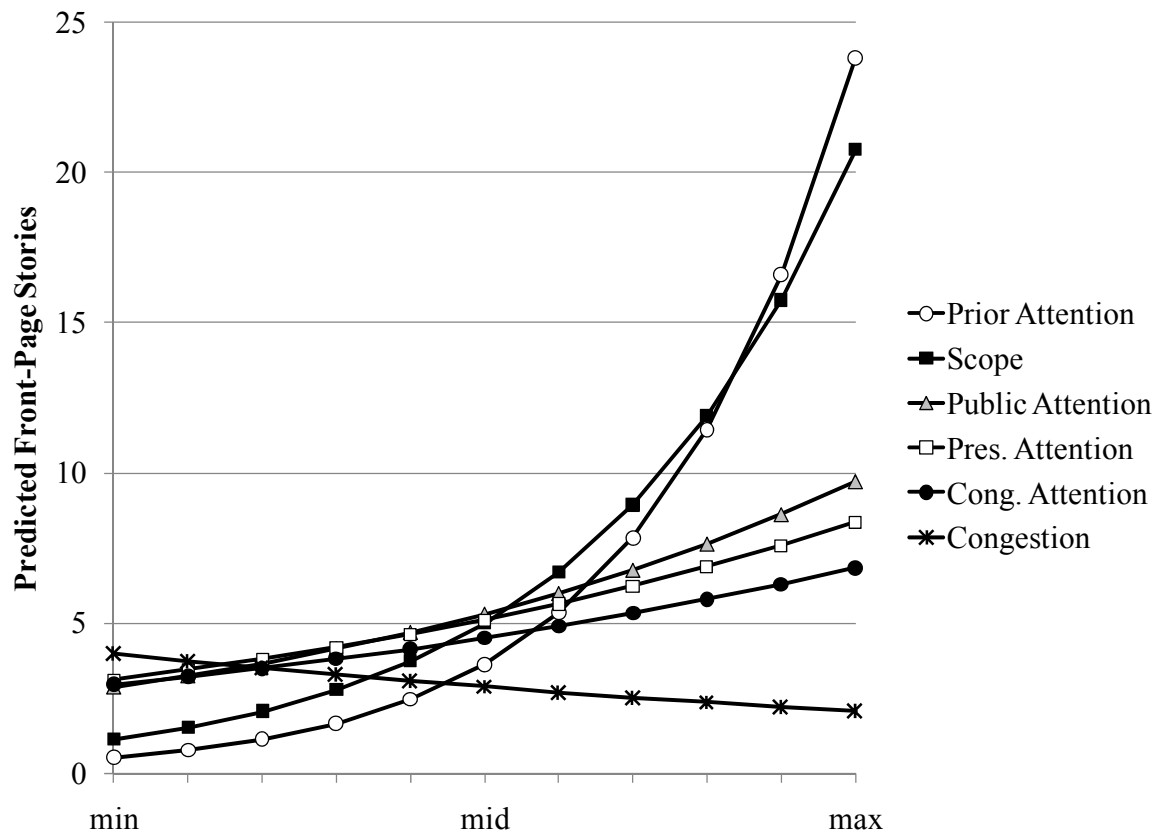


Figure 5.2 The Varying Effects of Each Explanatory Variable on Front-Page Attention across All Policy Topics.



Notes: The y-axis of this figure ranges from 0 to 25, as compared with the scale of 0 to 70 in Figure 5.4.

To represent the observed values shown in Table 5.5, the 11-point x-axis scale is calculated for each variable as follows:

Scope: min = 0; max = 0.827 (in units of 0.0827)

Prior Attention: min = -9; max = 1 (in units of 1)

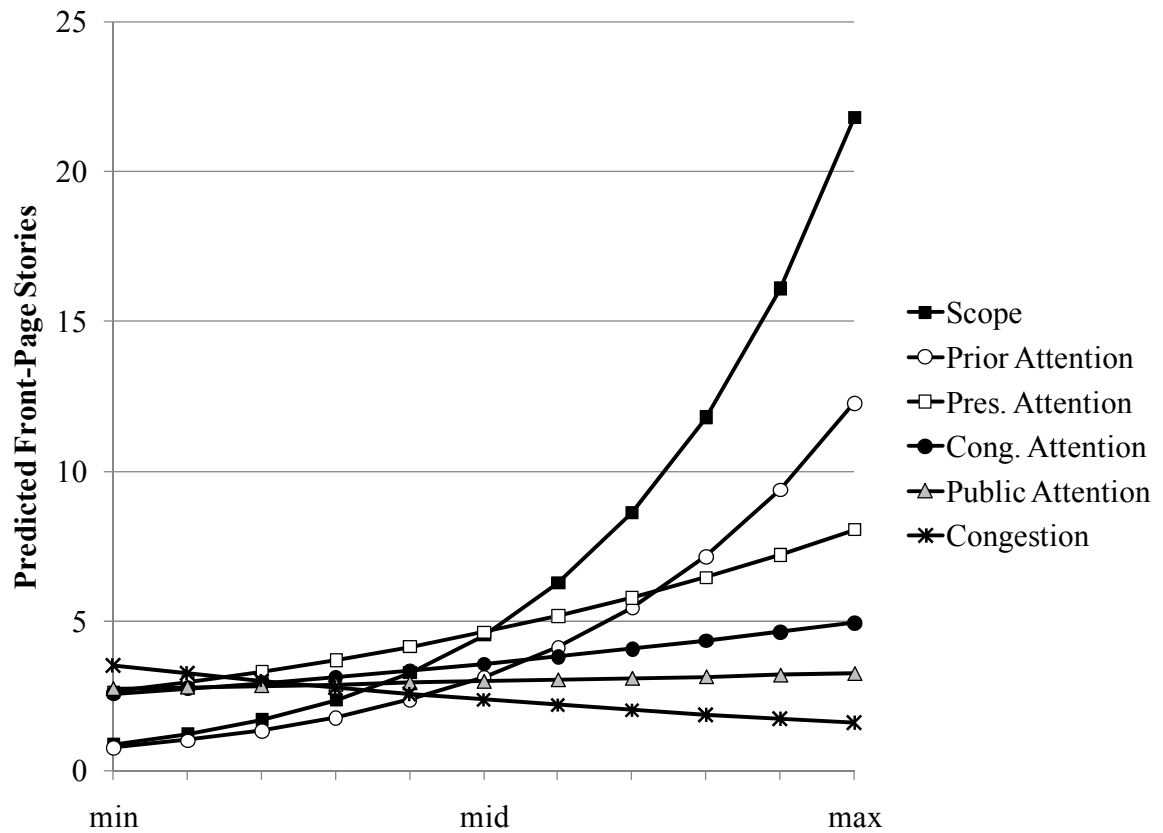
Public Attention: min = 0; max = 0.435 (in units of 0.0435)

Congressional Attention: min = 0; max = 0.425 (in units of 0.0425)

Presidential Attention: min = 0; max = 1 (in units of 0.1)

Congestion: min = 0.125; max = 0.565 (in units of 0.044)

Figure 5.3 The Varying Effects of Each Explanatory Variable on Front-Page Attention across Domestic Policy Topics.



Notes: The y-axis of this figure ranges from 0 to 25, as compared with the scale of 0 to 70 in Figure 5.4.

To represent the observed values shown in Table 5.6, the 11-point x-axis scale is calculated for each variable as follows:

Scope: min = 0; max = 0.827 (in units of 0.0827)

Prior Attention: min = -9; max = 1 (in units of 1)

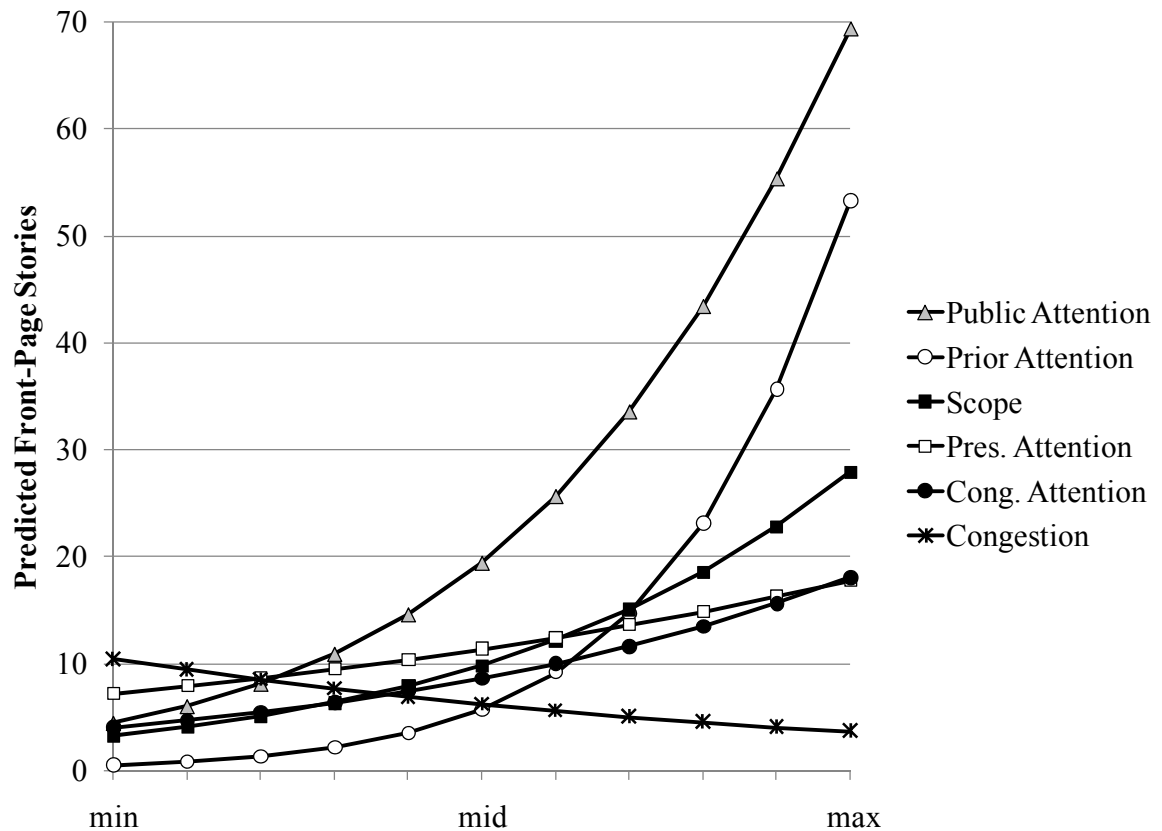
Public Attention: min = 0; max = 0.435 (in units of 0.0435)

Congressional Attention: min = 0; max = 0.425 (in units of 0.0425)

Presidential Attention: min = 0; max = 1 (in units of 0.1)

Congestion: min = 0.125; max = 0.565 (in units of 0.044)

Figure 5.4 The Varying Effects of Each Explanatory Variable on Front-Page Attention across Foreign Policy Topics.



Notes: The y-axis of this figure ranges from 0 to 25, as compared with the scale of 0 to 70 in Figure 5.4.

To represent the observed values shown in Table 5.7, the 11-point x-axis scale is calculated for each variable as follows:

Scope: min = 0; max = 0.827 (in units of 0.0827)

Prior Attention: min = -9; max = 1 (in units of 1)

Public Attention: min = 0; max = 0.435 (in units of 0.0435)

Congressional Attention: min = 0.014; max = 0.093 (in units of 0.01)*

Presidential Attention: min = 0; max = 1 (in units of 0.1)

Congestion: min = 0.125; max = 0.565 (in units of 0.044)

* This Congressional Attention scale is the only one that deviates from the standard scales I used in Figure 5.2 and Figure 5.3. The executive orders variable is the only one with a dramatically different range in one context (foreign policy topics) than in the other two contexts. Whereas the observed values of Congressional Attention range from 0 to 0.425 in the realm of domestic policy topics (and, thus, in the realm of all policy topics), in the context of foreign policy topics the range is much narrower, from a minimum of 0.014 to a maximum of 0.093.

Chapter 6

Debate Expansion and Rising Attention: The Reinforcing Link between the Scope of a Policy Debate and How Much Attention It Receives

In the previous two chapters, we saw how front-page news is shaped by many different variables. In this chapter, I focus on one explanatory variable alone: the scope of discussion. Again, “scope” refers to how concentrated or diffuse a policy debate is across its component dimensions. Media coverage that focuses on one or two dimensions of an issue is narrow in scope, while coverage that incorporates a high number of dimensions has a wide scope.

Having demonstrated the significant link between scope and attention in the statistical models presented in Chapter 5, my aim in this chapter is to examine this bivariate relationship more closely. I argue that these two variables have a mutually reinforcing influence on each other. I explain why it makes sense not only that the attention given to an issue should directly affect the scope of discussion but also that the scope of discussion should directly influence the amount of attention it receives. And I present evidence for the reinforcing link between scope and attention in several forms.

Scope is not the variable with the largest effect on how much attention an issue will receive. Other variables we have considered, like real-world events, the prior amount of attention, and journalistic norms, often play a more immediate and influential role in shaping front-page news. But of all the results presented thus far, the finding that the scope of an issue debate has a statistically significant effect on how many stories the issue receives—that is, that *how* an issue category gets talked about directly affects *how*

much it gets talked about—is arguably the most surprising. As discussed in Chapter 3, the policy agenda-setting literature has long recognized the importance of the scope of an issue debate in the policy evolution process, but researchers generally situate scope as a process that occurs *after* the initial distribution of attention across policy areas. Never before has the scope of discussion been used as an independent variable to help explain the amount of attention an issue receives. Here, I make a case for the causal arrows running in both directions.

Why does it matter if scope affects attention, and vice versa? Because attention is a critical resource. As discussed in Chapter 1, political scientists know already that the amount of attention an issue receives strongly predicts what will happen in that issue debate: how much notice the public will take, which way public opinion will lean, whether or not policymaking will occur, and if so what form the policy will take. Put simply, if a policy problem doesn't get attention, it doesn't get fixed. In this way, the factors that influence how much attention a policy issue receives have enormous influence over the political system. Before examining the results presented in Chapter 5, we could have guessed that variables like events, journalistic norms, and public opinion affect the distribution of media attention across policy topics and the amount of attention given to a single issue area. But finding an empirical relationship between how an issue is discussed and how much attention it receives—and a very strong empirical link, for that matter—is much more surprising.

This finding cements the link between communications-based research on priming and issue-framing on the one hand, and institutions-based research on policy agenda-setting on the other. The definition of an issue, be it narrowly concentrated on

one dimension or broadly dispersed across a multitude of perspectives, has a direct and significant impact on the allocation of one of the most valuable resources in politics: the agenda. Moreover, attention influences scope just as scope influences attention. Played out over time, the mutually reinforcing relationship between scope and attention helps explain the occurrence of attention cascades.

Why Should Scope and Attention Affect Each Other?

We have three possible conclusions to draw from the strong relationship between scope and attention that we observed in Chapter 5: 1) attention drives scope, 2) scope drives attention, or 3) attention and scope are mutually reinforcing. I argue, and the evidence I will present demonstrates, that the third conclusion is correct.

Consider the first possible conclusion, that the amount of attention an issue receives directly influences the scope of the issue debate but that attention is not influenced in turn by scope. As this story goes, the more stories that are written on an issue, the more room there is for additional ways of talking about the issue. The problem with this story is the allowance-like system of distribution it implies; first an issue is allotted X% of the agenda space, and only then is it decided how those stories will be used. News outlets don't work this way. Stories are awarded to issues because they are important, interesting, sensational, or all of the above. Of course, as I have discussed, the distribution of news stories is rarely proportional with the urgency or importance of the policy problems. Yet with so little precious agenda space to go around, news stories (especially front-page stories) are almost never handed out in advance of figuring out the angle—that is, knowing which dimension(s) of the policy issue the article will highlight. In other words, if a dimension of an issue debate becomes especially important and

attention to the issue increases, there is no *a priori* reason to expect that the scope of discussion would increase; we would simply see an increase in attention to that single dimension, while other dimensions already active in the debate remain constant.

Consider the second possible conclusion, that the scope of a policy debate affects the attention given to the policy area, but not vice versa. Abstractly, this story makes more sense. When there are more dimensions activated in a debate, there's simply more to talk about. Importantly, an increase in the scope of discussion does not *necessarily* produce an increase in attention. While moving from one front-page article on an issue to two, three, or four stories strongly increases the possibility that additional dimensions will be used, when we are talking about dozens of stories (as we generally are when considering monthly front-page coverage of a topic) this mathematical dependence does not exist. Fifty stories on the same issue, for example, can accommodate 10 dimensions just as easily as one dimension. The *NYT* front page dataset contains many instances when an increase in scope corresponds with a decrease in (or level amount of) attention. Yet overall, these data present a strong story: as scope rises, so does attention. The greater the scope of a debate, the more charged it becomes, and the more likely it will be to draw attention from journalists and editors, not to mention policy entrepreneurs and the public. As Schattschneider explained nearly half a century ago, when the scope of a debate widens, the debate receives more attention because more people are drawn into the fray—a wider scope offers more reasons for the system to heed the issue (1960). Thus, there is good reason to suspect that the findings from Chapter 5 reveal a causal link between scope (cause) and attention (effect).

But can we be sure causality does not run in both directions? While the idea that the amount of attention an issue receives affects the scope of the issue debate holds little water in theory, the effect of attention on scope finds evidence in the real world. An editor would never delegate space on the front page to an issue before knowing the angle of the article, but real-world events can often produce an increase in scope as a direct function of an increase in attention. When a major event occurs, for example, the very existence of the event can spark a variety of dimensions in the larger issue debate, and journalists naturally seek to cover all these angles.

Journalistic norms can also lead to situations when an increase in attention leads directly to an increase in scope. For example, editors and journalists have incentives to give space to a President's agenda items, lest they fall out of favor with the administration and lose access to inside information. When diligently increasing attention to an issue *primarily because* it is the President's chosen issue (as opposed to selecting the issue on the merits of a particular dimension of that issue), journalists will cover the issue from a multitude of dimensions.

Beat assignments can also produce situations in which an increase in attention to an issue area leads to an increase in scope. When U.S. troops were deployed to Iraq, for example, many journalists went with them. Every major U.S. media outlet, knowing the value of first-hand "boots on the ground" reporting, has maintained a number of journalists in Iraq with long-term assignments to stay on top of the situation as it unfolds. These reporters, geographically restricted as they are, tend to write stories on one issue and one issue only: the war. Even during slow days, when their counterparts in the United States might decide that a domestic issue warrants more attention than the

ongoing military operation, foreign correspondents in Iraq continue to churn out issues about the situation around them. The same result can occur, though to a lesser extent, when national news organizations send journalists on assignments domestically (e.g., to Iowa for the Presidential caucuses). When journalists are assigned to a major beat issue, the number of stories written on that issue will necessarily increase. Even though not all these stories will be published, still it is likely that the amount of front-page attention given to the issue will increase. And journalists, charged with the task of writing article after article on the same issue day after day, will look for new angles to cover. The scope of discussion is likely to increase as a direct consequence of the increase in attention, just as a widening scope will likely cause an increase in attention.

In short, the third conclusion listed above is the correct one: The attention an issue receives influences the scope of discussion, but the scope of discussion also influences the amount of attention an issue receives. As attention increases, the scope of an issue debate widens, offering yet another reason why attention is so important: The *amount* of attention a problem receives affects *how* it is discussed and, thus, what solutions are selected. Just as importantly, as the scope of a discussion widens, attention increases, demonstrating the enormous power of political discourse and rhetoric: *How* an issue is described and framed affects the *amount* of attention it receives.

The mutually reinforcing relationship between scope and attention plays an important role in the dynamic environment of media information processing. As the scope of a debate expands, the public begins to pay more attention to the issue, and policy entrepreneurs flock to the scene in the hopes of getting a share of that attention. Journalists and editors respond, granting the issue a greater proportion of the agenda. In

turn, this increase in attention prompts policy entrepreneurs to spend even more time and resources trying to draw attention to their side of the story—that is, to a particular dimension of the debate—and it prompts journalists vying for prominent article placement to jump on the bandwagon as well by searching for new dimensions of the issue to cover. Usually, the negative feedback elements of the news-selection process keep the relationship between scope and attention in check. A mutually reinforcing growth in scope and attention will die out in the wake of heavy agenda congestion or as a result of a number of other factors at play in the political environment. But now and again, the reinforcing build-up in scope and attention will pass a threshold, or “tipping point.” The issue becomes hot, the scope widens quickly, and attention cascades. These moments of concurrent surges in scope and attention occur less often than do moments of stasis, but in the fast-paced, relatively low-friction context of front-page news, cascades actually happen quite often, as the evidence presented below will demonstrate.

Evidence

In order to gain a better sense of how scope and attention reinforce one another, I examine their relationship in four important cases: the U.S. conflicts in Afghanistan and Iraq, the death penalty, health care, and crime. Under my system of categorization, the war and the death penalty are specific issue areas, and for these I measure the scope of attention as the number of distinct frames used to define the debate at each point in time. Data on the frames used in the war debate come from the study of front-page *NYT* stories on the war that I have conducted with Rebecca Glazier. Data on the frames used in the death penalty debate come from an earlier co-authored study of *NYT* attention to capital punishment (Baumgartner et al. 2008). Health care and crime, on the other hand, are

large topic areas. For these, I measure the scope of attention as the number of distinct subtopic issues that are discussed in the topic debate at each time point.⁴⁷ Finally, after detailing these four cases, I examine the variance in the correlation between scope and attention across all major topics in my *NYT* front page dataset. And using Congressional hearings data from Baumgartner and Jones' Policy Agendas Project, I show how the relationship between scope and attention exists even more strongly in the context of Congressional attention. Amidst all the evidence I present, the main point is simple: The scope of a debate and the amount of attention the debate receives have a positive, mutually reinforcing effect on each other, one that helps to explain the skewed distribution of attention and the dynamic patterns of attention cascades that we have observed.

The U.S. Conflict in Afghanistan and Iraq

Figure 6.1 shows the distribution of *NYT* front-page coverage to the U.S. conflicts in Afghanistan and Iraq across the different frame dimensions of the debate.⁴⁸ Before looking at this data, we might have expected surges in attention to the war to correspond with overwhelming attention to one dimension or another. During the U.S. invasion into Iraq, for example, we might expect attention to focus almost exclusively on the Soldiers dimension, as public concern centered on the safety of U.S. troops, “wins” and “losses”

⁴⁷ Note that in this chapter I measure scope simply as the number of distinct frames/subtopics employed, whereas in Chapter 5 I employed a more sophisticated measure of scope through the use of entropy calculations. As this shift implies, there are several valid approaches to measuring the concept of scope. In my case, I use entropy as the most appropriate measure for the purposes of statistical analysis but rely on simple frame/subtopic counts as the most direct way of familiarizing the reader with the relationship between attention and scope in the line graphs and scatter plots I will present below.

⁴⁸ The data presented here were collected with Rebecca Glazier. As a reminder, this dataset consists of 1,000 stories randomly selected from the larger dataset of about 3,500 front-page *NYT* stories on the war between September 11, 2001 and December 31, 2005. Each article received a single code representing the dominant frame employed, based on a coding scheme of more than 300 specific frames categorized into the 12 frame dimensions shown in Figure 6.1.

in the first U.S.-fought battles, and the capture and treatment of eight U.S. soldiers as prisoners of war in March 2003. Similarly, immediately following the release of photos detailing the abuse of U.S.-held detainees at Abu Ghraib in April of 2004, we might expect almost all discussion during this period to revolve around the Prisoners/Detainees dimension.

(Insert Figure 6.1 about here)

Looking at Figure 6.1, however, we see a very different story. The surges in attention in fact correspond with an increase in the richness of the discussion, distributed with varying degrees of proportionality across a large number of frame dimensions. If we were to view a similar figure portraying the distribution of attention across specific frames (from the list of 300+ possible frame codes), we would see a similar diversity of attention to dozens and dozens of frames during the periods of high attention. Figure 6.1 shows that every time the war gets a surge of media attention, not only are there several different frame dimensions activated in the debate, but most of these dimensions are playing a big role in the construction of the debate. Instead of seeing one frame consume the vast majority of discussion—like the Soldiers dimension when U.S. forces enter Iraq or the Prisoners/Detainees dimension when the Abu Ghraib scandal breaks—we rarely see a single dimension occupy more than half the issue debate.

In Figure 6.2, we see an over-time comparison between the total amount of attention given to the war and scope, measured here as the number of distinct frames employed (from the set of 300+ in this coding scheme). The covarying relationship between scope and attention is unmistakable. As discussed earlier, neither variable is mathematically dependent on the other. Looking closely at Figure 6.2, we can see

several instances when attention goes up while scope goes down, or vice versa. Yet the two variables move predominantly in tandem.

(Insert Figure 6.2 about here)

Figure 6.3 summarizes the information presented in Figure 6.2 in the form of a scatter plot, where each dot represents one month of data: the total number of front-page stories on the war in that month, plotted against the total number of distinct frames used in that month. The solid trend line confirms the strong overall relationship ($R = 0.84$) between scope and attention. We can see a cluster of observations at the lower left-hand corner of the graph, representing those months in which the war received less than 60 or so stories using 15 or fewer frames. But the relationship holds true throughout the observations; the scope of the debate and attention to the war increase together.

(Insert Figure 6.3 about here)

The story here is *not* that the scope of the war debate is the only factor driving attention to the war. This issue certainly illustrates how major real-world events can produce surges in front-page attention. It goes without saying that front-page coverage of the war would increase when U.S. troops enter Afghanistan or Iraq, or when the events at Abu Ghraib are made public. Nor is the story here that attention to the war is the only factor driving the scope of the discussion. While several frames were readily available to journalists at the time of each major event, there was no pressing need to make use of them. Even with a high number of competitive journalists trying to capture the full breadth and texture of the storyline, there is more than enough fodder in the Soldier dimension (with more than 50 distinct frame codes) or in the Prisoners/Detainees

dimension (with more than 35 distinct frame codes), for example, to allow a single frame dimension to dominate the coverage.

And yet, while the relationship between these variables is not a necessary one, still it exists. At each major event of the war, the predictable increase in attention to the issue widened the scope of the debate. But the widening of the scope of the debate was at least partially responsible for the surge of attention in the first place. The question is not whether front-page attention to the war will increase after a major event—of course it will—but *how much* attention will increase. The findings in this chapter suggest that at least a portion of each surge in attention to the war that we see in Figure 6.1 was directly caused by the expanding scope of the debate. And at least a portion of the increase in scope during these periods was directly caused by the increase in attention. When attention to a policy discussion increases, additional dimensions of the debate become more readily available, and the scope expands. Simultaneously, with the expansion of the scope of the discussion, the issue becomes more salient to a larger number of citizens, policy entrepreneurs, and journalists than before, and the issue gains more traction on the agenda. When conditions are right (often on the heels of a major event), the mutually reinforcing relationship between scope and attention can yield a cascade of front-page coverage to a rapidly expanding debate.

The Death Penalty

An examination of *NYT* attention to the death penalty shows a strikingly similar relationship between scope and attention to the one we observed in the case of the war. For this analysis, I rely on data collected with Frank Baumgartner and Suzanna De Boef, constructed by coding abstracts of every *NYT* article on capital punishment published

between 1960 and 2005 ($N = 3,939$). Each abstract was coded according to the frame(s) it employed, using a coding scheme of 65 distinct frames categorized into seven major framing dimensions of debate (Baumgartner et al. 2008). Because this dataset consists of articles throughout all sections of the newspaper rather than only those on the front page, it offers a good opportunity for comparison.

In Figure 6.4 (paralleling Figure 6.1), we see how media definition of the death penalty debate in the U.S. has shifted dramatically over the last half century. Traditionally framed in terms of Constitutionality or Morality, in modern years the death penalty has been discussed primarily in terms of Fairness, centering around the possibilities of wrongful convictions and other flaws in the system (Baumgartner et al. 2008). What is important to notice here is that the debate is richest (i.e., dispersed across the most dimensions) specifically during those periods when overall attention is highest. Whether the discussion is dominated by Morality, Constitutionality, or Fairness, during high amounts of attention the media does not focus narrowly on a single dominant dimension but rather diversifies across multiple ways of considering the issue.

(Insert Figure 6.4 about here)

Figure 6.5 (paralleling Figure 6.2) shows the relationship between scope and attention in *NYT* coverage of the death penalty over time. Total stories on the death penalty are compared with the number of distinct frames used (from the list of 65 possible frame codes). As with front-page *NYT* coverage of the war, full *NYT* coverage of capital punishment demonstrates a strong correlation between scope and attention. Again, the two series do not track perfectly. There are moments when attention increases

as scope decreases, and there are moments—most notably in 2005—when scope increases but attention decreases. Yet the common dynamics are unmistakable.

(Insert Figure 6.5 about here)

Finally, Figure 6.6 (paralleling Figure 6.3) offers a scatter plot of the correlations shown in Figure 6.5. Here, each dot represents the total number of *NYT* stories on the death penalty in a given month, plotted against the total number of distinct frames used in that month. Unlike the war data, the death penalty observations do not cluster at one part of the graph. But just like front-page coverage of the war, we see a strong relationship between the scope of full *NYT* coverage of the death penalty debate and the overall number of stories the debate received ($R = 0.83$).

(Insert Figure 6.6 about here)

Above all else, the death penalty offers a second key example of how an expanding scope of debate, concurrent with an increase in attention to the debate, can produce a cascade of attention. One important difference between the death penalty example and the war example, however, is the different role that events play in the two issue areas. Unlike media coverage of the war, media coverage of the death penalty is less frequently driven by real-world events. We can point to specific events that clearly resulted in a surge of attention, such as the Supreme Court's moratorium on executions in 1972 and the subsequent reinstatement of the punishment in 1976. But in general the death penalty is a good example of an important policy issue in which there is *always* something important happening “on the ground”—in the form of murders, death sentences, executions, exonerations, court rulings, public speeches, and so on—and yet

rarely are there “must see” events that have an all-but-guaranteed position on the front page of the *New York Times*.

In other words, the fact that scope and attention have just as strong a relationship in the case of the death penalty as they do in the case of the war debunks any notion that scope and attention are not truly related but instead are independently driven by a third variable: events. The case of the war offers good illustration of how a predictable surge in attention following a major event occurs concurrently with an expansion in the scope of the debate—and how the surge in attention and the widening of the scope are both much higher because of their effect on each another. At the same time, as discussed at length in Baumgartner et al. 2008, the case of the death penalty is a perfect example of how sometimes the definition of a debate alone—even in the absence of any dramatically new facts—can result in a maelstrom of attention. Such has been the case during the last decade of the death penalty debate, when despite the absence of any real change in the objective facts of the debate, a number of independent factors—most notably a shifting and expanding discussion of the policy in the media—produced an attention cascade even larger than those surrounding the Supreme Court decisions of 1972 and 1976. In short, the mutually reinforcing relationship between scope and attention is at least partially responsible for the cascading dynamics we have observed in front-page news. And as demonstrated in the earlier study of the death penalty, cascades of attention can have a dramatic effect on public support for a policy and on the policy itself (Baumgartner et al. 2008).

Health Care

I turn now to examining two much larger topic areas: health care and crime. For both, I discuss the scope of the topic not in terms of frames but in terms of subtopics. Figure 6.7 (paralleling Figure 6.1 and Figure 6.4) shows the distribution of *NYT* front-page attention to health care across the subtopics of the debate (eliminating those subtopics that received less than 20 stories in the entire dataset). Readers can consult the codebook in Appendix A to decipher the content of each subtopic category, but the point of this figure is to illustrate the richness of the discussion on health care—especially during high periods of attention. Just as the war and death penalty debates expand to use more and more frames concurrent with garnering more media attention, when discussion of health care expands to include more and more subtopic issues it concurrently gains more attention.

