

Chapter 6

Public Opinion

In previous chapters we have assessed important shifts in how Americans discuss the death penalty.¹ In particular, we documented the rise of the innocence frame and showed how this new focus of attention rose so sharply in the mid- to late-1990s. In this chapter, we focus on public opinion. First, we review what is known about who supports and who opposes capital punishment in general. Scholars have accumulated considerable knowledge about the individual-level correlates of support for the death penalty. Second, we consider how aggregate public opinion has changed over time. According to hundreds of polls conducted over many decades, most Americans support the death penalty, at least in the abstract. Opinion in this area changes only slowly, but it does change. We reconstruct the historical record of public support or opposition to capital punishment based on hundreds of polls, showing periods when support has drifted up and when it has declined. Then we analyze these trends systematically to determine the relative importance of innocence-related events, homicide rates, and the tone of media coverage. Results show that aggregate levels of public support for the death penalty are strongly affected by homicide rates and the tone of media coverage. In fact, the overall impact of the net tone of media coverage, introduced in Chapter 4, appears to be stronger than the declining homicide rate in explaining recent shifts in public sentiment. This is the first of two chapters which demonstrate the profound impact of the innocence frame on public policy. The

¹ Frank R. Baumgartner, Suzie De Boef, and Amber E. *The Discovery of Innocence: Americans and the Death Penalty, 1960–2005*. Book manuscript in progress. October 2006. This is a draft chapter for discussion and review. Comments are welcome. Please send them to Frankb@psu.edu.

next chapter focuses on the number of death sentences imposed over time. Here, we focus on changing public opinion.

Individual Attitudes toward the Death Penalty

Public opinion always matters in a democracy, but it plays a particularly important role in the case of the death penalty. Compared to many areas of public policy, ordinary Americans typically have relatively firm opinions on the topic. Further, public opinion has been recognized by the Supreme Court as a relevant consideration in determining whether the punishment is constitutional. In fact, the majority opinion in each major death penalty decision in the last century has cited polling data by Gallup or other major survey houses in support of the ruling, whether for or against capital punishment. Dating back to *Weems v. United States* in 1910, the Court legitimized a dynamic interpretation of the 8th amendment to the Constitution, which forbids cruel and unusual punishment, an interpretation that “is not fastened to the obsolete but may acquire meaning as public opinion becomes enlightened by a humane justice” (*Weems* 1910 xxx cite form). This sentiment, indeed this exact quotation, was cited in the majority opinions of both *Furman v. Georgia*—the 1972 decision banning capital punishment—and *Gregg v. Georgia*—the 1976 decision reinstating the death penalty. In *Furman v. Georgia*, the Justices recognized specifically the role of public opinion as one of the indicators of social values and, therefore, an indicator of “contemporary standards of decency” (*Furman* 1972 xxx cite form). In *Gregg v. Georgia*, the Court again focused on the will of the people, this time concluding that as long as the penalty is not cruel and unusual—which this majority opinion says it is not—the Court may not override criminal legislation made by elected officials. The Justices note that “a heavy burden rests on those who would attack the judgment of the representatives of the people” (*Gregg* 1976 xxx cite form). Later, in *Roper v. Simmons* (2005 xxx cite form) the justices noted

that a declining trend in state usage of the death penalty for juveniles was further indication of changing social values and therefore of constitutional interest. The importance of public opinion in death penalty cases has meant that survey data about public opinion—how many people support the death penalty and why—are of intrinsic interest. Shifts in public opinion could affect the behavior of juries, of elected leaders, and possibly future decisions by the Supreme Court as they continually consider challenges to the system. We look at the roots of public opinion in some detail here, as well as how it has evolved over time. In the next chapter, we look in detail at the frequency of use of the death penalty. Both public opinion and frequency and spread of the use of capital punishment have constitutional meaning, as the Court has repeatedly held that such factors help determine whether a given punishment is cruel and unusual, according to contemporary standards.

Another reason public opinion on the death penalty matters is that citizens cast votes on the basis of candidate positions on the issue. Surveys indicate both that voters know presidential candidates' positions on the death penalty and cite them as very important in their voting decisions.² Politicians, too, are acutely aware of public opinion; as levels of support for the death penalty have historically topped 50%, politicians of both parties have touted their support for the policy. There are several ironies related to public opinion on the death penalty. For one, the questions posed in public opinion surveys are highly abstract and theoretical, but when juries are faced with the decision about whether to sentence a given individual to death, the question is anything but abstract and theoretical. In fact, as we argued in previous chapters, the movement away from a moral / constitutional frame in public discussion of the death penalty toward the

² For example, in March 2000 an ABC News/Washington Post survey asked 1083 national adults: "How important will handling the death penalty issue be to you in deciding how to vote in the 2000 presidential election in November—very important, somewhat important, not too important or not important at all?" A full 72% of respondents said the death penalty would be at least "somewhat important" in determining their vote (37% answered "very important" and 35% answered "somewhat important;" see Roper, Question ID# USABCWP.040300.R04N).

innocence frame is related to this shift from thinking of the issue in the abstract to considering a concrete decision about a particular individual. Juries impose the death sentence only in a small fraction of cases where it is considered, and only a tiny fraction of murderers are charged with a capital crime in the first place. Public support, as measured in the polls, however, is much more substantial. If juries and prosecutors behaved in a manner consistent with what the polls seem to indicate, there might be thousands of executions each year, but of course we do not see that. The reason probably is that the polls typically ask about a distant hypothetical situation whereas actual cases as they are presented to the nation's juries are much more nuanced; an actual capital trial is anything but distant and hypothetical. The second irony associated with mass attitudes here is that voters mention the death penalty with respect to their votes for President of the United States, but the President (and the federal government in general) has very little to do with decisions about the death penalty; these are typically made in state courts. In any case, despite these ironies, public opinion matters.