(Insert Figure 6.7 about here)

Figure 6.8 (paralleling Figure 6.2 and Figure 6.5) shows that the relationship between scope and attention is not unique to surges in attention. A big part of the story here is about attention cascades, and it is perhaps easiest in the cases of high attention to see how the mutually reinforcing relationship between scope and attention can spiral upwards. But even during periods of stasis, when negative feedback forces mute the effects of the link between scope and attention, the relationship is just as strong.

(Insert Figure 6.8 about here)

Like the death penalty, the topic of health care offers a good example of how social cascades can occur even in the absence of major real-world events. The surge in attention to health around July 2001, for example, is unexplained by any major health events. An examination of the stories during this time period simply shows an increasingly large number of articles on an increasingly wide variety of subtopics,

reinforcing each another in a seemingly spontaneous fashion. Like a snowball gathering size and speed, health care surged onto the agenda in the summer of 2001 as low agenda congestion and an expanding scope of debate provided joint inertia for the cascade.

Like the war, on the other hand, health care shows how real-world events can also be responsible for the cascades that result from the reinforcing link between scope and attention. Around May 2003, for example, we see the tallest spike in Figure 6.7 corresponding with the outbreak of SARS that began in China but then spread to other countries, including Canada and the United States. As discussed in Chapter 1, the spike in coverage in March 2005 corresponds with the case of Terri Schiavo. In both these cases, we can see one subtopic that dominated the discussion at the time of the event. In May 2003, during the SARS outbreak, discussion is dominated by subtopic 331 (Communicable Diseases). In March 2005, during the Terri Schiavo legal battles, discussion is dominated by subtopic 334 (Long-Term Care, Home Health, and the Terminally Ill). But in both cases, the dominant subtopic is supplemented by many other subtopics. Increases in attention correspond with a widening of scope.

Unlike the war, however, where so many events occur each day that it is difficult to parse out how much media attention is event-driven and how much is due to other forces—such as the widening of the scope of the debate—in discussion of health care we can see more clearly how attention cascades are driven by *more* than events alone. The SARS outbreak that gained so much attention in May 2003 actually began in November 2002 with the first cases discovered in the Guangdong province of China and continued through the last cases to be discovered and reported in May 2004. The first SARS cases in the U.S. were reported as early as March 2003. In other words, the spike in media

attention to health in May 2003 was not simply a function of the SARS scare, or else the spike would have occurred in March 2003 if not months earlier. What we see here is not the media mirroring a real-world event in real time, but rather the media processing information disproportionately. By the time the media catches up with the SARS outbreak, it lurches attention to health. But even this lurching does not account for the size of the spike in attention, since the specific subtopic that captures the SARS debate constituted barely more than half the discussion in May 2003. The surge in attention to health during this period can only be explained when we account not only for real-world events but also for factors like agenda congestion, the inertia of prior attention, *and* the widening scope of the debate—all against the backdrop of the media’s limited capacity for processing information.

Law and Crime

Figure 6.9 (paralleling Figure 6.1, Figure 6.4, and Figure 6.7) shows the distribution of a second major topic area, law and crime, across its component subtopics. We see that only once in the last six years did a single real-world event in the area of law and crime capture front-page attention in the way that the SARS outbreak or the Terri Schiavo case did in discussion of health care. In October 2002, we see a spike in coverage corresponding with the DC-area sniper attacks, and this time the entire surge in attention is comprised of a single subtopic. This example illustrates that, while the scope of discussion can have a strong effect on the amount of attention a topic receives, there are many other factors—events not the least among them—that can produce a surge in attention single-handedly. Looking at the rest of Figure 6.9, however, we see once again how rises in attention to a topic issue are rarely concentrated on a single subtopic. Front-

page discussion of law and crime is diverse, covering a wide array of component issues. And when the scope of the discussion widens, attention rises.

(Insert Figure 6.9 about here)

Figure 6.10 (paralleling Figure 6.2, Figure 6.5, and Figure 6.8) offers one final illustration of how scope and attention run in tandem over time. The notable exception to the relationship comes during the sniper attacks in October 2002, without which the correlation between the two series is 0.80. But even including this data point, the correlation between scope and attention shown in this figure is strongly positive at 0.59.

(Insert Figure 6.10 about here)

Comparing the Correlation of Scope and Attention in the NYT Front-Page and in Congressional Hearings

As we can see from the above topics of health care and law and crime, the relationship between scope and attention is powerful, but it can play out in many different ways according to the topic at hand and the circumstances of the debate. Table 6.1 shows the correlation between topic and scope (again, calculated here not as an entropy score but as the number of subtopics employed at each time point) for each major policy topic category in the Policy Agendas coding system. For comparison, in addition to correlations calculated from my *NYT* front-page dataset, the final column of Table 6.1 shows the same correlations calculated from Baumgartner and Jones' Congressional hearings dataset, consisting of all Congressional hearings between 1996 and 2005.

(Insert Table 6.1 about here)

There are three main observations to make about Table 6.1. The first thing to notice is that every single correlation is positive. While this chapter is all about the mutually reinforcing relationship between scope and attention, it would not have been

surprising to see a negative correlation to exist in at least one or two topic areas. So the fact that every topic area demonstrates a positive correlation between scope and attention, even if that correlation is very small, tells us that this relationship is pervasive throughout front-page attention.

The second thing to notice is that, within the *NYT* front page dataset, there is variance in correlations across topic categories. Correlations in this dataset range from 0.02 to 0.92, with a mean of 0.56. This wide variance suggests that the relationship between scope and attention does not behave in a uniform fashion across topic areas.⁴⁹ Looking at those topics with the lowest correlation values, this makes perfect sense. The three topic areas with the lowest correlations—International Affairs, Government Operations, and Defense—are all topic categories in which a single subtopic typically consumes the vast bulk of the attention, at least over the course of this dataset. In International Affairs, attention over the last six years has focused heavily on the subtopics of Terrorism (code 1927) and Middle East Issues (code 1920), together representing more than 50% of the stories in this topic in the entire dataset. In Government Operations, attention to the subtopic of Elections (code 2012)—driven primarily by the 2000 and 2004 Presidential races—constitutes nearly 70% of all stories on this topic. In Defense, the subtopic of War (code 1619)—driven by the U.S. military engagements in Afghanistan and Iraq—represents a full 78% of the attention to this topic. With single subtopics taking up so much of the discussion about these topics, the correlations

⁴⁹ However, we should not make too much of this variance in correlations across topics. Because the number of subtopics in each major topic category is arbitrarily assigned—that is, when they developed the Policy Agendas coding scheme Baumgartner and Jones did not assume that they were dividing each topic into commensurate subtopics of equal size—the scope of a topic discussion could be affected by the possible number of subtopics that happen to be in that topic category.

between amount of attention and scope of attention become diluted. Yet still, each correlation is positive.

The third observation to make about Table 6.1 is that, for many topic areas, the relationship between scope and attention is different in the Congressional hearings dataset than in the *NYT* front page dataset. In the Congressional hearings, we see much less variance in the correlations, with values ranging from 0.82 (Agriculture) to 0.93 (Housing). The discrepancy in the ranges between the two data sets can largely be explained by the fact that the hearings dataset has a lower level of skewness in attention across subtopics within major topic categories than does the front page dataset; in other words, the hearings dataset does not contain the same kind of enormous subtopics as we find in the *NYT* front page dataset, like Elections and War, that consume such a large proportion of attention to the larger topics. When we compare the mean percentage of attention to a topic consumed by one of its component subtopics, the two datasets look quite similar. In the front page dataset, the average amount of topic attention taken up by a given subtopic is 8%, compared with 9% in the hearings dataset. But unlike the front page dataset, where a single subtopic can consume up to 78% of the attention for a topic, in the congressional data the largest amount of attention within a topic area taken up by a single subtopic is 42% (the Right to Privacy and Access to Government Information subtopic, code 208, in the Civil Rights topic category). Again, the presence in the front page dataset of a number of subtopics that take up a large proportion of topic attention has a dampening effect on the correlation between scope and attention.

To see the big picture of how scope correlates with attention on the *NYT* front page, we turn to Figure 6.11. This figure shows the now-familiar scatter plot of scope

and attention data, overlaid with a trend line. Here, each point represents a single month of data for a single policy topic, plotting the total number of front-page stories on that topic against the number of distinct subtopics employed in discussing that topic that month. The overall correlation is strong ($R = 0.60$), and we can see how this correlation would be even stronger if it were not for a few outlying data points. For example, looking at Figure 6.11 we can see two data points in particular that stand out at the upper left-hand corner of the graph. The highest of these represents attention to the topic of Defense in April 2003. There were 153 stories on Defense in this month—representing 65% of the stories on the front page of the *New York Times* that month—and while only four Defense subtopics were used in this period, one of these subtopics (War) accounted for 148 of the 153 stories. The second outlying data point visible in Figure 6.11, slightly below and to the left of the data point just described, represents attention to the topic of Government Operations in November 2000. Predictably, while only three subtopics were used during this period, one of these subtopics (Elections) accounted for 120 of the 123 stories on Government. In other words, while the dataset presented in Figure 6.11 is quite large (with a total of 1,041 data points after excluding those cases with fewer than two stories), even a few outliers of this magnitude can make a difference. Overall, the link between scope and attention is very strong.

(Insert Figure 6.11 about here)

Figure 6.12 shows the same scatter plot results, but this time using the Congressional hearings dataset. Again, each dot represents data for one policy topic in one month, plotting the total number of hearings on that topic in that month against the number of distinct subtopics employed. As we saw when comparing the results of the

two datasets in Table 6.1, the relationship between scope and attention is even stronger in the context of Congressional attention. With a steeper slope and fewer outliers than the *NYT* front page dataset displayed, the overall correlation between scope and attention in Congressional hearings is 0.84.

(Insert Figure 6.12 about here)

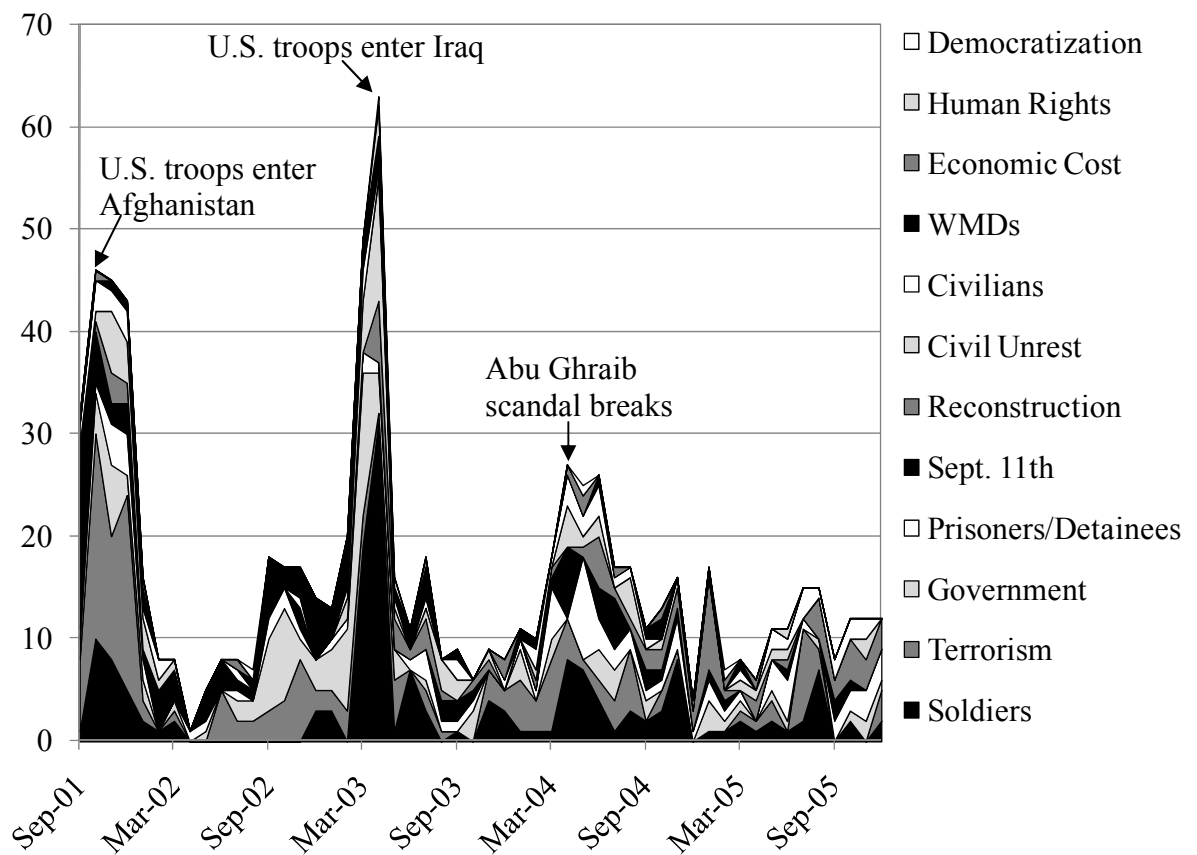
In conclusion, the scope of an issue debate and the amount of attention the issue receives have a mutually reinforcing relationship. Though the link between scope and attention operates differently within different topic areas and under different circumstances, in general this relationship has a powerful effect on media dynamics. In particular, the reinforcing effects of scope expansion and rising attention on each other can produce a swell of front-page coverage—an attention cascade.

Table 6.1 Correlations between Amount of Attention to Major Topics and the Scope of That Attention (Measured as Number of Distinct Subtopics Employed) in *New York Times* Front-Page Coverage, 2000–2005, and Congressional Hearings, 1996–2005.

Code	Topic	NYT Front Page	Congressional Hearings
07	Environment	0.92	0.85
04	Agriculture	0.82	0.82
14	Housing & Community Development	0.74	0.93
13	Social Welfare	0.74	0.87
18	Foreign Trade	0.69	0.89
01	Macroeconomics	0.69	0.84
08	Energy	0.68	0.86
03	Health	0.65	0.91
21	Public Lands & Water Management	0.65	0.80
06	Education	0.63	0.85
10	Transportation	0.63	0.84
05	Labor, Employment, & Immigration	0.61	0.90
02	Civil Rights, Minority Issues, & Civil Liberties	0.61	0.88
12	Law and Crime	0.59	0.89
17	Space, Science, Technology, & Communications	0.39	0.88
15	Banking, Finance, & Domestic Commerce	0.32	0.89
16	Defense	0.20	0.84
20	Government Operations	0.14	0.84
19	International Affairs & Foreign Aid	0.02	0.90
N		14,544	24,254
Mean		0.56	0.87
Standard Deviation		0.24	0.03

Note: Congressional Hearings values are calculated from data originally collected by Frank R. Baumgartner and Bryan D. Jones, with the support of National Science Foundation grant number SBR 9320922, which were distributed through the Center for American Politics and Public Policy at the University of Washington and/or the Department of Political Science at Penn State University. Neither NSF nor the original collectors of the data bear any responsibility for the analysis reported here.

Figure 6.1 *NYT* Front-Page Stories on the U.S. Conflicts in Afghanistan and Iraq across Frame Dimensions by Month, Sept. 2001–Dec. 2005.



Note: The frame dimensions listed in the legend to the right correspond, top to bottom, with the shaded layers of the figure. Democratization is the top layer, Human Rights is the second highest layer, and so on. The order of the dimensions is based on the frequency of their use across the entire dataset, in ascending order of frequency from bottom to top. The Soldiers dimension, at the bottom of the figure, was employed the most frequently, the Terrorism dimension was the second most used, and so on.

Figure 6.2 *NYT* Front-Page Attention to the U.S. Conflicts in Afghanistan and Iraq Compared with the Scope of That Attention by Month, Sept. 2001–Dec. 2005 (Line Graph).

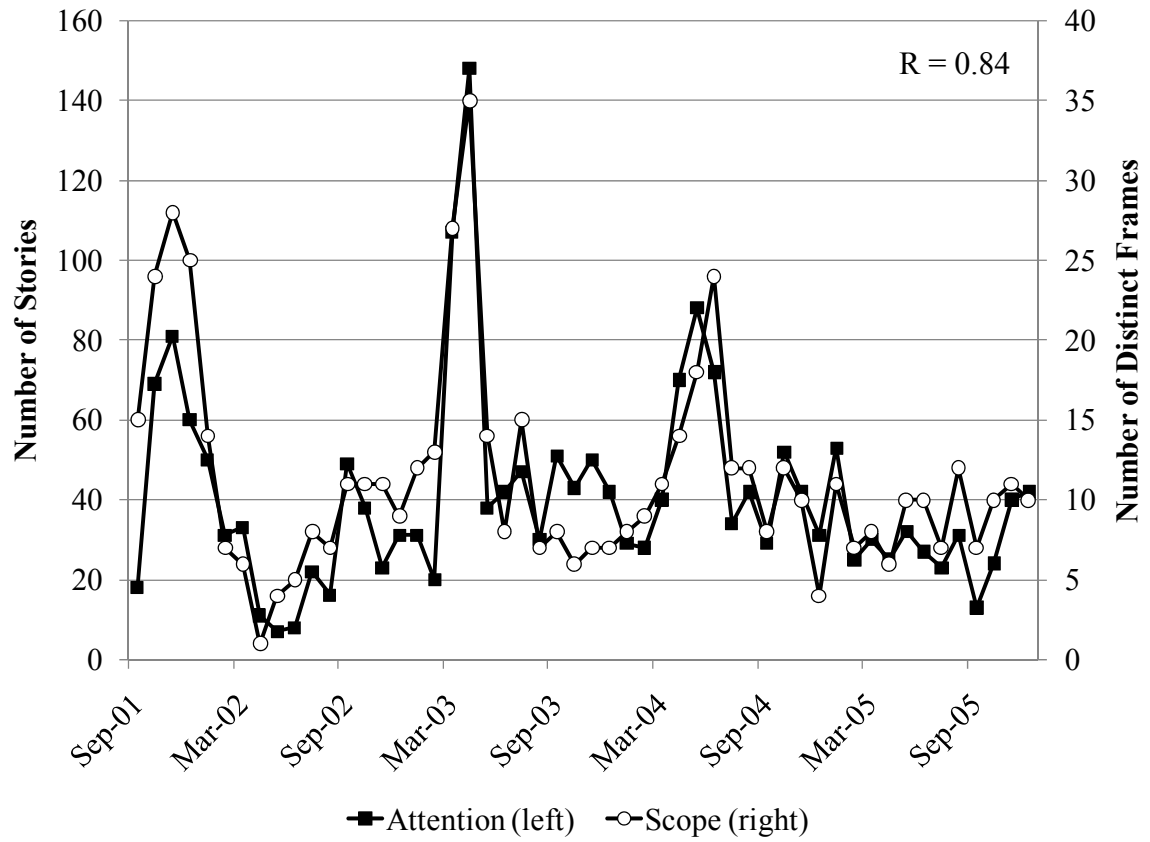


Figure 6.3 *NYT* Front-Page Attention to the U.S. Conflicts in Afghanistan and Iraq Compared with the Scope of That Attention by Month, Sept. 2001–Dec. 2005 (Scatter Plot).

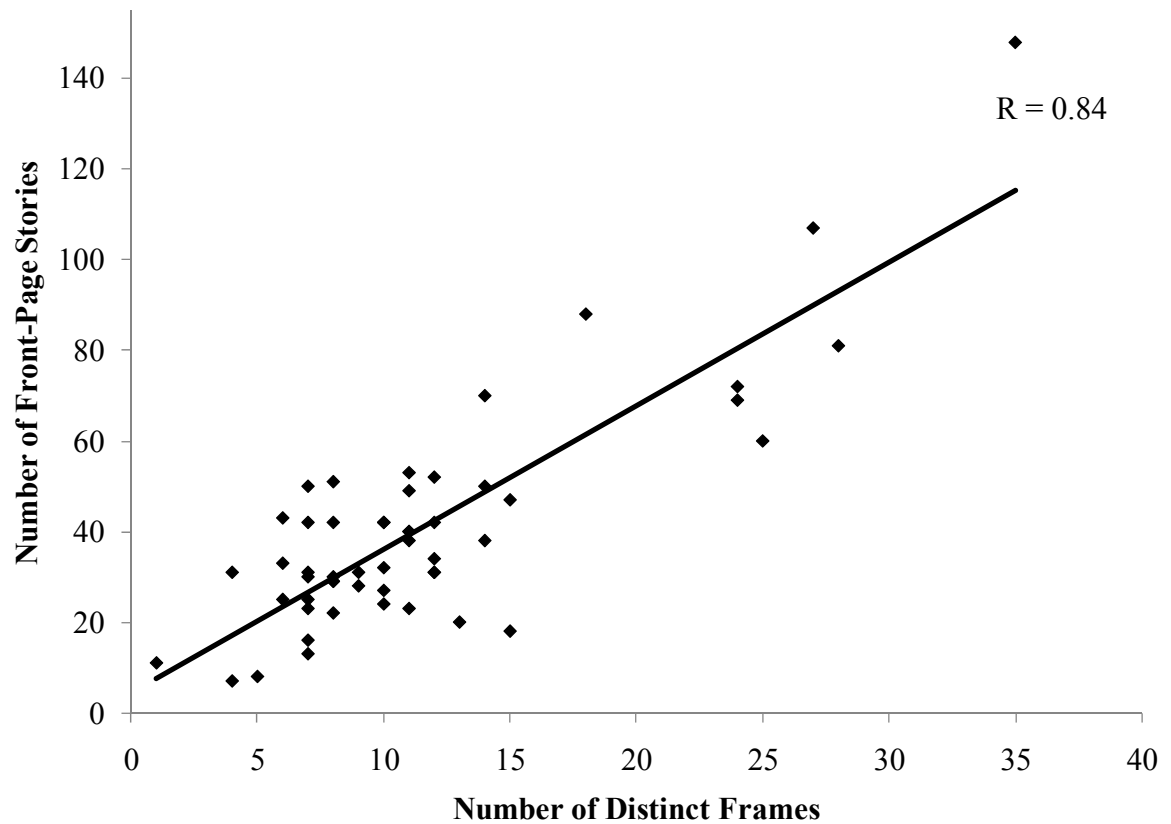
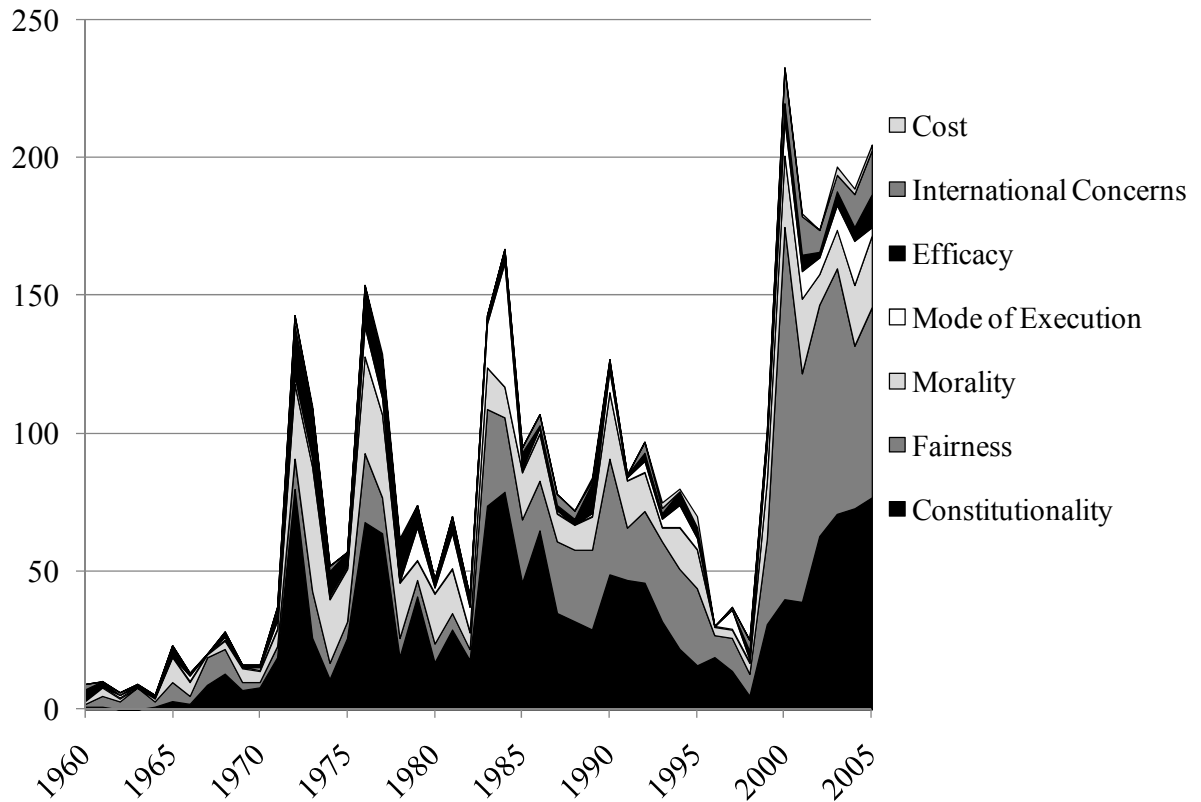
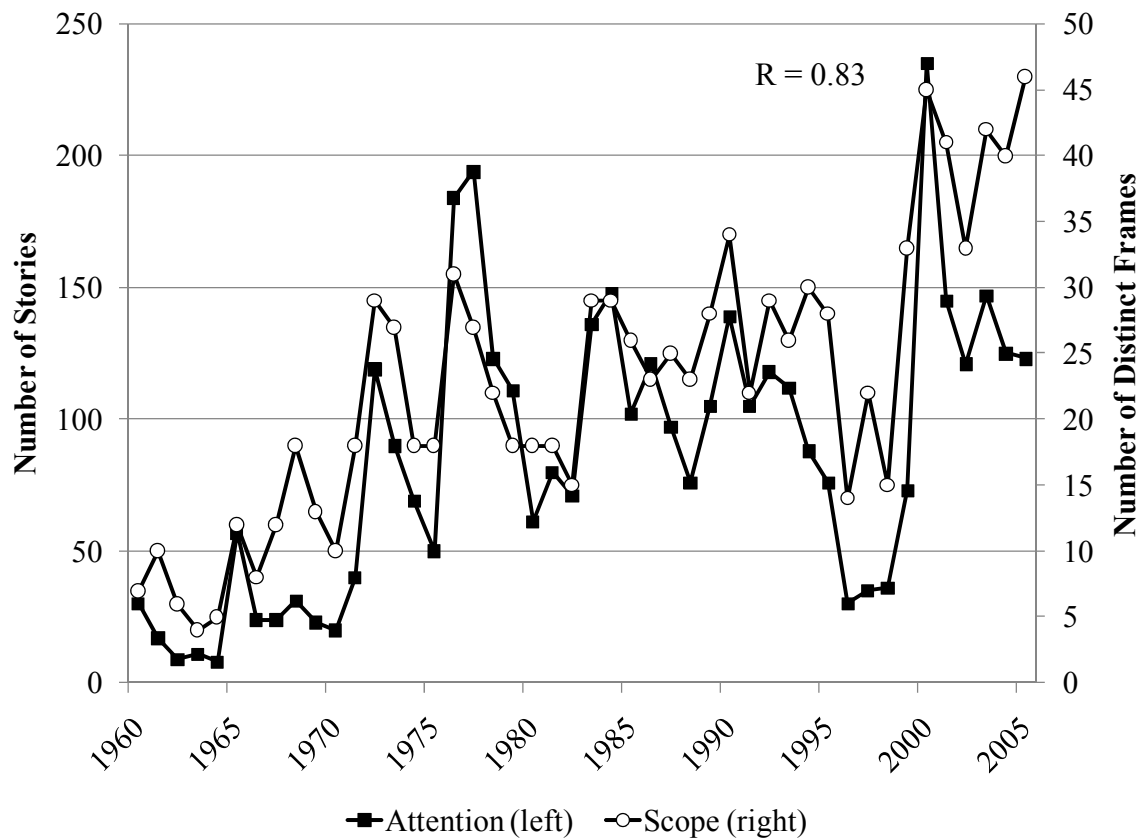


Figure 6.4 *NYT* Stories on Capital Punishment across Frame Dimensions by Year, 1960–2005.



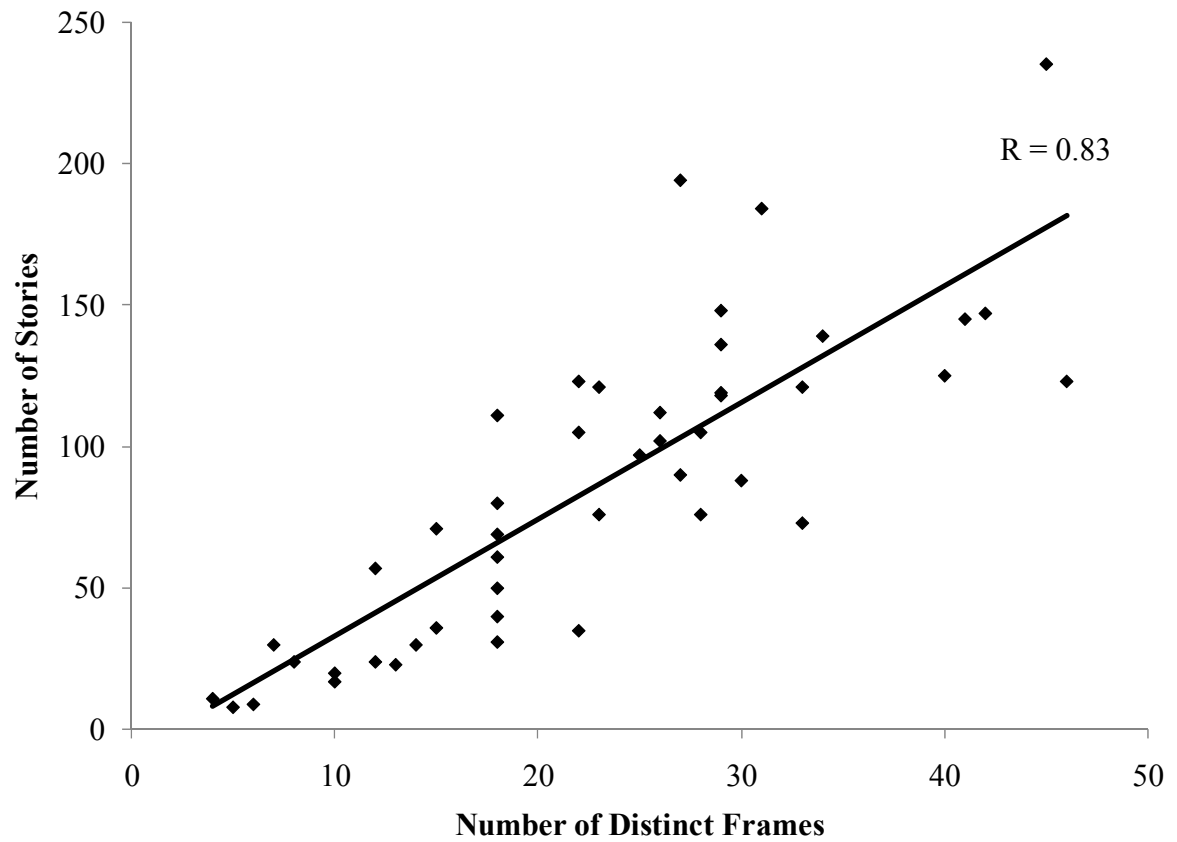
Note: Data calculated from Baumgartner et al. 2008. The frame dimensions listed in the legend to the right correspond, top to bottom, with the shaded layers of the figure. Cost is the top layer, International Concerns is the second highest layer, and so on. The order of the dimensions is based on the frequency of their use across the entire dataset, in ascending order of frequency from bottom to top. The Constitutionality dimension, at the bottom of the figure, was employed the most frequently, the Fairness dimension was the second most used, and so on.

Figure 6.5 *NYT Attention to Capital Punishment Compared with the Scope of That Attention by Year, 1960–2005 (Line Graph).*



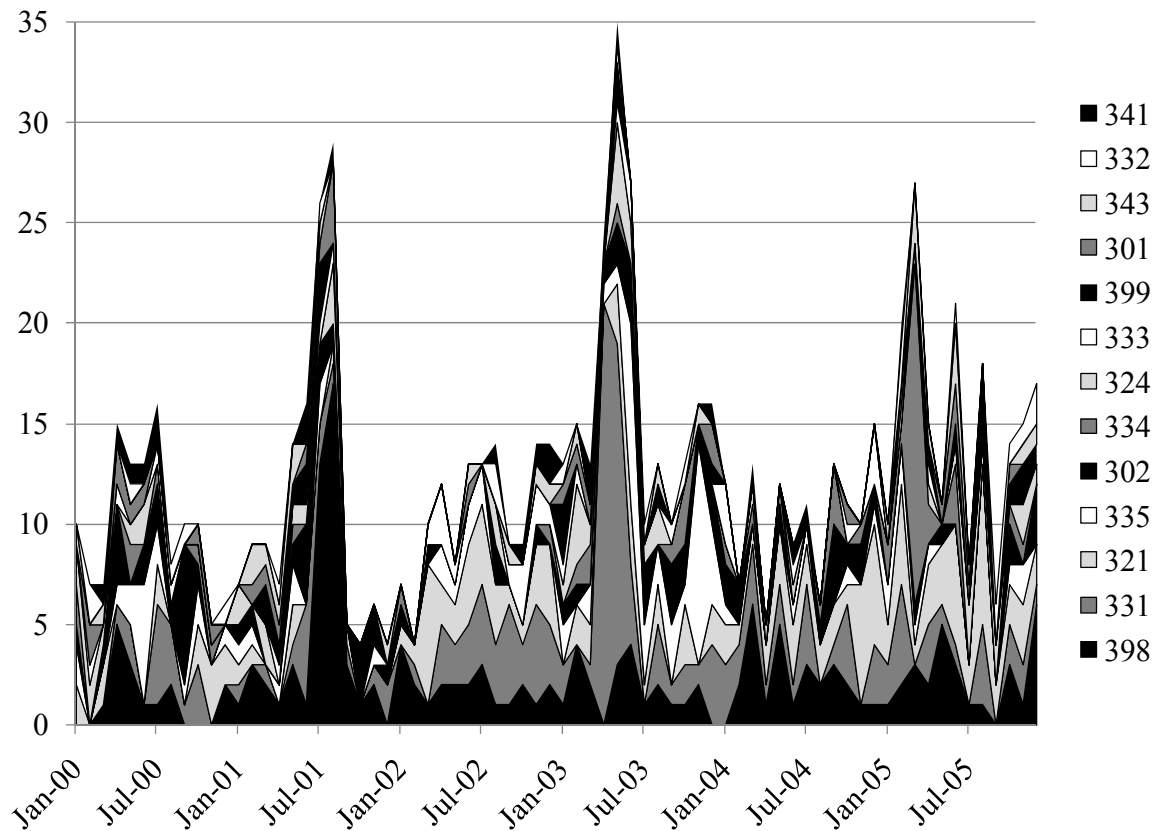
Note: Data calculated from Baumgartner et al. 2008.

Figure 6.6 *NYT* Attention to Capital Punishment Compared with the Scope of That Attention by Year, 1960–2005 (Scatter Plot).



Note: Data calculated from Baumgartner et al. 2008.

Figure 6.7 *NYT* Front-Page Stories on Health across Subtopics by Month, 2000–2005.



Note: For the purposes of this figure, only those subtopics that received 20 or more front-page stories in the dataset are displayed. The Policy Agendas Project subtopic codes listed in the legend to the right correspond, top to bottom, with the shaded layers of the figure. Subtopic 341 (Tobacco Abuse, Treatment, and Education) is the top layer, subtopic 332 (Infant and Child Health) is the second highest layer, and so on. The order of the subtopics is based on the frequency of their use across the entire dataset, in ascending order of frequency from bottom to top. Subtopic 398 (Health Research and Development), at the bottom of the figure, was employed the most frequently, subtopic 331 (Prevention, Communicable Diseases, and Health Promotion) was the second most used, and so on. See Appendix A for a complete list of subtopic category descriptions.

Figure 6.8 *NYT* Front-Page Attention to Health Compared with the Scope of That Attention by Month, 2000–2005.

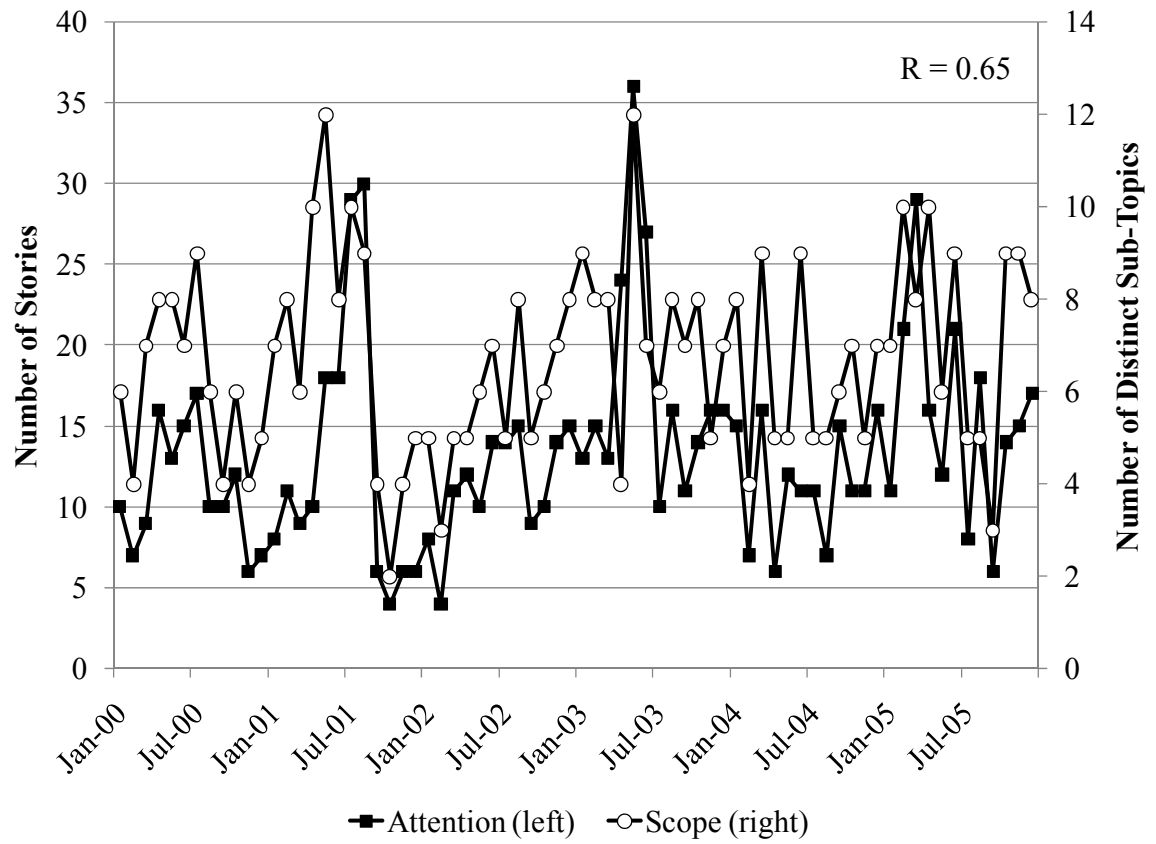
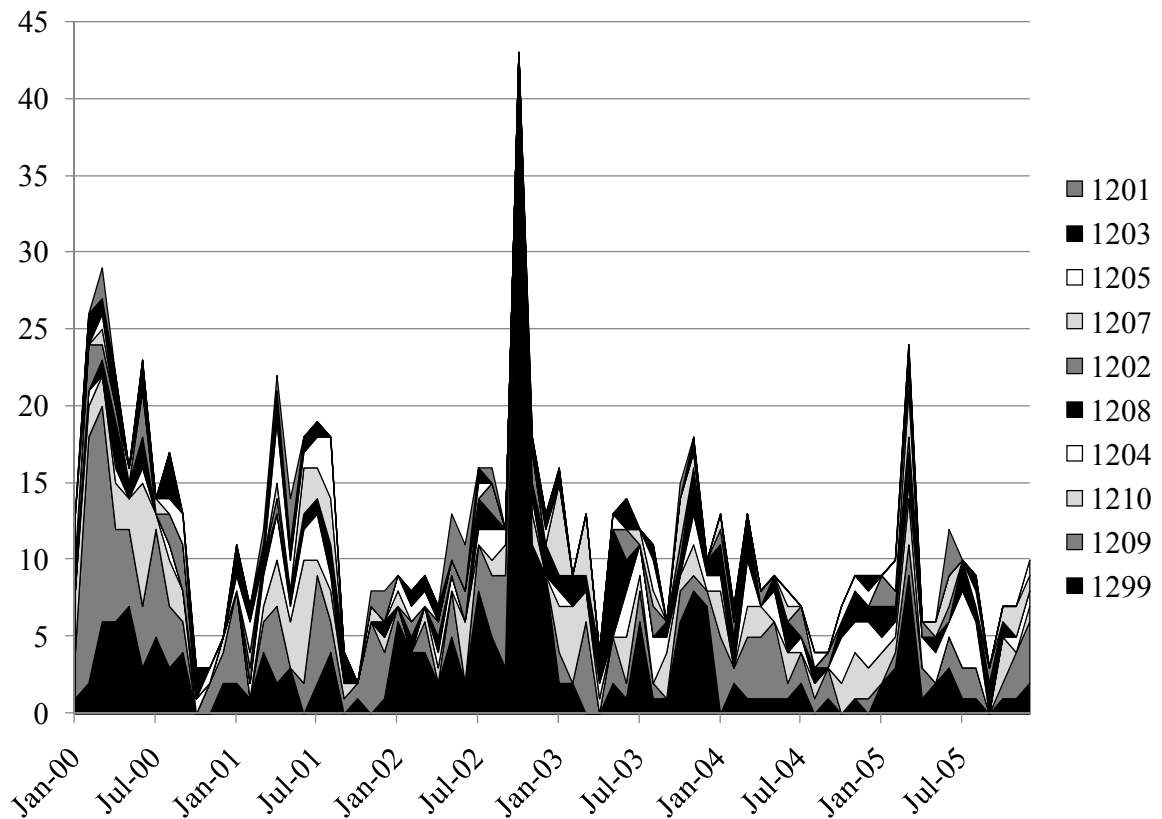
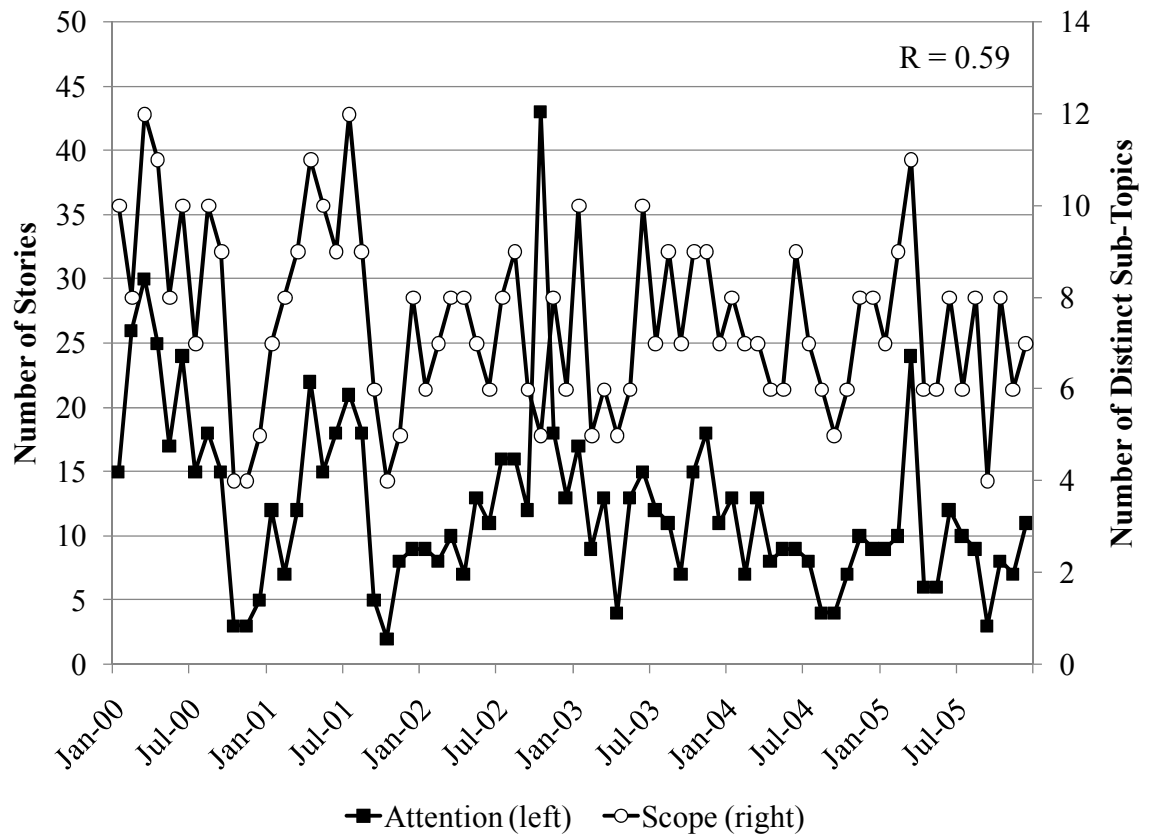


Figure 6.9 *NYT* Front-Page Stories on Law and Crime across Subtopics by Month, 2000–2005.



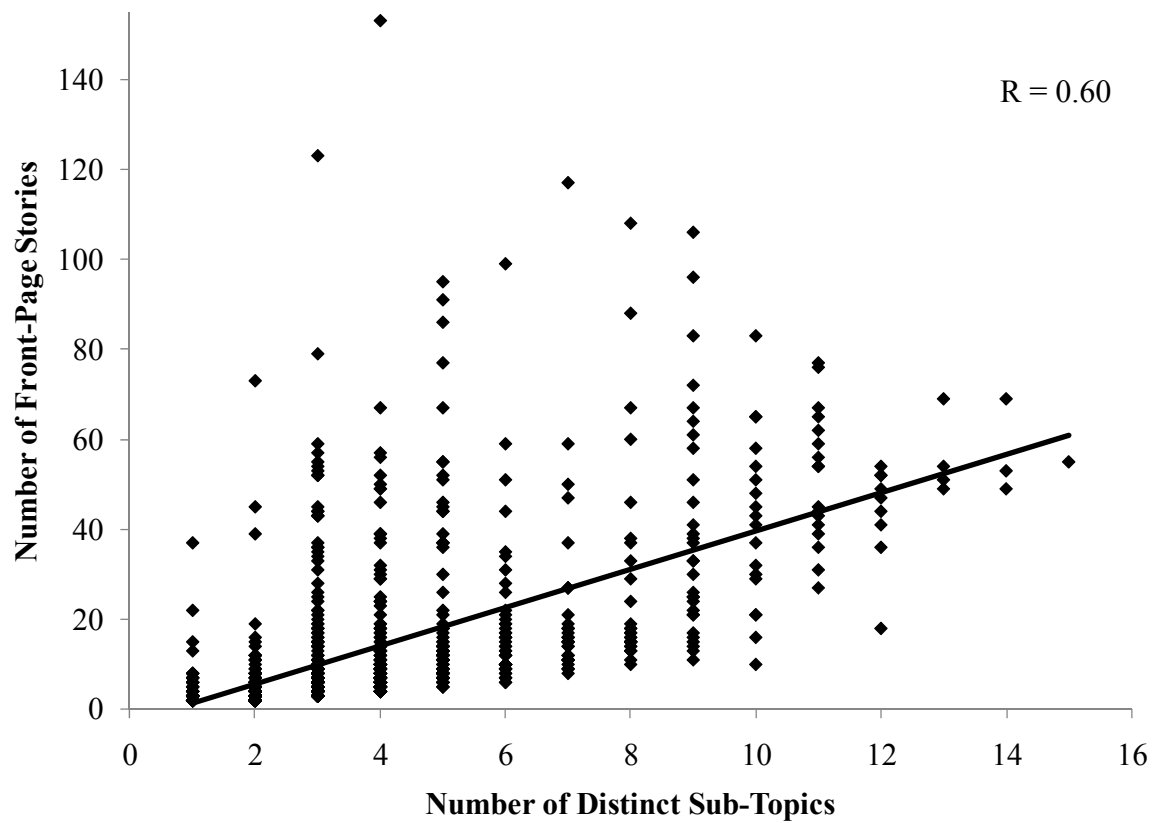
Note: For the purposes of this figure, only those subtopics that received 20 or more front-page stories in the dataset are displayed. The Policy Agendas Project subtopic codes listed in the legend to the right correspond, top to bottom, with the shaded layers of the figure. Subtopic 1201 (Executive Branch Agencies Dealing with Law and Crime) is the top layer, subtopic 1203 (Illegal Drug Production, Trafficking, and Control) is the second highest layer, and so on. The order of the subtopics is based on the frequency of their use across the entire dataset, in ascending order of frequency from bottom to top. Subtopic 1299 (Individual-Level Crime Reports), at the bottom of the figure, was employed the most frequently, subtopic 1209 (Police, Fire, and Weapons Control) was the second most used, and so on. See Appendix A for a complete list of subtopic category descriptions.

Figure 6.10 *NYT* Front-Page Attention to Law and Crime Compared with the Scope of That Attention by Month, 2000–2005.



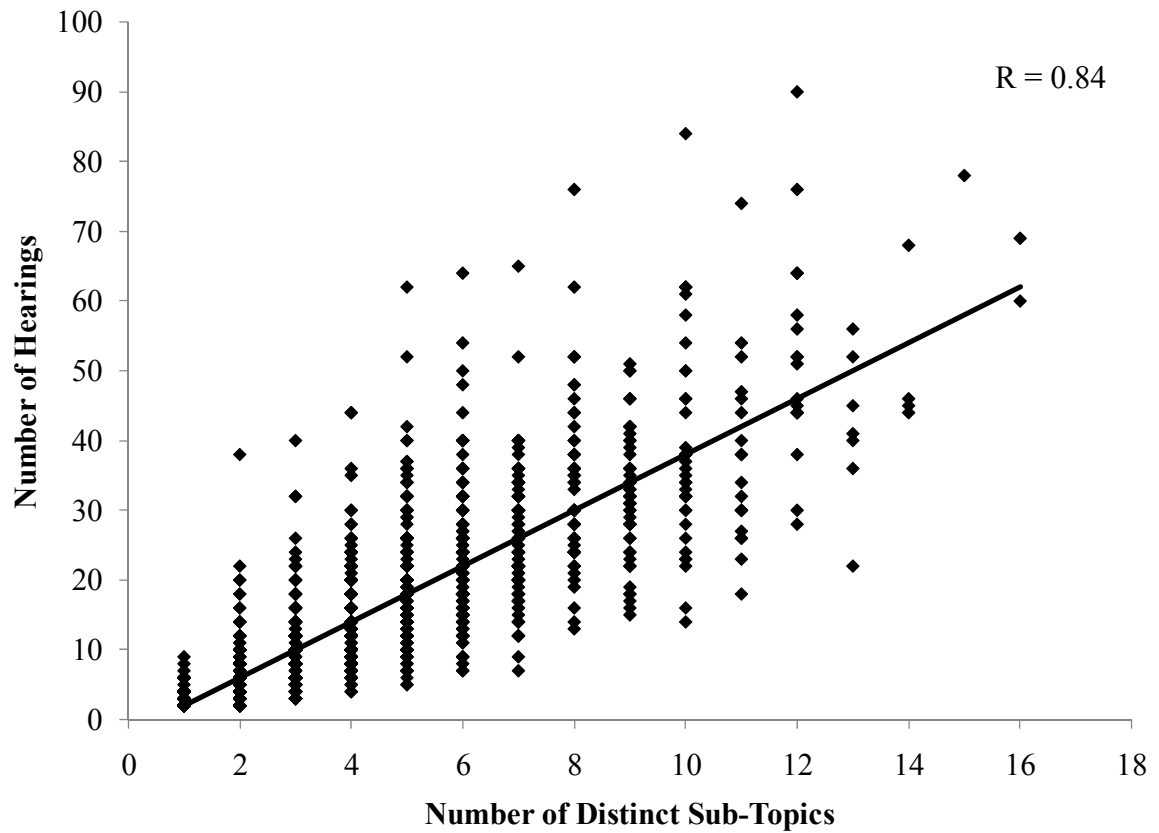
Note: Excluding the month of October 2002 (when attention to crime spiked during the DC-area sniper attacks), the correlation between the number of stories and the number of distinct subtopics is 0.80.

Figure 6.11 *NYT* Front-Page Attention across Major Topic Issues Compared with the Scope of That Attention by Month, 2000–2005.



Note: Scatter plot and correlation calculated after eliminating data points with less than two stories on the given topic in a given month.

Figure 6.12 Congressional Attention across Major Topic Issues Compared with the Scope of That Attention by Month, 1996–2005.



Note: Scatter plot and correlation calculated after eliminating data points with less than two hearings on the given topic in a given month. Calculated from Baumgartner and Jones' Policy Agendas Project Congressional Hearings Dataset.

Chapter 7

The Myth of Agenda Control: Why Attempts to Manage Media Attention Will Backfire

In the political system, where problems and perspectives are many and attention is scarce, front-page news is a powerful arbiter of what is deemed important and what is ignored. Issues that achieve space on the public agenda gain more than front-page status; they gain heightened access to nearly every part of the political environment, from citizens' living rooms to Pennsylvania Avenue. Front-page issues provide the stuff of hallway conversations, lobbying leverage points, and the nation's to-do list.

In the work presented above, I examined the distribution of front-page attention across time and across policy issues, assessing patterns of change in this scarce but important resource. In all my analyses, a central theme has emerged. Front-page attention is neither random nor chaotic; it is highly cyclical. While we would never want to bet money on what coverage will look like on any specific day, there are strong aggregate patterns in how the composition of the front page changes over time. These patterns allow us to understand better the news-selection process and to model attention empirically. Most importantly, these aren't just any patterns; these are patterns of skewness and disproportionality.

The media's inability to process information efficiently produces an uneven division of attention across policy issues. Some items get wide reign over the agenda while others barely get noticed at all. The media's system of information processing also produces uneven rates of change. Over time, we see that periods of agenda stasis are frequently punctuated by abrupt and dramatic change. The extended periods of stasis are

produced both by the media's limited capacity to process information as well as by specific negative feedback factors in the media system, such as journalistic incentives to cover issues that have already found success on the front page. In contrast, the moments of agenda overhaul are driven by positive feedback elements in the system, such as the activities and attention of policy entrepreneurs, the leanings of public opinion, and the very nature of how an issue is discussed—that is, the scope of discussion. When attention cascades occur, they hit the agenda with full force and usually without warning.

But what do these findings really mean? They mean that in the long run media attention is surprisingly predictable. But in the short run, media attention is predictable only in that it is volatile. The question is not *whether* the current agenda will be displaced in an eruption of change, but *when*.

For policy entrepreneurs, the implication is simple: It is impossible to maintain long-term control of the agenda. Whether it is tomorrow, next week, or next month, attention will cascade, and the agenda will spin out of control.

Consider President George W. Bush and the U.S. military operations in Afghanistan and Iraq. Arguably, if any political actor could stand as a counterfactual to the uncontrollable nature of media attention, it would be the Bush administration. Given the context of the post-9/11 world and the sophisticated communication strategies the Bush administration developed, the U.S. conflicts in Afghanistan and Iraq have offered prime opportunities for executive media control.

From the very beginning of the military conflicts, the President and his staff knew how important it would be to keep tight control of media attention about the war in order to gain both public and Congressional support. The desire to control the media is

certainly not unique to the Bush administration. All Presidents—indeed, all policy entrepreneurs—have incentives to shape the media’s presentation of the world. But unlike many Presidencies, the Bush administration has been unusually sophisticated in its approach to controlling media attention. To begin with, the administration framed the war very carefully, focusing on considerations of democratization, human rights, and weapons of mass destruction. In contrast, the administration steered clear of discussing the war in terms of troop deaths, economic cost, the treatment of detainees at Guantanamo or Abu Ghraib, or the effects of the war on local citizens in Iraq. In short, the administration did its best to keep discussion of the war along favorable dimensions of debate.

In addition to using press conferences and public speaking engagements to set the agenda for how the war would be discussed, the administration was highly proactive in framing the war along the narrow set of advantageous dimensions (democratization, human rights, WMDs, etc.) within elite political bodies and within media organizations themselves. For example, President Bush sent his Secretary of State, Colin Powell, to the United Nations with a tiny vial used for an effective visual demonstration of the destructive power of anthrax. It’s tough to think about considerations like the economic cost of war while looking at a vial representing a teaspoon of anthrax (approximately the amount that killed two U.S. postal workers in 2001) and hearing the Secretary of State say that Iraq had declared 8,500 litres of the stuff.

In a decision that was nothing short of political genius, the President and his staff also allowed journalists to cover the fighting in Afghanistan and Iraq from the highly newsworthy—but highly controlled—perspective of being embedded with U.S. troops.

Foreign correspondents were thrilled to have this unprecedented opportunity to cover wartime activities from the front lines, and the administration breathed a sigh of relief, knowing that journalists traveling, eating, sleeping, and in many cases fighting alongside U.S. soldiers would be understandably prone to present the U.S. military efforts in a favorable light (Brandenburg 2005; Pfau et al. 2005).

Perhaps most importantly, the administration channeled its framing of the war directly into U.S. media outlets by managing a group of retired military officers offered to the media as independent military analysts able to provide expert and unbiased assessments of the war. A recent investigative report by journalist David Barstow (appearing on the front page of the *Times*, by the way) describes the use of these military analysts as “a Pentagon information apparatus” that, in conjunction with the White House, functioned as “a campaign to generate favorable news coverage of the administration’s wartime performance” (Barstow 2008). The coaching of the military analysts—most of whom “have ties to military contractors vested in the very war policies they are asked to assess on air”—constituted a wide-scale and savvy effort to control the content and spin of media coverage about the war.

Again, the effort to control the media is nothing new to the White House or the Pentagon. But the Bush administration employed particularly savvy methods in its efforts to contain the news. In the description of the administration’s information campaign below, Barstow describes the infiltration of administration-controlled military analysts into the news-selection process as “a kind of media Trojan horse”:

“Records and interviews show how the Bush administration has used its control over access and information in an effort to transform the analysts into a kind of media Trojan

horse—an instrument intended to shape terrorism coverage from inside the major TV and radio networks.

“Analysts have been wooed in hundreds of private briefings with senior military leaders, including officials with significant influence over contracting and budget matters, records show. They have been taken on tours of Iraq and given access to classified intelligence. They have been briefed by officials from the White House, State Department and Justice Department, including Mr. Cheney, Alberto R. Gonzales and Stephen J. Hadley.

“In turn, members of this group have echoed administration talking points, sometimes even when they suspected the information was false or inflated. Some analysts acknowledge they suppressed doubts because they feared jeopardizing their access...

“...Kenneth Allard, a former NBC military analyst who has taught information warfare at the National Defense University, said the campaign amounted to a sophisticated information operation. ‘This was a coherent, active policy,’ he said.

“As conditions in Iraq deteriorated, Mr. Allard recalled, he saw a yawning gap between what analysts were told in private briefings and what subsequent inquiries and books later revealed.

“ ‘Night and day,’ Mr. Allard said, ‘I felt we’d been hosed’ ” (Barstow 2008).

For a while, the administration was successful in keeping the war debate under control. For more than a year in fact, media coverage of the war remained strongly positive (Boydston and Glazier 2008) and public support remained very high (Franklin 2007). But eventually, new frames began to enter the debate. During an interview with Donald Rumsfeld, a soldier asked about troop body armor. Cindy Sheehan staged a protest outside the Bush ranch in Texas, focusing attention on the deaths of U.S. soldiers. Members of Congress began to make public statements about the financial cost of the

war. Photos of torture at Abu Ghraib were released, raising questions about the integrity and organizational structure of the military. And even the same military analysts who had proven invaluable in helping to frame media attention to the war in pro-administration terms began to speak out against how the conflict was being handled. As Barstow writes:

“A few expressed regret for participating in what they regarded as an effort to dupe the American public with propaganda dressed as independent military analysis.

“ ‘It was them saying, we need to stick our hands up your back and move your mouth for you,’ Robert S. Bevelacqua, a retired Green Beret and former Fox News analyst, said” (Barstow 2008).

As more and more new frames entered the debate, the less and less control the Bush administration was able to keep over the agenda. And it wasn’t just the substantive shift in the dimensions of the conversation that mattered. As I have shown, when the scope of a debate widens, attention to the debate tends to increase. Precisely when the administration hoped that attention to the war would wane and shift instead to education or health care or the environment, discussion of the war expanded to include a multitude of different dimensions (including many unfavorable ones) and overall attention to the war increased. At several points since 2001, each time the scope of the debate expanded quickly attention also spiraled quickly out of control (Boydston and Glazier 2008). And in the wake of each of these attention cascades, the public has been quick to respond. Over the entire duration of the war, public support has declined dramatically. Depending on the measures considered, public approval has dropped between 35 and 50 percentage points since 2003 (Franklin 2007). In the world of relatively stable public opinion marginals, this change is staggering.

In short, the frequency of volatile explosions in media attention—driven in large part by the expanding scope of discussion—means that any single political elite, even a group of very powerful elites, will have a very difficult time keeping control of the agenda. When an issue gets lots of attention, it will be nearly impossible to contain the debate to a single dimension, and the scope will inevitably expand. When the scope expands, it will be nearly impossible to keep the public and other policy entrepreneurs and journalists from noticing the expansion, and attention will increase. As a result, the debate will spin out of control, just as we have witnessed with the war in Iraq. If the highly sophisticated efforts launched by the Bush administration were not enough, it is difficult to imagine what a successful attempt at long-term elite control of the media agenda would look like.

What's a policy entrepreneur to do? In fact, perhaps the best strategy for someone trying to control an issue debate is to stay as far away from media attention as possible. Yet the uncontrollable nature of the agenda is not all bad news for policy entrepreneurs; it also offers a world of opportunity for people hoping to break a policy debate wide open. Entrepreneurs unhappy with the status quo need to think strategically about how to speed the punctuation up and, to whatever degree possible, how to direct the punctuation in a profitable direction. In particular, the best use of limited political resources is not to try to say a policy message louder, but to diversify the message itself.

For issues that will receive media coverage no matter what—like the war, Presidential campaigns, or crisis events—the best strategy for policy entrepreneurs is to evolve. Rather than employing a fixed strategy of agenda control again and again throughout the course of an issue debate, entrepreneurs would be well served to update

their strategy in real time to account for changes in the political system. My examination of front-page news shows that the media follows a pattern of stasis and explosive change that, over the long run, is highly predictable. But for policy entrepreneurs “on the ground,” the main point is that individual and dramatic changes in attention are very difficult to predict. The only way to navigate the unpredictable turns in public attention may be to adopt an evolutionary approach to politics.

Especially in today’s media environment, “social networking poses challenges for marketers, no matter what—or whom—they’re selling. Traditional top-down messages don’t often work in an ecosystem where the masses are in charge” (McGirt 2008). The implications of my analysis are that, no matter what, entrepreneurs trying to market an idea, a policy, a frame, or even a political candidate will not be able to control media attention. But if they play their cards right, entrepreneurs can relinquish control on their own terms.