Given its importance, it is not surprising that there is a large body of research examining both aggregate and individual-level opinion on the death penalty. Much of the work is descriptive, informing us about the character and depth of public support. We know, for example, that the public is largely misinformed about such facts as the frequency of the use of the death penalty, the manner in which it is decided, and the alternatives available to jurors (Vidmar and Ellsworth 1974; Sarat and Ellsworth 1976; Bohm, Clark, and Aveni 1991). We know, too, that proponents of the death penalty allude to retribution and the cost of life imprisonment as reasons for supporting the death penalty while opponents cite the potential miscarriage of justice (Radelet and Borg 2000; Haddock and Zanna 1998; Tyler and Ross 1982; Bohm 1987; Bedau 1997; Ellsworth and Gross 1994; Ellsworth and Ross 1983; Gross 1998). We

also know that while abstract support for the death penalty for persons convicted of murder tops 50%, support for capital punishment falls when: 1) respondents can select alternative punishments, especially when coupled with some form of restitution to the victim's family; 2) the crime committed is not murder; and 3) the defendants in question are juveniles, mentally retarded, and, in many cases, simply when a defendant is named (Vidmar and Ellsworth 1974; Ellsworth and Gross 1994; Fox, Radelet, and Bonsteel 1990–91; Bowers 1993; Durham, Elrod, and Kinkade 1996; Cullen, Fisher and Applegate 2000). This last set of findings, about the humanization of the defendant, reflects our discussion in Chapter 4 about the nature of media coverage of the death penalty as well. Newspaper stories mentioning characteristics of the defendant are significantly more likely to carry an anti-death penalty tone overall.

In addition to these descriptive accounts of public opinion, a great deal of attention has also been paid to the question of who supports the death penalty—the correlates of individual-level support. The answers focus on the role of race (Young 1991, 1992; Halim and Stiles 2001), religion (Grasmick and McGill 1994 and Grasmick, Davenport, Chamlin, and Bursik 1992) and other demographic and political factors. Men, those with higher income, whites, Republicans, conservatives, members of the middle class, and those with lower levels of education tend to be more supportive than others of the death penalty (Ellsworth and Gross 1994). However some research has found that after controlling for a range of attitudes many of these socio-demographic differences disappear (Halim and Stiles 2001). Individual-level analysis has also examined the effect of the local environment where people live, with the weight of evidence finding that murder rates in the community where a family lives predict death penalty support. That is, those living in areas where there are greater numbers of murders may be more supportive of the death penalty, controlling for race and other factors (Soss, Longbein, and Metelko 2003;

Talyor, Schepple and Stinchcombe 1979; but see Tyler and Weber 1982 for competing evidence).

A small number of state-level analyses consider the impact of political context in determining support for the death penalty. Crime rates (or the perception of crime) are at the center of these analyses. More crime, the argument goes, leads to the fear of victimization and the desire for “law and order” policies with tougher punishments for crimes. States with higher crime rates are more likely to have death penalty statutes, to execute those on death row, and to see strong public support for the death penalty (Jacobs and Carmichael 2002; Stack 2000; Nice 1992).³ Additionally, Republican Party strength and conservative opinion climate are correlated with higher levels of support for and use of the death penalty. The percent minority and the percent urban population also explain state-to-state differences in the existence and use of the death penalty as well as the level of public support (Jacobs and Carmichael 2002; Stack 2000; Nice 1992). So we know a lot about state- and regional-level variations in popular support.

The first over-time analyses of death penalty opinion were conducted in response to the increased levels of support that followed the end of the moratorium. While analysis was largely anecdotal or limited to sets of individual surveys at different points in time, one finding emerged: Growth in the violent crime rate—and later, when crime rates leveled off and then dropped, change in perceptions of crime and its importance—precipitated higher levels of support for the death penalty (Cullen, Fisher, and Applegate 2000; Gross 1998; War 1995). A few analyses also considered trends in conservative and Republican strength, which were associated with harsher

³ There is, of course, substantial debate about whether the death penalty is effective in reducing violent crime. One reason for the continued nature of the debate in the face of evidence that the penalty does not reduce crime rates could be that areas with higher crime rates see more emphasis on “getting tough” with the on-going crime problem. So the crime rate drives the death penalty, not the converse. If the death penalty were effective and reduced the crime rate, there might be less support for the death penalty, paradoxically. In any case, scholars have found that high crime rates are typically associated with greater popular support for the death penalty.

modes of punishment more generally and particularly with greater support for the death penalty (Rankin 1979; Tyler and Weber 1982; Taylor, Schepple, and Stinchcombe 1979; Page and Shapiro 1992; Grasmick and McGill 1994).

Noticeably absent from studies of opinion is the role of media frames. Although scholars have identified historical periods in which particular types of arguments have been made (Radelet and Borg 2000; Bohm 1987), no one has systematically tracked attention to the arguments used in the death penalty debate and analyzed their relationship with public opinion over time.⁴ Of course, with the analyses we have shown in Chapters 4 and 5, we are in a position to do this here.