By rolling with the punches—assessing the current state of the political system and updating strategies accordingly, keeping in mind that an attention cascade might be right around the corner—policy entrepreneurs won’t be able to control the agenda entirely. But when attention cascades do occur, these entrepreneurs will be better able to respond and adapt to the change in a way that resonates favorably with the public and other elites in the context of the revised political landscape. Thus, while policy entrepreneurs dissatisfied with the current state of the agenda need to think strategically about how to increase the system’s susceptibility to punctuation, entrepreneurs happy with the status quo need to think strategically about how to insulate the system from punctuation—and how to change strategy when punctuation occurs.

For example, whatever the outcome of the 2008 Presidential campaign, the Obama campaign (like the Dean campaign in 2004) offers an experiment of sorts in evolutionary updating by means of the Internet. The Obama campaign website is highly dynamic, including “constant updates, videos, photos, ringtones, widgets, and events to give supporters a reason to come back to the site. On mybarackobama.com, the campaign’s quasi-social network, Obamaniacs can create their own blogs around platform issues, send policy recommendations directly to the campaign, set up their own mini fund-raising site, organize an event, even use a phone-bank widget to get call lists and scripts to tele-canvass from home” (McGirt 2008).

In other words, at least in the online environment, the Obama campaign has relinquished an enormous measure of control over the agenda, but it has done so strategically, in a way that encourages proactive rather than subversive citizen engagement. Most importantly, by hosting a platform for an evolutionary network community, the campaign is able to keep an eye on the unpredictable changes that, inevitably, will occur in supporters’ responses to the campaign. This way, the campaign can react immediately by updating the outgoing message, thus minimizing potentially disastrous political fallout. “ ‘This is where the Obama campaign has been strategic and smart,’ says Andrew Rasiej, founder of the Personal Democracy Forum, a Web site that explores how technology is changing politics. ‘They’ve made sure the message machine was providing the message where people were already assembled. They’ve turned themselves into a media organization’ ” (McGirt 2008).

Of course, there are some real dangers in turning a policy debate or Presidential campaign into an “open source” information environment—the “I Have a Crush on

Obama” YouTube video is a good example—but this evolutionary approach can be a beneficial strategy for entrepreneurs in a political environment where maintaining control of the agenda through traditional communication patterns is simply an unviable option. And in many cases, the advantages of the evolutionary approach can outweigh the dangers—for example, the “Yes We Can” video mashup by Black Eyed Peas front man will.i.am “cost the [Obama] campaign nothing and became a viral hit” (McGirt 2008).

One of the key elements behind the success of the open-source approach to media control is the fact that this approach necessarily keeps the scope of the political discussion wide. By developing a self-sustaining discussion network open to multiple voices and perspectives, policy entrepreneurs can increase the chances that the discussion will stay fresh and energized, thereby decreasing the chances that it will become stagnant and fall off the public’s agenda. “Giving up control online, in the right way, unleashes its own power” (McGirt 2008).

The idea that diversification is beneficial to the success of an endeavor has been explored in other contexts. For example, Scott Page’s (2007) work on diversification in the realm of human organizations shows that a diversity of perspectives offers an even greater advantage in group tasks than does intellect or experience. Given two groups of people trying to accomplish the same goal, where one group is more skilled for the task at hand but homogenous and the other group is less skilled but heterogeneous, all else being equal the latter group will be more likely to succeed (Page 2007).

In the context of the media, the idea that diversification of scope has a reinforcing causal relationship with attention offers a new way of thinking about political access. The susceptibility of the front-page agenda to abrupt and uncontrollable change means

that policy entrepreneurs can never control the agenda, but they can find opportunities within it. When attention to an issue increases, entrepreneurs have increased opportunity to add their angle to the issue debate. In parallel, when an issue debate expands, entrepreneurs have increased opportunity to call attention to the agenda. If conditions are right, the introduction of new dimensions into a debate—a feat which, while tricky, does not necessarily demand large amounts of money or political clout—can be enough to ignite an attention cascade. In this way, even the smallest voice can find representation on the agenda.

Appendix A

Tracing Front-Page Attention, 2000–2005: The Annotated Codebook for Applying the Policy Agendas Coding System to *New York Times* Front-Page Articles

This appendix contains, in its original form, the coding instructions and guidelines that were provided to the team of research assistants who aided me in collecting the dataset of *New York Times* front-page articles, 2000–2005, coded by major topic and by issue/sub-topic.

The codebook that follows integrates two sets of coding guidelines:

- 1) In non-bold text, the original text of Baumgartner and Jones' Policy Agendas Project Topics Codebook, which can be found at <http://www.policyagendas.org/codebooks/topicindex.html>
- 2) In bold text, special annotations that were integrated into the Policy Agendas Codebook for the task of coding *New York Times* (NYT) front-page articles

The Policy Agendas Topics Codebook was created initially for the purpose of coding such items as Congressional hearings and budget reports, the texts of which are fundamentally different—both in structure and in substance—from the daily news articles appearing on the front page of the *New York Times*. Therefore, annotations have been added throughout the Topics Codebook to assist coders in applying the Policy Agendas coding scheme to these front-page news articles. The annotations should serve to clarify and specify—without contradicting—the broader guidelines of the Policy Agendas Codebook.

The Annotated Codebook proceeds as follows: First, a set of general coding instructions is provided to orient coders to the process of identifying and coding NYT front-page articles. Second, the complete list of Policy Agendas Topics codes is presented. The list of codes is first organized by major topic category at the two-digit level (e.g., 02 is the code for Civil Rights, Minority Issues, & Civil Liberties). Then, within each major topic area, the Policy Agendas Codebook specifies subtopic areas (i.e., “issues”) at the four-digit level (e.g., 0207 is the code for Freedom of Speech and Religion). In each topic category, items from the Policy Agendas Codebook are listed first, with the Addendums integrated in bold throughout.

As the Coding Instructions section below will describe, the coder's most important task is to assign a single four-digit code to each NYT article that captures the *primary* subtopic of that article.

There are two main challenges to completing the coding task.

1. First, the coder must use his or her judgment, in consultation with the project director, to identify the single subtopic area that best describes the substance of the article. In many cases, this will be no easy job. Articles often refer to multiple subtopics and it may be difficult to discern which one is the primary issue at hand.
2. Second, in general the coder is responsible for ensuring that articles following the same specific storyline are coded in the same way. This requirement makes things difficult because often different articles about the same storyline will highlight very different aspects of the article, especially when policy advocates endeavor to redefine, or “frame,” an issue in a different way. Sometimes articles about the same real-world problem or event will branch into multiple storylines, in which case different codes may be used for the different subtopics being discussed. But it is important to understand that our task is not to capture framing but to capture the issue under discussion, specifically because later analysis examining the framing of each issue will rely on the premise that articles about the same subtopic were categorized together. Thus, it is imperative that articles along the same storyline be coded consistently to the four-digit level of coding.

Coding Instructions

Step 1: Get Familiar with the Data

After being assigned a set of articles to code, begin by opening the Microsoft Access file and browsing through the articles to make sure that everything looks in order. The articles should be arranged chronologically and, within each day, alphabetically according to sequence letter (a, b, c, etc.). Each day should have somewhere between 5 and 12 articles (i.e., you should only rarely see the sequence letters reach higher than j or k). Notify the project director if you see any problems.

*** Hint: If you click on the box in the upper right-hand corner of the Access file to maximize the window, the entire coding form will fit nicely on your screen. ***

Step 2: Read the Headline and First Three Paragraphs of the Article

Usually the information included in the headline and first three paragraphs will be sufficient to code the article. But even if it is not, you should not read beyond the first three paragraphs. Do your best to code the article based on the information you’ve read. If you have trouble discerning the code from this amount of information, put a note in the Notes section of the coding form and ask the project director for assistance. Remember that the headline of an article contains valuable information; don’t forget to read it!

*** For almost each day included in the database, there will be an “Inside” article that is not an article at all but rather a listing of contents to be found within the paper. For these, leave the code box blank and type the word “Inside” in the subject field, then move on to the next article. ***

Step 3: Summarize the Issue

In the textbox entitled “Subject of Article,” give a *brief* description of the issue at stake in the article. Don’t forget to consider the headline, as often the headline will encapsulate the primary issue being discussed. Important: This summary is *not* a summary of the article but rather a summary of the primary topic being discussed. Think of this textbox as a most precise level of issue-classification within the broader topic and subtopic classifications that you’ll be assigning through the four-digit code. Don’t be concerned with the “news” of the article; just the issue. Eventually, these summaries

will serve as a searchable database for political scientists hoping to find front-page *NYT* articles on a specific keyword. So make sure you include all major terms relevant to the article's topic in your summary. And if an article references more than one subtopic, include the key terms of each main subtopic in this summary even though you will be assigning only one code. Example summaries: "Bush staff working to bolster public support for war effort," "Katrina survivors look for housing; FEMA mismanagement," "New York snowstorm," "Duke lacrosse rape scandal; racial tensions." Note that the items listed in the section below as examples of distinct storylines also serve as examples of topic summaries.

Step 4: Identify the Storyline

The first part of the main coding process is to determine whether the article at hand belongs to a larger "storyline." This task is necessarily a subjective one, but coders should do their best to identify distinct storylines using the guidelines presented here. When in doubt, consult with the project director. A storyline can be defined as any event of informational value. The real litmus test of what constitutes a storyline, however, is much less formal. In essence, a storyline is any topic of conversation that the average citizen might identify as being "in the news" that day. Storylines, in other words, are topical—the stuff of water cooler conversations. So articles about Governor Ryan putting a moratorium on the IL death penalty constitute a storyline, and articles about increasing the standards of DNA testing in criminal trials constitute a different storyline. And over the years, the question of judicial standards for evidence has probably come up repeatedly, constituting a distinct storyline each time the issue becomes a "hot topic." In this way, a storyline will usually last no longer than a few weeks. However, some "mega" storylines, such as the War in Iraq or Hurricane Katrina, will run much longer, including multiple smaller storylines on the topic (see examples below). Thus, in a few rare cases, articles on mega storylines such as these may end up being categorized under different four-digit codes, putting some smaller storylines into one code and others into a different code, as indicated by the Addendums. Otherwise, ALL articles in the same storyline should receive the same code, at least to the four-digit level, based on the predominant policy topic discussed in that group of articles. Examples of distinct storylines include:

- Iran's plans to resume nuclear research
- New Michael Bloomberg administration
- Catholic Church priest child abuse scandal
- Dick Cheney accidentally shooting a fellow hunter
- Samuel Alito's Supreme Court nomination hearings
- 13 miners stranded in mine after explosion and their families' grief
- Jack Abramoff lobbying scandal and political fallout
- Tom Delay lobbying scandal and political fallout
- Capture of American POWs in Iraq
- Congressional analysis says Bush's eavesdropping on Americans without warrants rests on questionable legal grounds
- Families of U.S. troops calling on Congress to increase funding for body armor
- Death of Nixmary Brown by child abuse
- Hamas election victory in Palestine
- Initial devastation caused by Hurricane Katrina
- Lasting social impacts of mass migration of Katrina survivors
- New economic opportunities in Katrina housing projects

Step 5: Assign a Code

Once you have determined whether or not the article falls within a larger storyline, the second task is to identify the most appropriate code for that article. If the article is in fact part of a storyline for which you have already assigned a code, simply give the article at hand the same code. However, you must pay particular attention to the evolution of the storyline; working chronologically through a set

of articles, you will often encounter a storyline that appears at first blush to fall within one subtopic category until later, after the storyline progresses over a few days or weeks, it becomes clear that the storyline should be coded under a different code. In these cases, you are responsible for returning to those articles in the same storyline that have already been coded (now incorrectly) and recoding them. In this way, you should work both forwards and backwards within the date range to which you are assigned in order to ensure that storylines within that time frame are coded consistently.

If the article in question is not part of a larger storyline (or, at least, not one yet identified), then the coding decision should be based on the content of that article alone. In some cases, the code will be obvious. Articles about the unemployment rate get coded as 0103, articles about physician-assisted suicide get coded as 0334, etc. But coding decisions about many articles will be less straightforward, in most cases because the article deals with multiple subtopics.

Coding Articles/Storylines on Multiple Subtopics

The following rules should guide decisions about how to code articles/storylines that relate to two (or more) competing subtopics. However, regardless of the code given, the “Subject of Article” summary (discussed above) should mention *all major* subtopics so that more fine-grained coding can categorize these articles/storylines appropriately.

Throughout the coding process, and especially when coding questions arise, it may be helpful to ask yourself the following question: *If an average citizen read this article and I asked him/her to tell me what it was about in one word, what would he/she be most likely to say?* For example, a coder might reasonably consider coding an article/storyline about a series of fires set by a serial arsonist in the DC area under 2700, for fires. This coding decision might be supported by the rationale that articles/storylines about other kinds of crimes get coded according to the venue of the crime (e.g., articles/storylines about superintendents who embezzle from their school districts should be coded in the 06 category, articles/storylines about corporate fraud should get coded 1520, etc.). By this logic, it would make sense that articles/storylines about crime in the realm of fires should be coded as fire itself.

However, our primary goal is to trace the distribution of media attention in the form of the cues it sends to the public. Thus, we need to categorize articles/storylines in the same way that people “around the breakfast table” will most likely be categorizing them in their minds. This is a fuzzy guideline, to be sure, but it is the best guideline we have for approaching the even fuzzier (but rewarding!) task of quantifying human language. Articles/storylines about Enron, for example, will most likely trigger people’s thoughts about big business, “fat cat” privileges, etc., not the stereotypical criminals (murderers, rapists, etc.). But an article/storyline about serial criminals in DC, either snipers or arsonists, would likely be logged in people’s minds clearly as “criminals.” And so articles/storylines about a serial arsonist should be coded as 1299, which is the code used for all articles/storylines about specific crimes. In contrast, articles/storylines about the child sex abuse scandal in the Catholic Church would be coded 3100.

Put another way, articles (those with and without a broader storyline) should be coded according to the *driving* issue of the article, not any peripheral issues. Coders should not think too hard about the broader political implications of the article/storyline at hand but, instead, should code the article/storyline based on the most prominent issue directly on the surface of the news—the issue that is going to “stick” in Americans’ minds after they have put down the morning paper.

*** Hint: When in doubt about what the driving issue of an article is, re-read the title! ***

Specific Instructions for Coding International Issues

Articles/storylines should only be coded according to issue categories that are substantive in nature (e.g., education, health care, defense, etc.) if the United States is a *major actor* in the article/storyline. All articles/storylines about issues in other nations—i.e., when the U.S. is not involved—should be coded using the international area codes as appropriate. So an article/storyline about gay marriage in the U.S. would be coded as 0202, but an article/storyline about gay marriage in Canada would be coded as 1921. Likewise, although a topic like AIDS could certainly be seen as a world issue, an article/storyline about AIDS pharmaceutical lobbying in the U.S. would be coded as 0331, whereas the same article/storyline set in India would be coded 1919. This kind of distinction can become particularly precarious in the case of the Defense codes, but in general the 1619 series of codes should be reserved for conflict involving the U.S., whereas conflict between two international actors (e.g., Israel and Palestine) should be coded according to the region codes (e.g., 1920). In contrast, articles/storylines that involve the U.S. should be coded under the appropriate substantive issue code, *not* the international area codes.

Specific Instructions for Coding U.S. Governmental Institutions

Articles/storylines about characteristics of a governmental institution (e.g., the Presidency, Congress, the Federal Courts, the Pentagon, etc.) or issues within the institution itself—such as appointments, institutional approach or philosophy, scandal, etc.—are coded according to the institutional codes (e.g., 1204, appropriate 2000's code, 1926). Articles/storylines about an institution's handling of a policy issue, however, are coded according to the specific issue. For example, an article/storyline about a Supreme Court decision on abortion is coded 0207 (for abortion) instead of 1204 (for the courts). Similarly, an article/storyline about battles in the U.N. over nuclear inspections is coded 1605 (for nuclear weapons) instead of 1926 (for the U.N.).

Instructions for Using -00 vs. -99 Codes

The -00 codes should be used for two kinds of articles/storylines: 1) for articles/storylines on the general topic of the first two digits of the coding category without focusing on anything specific, and 2) for articles/storylines that contain *in equal proportion* two or more subtopic issues contained in the same overarching topic category. For example, code 0600 should be used for articles talking broadly about the importance of education in America without mention of specific educational subtopics, and it should also be used for articles that talk equally about secondary education and higher education.

The -99 code, on the other hand, should be used for articles/storylines on topics of the same level of specificity as the other sub-categories within that topic (i.e., the third and fourth digits of the code) but for which there simply is no specific code extension. So an article/storyline about how we need to focus more on education in America would receive code 0600, whereas articles/storylines about school land issues, the sex education debate, or adult continuing education would be coded as 0699.

Articles/storylines focused on individual political actors should be coded according to that person's position. For example, an article/storyline detailing Vice President Dick Cheney's heart condition and medical procedures would be coded 2099, just as an article/storyline about the health of a Supreme Court Justice would be coded 1299.

Topics Codebook

General Information

This new codebook is based upon the original codebook used by Baumgartner and Jones during their Agendas research project. Each entry is coded into one of 19 major topics and 225 subtopics. For each major topic we list all the subtopics and give examples of issues coded in each subtopic. The “general” (00) subtopic includes cases where more than one distinct subtopic was discussed. For example, if a case discussed both water pollution (code 701) and air pollution (code 705), it would be coded as a general environmental issue (code 700). Thus, the general category within each major topic area includes some cases that are truly general as well as some cases that are the combination of as few as two subtopics. Each major topic includes an “other” (99) code subtopics that do not fit into any of the categories and for which there were too few cases to justify the creation of a new category. Finally, we provide a list of “see also” suggestions for categories that have close links with other subtopics. Analysts concerned with identifying each case dealing with a particular issue may want to use care in also examining the textual summaries for cases in related subtopics and in the general subtopic, since these can include cases that discuss multiple subtopics. Users should note that not all the topic and subtopic numbers are consecutive.

A significant revision of the health-related codes (300-399) is now complete. Health-related categories has been extensively reorganized, realigned, and renumbered to better reflect the multi-dimensional reality of these issues. One major aspect of these revisions is the inclusion of a new decimal sub-code to reflect the type of health program being affected

- .0 No reference to any federal programs
- .1 Medicare (Title XVIII, at least post-1972)
- .2 Medicaid (Title XIX, at least post-1972)
- .3 Military Health (Title 38)
- .4 Federal Employees Health Benefits (FEHB)
- .5 Other specific program (Public Health Service, NIH, etc)
- .6 Multiple programs

For example, if an entry is concerned with the reimbursement rates for physicians under the Medicare program, it would be coded as 326.1, while entries dealing with reimbursement rates for physicians under the Public Health Service program would be coded 326.5; an entry dealing with general reimbursement rates for physicians without mention of any federal programs would be coded as 326.0. These decimal sub-codes should be used with all of the subtopics included in the Health topic. The data files available for download on the web do not yet include this variable, email us to make a request for the additional information.

Written by:
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Revised by Adler and Wilkerson
(Updated April 2005)

1. Macroeconomics

100: General Domestic Macroeconomic Issues (includes combinations of multiple subtopics)

Examples: the administration's economic plans, economic conditions and issues, economic growth and outlook, state of the economy, long-term economic needs, recessions, general economic policy, promote economic recovery and full employment, demographic changes, population trends, recession effects on state and local economies, distribution of income, assuring an opportunity for employment to every American seeking work.

Use 0100 for articles/storylines about purchasing trends, such as how much money Americans spent on e-Bay this year.

Use 0100 for articles/storylines about general economic conditions in the U.S. (e.g., small Midwestern towns turning into ghost towns after economic downfall, working families having hard time making ends meet, etc.)

101: Inflation, Prices, and Interest Rates

Examples: inflation control and reduction, anti-inflation programs, calculation of inflation statistics and price index statistics, consumer price index, food prices, cost of living, interest rates, bureau of labor reports on inflation, effects of inflation on business, general economic statistics.

103: Unemployment Rate

Examples: unemployment and employment statistics, economic and social impact of unemployment, national employment priorities, employment and labor market development, bureau of labor reports on unemployment.

See also: 502, 503 solutions to unemployment problems

104: Monetary Supply, Federal Reserve Board, and the Treasury

Examples: monetary policy issues, Federal Reserve's yearly monetary policy reports, Department of Treasury and Federal Reserve Board budget requests and appropriations, credit availability, national savings rate, relationship between fiscal and monetary policies, control of gold supply, gold reserve issues, savings bonds, treasury bonds.

See also: 1808 exchange rates; 1501 Federal Reserve banking issues.

Use 0104 for articles/storylines about Federal Reserve Board decisions, officials, etc. However, articles/storylines regarding interest rates that do *not* mention the Federal Reserve Board (e.g., articles/storylines about interest rates being historically low, human interest stories about how rising interest rates are making things difficult for the increasingly indebted American consumer) should go under 0101 instead.

105: National Budget and Debt

Examples: administration's yearly budget proposals, balanced budget act and enforcement, budget process, federal debt and deficit, deficit reduction and management proposals, budget projections, increases in the

public debt limit, concurrent budget resolutions, impact of budget reductions on industries, states and communities, move trust fund accounts off-budget, move trust fund accounts on-budget, public debt issues, including retirement of public debt, changes in fiscal year status.

107: Taxation, Tax policy, and Tax Reform

Examples: state taxation of income, state and local income taxes, clarification of tax code, tax code reform, luxury and excise taxes, estate and gift taxes, corporate income taxes, collection procedures for federal taxes, administration tax proposals, income tax reform, tax treatment of charities, federal tax code reform and simplification, revenue acts, impact of taxes on business, multiple tax changes (excise and capital gains), general tax changes, charitable contribution deduction bills, domestic tax breaks for foreign businesses.

See also: 2009 IRS administration.

108: Industrial Policy

Examples: manufacturing strategy, technological capacity of industry, assistance to specific industries, national industrial policy, industry revitalization and growth, decline in U.S. industrial productivity, plant closings and relocation, industrial reorganization, commission on productivity, industrialization centers.

See also: 1806 international business competition; 1403 economic development programs.

110: Price Control and Stabilization

Examples: economic stabilization programs, wage-price control and freezes, administered pricing programs, emergency price controls.

199: Other

2. Civil Rights, Minority Issues, and Civil Liberties

200: General (includes combinations of multiple subtopics)

Examples: Civil Rights Commission appropriations, civil rights violations, Civil Rights Act, Equal Rights amendments, equal employment opportunity laws, discrimination against women and minorities, appropriations for civil rights programs, civil rights enforcement, coverage of the civil rights act, employment discrimination involving several communities (age, gender, race, etc. in combination), taking private property, impact on private property rights, employment discrimination due to race, color, and religion.

201: Ethnic Minority and Racial Group Discrimination

Examples: minority set aside programs, minority contracting and business development, appointment of minorities to federal judgeships, school desegregation, minority discrimination by rental car agencies, FBI hiring and promotion of minorities, race based crimes, investigation of the Ku Klux Klan.

See also: 603 school desegregation

Use 0201 for articles/storylines about affirmative action (in the contexts of job hiring or firing, school admissions, etc.).

Use 0201 for articles/storylines about Martin Luther King, Jr., Rosa Parks, or other individuals that readers will automatically think of as major actors in the racial civil rights movement.

Use 0201 for articles/storylines about racial minority groups' position on political issues (e.g., "Hispanics view the Democratic Party as better able than the Republican Party to manage the economy, create jobs and improve the nation's public school system, according to a New York Times/CBS News poll").

In general, an article/storyline about race and another political issue (unemployment, abortion, partisanship, etc.) should be coded for race.

202: Gender and Sexual Orientation Discrimination

Examples: gender and sexual orientation discrimination in the military, social security inequities affecting women, employment barriers to women, female salary inequities, sex discrimination regulations, equal pay for women.

Use 0202 for articles/storylines about issues of same-sex marriage.

Use 0202 for articles/storylines about gays in the military.

204: Age Discrimination

Examples: age discrimination in employment, mandatory retirement ages, age discrimination in selection of federal judges, EEOC problems in enforcing age discrimination laws, retirement age policies.

205: Handicap or Disease Discrimination

Examples: discrimination against the disabled, airline discrimination against blind people, employment of persons with disabilities, insurance discrimination of blind people, civil rights of institutionalized persons and the mentally retarded, travel problems of the handicapped, discrimination based on genetics or health conditions.

206: Voting Rights and Issues

Examples: state discriminatory barriers to voting registration, banning literacy tests, Voting Rights Act and enforcement, free mailing of voter registration forms, lowering the voting age to 18, abolition of poll taxes.

207: Freedom of Speech & Religion

Examples: amendments to the civil liberties act, religious freedom, physical desecration of the flag, school prayer, protection of women's abortion rights, religious speech protection, anti-obscenity legislation.

Use 0207 for articles/storylines about issues of abortion; abortion clinic bombings.

Use 0207 for articles/storylines about issues of the separation of church and state.

208: Right to Privacy and Access to Government Information

Examples: privacy of consumer and worker records, employee drug and polygraph testing, computer access and security, police wiretapping, privacy of medical records, access to government records and information, disclosure and confidentiality standards for government information, electronic funds transfer and financial privacy, security and privacy of criminal arrest records, Freedom of Information Act (FOIA), dissemination of USIA films, programs or information within the U.S. or at museums.

Articles/storylines on domestic surveillance, wiretapping, etc. should be coded as 1603, even if questions of executive / legislative authority are raised (though these secondary issues should be referenced explicitly in the subject description). However, articles/storylines that explicitly raise questions of privacy or civil rights violations should be coded as 0208.

209: Anti-Government Activities

Examples: theory and practice of Communism, subversive activities control act, investigate the activities of the Black Panther Party, internal security laws, investigation of the Students for a Democratic Society, investigation of anti-Vietnam War protesters, investigation of the activities of the New Left, communist involvement in urban race riots, investigation of the Communist Party of Puerto Rico, investigation of student unrest at various universities, investigation of communist youth activities, establishing agencies to educate the public on the tactics of communist subversives, investigate the scope of Soviet activity in the U.S., investigate communist infiltration of education institutions and the U.S. military.

Use 0209 for articles/storylines about anti-government group activities, like the Freeman group arrested in Montana.

299: Other

Examples: right to livelihood, legal fees equity act, misuse of OEO funds, membership on the Commission on Civil Rights

3. Health

300: General

Examples: National Institute of Health (NIH) appropriations, Department of Health and Human Services (DHHS) appropriations, activities that provide little evidence of policy direction, commissions to study health issues, solvency of Medicare

301: Comprehensive health care reform

Examples: proposals to reform broader health system (rather than specific aspects of a program), including establishment of a national health care system, comprehensive Medicare reform, delegation of responsibilities to the states, changing responsibilities of states, regulation of state health care reform, initiatives in women's health, initiatives in rural health, federal assistance percentages, state share of Medicare or Medicaid payments.

See also: 334 for long term health care reform; 302 for insurance reform.

302: Insurance reform, availability, and cost

Examples: Access, eligibility, the uninsured, Medicare premiums, Medicare supplemental insurance (Medigap), establishment of tax free medical savings accounts, regulation of the individual insurance market, ERISA, coverage of veterans under Medicare, coverage of veterans under federal employee health plans (FEHB), regulation of HMOs and insurers with respect to general availability of coverage (e.g. patients' bill of rights), enrollment mix requirements for HMOs.

See also: 331-36 specific benefits; 334 long term care insurance, Medicare catastrophic coverage Act.

Use 0302 for articles/storylines about efforts to supplement Medicare with lower-cost insurance options.

Use 0302 for articles/storylines about federal funding of Medicaid.

Example of 0302: Last week the Senate and House passed measures giving the 40 million Americans on Medicare the chance to receive a prescription drug benefit either under the traditional, government-run Medicare program or under new programs offered by private health plans.

321: Regulation of drug industry, medical devices, and clinical labs

Examples: Generally about safety of products and procedures, approval processes, drug labeling and marketing, organ transplant allocations, safety of the blood supply, faulty cholesterol screening, prescription drug counterfeiting, pacemaker regulation, prescription drug labeling, over-the-counter drug safety, fatal allergic reactions to drugs, drug abuse in nursing homes, vitamin, mineral and diet supplements, regulation of drug marketing procedures, approval of drugs to combat specific diseases, FDA drug approval process, FDA regulation of medical devices, FDA approval of contraceptive devices, regulation of clinical trials, , inspection of x-ray equipment by PHS).

See also: 335 prescription drug costs; 398 research; 1520 for antitrust issues .

Use 0321 for articles/storylines about illegal importation, sale, or distribution of prescription drugs.

322: Facilities construction, regulation, and payments

Examples: Construction of hospitals, laboratories, health centers and nursing homes, including issues of undersupply in rural or urban areas (disproportionate share payments to hospitals) payments to hospitals for inpatient services under Medicare, emergency care facilities, regulation of standards and activities within these facilities, including personnel qualifications, HHS certification of long-term health care facilities, nursing home standards and regulation, Public Health Service (PHS) appropriations, PHS activities and regulation, medical lab reliability issues, Hospital Construction Act.

See also: 323 payments to providers; 325 teaching hospitals.

323: Provider and insurer payment and regulation

Examples: Reimbursement rates and methods for physicians, insurance companies, or specific procedures, peer review procedures, prospective payment system (PPS), appeals processes, payment rates for HMO services, regional adjustments, risk adjustment, reimbursement for chiropractors, foreign medical graduates, nurse practitioners, payment for outpatient services

See also: 325 workforce training programs; 302 insurer or managed care consumer protections.

324: Medical liability, fraud and abuse

Examples: Malpractice issues, fraudulent medical degrees, unfair sales practices, misuse of federal funds for mental health care, Medicare overbilling, conflicts of interest, misuse of federal funds for mental health care, medical malpractice insurance coverage, revocation of physician licenses, suspension of physician privileges, dispute resolution for medical malpractice claims, unfair sales practices in the diet and medical industries, liability protection for federal physicians.

See also: 325 for physician certification and licensing.

325: Health Manpower & Training

Examples: Issues of undersupply and oversupply of health personnel, including incentives to practice in underserved areas, certification and licensing procedures, coverage of services provided by training programs and medical schools, reimbursement rates for teaching hospitals, construction of teaching hospitals, collective bargaining, health manpower training, nurse training, public health training grants, physician training, medical libraries, nurse midwifery .

See also: 324 Malpractice issues, 323 compensation and regulation of health care providers.

331: Prevention, communicable diseases and health promotion

Examples: Cancer screening, health promotion programs, consumer guides, medical information, health education in schools, immunization, prevention programs for osteoporosis, sexually transmitted diseases, tuberculosis, federal response to AIDS, breast cancer treatment, skin cancer, renal disease, treatment of high blood pressure, Legionnaire's disease, communicable disease control, sickle cell anemia prevention, polio, Center for Disease Control funding.

See also: 208 right to privacy; 341-44 drug and tobacco programs.

Use 0331 for articles/storylines about obesity, nutrition, etc.

332: Infants and children

Examples: Preventive services for children, prenatal care, child and juvenile health care, school health programs, child immunization, Comprehensive Child Immunization Act, reduction of infant mortality, promotion of breast feeding, prenatal care programs, child health care, sudden infant death syndrome, childhood malnutrition, fetal alcohol syndrome, child dental care.

See also: 207 for abortion related issues; 331 for health education programs.

333: Mental health and mental retardation

Examples: Federal role in providing services to the mentally ill, mental health services, quality of care for mentally ill, mentally ill and handicapped children, specialized housing for mentally retarded, mental health centers.

See also: 324 misuse of federal funds for mental health care, 322 review of hospital psychiatric programs.

334: Long-term care, home health, terminally ill, and rehabilitation services

Examples: Benefits and costs issues related to Medicare catastrophic costs, hospice, nursing homes, in home care, regulation of the sale of long-term health care to the elderly, long-term care insurance improvement, court appointed guardianships for the elderly and infirm, aging, gerontology research, National Institute of Aging, problems in financing long-term care, community alternative to institutional care, approaches to long-term care for the elderly, conferences on aging, comprehensive home health care, rehabilitation needs of persons with head injuries, life-sustaining treatments for the terminally ill.

See also: 322 nursing home standards; 333 long term care for the mentally ill; 1304 disability benefits; 1609 veterans' disability benefits; 323 payment for outpatient services; 336 provision of outpatient benefits.

Use 0334 for articles/storylines about jurisdiction over life-support decisions (e.g, Terri Schiavo), physician-assisted suicide.

335: Prescription drug coverage and costs

Examples: Medicare prescription drug coverage, coverage of specific drugs under Medicaid, rising costs of drug coverage, coverage of clinical trials and experimental treatments.

See also: 321 regulation of drug industry .

Use 0335 for articles/storylines about prescription drug coverage, reforming Medicare to offer prescription drug coverage to low-income citizens, the high cost of prescription drugs, etc.

Example of 0335: "The Bush administration will soon propose significant cuts in Medicare payments for cancer drugs, based on new data suggesting that the government pays far more than the market price for such medicines, administration officials said today."

336: Other or multiple benefits and procedures

Examples: Treatment for Alzheimer's, dental services, vision services, renal disease, breast cancer detection and treatment, durable medical equipment (e.g. wheelchairs).

341: Tobacco Abuse, Treatment, and Education

Examples: cigarette advertising and regulatory issues, ban on smoking in federal buildings, increase public awareness of smoking health risks, smoking prevention education programs, health effects associated with smoking.

342: Alcohol Abuse and Treatment

Examples: implementation of the national minimum drinking age act, alcoholic beverage advertising act, alcohol abuse among the elderly, prevention of adolescent alcohol abuse, health insurance coverage of alcohol abuse treatment, drunk driving victims protection, drunk driving enforcement aid for states, alcoholism prevention programs.

See also: 344 drug and alcohol abuse.

Use 0342 for articles/storylines about alcohol abuse, prevention, and education.

343: Controlled and Illegal Drug Abuse, Treatment, and Education

Examples: drug abuse education and prevention programs in schools, community based anti-drug programs, federal prison substance abuse treatment availability act, methadone treatment program, drug abuse treatment programs and insurance coverage, drug abuse by military personnel.

See also: 1203 drug trafficking; 321 drug safety.

Use 0343 for articles/storylines about drug abuse, prevention, and education.

344: Drug and Alcohol or Substance Abuse Treatment

Examples: extension of drug and alcohol abuse prevention programs, health coverage of drug and alcohol abuse treatment programs, drug and alcohol abuse prevention programs in schools, drug and alcohol abuse in the armed services, juvenile alcohol and drug abuse, entertainment industry efforts to curb drug and alcohol abuse.

See also: 342 alcohol abuse and treatment; 343 illegal drug abuse and treatment.

Do not use 0344, since for our purposes its substance is encapsulated in 0342 and 0343.

398: Research and development

Examples: Alzheimer's research, research on women's health, government tax incentives for research and development, research grants to organizations and educational institutions, conferences on health-related issues, genetic engineering issues, medical research and regulatory issues, sleep disorders research, NASA-NIH biomedical research, fetal tissue transplant research, health policy research programs, medical applications of biotechnology research, research on increased life expectancy, human genetic engineering research, biomedical and behavioral research.

Use 0398 for articles/storylines about all research related to *human life science*, regardless of where the scientists are located in the world. Use 0798 for articles/storylines about research related to environmental science and code 1798 for articles/storylines about research related to physical and mechanical science (e.g., robotics, weather).

Use 0398 for articles/storylines about human stem cell research, even if questions of ethics are involved.

399: Other

Examples: health consequences of a nuclear attack.

Use 0399 for articles/storylines about general medical ethics questions.

4. Agriculture

If it's "out of the ground or already dead" it's no longer an agricultural issue. All business aspects (e.g., commodities trades, corporate mergers) go under the 15 topic category, while trade of actual agricultural products goes in the 4 topic category.

400: General (includes combinations of multiple subtopics)

Examples: DOA, USDA and FDA appropriations, general farm bills, farm legislation issues, economic conditions in agriculture, impact of budget reductions on agriculture, importance of agriculture to the U.S. economy, national farmland protection policies, agriculture and rural development appropriations, family farmers, state of American agriculture, farm program administration, long range agricultural policies, amend the Agriculture and Food Act, National Agricultural Bargaining Board.

401: Agricultural Trade

Examples: FDA inspection of imports, agriculture export promotion efforts, agricultural trade promotion programs, tobacco import trends, agricultural export credit guarantee programs, impact of imported meats on domestic industries, country of origin produce labeling, USDA agricultural export initiatives, value added agricultural products in U.S. trade, establish coffee export quotas, effects of Mexican produce importation, international wheat agreements, livestock and poultry exports, amend Agricultural Trade Development and Assistance Act of 1954, reemphasize trade development, promote foreign trade in grapes and plums, prohibit unfair trade practices affecting producers of agricultural products, extend Agricultural Trade Development, enact the Agriculture Trade Act of 1978, establish agricultural aid and trade missions to assist foreign countries to participate in U.S. agricultural aid and trade programs, Food, Agriculture, Conservation and Trade Act Amendments.

See also: 1800 general foreign trade; 1502 agricultural commodities trading.

402: Government Subsidies to Farmers and Ranchers, Agricultural Disaster Insurance

Examples: agricultural price support programs, USDA crop loss assistance, farm credit system financial viability, federal agriculture credit programs, agricultural disaster relief programs, subsidies for dairy producers, farm loan and credit issues, reforming federal crop insurance programs, credit assistance for family operated farms, federal milk supply and pricing policies, renegotiation of farm debts, USDA direct subsidy payments to producers, establishing farm program payment yields, peanut programs, wheat programs, evaluation of the supply and demand for various agricultural commodities, beef prices, cotton acreage allotments, shortages of agricultural storage facilities, agricultural subterminal storage facilities, financial problems of farm banks, Agricultural Adjustment Act, farm vehicle issues, Wool Act, Sugar Act, feed grain programs, cropland adjustment programs .

See also: 1404 farm real estate financing.

403: Food Inspection and Safety (including seafood)

Examples: FDA monitoring of animal drug residues, consumer seafood safety, budget requests for food safety programs, food labeling requirements, grain inspection services, regulation of health and nutrition claims in food advertising and labeling, sanitary requirements for food transportation, regulation of pesticide residues on fruit, food irradiation control act, regulation of artificial food coloring, federal control over the contamination of food supplies, meat grading standards, meat processing and handling requirements, improvement of railroad food storage facilities, shortage of grain storage facilities, food packaging standards, food buyer protection, regulation of food additives, federal seed act, definition and standards of dry milk solids.

See also: 401 inspection of food imports.

404: Agricultural Marketing, Research, and Promotion

Examples: soybean promotion, research, and consumer information act, USDA commodity promotion programs, cotton research and promotion, wheat marketing problems, livestock marketing, new peanut marketing system, establishing a national commission on food marketing, fruit and vegetable marketing, industrial uses for agricultural products, meat promotion program, national turkey marketing act, federal marketing quotas for wheat.

405: Animal and Crop Disease and Pest Control

Examples: USDA regulation of plant and animal mailing to prevent the spread of diseases, control of animal and plant pests, pork industry swine disease eradication program, virus protection for sheep, grasshopper and cricket control programs on farmland, USDA response to the outbreak of citrus disease in Florida, eradication of livestock diseases, brucellosis outbreak in cattle, USDA integrated pest management program, toxic contamination of livestock, fire ant eradication program, proposed citrus blackfly quarantine, predator control problems, biological controls for insects and diseases on agricultural crops, eradication of farm animal foot and mouth diseases.

See also: 704 for pollution effects of pesticides; 403 for pesticide residues on foods.

498: Agricultural Research and Development

Examples: condition of federally funded agricultural research facilities, USDA nutrition research activities, USDA agricultural research programs, regulation of research in agricultural biotechnology programs, organic farming research, potential uses of genetic engineering in agriculture, agricultural research services, research on aquaculture.

499: Other

Examples: methodologies used in a nationwide food consumption survey, agricultural weather information services, federal agricultural census, designate a national grain board, home gardening, redefinition of the term “farm”, farm cooperative issues.

5. Labor, Employment, and Immigration

Articles/storylines about employee and workplace issues should be coded in the 05 codes as appropriate (e.g., 0501 for worker safety, 0503 for employee benefits, 0504 for labor union issues, etc.). Even labor issues involving multi-million dollar sports salary labor disputes should be coded as 0504.

500: General (includes combinations of multiple subtopics)

Examples: Department of Labor budget requests and appropriations, assess change in labor markets to the year 2000, human resources development act, recent decline in the number of manufacturing jobs, national employment priorities, employment security administration financing, current labor market developments.

Use 0500 for articles/storylines centered on a general discussion of job market trends (e.g., law firms losing lawyers to dot com start-ups that can pay higher wages).

Use 0500 for articles/storylines about general salary incentives (e.g., how the private sector pays more than the public sector).

Example of 0500: “Week after week, the packages make their way from Puebla, Mexico, to Tulcingo Travel in Jackson Heights, part of a thriving underground of cross-border couriers who fly back and forth between the New York area and Latin America, transporting the sorely missed pleasures of home to the city’s immigrants with an immediacy that is changing their way of life.”

501: Worker Safety and Protection, Occupational and Safety Health Administration (OSHA)

Examples: mine safety regulations, lead exposure risks during construction activities, improving OSHA safety and health programs, petrochemical plant worker safety, repetitive motion illnesses in the workplace, OSHA penalties and procedures for violations resulting in employee death or disability, investigation of a fatal fire at a chicken processing plant in North Carolina, construction safety standards, improve procedures for occupational health hazards identification, identification of high-risk diseases in the work place, worker protection at Superfund clean-up sites, drug and alcohol abuse in the work place, compensation for occupational diseases, safety at DOE nuclear facilities, black lung benefits and black lung disease.

502: Employment Training and Workforce Development

Examples: job training partnership acts (JPTA), job opportunities and basic skills training programs, federal aid for job retraining, job displacement programs among timber workers, workforce 2000 employment readiness act, elderly workers and job re-training, DOL bonuses to states for training and employment of long-term welfare recipients, displaced homemakers vocational and education assistance, national employment priorities act, work incentive programs, manpower and employment problems in Cleveland, manpower development and training act, public service jobs for unemployed, public service job programs, Comprehensive Employment and Training Act (CETA).

Use 0502 for articles/storylines involving workplace incentive programs and improvements (e.g., four-day work weeks available to employees, “bring your dog to work” program, work-sponsored volunteer program).

503: Employee Benefits

Examples: underfunded pension plans and pension plan protection, emergency unemployment compensation, retiree health benefits, guarantees of retirement annuities, employee stock ownership plans, fraud and abuse in employee sponsored health insurance programs, minimum health benefits for employees, pension benefit guarantee corporation, voluntary employee leave sharing program, unemployment compensation system financing, worker compensation ratemaking reform, tax treatment of employee fringe benefits, disability insurance legislation, railroad employment benefits, welfare and pension plans disclosure act.

See also: 2004 federal employee benefits.

504: Employee Relations and Labor Unions

Examples: labor-management relations in the coal industry, striker replacement legislation, national rail strike, operations of the NLRB, federal agency guidelines for worker dispute resolution, unions and collective bargaining problems, FAA regulation of flight attendant work and rest periods, federal mediation of railway employee strike, labor law reform and unfair labor practices , terms of office for local labor union officers, harbor workers compensation act, investigation into the causes of labor disputes,

notification of plant closures or layoffs, Longshoremen issues, amend the National Labor Relations Act, right to organize, employee organization efforts.

See also: 1202 illegal activities of labor unions; 1926 International Labor Organization

Use 0504 for articles/storylines about labor union disputes, including teachers' unions, taxi cab drivers' unions, etc.

505: Fair Labor Standards

Examples: minimum wage regulation for federal contracts, increase the minimum wage rate, enforcement of wage and hour standards, require contractors to pay wages at the rate in locality where the construction occurred, fair labor standards act, application of the fair labor standards act in Puerto Rico, penalties on employers for overtime work requirements, Davis-Bacon Act (or Davis Bacon).

506: Youth Employment, Youth Job Corps Programs, and Child Labor

Examples: youth employment through conservation projects, increase youth participation in job training centers, youth employment regulation and protection, voucher system to promote youth service programs, youth involvement in community service programs, summer youth education and employment programs, job training for disadvantaged youths, summer camps and youth camps (all activities and issues associated with summer and youth camps).

See also: 501 child labor safety.

508: Parental Leave and Child Care

Examples: Family and Medical Leave Act, child care assistance programs, child care for low and moderate income families, meeting the child care needs of working parents, affordability of insurance for day care centers, parental and medical leave, child care placement assistance for working parents, dependent care, dependent and Child care.

529: Migrant and Seasonal workers, Farm Labor Issues

Examples: migrant and seasonal worker housing, national office for migrant farm workers, migrant children's nutrition and education needs, improvement of migrant living and working conditions, social and economic problems of migrant workers, migrant workers and their effect on American labor, Mexican farm labor programs, migratory labor bills, health clinics for migratory farm workers, farm labor supply programs

530: Immigration and Refugee Issues

Examples: immigration of Cuban refugees to the U.S., refugee resettlement appropriations, HHS authority over immigration and public health, INS enforcement of immigration laws, legalization procedures for illegal immigrants, assessment of Haitian refugee detention by the U.S., immigration and education issues for aliens, adjusting visa allocations based on applicant job skills, DOL certification process for foreign engineers working in the U.S., denial of visas to political refugees, appropriations for the INS, citizenship issues, expedited citizenship for military service.

See also: 1524 tourism; 1929 passport issues

Use 0530 for articles/storylines about immigration.

Example of 0530: “In southeast Texas, where thousands of illegal immigrants are placed in crowded detention centers after trying to cross the border, doctors have installed X-ray machines to help isolate quickly anyone who might be infected with tuberculosis.”

599: Other

Examples: discontinuance of monthly press briefings by the Bureau of Labor Statistics, worker alienation research, materialism and the American family work ethic, DOL automatic data processing system.

6. Education

600: General (includes combinations of multiple subtopics)

Examples: Department of Education (DOEd) appropriations, state of education in the U.S., education programs development, education quality, national education methods, impact of education budget cuts, white house conference on education, National Institute of Education.

Use 0601 for articles/storylines about corruption/scandal in higher education (e.g., University President giving a company a construction contract on campus in an under the table exchange for a job after she retired from being President).

601: Higher Education

Examples: student loan reform, reauthorization of the higher education act, higher education student financial aid programs, violations of NCAA regulations by some colleges, direct loan programs for graduate students, student loan fraud and default, role and financial need of black colleges and universities, Montgomery GI bill, military education, veterans education assistance, foreign students at U.S. military academies, rising costs of operating higher education institutions, improving the quality of higher education, Pell Grant eligibility changes, status of university endowments in light of federal aid reduction to higher education, national defense education act, Sea Grant and Space Grant programs.

602: Elementary and Secondary Education

Examples: federal elementary and secondary education programs, school funding disparities, education choice programs, high school dropout intervention programs, certification standards for public school teachers, impact of federal budget cuts on school districts, elementary and secondary school student discipline problems, the safe schools act, construction assistance for school facilities, high school scholarship programs, elementary and secondary schools and supplemental educational centers, preschool issues.

Use 0602 for articles/storylines on whether creationism or evolution should be taught in the schools.

603: Education of Underprivileged Students

Examples: Head Start programs, teaching disadvantaged students, Even Start Education Act, education needs of Hispanics, bilingual education needs, Department of Education grants to improve skills of economically disadvantaged students, effects of Head Start on later performance, adult literacy programs, combating adult illiteracy in the U.S., Head Start grant allocation formula, education for children from low income homes, enrichment programs for disadvantaged secondary school students.

See also: 201 school desegregation efforts.

604: Vocational Education

Examples: appropriations for vocational education programs, federal aid for vocational training, technical and vocational education programs, vocational aid program requirements, impact of proposed budget cuts on vocational education, vocational and occupational education.

606: Special Education

Examples: education programs for the deaf, DOEd grants for early intervention services for disabled infants and toddlers, appropriations for Education of the Handicapped Act, progress in implementing program for learning disabled youth, handicapped education, free public education for the handicapped, education assistance for the blind, Disabilities Education Act.

607: Educational Excellence

Examples: promotion of excellence in education, promotion of science and math education, education standards and testing, improvement of science education facilities, increase foreign language competency in U.S. schools, programs to promote teacher excellence, grants for improving computer education in schools, establish centers for gifted and talented students, use of telecommunications to share teaching resources, grants for library construction, federal library program developments, public library facilities, charter schools.

609: Arts and Humanities

Examples: Appropriations for NEA, NEH, Department of Interior loans for performing arts at parks, national endowment for local arts development programs, federal role in funding arts programs, federal funding for the Kennedy Center , White House conferences on the arts and humanities, American folklife.

See also: 1707 public broadcasting; 1798 NSF funding.

698: Research and Development

Examples: education research appropriations, Department of Education research and development programs, research on education technology.

699: Other

Examples: propriety of a videotape made by the Department of Education (DOEd), DOEd internal problems, review National Center for Education Statistics activities, dismissal of Education Appeal Board cases, retirement and lifelong learning, school land issues.

Use 0699 for articles/storylines about school shootings.

7. Environment

700: General (includes combinations of multiple subtopics)

Examples: EPA, CEQ, ERDA budget requests and appropriations, implementation of the Clean Air Act, review of EPA regulations, Environmental Crimes Act, U.S. policies and international environmental issues, requirements for states to provide source pollution management programs, EPA pollution control programs, Comprehensive Environmental Response Act, environmental implications of the new energy act, environmental protection and energy conservation, adequacy of EPA budget and staff for implementing pollution control legislation.

701: Drinking Water Safety

Examples: Clean Water Act, EPA water pollution abatement, pesticides in groundwater, lead contamination of drinking water, drinking water safety programs, comprehensive program to assess the quality of the nation's groundwater, drinking water availability, dioxin levels in drinking water, fluoridation of water, Federal Water Pollution Control Act.

703: Waste Disposal

Examples: interstate waste disposal, solid waste management, federal management of municipal waste, municipal sewage problems, EPA municipal sewage treatment construction grants program, recovery of energy from municipal solid waste, garbage and/or trash collection issues, waste treatment facility.

704: Hazardous Waste and Toxic Chemical Regulation, Treatment, and Disposal

Examples: EPA administration of the Superfund program, hazardous waste sites cleanup, hazardous materials transportation, international movement of hazardous waste, insurance company liability for cleanup costs of hazardous waste sites, DOT routing of ultra hazardous cargoes, hazardous waste landfills, possible sites for nuclear waste repositories, toxic substances control and regulation, advance notice of hazardous of hazardous material storage for firefighters, pesticides regulation.

705: Air pollution, Global Warming, and Noise Pollution

Examples: Clean Air Act, air quality issues affecting national parks, EPA regulation of chemical plant emissions, costs and effects of chronic exposure to low-level air pollutants, ambient air quality criteria, global warming, national action plan for reducing greenhouse emissions, ozone layer depletion, national program to control acid rain, effects of chlorofluorocarbons on the ozone layer, regulation of automobile emissions, EPA noise control programs, CAFE standards.

707: Recycling

Examples: recycling contaminated materials, beverage container recycling, state and local recycling efforts, promotion of recycling as a means of reducing solid waste, resource conservation and recycling.

708: Indoor Environmental Hazards

Examples: radon awareness and disclosure act, indoor air quality and radon abatement legislation, lead exposure reduction, childhood lead poisoning prevention, public schools asbestos inspections, management and control of asbestos in government buildings, EPA programs relating to indoor air contamination,

airliner cabin air quality, health effects of exposure to low level radiation from video display terminals, EPA regulation of indoor disinfectants.

709: Species and Forest Protection

Examples: endangered species protection act, gray wolf restoration, protection of spotted owls, exotic bird conservation, protection of performance animals, regulation of trapping devices, bald eagle protection, regulation of laboratory animals, fish and wildlife protection and management programs, marine mammal protection, Bristol Bay fisheries protection, fishery conservation and management, salmon conservation issues, sport fish restoration programs, protection of certain tuna species, scientific findings on late-successional forest ecosystems, old growth forest protection, wilderness refuge protection, control of illegal trade in animals and plants, humane treatment of animals used in experiments.

See also: 1807 embargo on certain fish and fish products; 1902 international agreements on resource/wildlife conservation; 2101 national parks; 2103 public lands management; 2103 conveyance of fish hatcheries from federal to state governments.

Use 0709 for articles/storylines about oil drilling in the Arctic National Wildlife Refuge.

710: Coastal Water Pollution and Conservation

Examples: preservation of wetlands, regulation of ocean dumping, pollution from cruise ships, marine plastic pollution control, marine sanctuaries appropriations, pollution in the Chesapeake Bay, protection of coral reef systems, Columbia river water pollution, coastal barrier improvement, coastal erosion and management, federal and state coastal zone protection policies, toxic pollution in the great lakes, regulation of the incineration of hazardous wastes at sea, oil spills.

See also: 2104 water resources development

711: Land and Water Conservation

Examples: land and water conservation fund amendments, USDA soil conservation promotion, soil conservation for watershed projects, topsoil conservation standards, water supply problems, federal-state water resources rights, beach erosion.

See also: 2104 water development projects

798: Research and Development

Examples: environmental research and development programs, EPA research and development appropriations, global climate change research, ocean research using satellite technology, marine biotechnology research, National Environmental Data System.

Use 0798 for articles/storylines about research related to environmental science, regardless of where the scientists are located in the world. But use 0398 for research related to human life science and 1798 for research related to physical and mechanical science (e.g., robotics, weather).

799: Other

Examples: abolishing the council on environmental quality, environmental consequences of nuclear war, EPA capability for forecasting future environmental problems, environmental impact statements, report of the Council on Environmental Quality.

8. Energy

800: General (includes combinations of multiple subtopics)

Examples: Department of Energy (DOE) budget requests and appropriations, DOE and NRC budget requests and appropriations, national energy security policy, U.S. energy goals, U.S. energy supply and conservation, regulation of natural gas and electricity, impact of taxation on national energy policy, global energy needs, emergency plans for energy shortages, promotion of energy development projects, long-range energy needs of the U.S., energy capital requirements, establish the DOE, energy advisory committees.

See also: 2104 for energy and water development projects.

801: Nuclear Energy and Nuclear Regulatory Commission Issues

Examples: Nuclear Regulatory Commission and Atomic Energy Commission budget requests and appropriations, nuclear power licensing reform, nuclear power plant fire safety legislation, U.S. nuclear power policy, safety of nuclear facility storage tanks for high level radioactive waste, revise the claims system for nuclear accidents, standardized design for nuclear power plants, NRC regulation of the TVA nuclear power program, new technologies for safer nuclear reactors, need for international nuclear safety standards, Three Mile Island nuclear plant accident, state of the atomic energy industry, atomic energy patents, fusion energy act, Energy Research and Development Administration (ERDA), protection of nuclear plants from attack.

See also: 501 nuclear worker safety; 1614 defense related nuclear waste; 704 nuclear waste.

802: Electricity and Hydroelectricity

Examples: Tennessee Valley Authority (TVA) and Bonneville Power Administration (BPA) budget requests and appropriations, electric power plant construction, hydroelectric project licensing, hydroelectric power development, utility payment reform, FERC licensing of electric power plants, rural electrification programs, ability of rural electric cooperatives to provide adequate power, BPA electric power rates and ratemaking procedures, electric utility rate reform and regulation improvement, regional shortages of electric power, financial management of the TVA, electric utilities financial problems, regulation of electric power plants use of natural gas, vulnerability of U.S. electric power systems to accidents, increase in rural electric rates, emergency sales of electric power, impact of inflation and recession on the electric utility industry.

803: Natural Gas and Oil (Including Offshore Oil and Gas)

Examples: natural gas regulation, natural gas pipeline safety issues, Trans-Alaska pipeline development, natural gas and oil exploration on federal lands, estimates of natural gas reserves in the U.S., state jurisdiction of the transportation of natural gas, offshore gas and oil leasing, outer continental shelf lease cancellation and compensation process, collection and dissemination of information on winter heating fuels, oil prices and demand, gasoline price increases, OPEC crude oil prices, oil shortages, increase in world oil prices, long-term outlook of the world oil supply, oil imports and foreign commission payments, administration's gasoline rationing program, oil imports and energy security, foreign oil production and consumption, oil shale mining claims and regulation, estimating domestic oil production, royalty and value calculation procedures for oil and gas produced on federal lands., petroleum storage facility fire prevention and safety, strategic petroleum reserve.

See also: 2103 mineral resources of the outer continental shelf; 710 oil spills; 1520 antitrust issues in oil and gas distribution.

Use 0803 for articles/storylines about oil supply and/or oil prices affecting the U.S., even if the oil source is not in the U.S. (e.g., Saudi Arabia).

805: Coal

Examples: DOE clean coal program, clean coal technologies, regulation of coal slurry pipelines, extent and recoverability of U.S. coal reserves, Great Plains coal gasification project, regulation of federal land leases for the extraction of coal, federal standards for surface coal mining, coal imports.

806: Alternative and Renewable Energy

Examples: hydrogen and renewable energy programs, promotion of solar and geothermal power, promotion of alternative fuels for automobiles, issues of ethanol gasoline, biomass fuel and wind energy programs, ocean thermal energy research, solar energy development program, assistance for the Synthetic Fuel Development Corporation, loans for alcohol fuel research, geothermal leases on federal lands, hydrogen programs.

807: Energy Conservation

Examples: energy efficiency in the U.S. government, home energy efficiency programs, community energy efficiency act, energy conservation in cities, energy conservation standards for household appliances, establish building energy performance standards, diesel fuel and gasoline conservation act, promotion of carpooling, daylight savings time extensions, motor vehicle fuel efficiency.

898: Research and Development:

Examples: national energy research and development policy, DOE energy technology research and development, energy storage research and development programs, role of national laboratories in energy research and development, hydrogen research and design programs .

899: Other

Examples: DOE and EPA use of consultants, energy materials and equipment allocation, standby energy authorities legislation, future requirements for energy data, establish the institute for long-range energy analysis.

10. Transportation

Use 0798 for articles/storylines about research related to environmental science, regardless of where the scientists are located in the world. Use 0398 for articles/storylines about research related to human life science and 1798 for articles/storylines about research related to physical and mechanical science (e.g., robotics, weather).

1000: General (includes combinations of multiple subtopics)

Examples: Department of Transportation (DOT) and National Transportation Safety Board (NTSB) requests and appropriations, budget requests and appropriations for multiple agencies (NTSB, FAA, CAB), surface transportation programs, national transportation policy, rural transportation needs, adequacy of transportation systems, Interstate Commerce Commission policies and procedures, impact of budget cuts on DOT programs, highway and mass transit programs, transportation assistance programs, high-speed ground transportation systems.

See also: 1003 budget requests and appropriations for FAA and CAB.

1001: Mass Transportation and Safety

Examples: mass transit grant programs, development of new urban public bus system, financial condition of the intercity bus industry, emergency subsidies to urban mass transportation programs, metrorail safety, public transportation.

1002: Highway Construction, Maintenance, and Safety

Examples: National Highway Transportation Safety Administration (NHTSA) budget requests and appropriations, federal aid for highway construction, highway safety and design, highway trust fund surplus, national maximum speed limit laws, pavement deterioration of highways in Florida, freeway problems in California, federal funding for bridge maintenance projects, highway user taxes, increase vehicle weight and width limitations on interstate highways, defense highway needs, control of advertising on interstate highways, infrastructure development, bridges, National Highway Academy, highway beautification programs, adding trees and plants along highways.

1003: Airports, Airlines, Air Traffic Control and Safety

Examples: Federal Aviation Administration (FAA) and Civil Aeronautics Board (CAB) budget requests and appropriations, aviation safety issues, financial condition of the airline industry, uses of satellite technology in aviation, FAA delay in procurement of air traffic control equipment, development of new commercial aircraft, commercial air service restrictions, airline compliance with FAA safety regulations, nationwide airport expansion needs, FAA regulation of aircraft noise, FAA air traffic controller standards, airlines fares and services, airplane crash liability standards, problems with airline computer reservation systems, air traffic control computer failures, oversight of CAB practices and procedures, CAB regulation of charter air carriers, rates and fares of foreign air transportation, federal airport construction aid, civil aviation academy.

1005: Railroad Transportation and Safety

Examples: AMTRAK budget requests and appropriations, federal railroad safety inspection and enforcement programs, development of high speed passenger rail transportation, growth of regional railroads, sales of short line and regional railroads, ICC rail rate regulation, AMTRAK passenger safety issues, freight rail industry regulation, Northeast Rail Service Act, shortage of railroad cars for commodity transportation, revitalization of Northeast Corridor rail properties, railroad deregulation.

1006: Truck and Automobile Transportation and Safety

Examples: trucking industry regulation, establish a national system of licensing for truck and bus drivers, truck safety audit and investigation procedures, prohibition of tandem trucks, size and weight limitations for trucks on interstate, impact of federal regulations on independent truckers, long and short haul trucking

provisions, regulation of freight forwarders, ICC regulation of the trucking industry, motor vehicle safety issues, auto industry development of airbags, motor vehicle information programs, automobile safety belt usage, automobile crash testing and standards, economic status of automobile manufacturing, all-terrain vehicle safety, trucking industry deregulation, efforts to reduce drunk driving.

See also: 705 automobile emissions regulation, automobile CAFE standards.

1007: Maritime Issues

Examples: U.S. Coast Guard, Merchant Marine, and Federal Maritime Commission budget requests and appropriations, cargo liability limits and the carriage of goods by sea, cargo preference law, currency

s, revitalization of the maritime industry, commercial fishing vessel safety, navigation safety issues, cruise ship safety, commercial shipbuilding industry, navy policies on transportation of military cargo by Merchant Marine, financing construction of merchant ships, maritime freight industry regulation, intercoastal shipping act, regulation of ocean shipping rates, Great Lakes pilotage, small boat safety, Coast Guard operation of ocean weather stations, navigation rules on inland waterways, designation and naming of channels, designation and naming of vessels).

See also: 1902 international fishing and wildlife agreements; 1915 Panama Canal ; 2104 port development and construction.

1010: Public Works (Infrastructure Development)

Examples: budget requests and appropriations for public works and civil works projects, transportation infrastructure improvements, civil works and energy projects, public works investment needs, local public works employment projects, local public works capital development and investment act, Public Works Acceleration Act.

See also: 800 energy projects; 2104 water projects.

1098: Research and Development

Examples: surface transportation research and development, DOE requests for transportation research and development funding, research and development in ground transportation.

1099: Other

Examples: metric signing on highways.

Articles/storylines on security against terrorist threats within particular transportation venues should be coded according to those venues. So articles/storylines about tightening airport security would be coded 1003; tightening security at U.S. harbors 1007. But articles/storylines about tightening security at U.S. border crossings from Canada or Mexico should be coded 0530.

12. Law, Crime, and Family Issues

1200: General (includes combinations of multiple subtopics)

Examples: emerging criminal justice issues, administration of criminal justice, revision of the criminal justice system, role of the U.S. commissioner in the criminal justice system.

1201: Executive Branch Agencies Dealing With Law and Crime

Examples: Judiciary, Department of Justice (DOJ), FBI, ATF , Border Patrol and Customs budget requests and appropriations, U.S. federal marshals witness protection program, review of FBI programs, improving criminal justice information systems at the state and local level, computerizing criminal records for nationwide law enforcement access, law enforcement assistance programs, ATF gang information network, debt collection by the DOJ, Secret Service protection of government officials.

See also: 1800 U.S. Customs appropriations.