The absence of a single indicator of death penalty attitudes asked regularly over time has limited the ability of scholars to do more than talk of general trends in opinion or focus on geographical variation in public opinion as these relate to different crime rates or other characteristics. But, as we will see, a great deal of information about Americans' attitudes toward the death penalty over time is available, and this information can be used systematically to identify the correlates of death penalty support. It also allows us to assess the role of media framing on public sentiment. In the next section we introduce our time series of death penalty sentiment. From there we test our hypothesis that media framing influences opinion and we explore the causal dynamics of opinion more generally.

⁴ Fan, Keltner, and Wyatt (2001) offer evidence that the sudden shift in death penalty opinion in the late 1990s occurred in direct proportion to increased media coverage on exonerations from death row, but their analysis lacks the systematic treatment of framing that we offer here. Besides this single study, the role of framing has been limited to the framing effects of question wording used to measure public opinion, as we discussed above. And even here, some have noted: "It seems that most Americans know whether they 'favor' or 'oppose' the death penalty and say so in response to any question that can reasonably be interpreted as addressing this issue" (Ellsworth and Gross 1994).

The Dynamics of American Attitudes toward the Death Penalty

Accumulated research has taught us a lot about the individual correlates of public opinion toward the death penalty. State and regional variations are clear, as are the individual-level characteristics that make some Americans more likely than others to support capital punishment. We know a great deal about who, at any given time, is more likely to support the death penalty and the crimes or circumstances for which more Americans support it. By contrast, there is only scant literature addressing trends over time in levels of support. We know that, in response to general questions, support tends to be widespread and it appears that this support fluctuates over time roughly in response either to crime / homicide rates or to fear of crime but these trends have not been systematically addressed. A number of difficult methodological issues make it hard to assess public opinion clearly and precisely in this area over long periods of time, mostly related to changes in survey question wording. In this section we attempt to solve these problems and to provide a more complete analysis of public opinion over time than has been done before. This allows us to: 1) know when opinion has moved up or down in regards to the death penalty; and 2) assess the relative importance of media framing as discussed in the previous two chapters in explaining these shifts, controlling for homicides and other factors.

In the abstract, we know a great deal about Americans' opinions on the death penalty over time. Survey data is plentiful, but sporadic. Three survey questions have been asked of random samples of Americans more than a dozen times each and we can chart general support for the death penalty beginning as far back as December of 1936, when 61% of Americans "believed in the death penalty for persons convicted of murder" (Gallup). From November 1953 to May of 2004, Gallup has asked "Are you in favor of the death penalty for persons convicted of murder?" 39 times, making this the longest-running single measure of public opinion available (in the figures below we refer to this question as "Gallup-Murder"). In addition, Gallup has

asked: “If you could choose between the following two approaches, which do you think is the better penalty for murder—the death penalty or life imprisonment, with absolutely no possibility of parole?” 17 times. (We call this “Gallup-Life” in the figures below; naturally, responses vary when the alternative punishment is made available, a point we explore below.) Finally, as part of the General Social Survey, the National Opinion Research Center (NORC) has asked “Do you favor or oppose the death penalty for persons convicted of murder?” 25 times from 1972 through 2004 (NORC-Murder). Because of its regular timing and identical administration, the NORC-Murder question has been extensively analyzed, producing the closest thing to a time series on death penalty attitudes that exists to date. These represent the three most frequently asked questions tapping death penalty attitudes by any survey house and provide a great deal of information about death penalty support in the modern era. Figure 6.1 shows public responses to these three repeated questions.⁵

(Insert Figure 6.1 here)

The Gallup-Murder measure shows that two-thirds of Americans supported the death penalty for persons convicted of murder in 1953, the earliest year this question was asked.⁶ Support hovers around 50%—sometimes nearer 40%, others nearer 55%—until 1974 when we see a gradual but steady increase in support leading to a peak of 80% 1994. After this date support falls, dipping as far as 65%, in 2000. In the last five years support has increased again slightly, finishing the series at 74% in 2005. The NORC-Murder measure maps nicely onto this Gallup measure. During the period when both measures are available, they show substantial

⁵ The high levels of support for the death penalty by representative samples of Americans contrast sharply with the much lower rates at which juries impose the sentence in actual cases. This is in spite of the fact that those Americans who disagree with the concept of the death penalty are excluded from serving on capital juries. So there are substantial differences between abstract thoughts about the death penalty in response to a survey question and its possible use in a particular case, as discussed in the jury room.

⁶ In earlier surveys respondents were not given the “don’t know” response option so that the marginals are not comparable. Average sample size is over 1000 making sampling error average approximately ± 3 percent.

overlap, both moving upward in the 1970s and 1980s, dropping markedly in the late 1990s, and rebounding slightly in the most recent few years. The correlation between the two series is substantial: $r = .83$. The Gallup-Life survey consistently produces lower responses than the other two questions. As we noted above, when given alternative and severe punishment options, Americans' opinions are not so staunchly supportive of the death penalty (Vidmar and Ellsworth 1974; Fox, Radelet, and Bonsteel, 1991; Bowers 1993; Durham, Elrod, and Kinkade. 1996; Cullen, Fisher, and Applegate 2000). In fact, Figure 6.1 shows that answers to this question are much more evenly split, with just about half, rather than a majority, of respondents voicing support. Forty-eight of the 50 states do, in fact, offer the alternative punishment of life without parole, so the responses to this question may be more relevant to the actual situation, rather than the more general questions. We will return to this question later. For now, there are two points: this question is available only for a short time period (much less than the other two questions), and responses to this question vary over time in a similar manner to those of the other two (it correlates reasonably highly with the NORC-Murder measure, though much less so with its sister Gallup measure, $r = .52$ and $r = .14$, respectively). These three surveys, combined, give us some good ideas about the general level of support (high, though the precise level depends on the exact question), and how this support changes over time. Clearly, different questions lead to different responses. However, there is substantial shared movement in the series no matter which particular question is posed.

While these data series tell us much about Americans' attitudes toward the death penalty, much of political time is left uncovered by these three survey questions and a systematic analysis of attitudes over time is not possible with any of these. Each survey item is missing data for too many observation periods. It would be far preferable to have a single series with many more

observations. Unfortunately, no single survey question has been asked more frequently than the three questions just reviewed. In order to build a time series we need to draw on information in additional survey questions that tap attitudes toward the death penalty and devise a method to compare trends in the responses to many questions asked repeatedly over time, combining the responses not just to the three questions reviewed above, but to a much larger number. This will allow us to recreate the history of public opinion toward the death penalty with much greater confidence.

For this task we turn to the Roper archive, which has catalogued a wealth of publicly available survey data on the death penalty. From the Roper archive we located 67 survey houses asking some 350 different questions related to the death penalty between 1953 and 2004; a total of 747 surveys. Some of these questions were asked in such a way as to make them unfit for our analysis, such as “As far as you know, do Catholic bishops in the United States favor or oppose the death penalty for persons convicted of murder?” and “In general, how would you rate the job the press has done in covering...the Supreme Court ruling that bans the death penalty for the mentally retarded...excellent, good, only fair, or poor?” Often questions were of state samples or other non national random samples. These surveys were excluded, leaving us with 270 separate times when the public was surveyed regarding their attitudes on the death penalty. Data come from not only Gallup and NORC but from a total of 19 different survey organizations. Our final set of 270 surveys includes xxx different question wordings, but we exclude any question wordings which were used only once. This will allow us to compare trends in responses to identical questions asked in repeated national surveys, as we explain below.

We use a mathematical formula first developed by Professor Jim Stimson in his analysis of the “public mood” in order to create a single indicator from so many different series (see

Stimson 1991, appendix 1, for details on how he originally developed this method). Stimson was interested in a broad measure of the public's sense of liberalism or conservatism. He noted that in response to many questions such as whether the US was spending too much or not enough on education, health care, the environment, or other issues, different individuals would of course have different opinions at any given time. But when the average response of all Americans moved upwards over time, indicating a more liberal position on government spending towards education for example, the other series tended to move in the same direction as well. When one moved down, the other ones tended to move down as well. Each individual series was separate from the others, but they all shared some degree of common variation over time. Stimson called this shared variation the "public mood" and developed a method of combining results from hundreds of different polls asking many different questions on similar but not exactly identical topics in order to measure the public mood very accurately over long periods of time. The great advantage of his method is that it makes use of so much information, literally hundreds of polls over time. His findings fit well with accepted understandings of movements in the public mood or general ideological trends among the public over time—a knowledgeable observer seeing Stimson's results would recognize that they reflect a more informal qualitative assessment of those historical periods when American public opinion was more liberal or conservative. The method works well, so we adopt the techniques he developed here to our particular situation.

Each survey of the public regarding its death penalty attitudes provides important information, but how can we compare answers to one question with answers to a different question? The key is to look at shared trends over time. From 1973 to 1993, public opinion in the US grew more supportive of the death penalty. This would be reflected in almost any question repeatedly asked in any national opinion poll. Each question, asked just once, may elicit

different responses. When a question is repeated multiple times over many years, however, we can see how public opinion moves—up or down. For any given question wording, the series may have some particularistic variation (for example, the Gallup-Life question from Figure 6.1 is always quite a bit lower than the Gallup-Murder question; this difference is clear from the figure). However, the series may have some shared variation with all the other series as well. That is because if underlying public sentiments toward the death penalty are changing over time, this will be reflected, at different levels, in each survey question, no matter what exact question wording is used. Thus, we use the information from each data series to build a single measure of Americans' support for the death penalty (see Appendix C for a full list of survey houses and questions used in our measure).

At the heart of the measure is the assumption that regardless of their own peculiarities, each question asked by each survey house taps some aspects of the public's latent, underlying, attitudes toward the death penalty.⁷ Responses to each question should thus move in parallel over time, exhibiting common patterns of movement. This is apparent in Figure 6.1. While each series has its own average level and shows some seemingly random fluctuations associated with the sampling error related to any single poll, overall the three series also show considerable shared movement over time. Each shares in the overall story about Americans' changing attitudes. Covariation in movement across the various series is the key to creating a single measure of public support for the death penalty over time. Two problems prevent us from simply averaging

⁷ The assumption we make is not that all or even most of the variation in each component series is shared, but that some part of the variance is shared. The remainder is composed of error variance and variance unique to that input series. For example, questions about the appropriateness of the death penalty for Timothy McVeigh no doubt capture both general attitudes toward the death penalty (shared variance) and variance associated specifically with the appropriateness of the death penalty for acts of domestic terrorism or reflecting people's feelings toward McVeigh in particular (unique variance). Since they are based on opinion polls and samples, they also include random sampling error (error variance). With enough observations, the shared variance will be apparent. The unique variance associated with each individual series will be reduced by accumulating many series and taking an average among them. The error variance associated with random sampling will be reduced by having multiple polls, allowing the random fluctuations associated with any single poll to cancel out.

the percent of people who support the death penalty: First, differences in question wording and methodologies across survey houses result in differences in measured levels of support. Second, there is a large amount of missing data; in many early years there are no survey questions at all. So the method must reasonably aggregate across the different series, and it must generate expected values for those time periods where no questions were asked, based on what we know about opinion in adjacent time periods as well as on the trends of opinion over time. This is a tall order, but we proceed!