1202: White Collar Crime and Organized Crime

Examples: Asian organized crime activities in the U.S., racketeering control, organized crime in Atlantic City, organized crime in labor unions, white collar crime in the oil industry, RICO penalties, gambling and organized crime, president's commission on organized crime, credit card counterfeiting and fraud legislation, corporate criminal liability, prosecution of organized crime labor racketeering cases, cigarette bootlegging, general money laundering.

See also: 1203 drug related money laundering.

Crime should be defined as “white collar” in those instances where individuals in traditional white collar jobs (e.g., business, finance, education) exploit their positions in order to commit illegal action for personal or professional gain. However, when a person or group of people enter into a white collar profession specifically in order to commit a crime – especially in cases where the person or people have made a habit out of committing crimes in other venues in the past – this kind of event constitutes “organized crime.” All organized crime and general white collar crime should be coded as 1202. But a white collar crime committed in a specific professional venue should be coded according to that venue. For example:

Example of 1202: “He fenced stolen jewels, committed bank and credit-card fraud and had been accused of having links to an Albanian-Yugoslavian criminal gang. His name is Iljmija Frljuckic, and by all accounts, he had no business being around anybody else’s money. Yet after being deported in the late 1990’s, he slipped back into the United States and set up shop as a banker, not in a marble lobby under the watchful eyes of auditors and regulators, but in the virtually unregulated world of privately owned automated teller machines.” (organized crime)

However, use 0601 for articles/storylines about corruption in higher education. Use 1520 for articles/storylines about corporate fraud. Use 3100 for articles/storylines about the child sex abuse scandal in the Catholic Church.

1203: Illegal Drug Production, Trafficking, and Control

Examples: Drug Enforcement Administration (DEA) appropriations, national drug control strategy, federal interagency cooperation in drug control border drug interdiction, international narcotics control strategy, heroin trafficking in China, status of DEA drug interdiction programs, U.S.--South American drug control

strategy and cooperation, airborne drug trafficking deterrence, U.S. military involvement in drug interdiction, Coast Guard drug confiscation and search policies, drug trafficking and money laundering, money laundering detection and penalties, federal seizure of drug related property, drug trafficking in New York City, crack-cocaine trafficking in Delaware, legalization of drugs, the relationship between drug trafficking and crime, criminal penalties for drug trafficking.

See also: 1202 general money laundering (non-drug related).

Use 1203 for articles/storylines on international drug trafficking and the international war on drugs when the U.S. is a player.

1204: Court Administration

Examples: Judiciary budget requests and appropriations, federal courts administration act, restructuring district courts, construction of new federal courthouse, administration of the federal courts, reorganization of federal courts, reducing the workload of the Supreme Court, reform grand jury procedures, time limits for federal criminal cases, capital punishment procedures, effectiveness of the pretrial services agency, oversight of the Legal Services Corporation, jurisdiction of lawsuits made by foreigners on U.S. companies, criminal fine collection efforts, conditions for pre-trial release, bail guidelines and bail reform, establish and office of the public defender, Supreme Court issues, criminal records, legal services issues, confer jurisdiction upon Court of Claims (with no specific references to other subject matter) .

See also: 1205 parole issues; 1210 criminal sentencing requirements and civil suit guidelines.

Use 1204 for articles/storylines about the Supreme Court, generally (e.g., articles/storylines on the ideological composition of the Court, the direction a particular chief justice is taking the Court, etc.). However, code articles/storylines on Supreme Court decisions on specific policy issues based on the issues themselves. So decisions on abortion cases should be coded 0207, decisions on capital punishment should be coded 1210, etc. And articles/storylines about Supreme Court appointments/nominations should be coded 2005.

Use 1204 for articles/storylines about evidence (e.g., defendants' right to use new DNA evidence in court).

Use 2005 for articles/storylines about judicial nominations for Supreme Court and federal courts.

1205: Prisons

Examples: Federal Bureau of Prisons appropriations and budget requests, Federal Bureau of Prisons programs, halfway house contracts, alternatives to traditional incarceration for criminal offenders, prisoner 'boot' camp proposals, prison overcrowding, prison construction plans and policy, prison violence, shortcomings of the correction system, reform of the present parole system, national correction standards, penal reform.

Use 1205 for articles/storylines about corrections, overhaul in correction facilities or rehabilitation strategies.

Use 1205 for articles/storylines about parole hearings, parole decisions, parole guidelines and standards.

1206: Juvenile Crime and the Juvenile Justice System

Examples: violent crime involving youth, juvenile justice and delinquency prevention act, juvenile court system, youth criminal activity, homeless and runaway youth assistance programs, crime and violence in schools, adolescent drug use and related criminal activity, juvenile delinquency prevention programs, correlation of unemployment and the crime rate for youth, alternatives to juvenile incarceration, detention and jailing of juveniles, institute for juvenile justice, institute for continuing studies of juvenile justice, Juvenile Justice and Delinquency Prevention Act.

1207: Child Abuse and Child Pornography

Examples: child abuse prevention, national child search system, regulation of child pornography, violence against children, sexual exploitation of children, problems and incidence of missing children, federal efforts to relocate missing children, sexual abuse of children in day care homes, parental kidnapping of their children.

Use 1207 for articles/storylines about child murder (either deliberately or through neglect).

1208: Family Issues

Examples: court-ordered child support, battered women and child custody legislation, state of child welfare services, adoption and foster care programs, domestic violence, federal family planning programs, impact of drugs on children and families, aid for abandoned infants and children, teenage pregnancy issues, teenage suicide prevention, family services support for adoption, family economic problems, consequences of divorce, elderly abuse, domestic violence.

Use 1208 for articles/storylines about divorce.

1209: Police, Fire, and Weapons Control

Examples: Federal financial assistance to state and local law enforcement, rights of police officers during internal investigations, police misconduct, neighborhood crime reduction programs, arson prevention, handgun control, revise federal gun control laws, seven-day waiting periods for handgun sales, control of explosives, establishment of a national police academy.

Use 1209 for articles/storylines about police/fireman pay and benefits.

Use 1209 for articles/storylines about police brutality.

Use 1209 for articles/storylines about police brutality motivated by race, but for general racial profiling or racist slurs by police use 0201.

1210: Criminal and Civil Code

Examples: revisions of the federal criminal code, federal crime sentencing disparities, hate crimes sentencing enhancement act, federal rape law reform, judicial sentencing in narcotics cases, sentencing in capital cases, criminal penalties for assaults on firemen and policemen, proposals to abolish the death penalty, apply federal law to crimes committed on aircraft, civil penalty guidelines and limitations, criminal justice statistics, habeas corpus reform.

Use 1210 for articles/storylines about capital punishment/the death penalty.

1211: Riots and Crime Prevention

Examples: programs to prevent crimes against women, crimes against the elderly, deterring auto theft, violent crime control, national crime survey, federal criminal diversion programs, compensation programs for victims of violent crime, causes of urban riots and civil disturbances.

See also: 1208 domestic violence.

1299: Other

Use 1299 for articles/storylines about individual crimes (e.g., murders, rare map theft, serial arson, etc.).

Use 1299 for articles/storylines about trials and sentencing for general crimes (but use 1210 for the death penalty).

Use 1299 for articles/storylines about Oklahoma City Bombing, trial and execution of Timothy McVeigh.

13. Social Welfare

1300: General

Examples: Health and Human Services (HHS) and Health, Education and Welfare (HEW) appropriations and budget requests, administration's welfare reform proposals, effectiveness of federal and state public welfare programs, social services proposals, public assistance programs, effects of economic and social deprivation on the psychology of underprivileged persons, social security and welfare benefits reforms.

See also: 300 HHS appropriations specific to health; 300 HEW appropriations specific to health; 600 HEW appropriations specific to education.

1301: Food Stamps, Food Assistance, and Nutrition Monitoring Programs

Examples: USDA grants to states for women, infant and children (WIC) supplemental food program, childhood hunger relief, child nutrition programs, consumer nutrition awareness, food stamp abuse and fraud, approach to the U.S. hunger problem, USDA school breakfast/lunch program, malnutrition problems among the elderly, food assistance for low income families, coordinate USDA and HHS programs for nutrition monitoring, USDA food programs for the homeless, administration task force on food assistance, food stamp reductions, special milk program eligibility for public schools, national nutrition policy study, food assistance for the elderly, national school lunch act.

See also: 349 the role of diets in disease prevention.

1302: Poverty and Assistance for Low-Income Families

Examples: Economic Opportunity Act antipoverty programs, programs to alleviate long-term welfare dependency, examine proposals to reform AFDC program, needs of disadvantaged children from low-income families, efforts of Southern states to reduce poverty, mandatory work and training programs for

welfare recipients, promotion of economic self-sufficiency for single mothers receiving AFDC benefits, HHS low-income energy assistance programs, budget cut impact on AFDC programs.

See also: 1204 legal assistance for the poor.

1303: Elderly Issues and Elderly Assistance Programs (Including Social Security Administration)

Examples: contributions into the social security fund, Older Americans Act, revise social security retirement earnings test, social security system filing problems, SSA procedures for handling claims for denied benefits, improve social security benefits for older women, social services for the elderly, management of the social security trust funds surplus, reduction of social security benefits, elderly assistance programs under the older Americans act, problems and needs of elderly women, cost of living adjustments for social security benefits, impact of budget cuts on the elderly, social security financing issues, energy cost assistance for the elderly, needs of rural elderly.

See also: 1301 elderly nutrition assistance

programs; 1408 elderly housing.

1304: Assistance to the Disabled and Handicapped

Examples: residential living programs for the mentally retarded and developmentally disabled, revision of aid to handicapped, Americans with Disabilities Act, technologies for assisting disabled persons, HHS grants for persons with chronic disabilities, needs of the elderly blind, rehabilitation assistance for disabled, programs for the deaf and hearing impaired, independent living programs for the handicapped, federal aid for the mentally ill and retarded, aid to physically handicapped, Randolph-Sheppard Act for the blind.

See also: 205 handicapped access to federal buildings.

1305: Social Services and Volunteer Associations

Examples: domestic volunteer service programs, youth volunteer programs, community volunteer programs, providing volunteer services for the elderly, ACTION agency older Americans volunteer programs, federal management of volunteer services, national meals-on-wheels programs, state social services programs, boy scouts of America , older worker community service programs, boys and girls clubs.

See also: 1929 Peace Corps.

1399: Other

14. Community Development and Housing Issues

1400: General

Examples: Housing and Urban Development (HUD) budget requests and appropriations, housing and the housing market, HUD policy goals, building construction standards, future of the housing industry, national

housing assistance legislation, administration and operation of national housing programs, housing safety standards.

1401: Housing and Community Development

Examples: HUD housing and community development programs, HUD loans for neighborhood revitalization efforts, HUD block grants, neighborhood development and preservation, housing and urban development, National Housing Act, making repairs and improvements to a residence.

See also: 1403 urban economic development; 1405 rural economic development.

When in doubt about whether to use 1401 or 1403, use 1401 for articles/storylines about development issues regarding a single home or small group or neighborhood of homes and use 1403 for articles/storylines about larger development plans targeted toward an entire urban area.

Use 1401 for articles/storylines about jurisdictional disputes between homeowners and homeowners associations.

1403: Urban Economic Development and General Urban Issues

Examples: urban enterprise zones, local partnership act, economic development needs of urban areas, community reinvestment act, urban revitalization, economic problems in various cities, national urban policy, effects of budget cuts on cities, federal role in dealing with urban decline, reducing urban sprawl, New York City financial bailout, model cities programs.

See also: 2001 intergovernmental relations.

Use 1403 for articles/storylines about crowding in city buildings, lack of apartments, raising rent, etc.

Use 1403 for articles/storylines about suburban areas and small towns.

Use 1403 for articles/storylines about the mass migration that happened after Hurricane Katrina.

1404: Rural Housing and FmHA Housing Assistance Programs

Examples: management of FmHA rural housing assistance program, FmHA home loan appeals procedure, shortages of low-income rural housing, housing credit needs in rural areas, FmHA management problems, agriculture real estate loans, FmHA farm loans.

See also: 1405 rural economic development.

Use 1404 for articles/storylines about small farming communities.

1405: Rural Economic Development

Examples: credit assistance and availability for rural economic development, investment in rural areas, rural conditions, Appalachian Regional Development Commission, Economic Development Administration assistance, rural development oversight, economic and social problems of rural America, rural community development, rural telephone assistance.

See also: 802 rural electric development.

1406: Low and Middle Income Housing Programs and Needs

Examples: housing affordability problems of low and moderate income families, federal housing assistance programs, low-income housing shortages, condominium conversion trends and housing affordability, rent control, deficiencies in public housing projects, budget renewal for HUD's Section 8 program, alleged mismanagement of HUD programs, tenant-management initiatives in public housing projects, HUD management of multi-family housing programs, security in public housing, neighborhood preservation, slum clearance and related problems, multifamily housing projects, housing affordability and availability.

See also: 200 fair housing initiatives and discrimination in housing; 1408 elderly housing.

1407: Veterans Housing Assistance and Military Housing Programs

Examples: VA home loan guaranty program, use of national service life insurance funds to underwrite mortgage loans to veterans, VA mortgage foreclosures, veterans emergency housing act, low cost rental housing for veterans, sale of permanent war housing to veterans, substandard housing of military personnel, housing in military areas, defense housing act.

1408: Elderly and Handicapped Housing

Examples: Elderly housing needs, housing shortages and the elderly, alternative approaches to housing for the elderly, condominiums and the elderly, housing facilities for the elderly and handicapped, adequacy of federal response to housing needs of older Americans.

1409: Housing Assistance for Homeless and Homeless Issues

Examples: permanent housing for the homeless, federal aid for the homeless, Homeless Outreach Act, assistance for homeless veterans, lack of housing for homeless and low-income groups, use of emergency assistance funds for housing for homeless families, extent and causes of homelessness in the U.S.

See also: 603 education of homeless children.

1410: Secondary Mortgage Market

Examples: FHA mortgage insurance fund, soundness of the Federal Home Loan Mortgage Corporation and FANNIE MAE, abuses of FHA mortgage programs, mortgage marketing and mortgage credit, FHA to insure loans for residential mobile home purchases, examine the secondary mortgage market for industrial mortgages, FHA mortgage foreclosure procedures.

See also: 1504 consumer mortgages.

1499: Other

Examples: architectural competition, cellulose home insulation.

Use 1499 for articles/storylines about eminent domain.

15. Banking, Finance, and Domestic Commerce

*****Notes on For-Profit Companies*****

Articles/storylines about non-profit organizations should be coded according to the industry. If the article/storyline does not explicitly state that the organization is non-profit, you should assume it is for profit.

Articles/storylines on the general economic status of a particular industry or company should be coded according to that industry (e.g., 1006 for the Ford auto company or auto manufacturers in general, 1707 for Fox News or the broadcasting industry in general, 2300 for the Martha Graham Dance Company or performing arts companies in general, etc.).

Articles/storylines about particular commercial operations should be coded in the 15 codes as appropriate (e.g., 1520 for personnel issues such as hiring / firing CEOs, corporate mergers, or corporate fraud, 1525 for consumer safety, etc.).

Remember that articles/storylines about non-financial corruption in a company should be coded according to the substance area of the company (e.g., false testimony about the safety of railroads should be coded as 1005, a high school principal falsifying test scores should be coded as 0601, etc.).

Articles/storylines about employee and workplace issues should be coded in the 05 codes as appropriate (e.g., 0501 for worker safety, 0503 for employee benefits, 0504 for labor union issues, etc.). Even labor issues involving multi-million dollar sports salary labor disputes should be coded as 0504.

1500: General

Examples: Department of Commerce (DOC) and National Bureau of Standards (NBS) budget requests and appropriations, financial system structure and regulation, DOC reorganization plan, national materials policy, regulatory sunshine act, federal regulation of the economy, Interstate Commerce Act.

See also: 1800 Federal Trade Commission

1501: U.S. Banking System and Financial Institution Regulation

Examples: Regulatory burden on financial institutions, FDIC and Resolution Trust Corporation (RTC) policies, interstate banking efficiency, RTC procedures for disposal of assets of failed savings and loan banks, FDIC bank insurance fund, banking regulation reform, failed federally insured savings and loan associations, need for financial service industry restructuring, financial institution fraud investigations, savings and loan crisis, FSLIC acquisition of insolvent savings and loan associations, uniform standards for saving institution advertising, standards for U.S. commercial bank foreign loan transactions, Federal Reserve regulation on check clearing systems--limit length of time that banks can hold checks, financial institution deregulation, electronic fund transfer act, interest rate regulation on savings accounts, national credit union administration, operation of federal intermediate credit banks, Reconstruction Finance Corporation, Federal Credit Union Act, Banking Holding Company Act.

See also: 104 federal reserve board issues; 1525 Truth-in-Lending Act; 1202 prosecution of financial institution crimes.

1502: Securities and Commodities Regulation

Examples: Securities Exchange Commission (SEC) budget requests and appropriations, regulation of commodity markets, federal securities regulations, securities laws violations, regulation of commercial bank involvement in the securities market, SEC regulation of corporate bonds, examine stock market volatility problems, municipal bond market regulation, commodity futures trading commission, growth of money market mutual funds, pension fund investment policies, protection for securities investors, amend the Securities Exchange Act, regulation of mutual fund investment companies, financial services industry reform, commodities .

Use 1502 for articles/storylines about the stock market.

1504: Consumer Finance, Mortgages, and Credit Cards

Examples: mortgage financing reform, consumer credit protection, real estate settlement procedures, consumer access to credit records, consumer information on credit card interest rates, consumer information on mortgage settlement costs, fraud and abuse among credit repair agencies, adjustable rate mortgages, regulation of credit card solicitations, inaccurate credit bureau information reporting procedures, Credit Control Act.

See also: 1410 government mortgage programs.

1505: Insurance Regulation

Examples: fraud and abuse in the insurance industry, insurance industry financial status, effectiveness of state regulation of insurance companies, insurance company failures, automobile insurance affordability and availability, no-fault motor vehicle insurance, life insurance industry regulation, sales of commercial life insurance on military bases, product liability insurance rates.

See also: 1523 flood and earthquake insurance.

1507: Bankruptcy

Examples: reform of consumer bankruptcy laws, professional fees in bankruptcy cases, bankruptcy code reform, depositor treatment in bankruptcy proceedings of uninsured financial institutions, bankruptcy regulation for farm families, municipal bankruptcy act.

See also: 1204 bankruptcy courts.

Use 1507 for articles/storylines about bankruptcy laws, policy, and procedure. But for articles/storylines about bankruptcy in specific industries (e.g., the airline industry) use the industry specific code (e.g., 1003).

1520: Corporate Mergers, Antitrust Regulation, and Corporate Management Issues

Examples: unfair competition in the tourism industry, meatpacking industry concentration, intellectual property antitrust protection, Sherman Antitrust Act, vertical price-fixing restrictions, price fixing agreements, monopoly problems in regulated industries, limited partnership regulations, foreign acquisition of U S. firms, corporate management structure, hostile corporate takeovers, seed-money corporations, Clayton Act.

See also: 1501 banking deregulation; 1003 airline deregulation; 1005 railroad deregulation; 1006 trucking deregulation; 1706 telephone deregulation; 1526 sports regulation; 803 oil industry deregulation; 1505 insurance industry regulation.

Use 1520 for articles/storylines about general corporate personnel issues (e.g., GM downsizing lays off 20,000 employees, CEO of major insurance company fired).

Use 1520 for articles/storylines about corporation mergers.

Use 1520 for articles/storylines about corporate fraud and corruption (e.g., Enron scandal); includes proposed and enacted legislation to prevent corporate fraud.

Use 1520 for articles/storylines about a company restructuring itself in the wake of the Enron scandal.

Use 1520 for articles/storylines about antitrust issues, regardless of business venue (e.g., Internet anti-trust questions, automotive company anti-trust questions, etc.).

1521: Small Business Issues and the Small Business Administration

Examples: Small Business Administration (SBA) budget requests & appropriations promoting small business exports, small business credit availability problems, health insurance cost burden on small businesses, govt assist to small business, fed set aside contracts for small business, small business competitiveness under current liability laws, problems of small businesses complying with EPA regs, SBA loans to small businesses, impact of deregulation on small trucking businesses, SBA implementation of small business programs for veterans, promotion of women in small business, impact of product liability costs on small business, increases in small business failures, impact of fed regs on small business, access to capital for small business, govt competition w/ small business.

See also: 1523 small business disaster loan programs; 201 SBA minority business programs; 1609 VA small business loans.

1522: Copyrights and Patents

Examples: Patent and Trademark Office appropriations, copyrights and telecomm, biotechnology patent protection, intellectual property rights, copyright infringement remedies, industrial design protection, patents for inventions made in space, copyright protection for computer software, music copyrights, piracy of intellectual property, patent application procedures, trademark use and clarification, home recording of copyrighted material, performance royalties, patent office fees.

Use 1522 for articles/storylines about U.S. patents and issues of copyright.

1523: Domestic Disaster Relief

Examples: Federal Emergency Management Agency (FEMA) budget requests and appropriations, aid for flood disasters, national flood insurance reform, earthquake preparedness, FEMA disaster planning and relief operations, FEMA civil defense programs, FEMA--national fire academy training programs, SBA disaster loans, interest rates on disaster loans, emergency credit extension to farmers in disaster areas, hurricane protection projects, early warning systems, drought relief, establishment of a national fire academy.

Use 1523 for articles/storylines about National Guard aid after domestic natural disasters.

1524: Tourism

Examples: White House conference on tourism, promotion of tourism in the U.S. , using tourism to promote development of rural economies, problems for foreign visitors, status of U.S. tourism industry, national tourism programs, regulation of travel agents.

See also: 530 immigration and refugee issues; 1929 passport issues.

1525: Consumer Safety and Consumer Fraud

Examples: Consumer Product Safety Commission (CPSC) budget requests and appropriations, deceptive mailings and solicitations, consumer reporting reform, auto repair fraud, state consumer protection standards, federal standards for product liability, child car seat safety, infomercials and consumer protection, deceptive ads in the diet industry, telemarketing fraud, debt collection and consumer abuse, penalties for consumer product tampering, the consumer protection advocacy movement, Truth-in-Lending Act, labeling of alcoholic beverages, regulation of deceptive practices in the funeral industry, cosmetic safety, false and misleading advertising, consumer affairs, control of flammable fabrics.

See also: 708 protection from indoor radiation hazards; 1504 fraudulent land sales.

1526: Sports and Gambling Regulation

Examples: regulation of greyhound racing, health and safety standards for boxing, promotion of professional standards for boxing, regulation of gambling on vessels, regulation of televised college football, prohibit TV hometown blackouts when games are sold out, regulation of interstate horse racing, status of amateur sports in the U.S., antitrust immunity for professional sports teams, President's Council on Physical Fitness and Sports.

1599: Other

Examples: conversion to the metric system, emergency chlorine allocation, daylight savings time, uniform time standards.

16. Defense

1600: General

Examples: Department of Defense budget requests and appropriations (DOD), Department of the Air Force, Army, or Navy appropriations, armed services bills covering multiple subtopics, DOD operations and maintenance, defense production act, reorganization of the DOD, status of the national military establishment, establishment of the DOD, funding for defense activities of DOE, termination or designation of special defense areas.

See also: 1701 NASA\DOE issues.

1602: U.S. and Other Defense Alliances, U.S Security Assistance

Examples: NATO strategy and U.S. military presence in Europe, Japan-U.S. joint military operations, mutual security acts, changes in the Soviet Union and the future of NATO, NATO defense capabilities in

Europe, Warsaw Pact status, Soviet Union and China defense and economic development needs, Soviet strategic force developments, U.S. military commitments to NATO, NATO military equipment, Southeast Asia collective defense treaty, inter-American military cooperation act, security assistance.

*****Notes on Peacekeeping*****

Use 1602 for articles/storylines primarily about NATO troops (or NATO troops and U.S. troops) beginning/enacting/ending a peacekeeping mission (e.g., NATO believes U.S. role in Kosovo essential).

Use 1606 for articles/storylines primarily about U.S. troops beginning/enacting/ending a peacekeeping mission (e.g., U.S. troops are sent on peacekeeping mission to Albania).

Use 1925 for articles/storylines primarily about human rights abuses (as opposed to military intervention in human rights abuses).

Use 1926 for articles/storylines primarily about U.N. troops (or U.N. troops and U.S. troops) beginning/enacting/ending a peacekeeping mission (e.g., U.N. calls on U.S. for help in Sierra Leone).

Use the appropriate 19xx region code for articles/storylines primarily about the conflict in a region, where the use of U.S. and/or U.N. peacekeeping troops is only a side note.

1603: Military Intelligence, CIA, Espionage

Examples: foreign economic espionage, U.S. intelligence reorganization, congressional oversight of U.S. covert intelligence activities, DOD security review commission, intelligence activities of Soviet-bloc diplomats, CIA funds for support of Nicaraguan rebels, leaks of classified defense info, national intelligence act, CIA estimates of Soviet defense spending, role of the national security advisor, foreign intelligence electronic surveillance, organized subversion in the U.S. armed forces, communist bloc intelligence activities in the U.S., CIA illegal involvement in Chile, testimony of a KGB defector, intelligence reports on the necessity of ABM missile deployment, workings of the Cuban intelligence network, recent Soviet navy and military activities in Europe, CIA employee retirement and disability system, U.S. defense strategies, national security acts, national security council briefings, threats to U.S. interests, Soviet Union and China military capabilities.

*****Notes on Military Intelligence*****

Use 1603 for articles/storylines about military intelligence even if questions of executive authority are raised, even if privacy issues are mentioned; Congressional hearings held to determine if privacy is violated through wiretapping; federal wiretapping for purpose of national security 1603; articles/storylines about leaks in intelligence security, including the missing hard drives at Los Alamos National Labs (LANL)

Use 0208 for articles/storylines about privacy issues surrounding police wiretapping to catch criminals unrelated to national defense.

1604: Military Readiness, Coordination of Armed Services Air Support and Sealift Capabilities, and National Stockpiles of Strategic Materials

Examples: DOD plans for modernization of nuclear forces, military sealift performance in the Persian Gulf War, defense mobilization requirements of domestic industries, DOD efforts to improve defense communication systems, national defense stockpiles, strategic force modernization requirements, integration of military traffic management and military sealift command, U.S. military readiness, DOD

combat readiness programs, DOD mobility fuel requirements, fleet readiness, test and evaluation of the armed forces, shortages of essential materials, stockpiling of critical materials, disposal of various stockpiled materials, military air transportation readiness, , production of fluorspar .

See also: 803 strategic petroleum reserves; 1616 defense industry.

1605: Arms Control and Nuclear Nonproliferation

Examples: Arms Control and Disarmament Agency (ACDA) budget requests and appropriations, nonproliferation of weapons of mass destruction, destruction of nuclear weapons in the Soviet Union, North Korean nuclear program, U.S. arms control policies, nonproliferation of chemical weapons, nuclear testing moratorium, DOE export controls of nuclear production material, arms export controls, arms reduction agreements between NATO and the Warsaw Pact, international ban on chemical weapons, global spread of chemical and biological weapons, prevention of sale of weapons system to Japan, START arms control treaty, conventional forces reduction, violation of arms control agreements, nuclear proliferation in developing countries, implication of INF treaty for NATO, Soviet Salt II treaty violations, U.N. report on nuclear proliferation, arms trade in the western hemisphere, nuclear exports to India, U.S.-Soviet arms race control, EURATOM agreements, atomic weapons research and development, Arms Export Control Act revisions.

See also: 1803 chemical and advanced technologies export control.

*****Notes on Nuclear Weapons*****

Use 1605 for articles/storylines about inspections or searches for weapons of mass destruction (WMDs).

Use 1602 for articles/storylines about nuclear weapons if other countries participate in sanctions for noncompliance; to use 1602, the article/storyline must be about alliance; if U.S. and France join forces to sanction a country then 1605, but if the article/storyline is about how they haven't been alliances for a while and this is the first time they are joining forces then use 1602.

Use 1604 for articles/storylines about nuclear weapons when the nuclear weapons in question are "good" weapons that the U.S. has *developed and/or stockpiled* to protect U.S. interests.

Use 1605 for articles/storylines about nuclear weapons when the U.S. is a major player or in negotiations with another country; also use when sanctions are being taken when a country is developing nuclear weapons and shouldn't be when the U.S. is involved in issuing the sanction, unless the sanction is manifested as use of force, in which case use 1621 or 1619; code 1605 should "trump" code 1602.

Use 1605 for articles/storylines about inspections and articles/storylines about sanctions taken when inspections are not allowed to happen; also use for articles/storylines about inspections leading up to the Iraq War; pre 9/11 inspections use 1605.

Use 1610 for articles/storylines about nuclear weapons when the nuclear weapons in question are "good" weapons that the U.S. has *purchased and/or tested* to protect U.S. interests.

Use 1621 for articles/storylines about nuclear weapons if military action is eventually taken after noncompliance with weapons inspections or nonproliferation; use 1605 for anything short of force; if threat of use of force is still in planning/brainstorming stage code as 1605.

Use 19xx for articles/storylines about nuclear weapons when there is no mention of U.S. or when U.S. is not a main actor (e.g., fear that North Korea has nuclear weapons).

1606: Military Aid and Weapons Sales to other Countries

Examples: military assistance to other countries, conventional arms sales policies, sale of f-15 aircraft, commercial military sales, donation of an obsolete aircraft carrier, proposed sale of weapons, DOD costs related to sales of military equipment to foreign countries, sale of decommissioned ships

See also: 1901 for economic and military aid

Use 1606 (not 1602) for articles/storylines about the U.S. providing military assistance to countries (e.g., sending U.S. troops into Liberia to stop the fighting there and hold the country together). Use 1901 for articles/storylines where the primary focus is on non-military aid (e.g., money, supplies, etc.). But if U.S. troops are sent and there's a doubt of whether to use 1606 or 1901, use 1606.

1608: Manpower, Military Personnel and Dependents (Army, Navy, Air Force, Marines), Military Courts

Examples: DOD authorization requests for armed forces personnel strength levels, military personnel issues, child care programs at military installations, armed forces staffing requirements, imminent danger pay for those serving in the Persian gulf, DOD morale, welfare, and recreation programs, DOD officer promotion procedures, shortage of affordable housing for military families, benefits for military retiree spouses, special pay to encourage personnel retention, survivor benefit plans, defense officer personnel management act, status of army manpower, selective service system funding, unionization of military personnel, enlistment bonuses for service in a critical skill, increase flight pay for military aviators, recruiting and retention of military personnel, life insurance for military personnel, various personnel issues during W.W.II, Americans missing or prisoner in Asia, POW's in Vietnam, live sightings of U.S. prisoners of war, retired military personnel issues, military court martial, transportation of armed forces, air travel of armed forces, mail for armed forces, mail for servicemen, defense department overseas teachers pay and issues.

See also: 601 GI Bill and military academies.

Use 1608 for articles/storylines about U.S. troops generally, outside context of specific military engagement (e.g., Black Hawk helicopter crashing during training in upper New York state, soldier being taken into custody after throwing grenade into fellow soldiers' tent).

Use 1608 for accusations or official charges brought against U.S. troops (e.g., for rape, murder, improper conduct). Use 1608, for example, for articles/storylines about the Guantanamo Bay abuse trial.

Use 1608 for profile articles/storylines about Secretary of Defense Donald Rumsfeld.

Use 1608 for articles/storylines about a specific soldier or group of soldiers being held personally accountable for a wrong caused by the U.S. military (e.g., a U.S. pilot being court marshaled for flying into a Italian ski cable). But use 1620 for articles/storylines about the U.S. Military causing some injury to another nation in a non-war context where individual soldiers are not held responsible (e.g., a U.S. submarine accidentally hitting a Japanese fishing boat).