Here is how we do it. Essentially, if the same question was asked more than once, we can see if support went up or down. Of course, as Figure 6.1 showed, different question wordings will produce different responses at any given time, even if underlying attitudes are the same. So we cannot compare the answers from Question A to those from Question B. But we can construct a full set of comparable time series in the *degree of change* in the responses over time, in response to *the same question* when posed by *the same survey house*. If we rescale each series to some baseline, then for each year where we have data available we can see whether, compared to the baseline, support was higher or lower than the baseline, and by how much. While the procedure is complicated, it allows us to make use of 270 surveys, producing vastly better estimates of the state of public opinion at any given moment, than the simpler but less complete series presented in Figure 6.1.⁸

⁸ Technically, we analyze covariation across *ratios* of change in the survey responses within questions. The ratios are calculated relative to some baseline time point, say 2002. We arbitrarily rescale the value of the series to a value of one in this year and then for each survey item we compute support for each time point as a ratio relative to that baseline value. When the baseline year is missing for a given survey item—as will inevitably be the case for some questions—a new baseline is selected, calibrated with respect to the old baseline, and ratios are computed for all items that contain observations for that baseline. This is repeated over and over again until ratios are computed for all items. (See Stimson 1999, appendix 1 for details.) These ratios, unlike the raw component series values, are comparable across survey items and thereby provide a solution—a common metric—for dealing with the unique mean value associated with each survey house and question wording. This amounts simply to comparing each series to its value at a common point in time. With all the series recalibrated so that they are all measured on the same scale, we can proceed.

With change ratios in opinions in hand, we can compute a simple weighted average of the change ratios in each time period. The resulting series can be thought of roughly as a weighted average of our illustrative three series from Figure 6.1, but making use of all 270 surveys that we have identified. The weights ensure that the questions which were asked more frequently and of larger samples contribute more to our resulting index than do questions that were asked only a few times or in relatively small surveys.⁹ The end result is a time series that captures latent attitudes toward the death penalty. We see this in Figure 6.2.

(Insert Figure 6.2 here)

Figure 6.2 replicates Figure 6.1 and adds our new index, based on all available information surveying Americans regarding their support of the death penalty. The first thing to note is that our new measure of American support for the death penalty moves in tandem with both Gallup measures and the NORC-Murder measure. The new series correlates highly with each measure, $r = .96$ (Gallup-Murder), $r = .92$ (Gallup-Life) and $r = .57$ (NORC-Murder), providing strong evidence that the algorithm captures latent support for the death penalty. Second, because our measure draws on more information, the series is smoother and longer—it allows us to connect the dots, start to finish, with a great deal more confidence than with the points based on either Gallup or NORC-GSS alone. We see that our best estimate of the 1953

⁹ Formally, the series is calculated according to the formula:
$$\text{Support } t = \sum_{i=1}^n \sum_{j=1}^t \left[\frac{ui^2 \left(\frac{\text{question}_{ij}}{\text{question}_{ib}} \right) \text{metric}_b}{n} \right]$$

where i is all available questions at time t and j is all available dyadic comparisons for question i , b is the base period for computing the ratios, Metric b (here 100) is the value of the metric for period b , and ui^2 is the estimate of the common variance of question i and the estimated support for the death penalty. The final series is exponentially smoothed and the metric is defined to have a mean and standard deviation that is a weighted average of the component series where weights are equal to the estimated common variance. The more an item contributes to the measure, the more weight that item will be given in determining the metric of the final series.

point is lower than the raw Gallup poll available for that year, given the information contained in all the other surveys, and that our measure is now on average about five percentage points less supportive than either Gallup or NORC-GSS in the 1980s through the mid 1990s. This reflects the lower levels of support voiced by the public for the death penalty in many questions that reflect specific circumstances. Yet the overall patterns are uncannily similar. Because the index is based on 270 different surveys, it is substantially more accurate than any single series could be. Each individual survey has a sampling variability associated with its sample size usually in the range of plus or minus three points, so even if there were a single annual survey with identical question asked repeatedly, we would still prefer to use our index. It makes the most of all the available information.

The index of public opinion which we construct has the value of getting the most out of all the information available to us, but it has one drawback: It is difficult to interpret. Movement of the index up or down is clearly significant, but readers should understand that the scale itself is ambiguous. Recall that the index requires that we compare questions that were posed with dozens of different question wordings so that we could note whether sentiment was moving in a pro- or anti-death penalty direction. But by combining so many questions, and taking all their values as compared to some baseline year, the actual values of our index are determined largely by which baseline we choose and what combinations of question wordings happened to be available in the Roper survey data archive. Now, it is clear from Figure 6.2 that our overall index is not too far off the results one gets from a simple question such as “do you support or oppose the death penalty for persons convicted of murder.” But note that it is consistently lower than this number. Further, it is consistently higher than the number received when Gallup has asked the question specifying the alternative possibility of life without the possibility of parole.

In any case, we caution the reader not to make too much out of the absolute levels of our index of public opinion, but to focus instead on the direction and speed of its movement over time.

With these checks (and caveats) in place, we consider the more interesting substantive and statistical features of attitudes over time. First, what does our new series look like? We actually create several series: Figure 6.3 shows our estimates of estimated pro- and anti-death penalty opinion, and “net opinion,” or the difference between these two.¹⁰

(Insert Figure 6.3 here)

The stability of public opinion surrounding the death penalty is remarkable. Many public opinion scholars are familiar with presidential approval ratings. Graphed over time, these series vary tremendously, sometimes trending downwards in long slopes as a given president slowly loses public support, but often spiking sharply in one direction or another as particular events of the day cause Americans in large numbers to rally around the president in times of crisis or to distance themselves from him when events are negative. Here, we look at something very different. Public opinion stands today virtually where it was 50 years ago, with just over half the population supporting the death penalty, just as in the beginning of the series. At first glance, looking at pro-death penalty sentiment for example, there appears to be little action here. For the first 20 years of our series, opinions were sporadically surveyed but appear to have fluctuated little.¹¹ Opinion slowly drifted downwards from the beginning of the series until the late-1960s. After the *Furman v. Georgia* decision of 1972 when executions became unconstitutional, opinion

¹⁰ We estimated anti-death penalty attitudes using Stimson’s algorithm by inputting the marginals for the anti-death penalty categories of the response options to the same questions used for the support series. The number of questions with clearly neutral response categories was somewhat lower, but this series is otherwise estimated in the same manner. The net difference in support measure is simply the difference between the percent supporting and opposing the death penalty.

¹¹ The stability of opinion in the early years is in part an artifact of missing and therefore interpolated data. We have no survey data in 1954, 1955, 1958, 1959, 1961 through 1964, 1968, and in 1970. This is one of the reasons why our statistical analysis, presented below, begins only later and uses the quarterly data after 1985. During that period we have much more complete data available.

started driving in the other direction, in a slow drift towards greater support for the death penalty that lasted for over 20 years. (Stimson found the same in his more general survey of the public mood: As government became more liberal, opinion became more conservative.) Shifts in public opinion were not massive even during these times; the index ranges from about 60, down to just above 50, then up to the high 60s, not very substantial movement in an absolute sense.

This highly inertial and seemingly permanent level of support is consistent with our understanding of individual-level attitudes on moral issues. Issues that touch readily on core values onto which people hold fast are not expected to change in response to each item in the news, and here we see this phenomenon very clearly. Theory tells us that when attitudes are tied to core values, no amount of new information should produce attitude change (Alvarez and Brehm 1995, 1997, 1998, 2002) unless respondents are ambivalent (see also Zaller 1992). This suggests that in the aggregate we should see only very small amounts of change.

The upward drift in opinion regarding the death penalty shifted again, however, in the mid-1990s, reversing a trend toward greater acceptance that had lasted for a generation. Support for the death penalty fell beginning in 1996 on the cascade of legal action based on DNA evidence and concerns about the possible innocence of death row inmates and the fallibility of the system. At the very end of our series we see a slight movement back up, so that the series ends virtually where it began in 1953.

Figure 6.3 presents pro-death penalty opinion separately from anti- because different numbers of individuals claim to be neutral or to have no opinion on the matter. The two series roughly mirror each other, of course, with anti-death penalty sentiment reaching a peak just as the pro-death penalty series reaches its nadir in 1966. The third series in the Figure is Net Opinion, or the difference between the two series. Positive values indicate a net pro-death

penalty advantage in public opinion and negative values indicate stronger numbers for the anti-death penalty series. Such a number has occurred only once, in 1966. The net opinion series reached a peak in 1996 with a value of more than 35 then declined by almost 20 points in the last ten years of the series, the period of the innocence debate. We will use this Net Opinion series as the simplest and most straightforward indicator of public opinion toward the death penalty.

Because our index is based on so many surveys, we can measure public opinion on a quarterly basis for the past 20 years, not only on an annual basis as we have shown so far. This will allow us to make a much more detailed assessment of movement in public opinion over this period. Only a few surveys were conducted in the early years of our series, so we have considerably more confidence in our analysis of the later part of the series than in the early part. In fact, beginning in 1985, we have enough surveys conducted at close enough intervals in time to estimate public opinion on a quarterly basis.¹² Figure 6.4 presents this series.

(Insert Figure 6.4 here)

Figure 6.4 shows the same general patterns as the annual series presented in Figure 6.3, but also more nuanced movements that reflect important shifts in media frames that often occur without warning, bursting onto the scene. The quarterly series begins in 1985 with just over 60% supporting and less than 40% opposing the death penalty. The net opinion series is positive throughout this period, ranging from a value around 25 in the early years to 38 in 1994 before declining to less than 20 in the first years of the new century. The net opinion series rises again slightly to finish the series, in 2005, not far from where it began, in 1985. The quarterly series is less smooth than the annual series partly because the annual series is based on more observations

¹² Between the first quarter of 1985 and the third quarter of 2004, we have observations in 57 of the 84 quarters, and so we interpolate values for 27 quarters where there are no surveys. Pushing back to the first quarter of 1981, we would be missing observations for 36 quarters. Before the 1980s, there are far too many missing quarters to have confidence in any quarterly analysis.

per year, and so the random fluctuations due to sampling error are spread out more. But it also varies because there are true signals in the data, fluctuations in public opinion in response to particular events which may come to light at one point in time, but which may not have a lasting impact or which may be cancelled out by other events also occurring in the same year. So while moving to the quarterly analysis requires that we accept a little more measurement error, it also allows us to study movement in public opinion in greater detail and more accurately. As we are interested in the impact of the new innocence frame, the availability of a greater density of survey information for the period since 1985 is particularly welcome. In our statistical treatment below, we use the quarterly data series because these allow us to track shifts in public opinion most closely. The reader can see from Figures 6.3 and 6.4 that both series tell a similar story. (This makes sense, of course, as they are ultimately based on the same underlying surveys. One is smoother than the other because it averages over a full year rather than only a three-month period. However, the more fine grained quarterly analysis allows us to see in more detail subtle movements of public opinion in response to events.)