1609: VA Issues

Examples: veterans programs budget requests, veteran's benefit claims, VA national cemetery system, veteran's job training, illness of Persian Gulf veterans, disabled veterans compensation, VA board of appeals adjudication procedures, VA benefits eligibility, compensation for veterans, cost of living adjustments for veterans, delays in processing veterans claims, problems faced by Vietnam era veterans, federal services for women veterans, VA life insurance programs, reorganization of veteran's food service operations, military retiree benefit plans, small business loans to veterans, consolidation of the veterans administration, veterans readjustment assistance act, retired pay, veterans pay, veterans transportation issues.

See also: 300 series for veterans health care (.3 denotes military or veterans health); 601 veterans education benefits; 1407 veterans housing; 1409 homeless veterans; 2008 designating/naming Veterans Administration hospitals and medical centers.

1610: Military Procurement and Weapons System Acquisitions and Evaluation

Examples: DOD budget requests and appropriations for procurement of weapons, DOD procurement process, DOD aircraft procurement, funding for the B-2, shipbuilding and conversion programs, weapons system testing and evaluation, DOD contracting for support services, procurement of the Navy SSN-21 attack submarine, DOD purchasing and control of military supplies, contracting out of core logistic activities, M-16 rifle procurement program, health of strategic U.S. Industries.

See also: 1617 oversight of defense contractors and contractor fraud; 1604 adequacy of supplies.

Use 1610 for articles/storylines about U.S. weapons testing.

1611: Military Installations, Construction, and Land Transfers

Examples: military construction budget requests and appropriations, military construction programs, DOD commissary system, military lands withdraw, national war college restoration act, Fort Hood land acquisition, expansion of U.S. military bases in Spain, construction of bridges by the military, management of military clubs, military land conveyances, military real estate projects, national defense facilities act, military housing supplies, disposal of military property, construction of ordinance facilities, DOD real estate acquisitions, disposal of synthetic rubber facilities, sale of military stores to civilian employees, war plants disposal.

1612: National Guard and Reserve Affairs

Examples: reserve officer personnel management, army reserve force structure, deactivation problems of reserve units participating in Desert Storm, management of military reserve vessels, management of reserve air fleet, national guard tort claims, survivor benefits for reservists, reserve members payments for life insurance, national guard retirement credit, reserve pay, flight training for ROTC, status of reserve facilities, promotion system for reserve officers, composition of the naval reserve.

See also: 601 ROTC college education.

1614: Military Nuclear and Hazardous Waste Disposal, Military Environmental Compliance

Examples: environmental crimes at rocky flats nuclear weapons facility, radioactive and chemical contamination at nuclear weapons facility, disposal of defense related wastes, hazardous waste

identification at military bases, navy shipboard waste disposal policy, nuclear site decontamination, DOD compliance with the clean air act, DOE nuclear weapons hazardous waste management, army disposal of chemical weapons stockpile, DOD shipment of toxic chemicals by rail, radioactive spills at an air force base, uranium mill tailings radiation control act, environmental impacts of MX missile siting.

See also: 704 nonmilitary hazardous waste disposal.

1615: Civil Defense (war related)

Examples: radiological emergency planning, civil reserve air fleet, federal civil defense act, effects of limited nuclear warfare, federal fallout shelter construction, civil defense air raid shelter program, civil defense for national survival, civil air patrol, dept. of the army appropriations for civil functions.

See also: 1523 FEMA domestic (weather related) disaster relief.

1616: DOD Civilian Personnel, Civilian Employment by the Defense Industry, Military Base Closings

Examples: assist workers affected by defense spending cuts, assist communities affected by DOD facilities closures, peacetime conversion of defense industry, base closure recommendations, maintenance of the U.S. defense industrial base, defense industry employment, protection of DOD civilian employees, closure of overseas military bases.

1617: Oversight of Defense Contracts and Contractors

Examples: defense contract audit agency, management and pricing of DOD defense contracts, overpricing by DOD contractors, defense procurement fraud, DOD inventory control system problems, defense contractor financial data reporting requirements, inventory control and accounting procedures used Bell Helicopter, DOD employees ethics program, DOD contractors health insurance reimbursement policy, prosecution of fraudulent defense contractors, problem of product substitution by defense contractors, establish system for documenting defense contractor performance, fraud/cost overruns at General Dynamics, quality assurance problems at Hughes missile production facility, Navy spare parts procurement overpricing, DOD contract profit policy, DOD contract award procedures, review of military catalogue supply system, employment of DOD personnel by defense contractors.

1619: Direct War Related Issues

Examples: appropriations for military operations in Vietnam, U.S. relations with Laos, cost of the Vietnam War, impact of the Vietnam War, war-related civilian problems in Laos and Cambodia, air war against North Vietnam, Gulf of Tonkin incidents, U.S.-Laotian security relations, military strategy in the Korean War, military supplies and equipment in Korean War, ammunition shortage in Korean War, Korean War mobilization programs, prisoners of war, Geneva convention for protection of POW's, elimination of German resources for war, shipment of war relief supplies, Pearl Harbor attack, war assets administration, investigation of the Katyn Forest massacre.

See also: 1620 settlement of war related claims against the U.S. Government.

***** Notes on War, Terrorism, Suicide-Bombings, Human Rights Crises, Conflict in the Middle East, etc. *****

These notes encompass relate to the 1619 series of codes as well as international codes in the 1900's and the specific terrorism code 1927.

Use 1619 for articles/storylines about war when U.S. troops are involved or are the ones being attacked by insurgency (targets) as a direct result of the war on terror; also use for war-like responses to terrorism after 9/11 (e.g., closing off a section of a street due to a car bomb); use generally for articles/storylines directly related to the war on terror; *in the case of an even split, 1619 trumps other codes.*

Use 1619 for articles/storylines about U.S. prisoners of war during the war on terror, interrogations and conditions at Abu Ghraib, etc.

Use 19xx for articles/storylines about international conflict not explicitly involving the U.S. (e.g., non-U.S. conflict in the Middle East would be coded as 1920); non-U.S. international conflict occurring between two or more nations from different area codes should be coded using the general 1900 code; use, for example, when two groups in Iraq are bombing each other and when U.S. is not a target; when U.S. is referenced but not directly involved in the event (e.g., U.S. troops were stationed near attack); Palestine/Israel conflict; e.g., “Britain sends 1,000 troops to fight in Iraq War” and “Britain sends 1,000 troops to fight in U.S.-led Iraq War” should both be coded 1910 as long as U.S. involvement is only mentioned in passing. But “Britain and U.S. both send troops to fight in Iraq War” should be coded as 1619, since U.S. involvement takes precedent over other nations.

Use 1925 for articles/storylines about on human rights abuses (genocide, mutilation, mass-killings, mass-graves, government-sponsored starvation, etc) and for articles/storylines about refugees displaced by human rights conflicts. But for articles/storylines focused on the military intervention in the situation, such as bombings or gunfire or armed conflict, use the appropriate region code.

Use 1927 for articles/storylines about the actual attacks of September 11, 2001 and its immediate aftermath, including “finger-pointing” at government agencies that may not have given adequate attention to threats of an attack. But for articles/storylines about 9/11 memorials, use 2101.

Use 1927 for articles/storylines about the search for and capture of suspects in the 9/11 attacks, the release of the 9/11 emergency 911 calls, the ruling that Zacarias Moussaoui is eligible for the death penalty, etc. But for articles/storylines about the treatment and trials of suspected 9/11 terrorists, use 1619.

Use 1927 for articles/storylines about the arrest and detainment of terrorist suspects specifically in a general “war on terror” context (i.e., not in Iraq or Afghanistan). But for articles/storylines about the arrest and detainment of suspects in Afghanistan or Iraq (i.e., in the context of battle) use 1619. Also use 1619 for issues about the *treatment* (e.g., trial, rights, torture, release) of detainees once they’re detained, no matter what the context of their capture.

Use 1927 for articles/storylines about the Patriot Act.

Use 1927 for articles/storylines about acts of terrorism NOT in the midst of the war in Iraq/Afghanistan.

Use 1927 when multiple countries are involved or no specific country is cited. But when only one country is involved, put under regional code (e.g., 1920).

Use 1927 for acts attempting to prevent terrorism, like freezing bank accounts.

Use 1927 for articles/storylines that link the issues of terrorism under discussion directly to September 11, even if the issue at stake is about terrorism more broadly.

***** As the coding guidelines above should make clear, articles/storylines about suicide bombings need to be coded according to context. If the suicide bombing is performed as part of the U.S. conflict/state-building in Iraq, Pakistan, etc. then 1619 is appropriate. If the suicide bombing is an “unprovoked” act of terrorism (e.g., an Islamic extremist suicide bomber in Spain or Russia) then 1927 should be used. But “tit-for-tat” suicide bombings fall under general international war more so than terrorism and so should be coded according to the region code. For example, an act of terrorism by an Israeli suicide-bomber in clear retaliation for an earlier attack by a Palestinian suicide-bomber would be coded as 1920, even if the article/storyline uses the word “terrorism” in describing the event. Similarly, an attack by Islamic militants, including a suicide-bomber, on a Shiite Muslim mosque would be coded as 1920. This coding guideline is intended to reflect the fact that, prior to September 11, 2001, suicide-bombings of this nature likely would not have been described as acts of terrorism. This is not to say that terrorism did not exist prior to 9/11, but simply that many parts of the Middle East have been dealing with daily suicide-bombings before terrorism became a common framework of interpretation in the United States. Thus, the 1927 code should be reserved for acts of terror perpetrated by non-state actors against state actors and (usually) in a uni-directional manner. Retaliatory bombings, however clandestine and horrific, should be seen as occurring in sequence between two international actors.**

1620: Relief of Claims Against U.S. Military:

Examples: refunds or settlements for military dependents, relief of citizen injuries caused by the military, refunds for veterans, return of confiscated property, settlement of damage claims caused by war, foreign claims settlement.

Use 1620 for articles/storylines about the U.S. Military causing some injury to another nation in a non-war context (e.g., a U.S. submarine accidentally hitting a Japanese fishing boat) UNLESS a specific soldier or group of soldiers are held personally accountable, in which case use 1608 (e.g., a U.S. pilot being court marshaled for flying into a Italian ski cable).

1698: Research and Development

Examples: DOD budget requests and appropriations for research and development, advanced materials research, laser technology, R&D on aerospace plane, office of Naval research, tilt rotor technology, DOD testing of airborne radar jammer, nuclear weapons R&D.

1699: Other

Examples: issues arising from the explosion aboard the U.S.S. Iowa, resolution honoring a DOD staff director, army helicopter safety, government liability for atomic weapons testing, environmental consequences of nuclear war, army food irradiation program, , military commemorative legislation, including the award of military medals and commemoratives, Congressional Gold Medals for military personnel, incorporate American War Mothers.

See also: 2101 military parks and memorials.

17. Space, Science, Technology and Communications

1700: General

Examples: Federal Communications Commission (FCC) and the Office of Science and Technology Policy budget requests and appropriations, science and engineering personnel requirements for the 1990s, U.S. technology policy, FCC oversight review, reorganization of the FCC, national engineering and science policy, automation and technological change, FCC regulation of multiple subtopics (TV, telephone, cable, etc.).

See also: 1798 NSF research funding.

1701: NASA , U.S. Government Use of Space, Space Exploration Agreements

Examples: NASA budget requests and appropriations, NASA administrative issues, president's proposal for the space station Freedom, costs of the space station, national aerospace plane technology, policy goals for NASA space programs, problems with the Hubble Space Telescope, nuclear power and space exploration, review the space shuttle Challenger accident, international space policy, shuttle deployment of satellites, U.S. space cooperation with the Soviets, NASA satellite communications, Skylab 1 mechanical difficulties, Apollo 16 mission report, status of the Apollo program, NASA-DOD space programs budget requests and appropriations, DOD-NASA national aerospace plane program, NASA and DOD space launch vehicle requirements, missile development and space science, prototype construction of a commercial supersonic transport airplane .

1704: Commercial Use of Space, Satellites

Examples: international competition in space launch services, U.S. commercial space launch industry, Landsat satellite sale to private sector, encourage private sector development of satellite launch vehicles, status of private investment in space activities, solar power satellite research, earth resources technology satellite program, communication satellites.

See also: 1707 satellite TV broadcasting; 1708 weather satellites.

Use 1704 for articles/storylines about Google's use of satellite imaging.

1705: Science Technology Transfer, International Scientific Cooperation

Examples: technology transfer improvements act, technology transfer barriers and limitations, science cooperation between U.S. and Latin America, U.S.-East European cooperation in science research, U.S. policy of cooperation with foreign countries on science and technology, international science cooperation, technology transfer from the U.S. government to private industry, U.S.-Japan agreement to conduct more joint science and technology research, Department of Commerce technology transfer activities, international support for supercollider program, university and industry cooperation for technological advancements, create a national scientific information data processing center.

See also: 1803 restrictions on exports of high technology.

1706: Telephone and Telecommunication Regulation

Examples: national communications infrastructure, mobile communications, telephone network reliability, unauthorized switching of consumers to long distance carriers, international communications regulation, FCC regulation of 1-900 numbers, telecommunication development in rural areas, AT&T regulation, FCC

regulation of telephone rates, review FCC awarding of cellular licenses, regulation of interstate telecommunications, telecommunications research and policy development, FCC regulatory practice in telecommunications, dial-a-porn regulation.

See also: 208 telephone privacy; 1525 telephone marketing fraud.

1707: Broadcast Industry Regulation (TV, Cable, Radio)

Examples: Public Broadcasting Corporation budget requests and appropriations, FCC regulation of cable, reallocation of radio frequencies from federal to private sector use, FCC regulation of radio, use of TV in the classroom for educational purposes, regulation of violence on TV, closed caption regulation of TV, competitive problems in the cable industry, requirements for transferring radio/TV broadcast licenses, oversight of Board for International Broadcasting, FCC network acquisition approval, national public radio financial problems, establish the committee on film classification, regulation of films and broadcasts demeaning ethnic, racial or religious groups, FCC authority to regulate subscription TV, TV and movie rating system, newspaper industry regulation, Newsmen's Privilege Act.

See also: 1929 Radio Free Europe program

Use 1707 for articles/storylines about newspapers (e.g., Jayson Blair plagiarism scandal).

1708: Weather Forecasting and Related Issues, NOAA, Oceanography

Examples: NOAA budget requests and appropriations, modernization of the national weather service, weather forecasting and warning technologies, NOAA and NASA global change research program, NOAA ocean research vessels, geological surveys of the U.S., agriculture weather information service, tornado forecasting and detection, status of the federal oceanographic fleet, adequacy of the national weather service severe storm forecasting, ocean and marine resources programs, U.S. marine and atmospheric science programs, arctic weather reporting stations.

See also: 710 protection of marine environments.

1709: Computer Industry and Computer Security

Examples: high-performance computer development, computer viruses, superconductivity research, security standards for government computers, lease of computer software.

Use 1709 for articles/storylines about the Internet, Internet security, piracy, using Wi-Fi to cover criminal tracks in cyber space, etc.

Use 1709 for articles/storylines about Y2K.

1798: Research and Development

Examples: National Science Foundation (NSF) budget requests and appropriations, mission of NSF, alleged abuses of federal research grants to universities, federal cooperation with universities for science research, electric and magnetic field research, telecommunications equipment research, metals research and development, DOE superconducting supercollider program, improving research facilities for science in U.S. universities, HDTV research, robotics research.

Use 1798 for articles/storylines about research related to *physical and mechanical science* (e.g., robotics, weather), regardless of where the scientists are located in the world. Use 0398 for

articles/storylines about research related to human life science and code 0798 for articles/storylines about research related to environmental science.

1799: Other

Examples: establish a systematic approach to value engineering, consider various proposals for defining U.S. time zones, sightings of UFOs, establish a national science academy.

Use 1799 for articles/storylines about finds from archeological digs in the U.S. For archeological digs from all other countries, use the 19xx region code (e.g., for Egypt, 1920).

18. Foreign Trade

1800: General

Examples: Federal Trade Commission (FTC), U.S. International Trade Commission, International Trade Administration, or U.S. Custom Service budget requests and appropriations, world steel trade trends and structures, various tariff and trade bills, oversight hearings on U.S. foreign trade policy, U.S. trade relations with socialist economies, trade reform act, trade expansion act, tax and trade regulations, customs court issues, trading with enemy acts .

See also: 401 foreign agricultural trade.

Use 1800 for articles/storylines about globalization and for protests against globalization.

1802: Trade Negotiations, Disputes, and Agreements

Examples: north American free trade agreement (NAFTA), Caribbean basin free trade agreements, U.S. job market implication of NAFTA, GATT final agreement, U.S.-EC meat trade disputes, foreign claims settlement award system, multinational trade negotiations, U.S. and China trade relations, normalize economic relations between U.S. and the former Soviet Union, U.S. and Japanese commercial trade, MFN trading status of China, energy trade between U.S. and Canada, U.S.-Canada Free Trade Agreement, MFN status for Romania, taxation convention with Pakistan,.

Use 1802 for articles/storylines about WTO meetings, etc.

1803: Export Promotion and Regulation, Export-Import Bank

Examples: export development administration, compliance with U.S. trade laws related to the Arab boycott, export promotion programs, EX-IM bank export financing programs, restrictions on high technology exports, oil export controls, EPA regulation of waste exports, trade factors affecting U.S. timber exports, tax incentives to encourage exports, encourage formation of export companies, national security export licensing, export control to the Soviet Union and Warsaw Pact countries.

1804: International Private Business Investments, Overseas Private Investment Corporation (OPIC)

Examples: foreign acquisition of U.S. owned companies, foreign direct investment in the U.S., improve federal coordination of information on foreign investments in the U.S., reciprocal foreign investment

protections, promotion of U.S. business investment in developing countries, U.S. private investments in South Africa, review foreign bank takeovers, evaluation of the overseas private investment corporation, investors involvement in illegal payments to foreign officials, activities of American multinational corporations abroad, foreign investment and American jobs, removal of tax barriers as an incentive for increased foreign investments, trade fairs.

Use 1804 for articles/storylines about business mergers between U.S. and non-U.S. companies.

1806: Productivity and Competitiveness of U.S. Business, U.S. Balance of Payments

Examples: international competitiveness of the U.S. automobile industry, national competitiveness act fostering technological development, report of the competitiveness council policy, U.S. industrial trade competitiveness, federal role in supporting hi-tech competitiveness, U.S. international economic competitiveness, foreign competition in the banking industry, international competitive status of the U.S. electronics industry, Buy American Act.

See also: 108 domestic industry productivity.

Use 1806 for articles/storylines about trade deficits.

1807: Tariff and Import Restrictions, Import Regulation

Examples: violation of country of origin documentation to avoid import quotas, steel import restrictions, increase of duties on materials to make pipes, expedite Commerce Dept. responses for import restriction requests, restrict import activity that adversely affects industries vital to national security, country of origin labeling requirements, U.S. textiles import quota program, countervailing duty waivers, aviation tariff charges, prohibit importation of Rhodesian chrome, duty-free entry, various tariff proposals, meat import restrictions, antidumping act and import restrictions, import restrictions for the domestic shoe manufacturing industry, import relief for leather industry, embargo on certain fish and fish products, free entry of various items to colleges, universities, and for other purposes, foreign trade zones.

Use 1807 for articles/storylines about embargos (e.g., the U.S. embargo on trade with Cuba).

For articles/storylines about U.S. sanctions on countries in response to concerns about nuclear weapons: If nuclear weapons are the primary issue in the article/storyline use 1605; if the sanctions are the primary issue use 1807.

1808: Exchange Rates and Related Issues

Examples: Dept. of Treasury exchange rate policy, DOT international financial policy, currency manipulation and foreign exchange rates, exchange value of the dollar, U.S. policy regarding dollar decline in foreign exchange value, impact of exchange rates in U.S. trade, international monetary reform, eurocurrency monetary control, Vietnamese currency transfer legislation, fluctuation of the yen-dollar exchange rate.

1899: Other

Example of 1899: The Atlanta Zoo renting two panda bears from the Chinese government at a tab of \$2 million a year (total, not per panda).

19. International Affairs and Foreign Aid

***** Also see notes on War, Terrorism, etc. Suicide-Bombings, Human Rights Crises, and Conflict in the Middle East under the 16 topic category.**

For international policy-related events that do *not* reference U.S. government / troops / officials / etc. as a *major actor* in the event, use the regional code for that country (1907 for China, 1908 for Soviet Union, etc.).

For international policy-related events in which the U.S. government (or troops, officials, etc.) is a key player, use the appropriate code based on the policy issue. In other words, we need to use “substantive” codes (e.g., poverty, AIDS, war) for issues directly involving the U.S. and restrict articles/storylines about issues/events in other nations not involving the U.S. to the appropriate region codes. This guideline can get particularly sticky regarding articles/storylines about bombings in Afghanistan, Palestine, or Israel that directly affect U.S. troops in the area. See the notes on conflict in the Middle East under the 16 topic category for more details.

1900: General (Department of State and U.S. Information Agency appropriations)

Examples: Department of State and U.S. Information Agency Budget Requests and Appropriations, U.S. foreign policy in view of recent world political developments, U.S. post cold war foreign policy, U.S. foreign policy and national defense issues, international tax treaties, international development and security, the U.S. ideological offensive--changing foreign opinion about the U.S., role of the diplomatic corps in foreign policy development and administration, foreign operations appropriations, information and educational exchange act, require Senate approval of treaty termination, establish the U.S. academy of peace, role of multinational corporations in U.S. foreign policy, Department of Peace, National Peace Agency.

Use 1900 for articles/storylines about international issues (like immigration) that cross two or more region codes and not involving the U.S.

1901: U.S. Foreign Aid

Examples: Foreign Assistance budget requests and appropriations, emergency food assistance program, U.S. economic aid to eastern Europe, U.S. foreign aid to the Soviet Union, foreign assistance and Peace Corps programs, U.S. assistance programs in Africa, proposals for financial assistance to Northern Ireland, donation of surplus agriculture products to countries with famine, U.S. international health assistance activities, migration and refugee assistance, food for peace program, European recovery program, international disaster relief, Foreign Assistance Act and its relationship to drugs.

1902: International Resources Exploitation and Resources Agreement

Examples: Antarctic environmental protection, prevention of high-seas drift net fishing, U.S. territorial sea boundaries, international agreements on fishing, Antarctic minerals policy, U.S. policy regarding the International Whaling Commission, foreign fishing in U.S. Territorial waters, regulation of exploration and recovery of international seabed hard minerals, north pacific seal fur treaty between the U.S, Canada, Japan, and the Soviets, U.N. conference on the law of the sea, attempts to outlaw whaling, international conservation efforts.

See also: 700 domestic environmental protection.

1905: Developing Countries Issues (for financial issues see 1906)

Examples: developing countries population problems, global hunger and food availability, impact of AIDS on children in developing countries, homeless children in developing countries, international family planning, role of environmental degradation in causing famine, assess elementary and secondary education programs in developing countries, effect of economic development projects on public health in developing countries, infant nutrition education practices, world population growth and its impact on natural resources,

See also: 1911 famine in Africa .

Use 1905 for articles/storylines about issues that affect developing countries broadly (or multiple developing countries). E.g., “Bill Gates gives money to help fight diseases in developing nations.” But code articles/storylines about issues in a single developing nation under the appropriate region code. E.g., “AIDS epidemic in Zambia leaves many dead” would be coded as 1911.

1906: International Finance and Economic Development

Examples: International Monetary Fund (IMF), World Bank, multilateral development bank loans, Inter-American development bank, third world debt problems, Council on International Economic Policy, Agency for International Development (AID), private sector development in Africa, U.S. financial contribution to the IMF, European development and the U.S. economy, promotion of economic development in Latin America, Paris economic summit issues, international financial management systems improvement, economic development in the Caribbean Basin, strategies to alleviate third world debt, world economic situation and U.S. economic policies, international debt and implications for international financial institutions, east-west economic relations, international energy development assistance programs, Bretton Woods agreement increasing U.S. contributions to the IMF.

See also 1800 and 1802.

Use 1906 for articles/storylines on world economic forums. But for articles/storylines about protests of the world economic forum because of anti-globalization sentiment, use 1800. When deciding between 1802 and 1906, consider whether the main issue at stake is trade (use 1802) or economic development (use 1906). Use 1906 for articles/storylines where the main emphasis is on the East Asian financial crisis or its effect on individual countries. For example, an article/storyline about the negative effect of the financial crisis on Russia should be coded as 1906. But for articles/storylines specifically about individual countries (e.g., Russia) struggling financially, where the larger global economic crisis is the secondary element in the article, use the specific region code (e.g., 1908).

1907: China

Examples: U.S. policy towards China, 1989 Chinese student demonstrations, the return of Hong Kong to China, recent political repression in China, China interference with U.S. mail, nuclear energy cooperation with China, U.S. policy regarding China and Taiwan.

Use 1907 for articles/storylines about Taiwan.

1908: Soviet Union and Former Republics

Examples: current agricultural situation in Russia, financial implications of Soviet economic reform, U.S. policy on Ukrainian security, economic conditions in Russia, safety of Soviet Union nuclear plants, Soviet trade and economic policies, use of Soviet propaganda to influence world opinion, Soviet Union treatment of certain religious groups, assessment of Soviet activities in Asia, treaties between the U.S. and the Soviet

Union, Soviet activities in Cuba, military and political rivalry between the U.S. and the Soviet Union, Soviet political leadership and implications for U.S. foreign policy, scope of Soviet activity in the U.S., containing Soviet aggression, Soviet Jews.

See also: 1605 U.S.-Soviet arms agreements; 1901 U.S. foreign aid to the former Soviet Union .

1908 states include Armenia, Azerbaijan, Belarus, Chechnya, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

1909: Eastern Europe

Examples: U.S. policy toward Afghanistan, conflict between Bosnia and Serbia, environment and energy issues in Eastern Europe, U.S. relations with East Germany, political changes in East Europe, U.S. Hungarian claims settlement agreement, Yugoslavia earthquake and foreign relief assistance, status of nations under communist control, investigation of communist takeover of Hungary, Poland, Lithuania, and Slovakia.

1910: Western Europe, Common Market Issues

Examples: U.S. relations with Europe, 1990 German reunification, extradition treaty between U.S., UK and Northern Ireland, political and economic conditions in Europe, tax convention with the UK, Western European union, treaty of friendship and cooperation with Spain, U.S. policy toward Portugal, labor market policy in Sweden, British entry into the Common Market and its implications for the U.S., civil conflict in Northern Ireland, peace treaties with Italy and Romania, treaties with Turkey, Cyprus, and Greece.

Use 1910 for articles/storylines focused on the European Union (E.U.), even those articles/storylines involving E.U. members or potential members not in Western Europe. However, use 1999 for articles/storylines about U.S. relations with the E.U.

1911: Africa

Examples: Southern African drought and implications for U.S. policy, AIDS epidemic in Africa, crisis in Somalia, civil war in Liberia, political developments in Mozambique, U.S. policy toward Zaire, famine and civil unrest in Sudan, Somalia, and Ethiopia, prospects for improving food development in Africa, objectives of U.S. involvement in civil war in Angola, State Dept. trip through south and central Africa, health and refugee problems in Africa, U.S. role in opening the Suez Canal.

1912: South Africa

Examples: economic sanctions against South Africa, South African war with Namibia, administration policies on apartheid, restrictions for U.S. business in South Africa, world court decision on South Africa's racist policies.

1914: Latin America (South America, Central America, Mexico, Caribbean Basin, Cuba)

Examples: political developments in El Salvador, democracy and reconciliation in Nicaragua, Guatemala peace negotiations, democratic reform in Peru and U.S. policy, promotion of democracy in Cuba, U.S. policies and interest in Latin America, U.S. policy toward Central America, violence along the U.S.-Mexican border, political situation in Haiti, U.S. relations with Honduras, prospects for democratic government in Chile, ban on travel to Cuba.

1915: Panama Canal Issues and Other International Canal Issues

Examples: Panama Canal Commission appropriations, strategic importance of the Panama Canal, claims for ship damages in the Panama Canal, Panama Canal treaty issues, Panama Canal traffic and capacity, maintenance and operation of the Canal, development of new transoceanic canal.

1919: Asia, Pacific Rim , Australia , and Japan

Examples: U.S. policies in the South Pacific region, U.S. Asia economic relations, U.S. policy toward Hong Kong, U.S. economic embargo on North Vietnam, U.S. policy toward Burma, political developments in the Philippines, U.S. relations with Cambodia, U.S. relations with newly industrialized Asian countries, U.S. relations with New Zealand and Australia, implications of the Union Carbide accident in India, Japanese income tax system, declining political status of Taiwan, U.S.-Japanese relations, Indochina refugee assistance program, humanitarian problems in Korea, political situation in Thailand.

1920: Middle East

Examples: political developments in the Middle East, restoration of the Kuwaiti government after the Persian Gulf War, U.S. and international policy toward humanitarian aid to Iraq, Asian responses to Iraq's invasion of Kuwait, peace process in the Middle East, U.S. relations with Iran, dispute over the West Bank, hostages in Lebanon, U.S. opposition to PLO application to the World Health Organization, Islamic fundamentalism and implications for U.S. interests in the Middle East, Arab-Israeli conflict.

Middle East states: Afghanistan, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Pakistan, Qatar, Saudi Arabia, Syria, Turkey, the United Arab Emirates, Yemen, and Palestinian Territories.

1921: Canada

1925: Human Rights

Examples: Human rights abuses in Latin America, human rights abuses in Middle East, war crimes tribunal hearings for Serbs, U.S. international human rights policy, Helsinki Accords human rights agreements, U.N. report on human rights in Cuba, Soviet human rights issues, government use of torture, human rights violations in Indonesia, worldwide religious persecution, crimes associated with genocide and crimes against humanity.

Use 1925 for articles/storylines about major human rights issues (e.g., claims of genocide, ethnic cleansing, unsafe refugee conditions). But articles/storylines involving the historical Israeli/Palestinean conflict should be coded 1920 not 1925.

In the context of ongoing human rights abuse situations (e.g., the Rwandan genocide, the Darfur conflict), use 1925 for articles/storylines about the human rights situation itself; that is, for articles/storylines that focus on genocide, mutilation, mass-killings, mass-graves, government-sponsored starvation, etc. Also use 1925 for articles/storylines about refugees displaced by human rights conflicts. But for articles/storylines focused on the military intervention in the situation, such as bombings or gunfire or armed conflict, use the appropriate 16 code. For example, for articles/storylines focused primarily on the NATO-led intervention in Kosovo, use 1602. For articles/storylines focused primarily on the African Union's military interventions in the Darfur crisis, use 1911.

1926: International Organizations other than Finance: United Nations (U.N.), UNESCO, International Red Cross

Examples: U.N. conference on environment and development, management of the U.N., international labor organization, U.N. peacekeeping forces, termination of U.S. membership in UNESCO, international games for the disabled, international criminal court, U.N. food and agricultural organization, U.N. activities in response to Iraq's invasion of Kuwait, review of U.S. role in the U.N., planning preparation for 1984 summer Olympics, U.N. position on major policy issues, International Health Agency, U.N. report on international housing, construction of Olympic facilities.

For articles/storylines detailing U.N. efforts in a particular country, use 1926 for the U.N.'s involvement, not the region code.

Use 1926 for articles/storylines about negotiating the location for the next Olympic games, bribing officials to select a host city, construction of Olympic facilities, etc. BUT use 2900 for articles/storylines related to the Olympic sporting events themselves.

*****Notes on Peacekeeping*****

Use 1602 for articles/storylines primarily about NATO troops (or NATO troops and U.S. troops) beginning/enacting/ending a peacekeeping mission (e.g., NATO believes U.S. role in Kosovo essential).

Use 1606 for articles/storylines primarily about U.S. troops beginning/enacting/ending a peacekeeping mission (e.g., U.S. troops are sent on peacekeeping mission to Albania).

Use 1925 for articles/storylines primarily about human rights abuses (as opposed to military intervention in human rights abuses).

Use 1926 for articles/storylines primarily about U.N. troops (or U.N. troops and U.S. troops) beginning/enacting/ending a peacekeeping mission (e.g., U.N. calls on U.S. for help in Sierra Leone).

Use the appropriate 19xx region code for articles/storylines primarily about the conflict in a region, where the use of U.S. and/or U.N. peacekeeping troops is only a side note.

1927: Terrorism, Hijacking

Examples: FAA antiterrorist measures, U.S. protection of witnesses of terrorist acts, security of nuclear plants from terrorist attacks, impact of international terrorism on travel, legal mechanisms to combat terrorism, political killings in foreign countries and the international response, West Germany's political response to terrorism, international aircraft piracy.

Use 1927 for articles/storylines about the actual attacks of September 11, 2001 and its immediate aftermath, including "finger-pointing" at government agencies that may not have given adequate attention to threats of an attack. But for articles/storylines about 9/11 memorials, use 2101.

Use 1927 for articles/storylines about the search for and capture of suspects in the 9/11 attacks, the release of the 9/11 emergency 911 calls, the ruling that Zacarias Moussaoui is eligible for the death penalty, etc. But for articles/storylines about the treatment and trials of suspected 9/11 terrorists, use 1619.

Use 1927 for articles/storylines about the arrest and detainment of terrorist suspects specifically in a general "war on terror" context (i.e., not in Iraq or Afghanistan). But for articles/storylines about

the arrest and detainment of suspects in Afghanistan or Iraq (i.e., in the context of battle) use 1619. Also use 1619 for issues about the *treatment* (e.g., trial, rights, torture, release) of detainees once they're detained, no matter what the context of their capture.

Use 1927 for articles/storylines about the Patriot Act.

Use 1927 for articles/storylines about acts of terrorism NOT in the midst of the war in Iraq/Afghanistan.

Use 1927 when multiple countries are involved or no specific country is cited. But when only one country is involved, put under regional code (e.g., 1920).

Use 1927 for acts attempting to prevent terrorism, like freezing bank accounts.

Use 1927 for articles/storylines that link the issues of terrorism under discussion directly to September 11, even if the issue at stake is about terrorism more broadly.

Example of 1927: "The Bush administration, under increasing criticism over its terrorism policies, is beginning an unusual counteroffensive this week in an effort to shore up support for the prized legislation that grew out of the attacks on Sept. 11, 2001."

1929: U.S. Diplomats, U.S. Embassies, U.S. Citizens Abroad, Foreign Diplomats in the U.S. , Passports

Examples: State Department's management of U.S. embassies, U.S. citizens living abroad, regulation of travel for U.S. citizens, restrictions on foreign diplomatic immunity, Overseas Teacher Act, enhancement of security at U.S. diplomatic missions, reform the foreign service personnel system, U.S. citizens imprisoned in Mexico, passport fraud problems, training of foreign affairs personnel, Voice of America program, Radio Free Europe program, United States Information Agency (USIA), Peace Corps, U.S. Academy of Foreign Service or U.S. Foreign Service Academy , Radio Marti, designation of public international organizations, International Claims Act, Foreign Claims Act, Foreign Claims Settlement Commission

See also: 1603 espionage; 208 for display of USIA programs in U.S.

Use 1929 for articles/storylines about crimes perpetrated on U.S. citizens while abroad.

For articles/storylines about visits by U.S. VIPs (e.g., President, Secretary of State, Secretary of Defense) to other nations:

- If the article/storyline focuses on a substantive issue within that nation (e.g., health care in Africa or human rights in China), code the article/storyline using the appropriate substantive code (e.g., 1911 or 1925).
- If the article/storyline focuses on relations between U.S. and the foreign nation (e.g., U.S. foreign policy toward Africa or U.S. trade sanctions on China), code the article/storyline using the appropriate foreign relations or trade code (e.g., 1999 or 1807).
- If the main point of the article/storyline is really to report on the details of the visit itself, reactions to the visit by local citizens or the U.S., etc., code the article/storyline using 1929.

1999: Other

Use 1999 for articles/storylines about U.S. foreign policy (either in general or with regard to a specific country). But if the primary focus of an article/storyline is not U.S. relations with another country but a substantive issue within a foreign nation or between two foreign nations, code the article/storyline according to the substantive issue. For example, articles/storylines about Clinton overseeing Middle East peace talks at Camp David should be coded as 1920 (not 1999).

20. Government Operations

2000: General (includes budget requests and appropriations for multiple departments and agencies)

Examples: budget requests for various agencies and independent commissions, budget requests for DOL, HHS, and DOE, appropriations for VA, HUD, and independent agencies, budget requests for DOC, DOS, and DOJ, appropriations for the GSA, budget requests for legislative branch programs, supplemental appropriation bills, appropriations for the Treasury, Postal Service, and general government appropriations

2001: Intergovernmental Relations

Examples: federal, state, and local sector role in economic development, exchange of funds from federal to state governments, performance of the advisory committee on intergovernmental relations, general revenue sharing authorization, state implementation of federal bloc grants, general revenue sharing, federal grant management reform, problems with state and local government finances, federal v. state claims to offshore resources.

2002: Government Efficiency and Bureaucratic Oversight

Examples: quality improvement strategies, reinventing government--restructuring the public sector, performance standards for federal agency programs, role of the council on competitiveness in regulatory review, agency jurisdiction overlap and reform, financial soundness of government corporations, need to improve government printing practices, government management problems, rule making committees in the development of federal regulations, federal agency use of advisory committees, oversight of the OMB, federal agency internal accounting standards, effort to reduce federal paperwork, allowing industry to comment on proposed federal regulations, decreasing agency reports to Congress, legislative oversight of federal agency programs, proposal to terminate DOE and transfer its functions, government waste and abuse, investigation into mismanagement of the GSA, government reorganization plans, conflicts of interest in regulatory agencies, applying economic analysis to public programs, Inspectors General, executive reorganization or executive branch reorganization, government goals, Administrative Conference Act, government printing office, recycled paper and products for government printing.

See Also: appropriations for departments and agencies see topical field.

2003: Postal Service Issues (Including Mail Fraud)

Examples: United States Postal Service (USPS) budget requests and appropriations, USPS rental of property, need for additional postal facilities, oversight of USPS operations, USPS budgetary and cost issues, performance of USPS first class delivery, USPS implementation of a nine digit zip code, increase in overseas postal rates, operation and organization of the postal rate service, postal worker injuries, postal worker stress disorders, violence in the USPS, postal reorganization act, USPS efforts to automate mail

processing, regulation of mail solicitations, deceptive mailing prevention act, commemorative stamps, annual report of the postmaster general, early retirement of postal employees, day care centers for postal employees, training for postmasters, regulation of obscene mail.

See also: 201 racial discrimination in the USPS; 2008 construction of post office buildings.

2004: Government Employee Benefits, Civil Service Issues

Examples: federal employee collective bargaining rights, civil service retirement benefits, federal agencies use of temporary employees, White House personnel authorization act, federal employees leave policy, federal and military wage policies, whistle blower protection for federal employees, federal personnel awards, executive personnel exchange, reform of federal employee health benefits, personnel management policies of the Senior Executive Service, tort protection for federal employees, reform pay system for federal workers, early retirement program for federal workers, government personnel training programs, federal employee contribution requirement, personnel performance appraisal system, payroll deductions for federal employees, oversight of the civil service retirement system, cost of living allowances for federal employees, authorize additional GS-16, GS-17, and GS-18 positions, civil service pension fund and interest earnings, manpower utilization in the federal government, Presidential compensation, federal employee management relations, congressional pay and congressional wages, combinations of legislative, executive, and judicial pay, reduction in force, merit systems protection board.

See also: 200 discrimination in the federal government employment; 2003 postal employees; 2012 political activities of federal employees.

2005: Nominations and Appointments

Examples: nominations and appointments for all departments and agencies.

Use 2005 for:

- **Appointments to cabinet executive**
- **Appointments to non-cabinet executive**
- **Legislative appointments (e.g., Speaker of the House, committees)**
- **Supreme Court nominations**
- **Federal judicial nominations**
- **Military nominations**
- **Intelligence nominations**
- **Ambassador nominations**
- **Other nominations**

2006: Currency, Commemorative Coins, Medals, U.S. Mint

Examples: appropriations for the U.S. Mint. minting of commemorative coins, replacement of one dollar bills with coins, statehood commemorative coins, gold medal awards for Olympic athletes, design of new U.S. currency, George Washington commemorative coin act, Susan B. Anthony dollar, additional mint facilities in Denver , increasing coin production, coin to commemorate the Louisiana purchase , congressional gold medals, Congressional Medals for non-military actions.

See also: 104 monetary policy.

Use 2006 only for discussion of the metallurgy of Olympic medals; for winning of Olympic medals use 2900.

2007: Government Procurement, Procurement Fraud and Contractor Management

Examples: appropriations for the Office of Federal Procurement Policy, government procurement system, federal acquisition improvement, arbitration of service contract disputes, DOE contractor management, penalties for federal procurement fraud, GSA auditing of contractor bills, timeliness of federal payments to private vendors, efforts by federal agencies to circumvent the competition in contracting act, federal contract auditing policies, fraud in federal procurement programs, federal consulting service contracts, commission on government procurement, federal contract renegotiation act, omnibus contracting legislation.

See also: 1610 military procurement; 1617 military contractor oversight.

2008: Government Property Management

Examples: federal facilities construction, GSA management of public building leases, GSA's capital improvement program, construction projects for federal courthouses, restrict smoking in federal buildings, operating costs of presidential libraries, government office space contract management, DOE property sale authorization, sale of a federal building to San Francisco, donation of surplus federal property to state and local governments, construction of a social security office, relocation assistance and property acquisitions, foreign service buildings act, post office buildings, designating or naming federal buildings, including postal service buildings, federal courthouses, and VA medical centers, donated surplus property to states and local governments, motor vehicles provided to officers and members of the federal government.

See Also: 2100 conveyance of real property.

Example of 2008: "Gov. George E. Pataki and Mayor Rudolph W. Giuliani have reached agreement on a plan to redevelop Governors Island with a hotel and conference center, stores, apartments, public parkland and a branch of at least one major American museum, state officials said today. The agreement represents a major step forward in a campaign by the city and state to persuade the federal government to give New York exclusive rights to own and develop the island, a former Coast Guard base off Manhattan's southern tip."

2009: IRS Administration

Examples: IRS tax system modernization, IRS employee misconduct, taxpayer assistance and treatment, settlement of disputes between tax payers and IRS, IRS collection of delinquent income taxes, IRS benefit plans regulations, IRS internal management and quality of service, IRS processing of income tax returns, reorganization of the IRS, taxpayers bill of rights, investigation or inspection of tax records by federal agencies or congressional committees.

See also: 107 taxation.

2010: Presidential Impeachment & Scandal

Examples: access to materials of the Nixon Administration, CIA involvement in Watergate, pardon of Nixon, transcripts of recorded presidential conversations, statement of information provided by Nixon, legal issues associated with the impeachment of Nixon, Kissinger's role in wiretapping, 1972 presidential campaign activities, special prosecutor and Watergate grand jury legislation, Whitewater, Clinton impeachment, Lewinsky scandal, Travelgate (White House Travel Office).

Code 2010 should be used for all scandals related to the executive branch, not just the President himself. So this code should be used for articles/storylines related to the exposure of Valerie Plame's identity.

2011: Federal Government Branch Relations and Administrative Issues, Congressional Operations

Examples: line-item veto proposals, pocket veto issues, constitutional roles of the president and Congress in declaring and waging war, limits on presidential war powers, amendment to permit legislative vetoes, Supreme Court ruling on the legislative veto, presidential claim of executive privilege for withholding information from Congress, continuity of federal government during an emergency, joint committee on the organization of Congress, operation of Congress, reorganization of Congressional committees, honoring retiring House members, presidential transition funding, TV broadcasts of Senate hearings, operation of the Senate Office of Sergeant at Arms, Congressional page system, investigation of a Senator, electronic voting equipment in the Senate, transmittal of executive agreements to Congress, require the president to submit annual social reports to Congress, House rules for debate, creation of a joint committee on the budget, president's emergency powers, impeachment of federal officers other than the President, legislative reference service, legislative research, Library of Congress issues, depository libraries, congressional investigations, franking privilege, Legislative Reorganization Acts.

Since the state department functions as a federal body, code articles/storylines about jurisdictional disagreements between the state department and other federal bodies (e.g., the Pentagon) under 2011.

Use 2011 for articles/storylines about the President's State of the Union addresses, regardless of what topic he is discussing.

2012: Regulation of Political Campaigns, Political Advertising, PAC regulation, Voter Registration, Government Ethics

Examples: appropriations for the Federal Election Commission and the Office of Government Ethics, federal election campaign reform, lobbying regulations for former federal employees, regulation of political campaign ads, televising debates on political issues, revising the presidential election campaign fund system, regulation on foreign corporation lobbying, campaign finance reform, political activities of federal employees, financial or business interests of Senate employees, lobbying regulations, polling, independent counsel (other than presidential investigations), Hatch Act (specifically dealing with political activities of federal employees), electoral college reform.

Use 2012 for articles/storylines about partisan conflicts, political strategizing, and all federal-level campaigns and elections.

Examples of 2012 include:

- **federal campaigns and/or elections, including primaries; voting and participation; voter turnout**
- **campaign finance and elections (election regulations, campaign finance reform, regulation of party-sponsored political campaign ads, revising the presidential election campaign fund system, electoral college reform); use this code for all discussion of campaign finance**
- **lobbying groups and/or political action committees (PAC)**
- **lobbying / PAC regulations and reforms (e.g., regulation on foreign corporation lobbying, regulation of privately sponsored political ads)**
- **INTRA-party issues (internal discussions, disputes, strategizing, changes in leadership, etc.)**

- **INTER-party issues (Republican / Democrat maneuvering or fighting, bipartisan agreements and bargaining, etc.)**
- **federal-level (but not executive) political corruption or scandal; but for executive corruption or scandal, use 2010**

2013: Census

Examples: census bureau budget requests and appropriations, census bureau's population estimates and impact on state funding, census undercounting, census data collection techniques, management of the census, federal statistics collection, counting welfare payments as income on the census, reductions in force at the census bureau.

2014: District of Columbia Affairs

Examples: DC budget requests and appropriations, creation of the DC supreme court, DC public school system, health care reform in DC, water quality problems in DC, statehood for DC, transfer ownership of RFK to DC, revise the DC judicial system, overcrowding in DC correctional facilities, DC commuter tax, DC borrowing authority extension, Washington metropolitan area transit authority metrorail construction, DC fiscal problems, drug and crime crisis in DC.

2015: Relief of Claims Against the U.S. Government

Examples: Refunds and settlements for individuals and corporations.

2030: Federal Holidays

Examples: activities of federal holiday and commemorative commissions, enactment of MLK, Jr. birthday as a national holiday, provide for uniform annual observances of legal public holidays on Mondays, establish Veteran's Day as a holiday.

2099: Other

Examples: government check cashing problems, state lottery operations, former members of Congress organization, review winning papers in a high school essay contest, federal audio-visual materials, commemorative legislation, catalog of federal assistance programs, bicentennial celebration, free guide service at U.S. Capitol .

Use 2099 for articles/storylines about commemorative legislation, the unveiling of Presidential libraries, naming aircraft carriers after living Presidents, etc.

Use 2099 for articles/storylines about executive domestic public relations issues, specifically the White House's public image (e.g., the White House smoothing things over after Dick Cheney's hunting accident, President Bush losing political capital in the continuing war in Iraq, etc.)

21. Public Lands and Water Management

2100: General

Examples: Budget Requests and Appropriations for the Department of Interior (DOI) and the Bureau of Land Management, proposed plan for the Department of Natural Resources, earth resources and drilling technology, resources planning, resource recovery act, activities and programs of the DOI, conveyance of certain real property of the U.S. government, conveyance of certain real property to states.

2101: National Parks, Memorials, Historic Sites, and Recreation

Examples: Budget requests for the National Park Service and Smithsonian Museums, concessions management at National Parks, Wounded Knee Park and Memorial, park protection legislation, management of Yellowstone Park, National Park Service feasibility study, threats to national parks, establishment of Barrier Island National Park, inclusion of Alaska Lands in the national park system, national forest recreation facilities, national park management issues, river systems recreation assessment, aviation heritage national historic preservation act, community recreation enhancement, recreational boating safety, national African American museum, historical park designation, designation of scenic trails, maintenance on monuments and memorials, granting of federal charters to organizations , proposals for a national visitors center, military parks and memorials, land conveyance for national parks or national memorials, Wild and Scenic Rivers, land conveyance for monuments, national seashore issues, National Historic Preservation Act, National Register of Historic Places, Smithsonian Institution issues.

See also: 2103 public lands management.

2102: Native American Affairs

Examples: Budget proposals and appropriations for Indian programs, Indian health programs, Indian water claims, federal recognition of Indian tribes, assistance to Indian tribal courts, management of Indian irrigation projects, economic aid for Indian reservations, law enforcement on Indian reservations, Indian participation in government contracting, Indian health care programs, Native Hawaiian children educational problems, Alaskan natives claims settlement, land conveyance involving Native American lands or Native American groups, Indian Child Welfare Act, Indian gambling and casinos, Indian Gaming Regulatory Act.

(Special Note: This covers many subject areas that would normally be coded in other subtopics (housing, medical programs, transportation systems, etc.).

2103: Natural Resources, Public Lands , and Forest Management

Examples: Budget requests and appropriations for the Forest Service and the Bureau of Mines, national forest timber sales programs, timber supply stability, forest health and clear-cutting, Colorado wilderness act, wilderness area designation, management of Pacific-Northwest old forest growths, mine reclamation, various public lands bills, forest fire prevention and control, modification of public land boundaries, management of livestock grazing on public lands, grazing fees on public lands , public land conveyance bills, enforcement of federal mining standards, wild horse control on public lands, deep seabed mineral resources, development of mineral resources on public lands, mineral exploration and development, conveyance of lands to school districts, conveyance of sewage systems on public lands, protection of archeological resources on public lands, conveyance of fish hatcheries, conveyance of public lands, payments to states from receipts derived from national forests located within such states, protecting the shores of publicly owned property.

See also: 709 animal and forest protection; 803 oil and gas leasing; 805 coal leasing; 1611 military land conveyances; 2101 land conveyance for national parks/monuments.

2104: Water Resources Development and Research

Examples: Budget requests and Appropriations for civil works programs and the Army Corps of Engineers, budget requests and appropriations for energy and water development projects, Army Corps of Engineers water resources development programs, Mississippi water development, water resources development, appropriations for dam construction, Missouri River Basin irrigation project, Colorado River Basin salinity control program, federal flood control programs, River and Harbor Flood Control Act, energy and water development projects, watershed projects, dredging in the Missouri River, deep water port construction, safety of dams and other water storage and control structures, Upper Snake River irrigation projects, various reclamation projects, reservoir construction, navigation and flood control projects, interstate water compacts, connecting bodies of water, Small Reclamation Projects Act, Bureau of Reclamation, general reclamation projects, saline water conservation .

See also: 711 water and soil conservation; 802 hydroelectricity; 1007 navigation and maritime issues.

2105: U.S. Dependencies and Territorial Issues

Examples: future political status of Palau, Puerto Rico statehood issues, federal-territorial relationship between the U.S. and Guam, compact of free association between the U.S. and Pacific island nations, federal policies for economic development of Guam, termination of trusteeship of the Marshall Islands, proposed changes in the constitution of American Samoa, Alaska and Hawaii territorial issues, statehood for Hawaii and Alaska, Virgin Islands Corporation, various Organic Acts related to territories, former territories, and U.S. protectorates .

2199: Other

23. Arts, Culture and Entertainment

Examples: book, movie, music, art, and theater reviews, news about entertainment figures, hobbies (chess, bridge, fishing), cooking, restaurant reviews, interviews with chefs, travel stories, fashion stories, architecture, home improvement, gardening, charities, fund-raising events.

This code should be used for articles/storylines about the most obvious forms of culture and entertainment—music, theatre, cinema, art—but also for “normal” citizen activities such as celebrations, hobbies, etc.

Example of 2300: “Pennsylvania Station was crammed yesterday afternoon with travelers heading out for the July 4 weekend.”

Example of 2300: “A freshly picked carrot was proudly displayed yesterday at the New York Botanical Garden, part of a summertime program in the Bronx to teach children how to cultivate and maintain a family garden plot.”

24. State and Local Government Administration

Examples: state and local candidates, campaigns, and elections, budget and tax issues, ethical issues about state and local officials, state and local buildings, museums, parks, landmarks, historical locations, state and local procurement and contracts, urban planning (zoning, land use, competition between cities to attract businesses, city boundaries), state and local services (water supply, street cleaning), constitutional issues (city charter revision), state and local statutes and ordinances, legislative action, speeches by the mayor or governor (inaugural, state of the city, state of the state addresses), partisan politics in the legislative arena, nominations to the state supreme court.

Articles/storylines on state and local campaigns and elections should be coded as 2400. However, if the article/storyline is focused on local politics' handling of one specific policy issue, code the article/storyline based on that policy issue. In other words, the 24 topic category is the state-level equivalent of the 20 federal government operations topic category.

Use 2400 for articles/storylines about state recall elections.

Use 2400 for articles/storylines about state-level government corruption and scandal.

Example of 2400: "Mayor Michael R. Bloomberg gives first State of the City speech"

Example of 1403: "Mayor Michael R. Bloomberg used the first State of the City speech of his new term yesterday to call for a drastic change in the World Trade Center development plan so the project can finally move forward."

26. Weather and Natural Disasters

This code should be used for U.S. as well as non-U.S. events. This is the ONLY topic category where U.S. and non-U.S. events are coded together without the need for region codes. For example, use 2600 for articles/storylines about tsunamis, earthquakes in Pakistan, and Hurricane Katrina.

Use 2600 for articles/storylines about identifying victims of Hurricane Katrina, victim profiles, etc. But use 1403 for articles/storylines about mass migration after Hurricane Katrina.

27. Fires

Use 2700 for fires and major accidents (any non-natural event in which multiple people die). Examples: major power outages, explosion of an overturned tanker truck, oil refinery accidents, water main ruptures, etc.

29. Sports and Recreation

Use 2900 for articles/storylines about steroid use in sports.

30. Death Notices

In general, use 3000 for death notices. However, for extremely high-profile individuals use the appropriate 4-digit code according to that person's occupation, social or religious role, etc. For example, the illness and death of the Pope would be coded as 3100. The illness and death of a U.S. President would be coded as 2011. The illness and death of a Supreme Court Justice would be coded as 1204. For death notices of high-profile non-U.S. individuals, use 19xx.

31. Churches and Religion

This code should be reserved for articles/storylines that are about religion or the church itself, broadly speaking. Use 3100 for articles/storylines about creationism in general. But for articles/storylines about a religious organization's stance on another social issue (e.g., gay marriage, abortion, etc.) use the appropriate code for that issue (0202, 0207, etc.).

Use 3100 for articles/storylines about issues of child sexual abuse by priests and other religious figures.

Use 3100 for articles/storylines about the Pope (the Pope's stance on capitalism, the Pope's travels, etc.).

Use 3100 for religious scandals, such as embezzlement.

99. Other, Miscellaneous, and Human Interest

Examples: corrections (with no discernible topic), photos or illustrations (with no discernible topic)

Use 9900 for articles/storylines about general charity, philanthropy, etc. when the policy issue being addressed by the charity is indiscernible. But when the policy issue is evident, code by the policy issue. E.g., "Bill Gates gives money to fight AIDS in Botswana" should be coded as 1911.

Use 9900 for human interest stories, such as an article about a man stuck in his apartment's elevator for three days.

Appendix B

Additional Modeling Results

In order to demonstrate the robustness of the statistical model of front-page attention I presented in Chapter 5, this appendix contains the results of two alternate models: first, the same pooled cross-sectional time series model of the log-odds of front-page attention used in Chapter 5, but this time including additional political context control variables; and second, a negative binomial of the raw count of front-page stories using exactly the same independent variables as I used in the models in Chapter 5.

Validating the Model with Additional Controls

To test whether the results from Chapter 5 hold true when additional control variables are included, I re-run the model including the six political context variables listed below.

Based on the theory of media attention I developed in Chapter 3, these political context variables are the most likely candidates for additional factors that might help shape front-page news.

Additional Control Variables

State of the Economy: To control for the state of the national economy, I use the U.S.

Leading Economic Indicator Index, as published by The Conference Board.⁵⁰ The

Leading Economic Indicator is a composite of ten major economic indicators: real money supply, building permits, stock prices, index of consumer expectations, average weekly

⁵⁰ Downloaded from http://www.conference-board.org/economics/bci/pressRelease_output.cfm?cid=1 on July 10, 2007.

initial claims for unemployment insurance (inverted), interest rate spread, average weekly manufacturing hours, manufacturers' new orders for consumer goods and materials, manufacturers' new orders for nondefense capital goods, and supplier deliveries (i.e., vendor performance). While this Index could have wide boundaries in theory, in practice the Index fluctuates in the low 100s; in this dataset, between 112 and 138.

Economic Policy Topic: We might expect that the state of the U.S. economy would affect the amount of attention that some policy topics receive (namely, economic topics) but not others. Thus, I generate a simple dummy variable for each policy topic, indicating whether the topic is economic-based. Of the 19 major policy topics I employ, five are economic in nature: Macroeconomics, Energy (including gas prices), Housing, Banking and Finance, and Foreign Trade. Each observation for these five policy topics receives a 1 for this variable; all other observations receive a 0.

State of the Economy x Economic Policy: To provide for the possibility that the U.S. economy affects front-page attention to economic policy topics more than non-economic topics, I develop an interaction term between the Leading Economic Indicator and the economic policy topic dummy variable. Thus, this variable takes on the value of the Leading Economic Indicator for all observations where the policy is an economic topic; otherwise, it is set at 0.

Post-September 11th: Another context variable we might expect to affect front-page news is the political and cultural shift the U.S. has experienced since September 11th. By many accounts, we are living in "a different world" now, and to account for this period change I create a dummy variable equal to 0 for every month prior to September 2001 and equal to 1 for September 2001 and each month thereafter.

Foreign Policy Topic: As with our expectation that the state of the economy might affect attention to economic topics only, not all policy topics should be expected to receive more attention in the post-September 11th world. We might expect attention to foreign policy issues to increase but attention to domestic issues to decrease after September 11th. This dummy variable is set at 1 for foreign policy topics—Defense, Foreign Trade, and International Affairs—and 0 otherwise.

Post-September 11th x Foreign Policy: To provide for the possibility that attention to foreign policy topics has increased—and, thus, attention to domestic policy topics has decreased—since September 11th, this interaction variable is set at 1 for all foreign policy topic observations after September 2001. The variable is set at 0 for all other observations.

Results

The descriptive statistics for the full set of variables, including the six I have just described, are listed in Table B.1. Table B.2 shows the results of estimating the same pooled cross-sectional time series model of front-page attention (measured as the log-odds ratio) as presented in Chapter 5 on this fuller set of variables. Looking at Table B.2, we see that we can draw the exact same substantive conclusions from this model that we drew from the model in Chapter 5. The goodness of fit of the original model, as gauged either by the adjusted R squared or by the root means squared error, is almost exactly the same as the model presented here. All of the explanatory variables included in the original model are again statistically significant in the same direction as before. The only real difference is that the coefficients for these significant variables are slightly smaller here than in the original model. The six additional explanatory variables—state of the

economy, economic policy topic, and the interaction between these two; post-September 11th, foreign policy topic, and the interaction between these two—are insignificant. The results from this full model indicate that, at least across the broad context of all policy topics in all time periods of the dataset, the only political context variable to influence front-page attention directly is the time to the next Presidential election. That being said, as I discussed in Chapter 3 the role that political context variables play in the news-selection process is, as the name of this variable describes, highly contextual. This analysis does not rule out the very real possibility that additional political context variables, including the six included here, may play a significant role in the amount of front-page attention that certain kinds of topics receive in certain time periods.

Validating the Model Using an Alternate Method

While the method of using the log-odds ratio of attention as my dependent variable is the best theoretical fit for my study, there are other ways of modeling front-page attention that would also address the distributional challenges posed by using a raw count of stories as the dependent variable. The most obvious of these approaches is to model front-page attention as a count by using a negative binomial version of a pooled cross-sectional time series model. The results of this analysis are presented in Table B.3. This model is identical to the model presented Chapter 5 except that the dependent variable (and, thus, the prior attention variable) is a count of stories instead of the transformed log-odds ratio of attention, and the statistical model employed is a negative binomial. Table B.3 reveals highly similar results, in terms of significance and directionality, as the model presented in Chapter 5. The only differences are, first, that Presidential attention does not display a significant influence on front-page attention in this model and, second, that the influence

of Congressional attention is inversely signed (implying that, in the context of this model at least, the more Congress pays attention to a policy topic, the fewer front-page stories the topic will receive).

Table B.1. Descriptive Statistics for All Policy Topics, Including Additional Control Variables.

	Obs	Mean	Std Dev	Min	Max
Dependent Variable:					
Front-Page Attention (log odds)	1368	-4.251	2.107	-9.210	0.600
Independent Variables:					
Front-Page Attention t_{-1}	1349	-4.248	2.102	-9.210	0.600
Front-Page Congestion	1368	0.258	0.083	0.125	0.566
Scope of Discussion	1368	0.295	0.238	0	0.827
Public Attention	1368	0.049	0.072	0	0.435
Presidential Attention	1368	0.051	0.122	0	1
Congressional Attention	1368	0.053	0.071	0	0.425
Time to Presidential Election	1368	23.833	15.481	0	47
State of the Economy	1368	0.263	8.928	112	138.2
Economic Policy Issue	1368	123.183	0.441	0	1
Economy * Economic Policy	1368	32.417	54.456	0	138.2
Post-September 11 th	1368	0.722	0.448	0	1
Foreign Policy Issue	1368	0.158	0.365	0	1
Post-Sept 11 th * Foreign Policy	1368	0.114	0.318	0	1

Table B.2. Results from Pooled Cross-Sectional Time Series Model of Front-Page Attention, Including Additional Control Variables.

	Coefficients (Std Errors)
Log Odds of Front-Page Attention $t-1$	0.374*** (0.022)
Front-Page Congestion	-1.901** (0.646)
Scope	3.707*** (0.191)
Public Attention	2.486*** (0.614)
Presidential Attention	0.869** (0.314)
Congressional Attention	1.785** (0.559)
Time to Presidential Election	-0.005* (0.002)
State of the Economy	0.008 (0.006)
Economic Policy Topic	1.362 (1.192)
Economy * Economic Policy	-0.013 (0.010)
Post-September 11 th	-0.028 (0.125)
Foreign Policy Topic	0.233 (0.203)
Post-Sept 11 th * Foreign Policy	0.328 (0.243)
Constant	-4.604*** (0.790)
N =	1,349
Months =	71
Policy Topics =	19
Front-Page Stories =	14,544
Adjusted R ² =	0.567
Root MSE =	1.389
* p < 0.1	
** p < 0.01	
*** p < 0.001	

Table B.3. Results from Negative Binomial Pooled Cross-Sectional Time Series Count Model of Front-Page Attention.

	Coefficients (Std Errors)
Log Odds of Front-Page Attention t_{-1}	0.014*** (0.001)
Front-Page Congestion	-1.193*** (0.231)
Scope	1.441*** (0.101)
Public Attention	1.861*** (0.276)
Presidential Attention	0.194 (0.126)
Congressional Attention	-1.691*** (0.476)
Time to Presidential Election	-0.002* (0.001)
Constant	0.993 (0.110)
<hr/>	
N =	1,349
<i>Months</i> =	71
<i>Policy Topics</i> =	19
<i>Front-Page Stories</i> =	14,544
Wald χ^2 =	672
Log Likelihood =	-3503
<hr/>	
* $p < 0.1$	
** $p < 0.01$	
*** $p < 0.001$	

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