Both annual and quarterly time series are informative for our purposes. The first gives us a broad look at trends in public opinion on the death penalty, helping us to put the more recent movements in public opinion in historical perspective. The second provides a detailed look at the recent post-moratorium period and in particular at the effects of the innocence frame in a time in which attitudes have undergone unprecedented amounts of change in a short time period. We use the latter data to test our hypothesis that media framing influences public opinion on the death penalty. We turn to this task next.

Analyzing Public Opinion

Public opinion on the death penalty, as we have shown, is highly stable over the long run; public opinion today looks a lot like it did yesterday. The inertial quality of aggregate public opinion means that we simply cannot expect dramatic shifts in public opinion on this topic in short periods of time. Unlike public opinion toward the president, which responds quickly to current events, opinion on this topic is much more stable, slowly evolving rather than rapidly jumping to new levels. There are two reasons for the slow drifting quality of public opinion in this area. First is that the issue has limited salience. That is, every member of the public is not necessarily paying attention when important events occur in relation to the death penalty. In contrast, say, to presidential decisions to take the nation to war, aggregate public opinion on the death penalty moves slowly partly because many Americans are not paying much attention. In Chapter 4 we reviewed *New York Times* coverage of the issue and we made clear that there was, indeed, substantial coverage, especially during certain periods such as those surrounding the 1972–76 moratorium and in 2000, when there were over 200 articles published on the topic. As we noted, this is several articles a week. But let us put this in some context, not to say that Americans don't know or care much about the death penalty, but simply to note the difference between an issue like this, which is familiar, but not constantly in the news so much that members of the general public (in contrast, say, to readers of this book or to those who follow the death penalty debate with any particular interest) would continually be bombarded with news, events, and opinions on the topic so that their views might shift more rapidly. One simple point of comparison is how often the issue appears on the front pages of the nation's newspapers. Since 1960, 243 death penalty stories have appeared on the front page of the *New York Times*, as we saw in Chapter 4. While there is some upwards trend there as we demonstrated, the total number

of stories averages out to fewer than six per year, or one front-page article every two months.

Figure 6.5 shows front page coverage of the War on Terror.

(Insert Figure 6.5 about here)

Beginning in September 2001 the War on Terror has dominated the nation's headlines in a way that abortion, the death penalty, and other issues never has or will. Everyone has reactions to this issue, and millions of Americans are directly affected by it, having family members serving overseas and personally experiencing various commemorations and inconveniences associated with increased security. About 40 percent of all the front page stories in the *Times* for the past five years have been on this topic. By contrast, even an issue such as the death penalty, which is by no means obscure, simply does not generate anything remotely close to this level of coverage—the series differ by orders of magnitude. So one reason why public opinion moves only very slowly with respect to this issue is that, like most issues, it simply is not in the news so often and does not directly affect the lives of most Americans. It is easy to think that many people are or should be interested in issues such as the death penalty, especially if, like the readers of this book, one takes some particular interest in it. But the issue is remote for most Americans. People's views on the President or on such issues as the War in Iraq or the War on Terror may be more volatile because people are much better informed about events which are, after all, much more dramatic than the typical courtroom drama associated with criminal appeals.

The second reason for the slowly evolving nature of public opinion on the death penalty is that, as we have discussed, for most Americans their views on the death penalty are closely linked to their moral or religious sentiments. For any given individual, these do not change much over time.¹³ Despite these caveats, we do see movement in US public opinion on the death

¹³ Note also that even if the innocence frame were to rise substantially in public discussion, most of the survey questions national pollsters have used over the years focus on relatively general attitudes and do not necessarily tap

penalty and there is nothing that requires that public opinion remain within any particular bounds. Rather, opinion clearly moves in response to events (and interpretations of those events).

Now we move to a systematic analysis of what causes opinion to move and of the role of media framing as compared to other factors. A simple correlation between net tone, our media framing variable, and opposition to the death penalty suggests that the two are strongly related (the correlation is quite high, $r = -0.74$). But simple correlations can be misleading. In order to test the hypothesis the media framing influences opinion on the death penalty, we estimate multivariate time series regression models of opinion. While the effects of media frames are central to the analysis ahead, we test the additional hypothesis that attitudes toward the death penalty will respond to violent crime. Consistent with the literature that comes before us, we hypothesize that as violent crime rates increase, support for the death penalty should increase. As crime rates go up, citizens prefer a law and order approach to crime. Descriptive data indicate that support for harsher punishments in general increases when crime goes up, and support for the death penalty can be seen as part of this same get-tough-on-crime reaction (see Rankin 1979). Our indicator of violent crime is the number of homicides as reported in the FBI Uniform Crime Reports.¹⁴

In addition to homicide rates, we want to examine the effects of extraordinary events that focus public attention on the death penalty. By including extraordinary events in our analysis we allow events to influence opinion beyond that mediated by the news and similarly also ensure

public response to the innocence debate. One could support the death penalty in the abstract but still be concerned about the possibility of errors in the justice system. Public opinion questions used in this chapter are, on average, relatively abstract.

¹⁴ Quarterly data exhibit seasonal fluctuations. In particular, more murders are committed in the summer and fewer in the winter. Because we don't want these patterns in homicides to influence opinion, we smooth the quarterly homicide data, creating a 4-quarter moving average of homicide levels.

that any measured effects of media framing are not simply picking up events, but reflect media coverage of them. This is common in the literature on presidential approval, and the techniques of doing so are quite simple: One identifies the events which might be hypothesized to affect public opinion (that is, any potentially substantial event), and includes a variable in the model which takes a value of zero for all time periods except for when an event occurred, in which case the variable takes a value of one. In our case we complicate this slightly because we have some events that would be expected to increase support for the death penalty and some that would work in the other direction. So our events series consists of values of 0, +1, and –1. We considered six events: The bombing of the federal building in Oklahoma City on April 19 of 1995; the January 30, 2000 declaration by Governor Ryan declaring a moratorium on executions in Illinois; the September 11, 2001 terrorist acts; the 100th exoneration of a death row prisoner on April 8, 2002; the beginning of the killing spree of the so-called D.C. snipers on September 9, 2002; and the January 11, 2003 blanket grant of clemency given all death row prisoners in Illinois. The result is a single time series composed of ones, negative ones and zeros. The estimated effect of this variable will tell us the average effect for any pro-death penalty event (with the effect of an anti-death penalty event being the inverse of this number). While any selection of extraordinary events is somewhat arbitrary, these are clearly important events in the history of public attention to the issue. We present a more comprehensive list of events in the appendix. In addition, we also separately considered the effect of each of the six events individually, as we discuss below.

Armed with our time series of death penalty sentiment, the net tone of media coverage from Chapter 4, homicide levels, and events, we begin our analysis. The analysis covers the period from 1985 to the present, and the analysis is not annual, but quarterly. So for each

quarter, we want to know if we can predict public opinion on the basis of the other variables mentioned, and the relative importance of each of the variables in explaining opinion. The historical window we cover is limited by the survey data available to us, as we described in the previous section. Before 1985, there were simply too few surveys in order to estimate opinion for each quarter. While the period is shorter than we would prefer, it is of particular interest because it incorporates both the rise in support and frequency of use of the death penalty during the 1980s and 1990s as well as the decline in support, media tone, and use after the mid-1990s.

Each of the models we estimate is a simple regression analysis of public sentiment in a given quarter as a function of sentiment in the previous quarter, the number of homicides, net tone of media coverage, and events. Events are not lagged as we expect their impact to be quick enough to be felt within three months. All the other variables are lagged by one quarter, which simply means that we expect, for example, media coverage to affect public opinion not immediately, but in the following quarter. This guarantees that the temporal order of causation is respected: Media coverage in one quarter is expected to affect public opinion only in the future, not simultaneously (and not at previous periods during the same quarter, a measurement problem that cannot be solved except by lagging the explanatory variable). The inclusion of lagged public opinion captures an important feature of opinion on the death penalty—sentiment today looks very much like it did in the last period. So, opinion is a function of opinion yesterday as well as our various explanatory factors. One way to interpret the findings, then, is to think of the lagged opinion measure as a reflection of the inertia associated with public opinion, and the other coefficients to reflect the impact of each variable on causing opinion to shift away from its inertial value. Also, technically, if there are other factors missing from our model but which do affect public opinion, these would be incorporated into the value of what public opinion is in the

previous period. Since we control for those factors in the previous period, our model is highly accurate, as the reader will see in the next section.

Analysis

We present our analysis of death penalty sentiment in Table 6.1. We focus here on explaining “Net Opinion,” or the difference between support and opposition to the death penalty. This is the solid black line in Figure 6.4. (Table 6A.1, in the appendix to this chapter, shows the same analysis for Support and Opposition separately; the reader can see that the results are highly consistent with that for Net Opinion, so we focus just on one series here.)

(Insert Table 6.1 here)

The numbers in Table 6.1 show the expected change in Net Opinion for each one-unit change in the four independent variables listed. So for example we can see that if the number of homicides in the country increases by one thousand, in the next time period we expect Net Opinion to move by 1.11 percentage points in the pro-death penalty direction. The numbers in parentheses are standard errors; these show the level of confidence we have, statistically, in each of these coefficients. If the standard error is very small compared to the regression coefficient, this means we have a great deal of confidence in the results. If the numbers are similar in size to each other, then we have less confidence. Footnotes to the table indicate the precise degree of confidence we have in each coefficient. Overall, the model performs extremely well, as it explains over 88 percent of the variation in Net Opinion. Let us consider each variable in turn.

The first variable is opinion in the previous time period. We have already noted that public sentiment at Time_t is highly affected by sentiment at Time_{t-1}, and now we see precisely the degree to which this is the case. The coefficient of .732 indicates that about 73 percent of the value of the previous measure of public opinion transfers forward in to the next time period, and

the standard error of just .067 shows that these findings are highly significant. In statistical parlance, this means that our model is highly auto-regressive; in plain English it means that there is a great deal of inertia involved in these processes. Whatever opinion was at one time point, opinion in the next time point will be strongly affected by this value. This is consistent with our understanding of sentiment on moral issues, such as the death penalty, where opinions are highly resilient. In contrast to some other issues where dramatic developments may cause public opinion to shift dramatically in a short time period, we do not expect that here. It also simply translates into a statistical finding the slowly drifting character of the lines in Figure 6.4. The slow drift rather than rapid movement of the lines there illustrates graphically the highly inertial, or autoregressive, character of the series.

The highly inertial nature of public opinion on the death penalty has three implications that may not be immediately obvious but which are clear implications of our statistical model: First, the system will maintain a great deal of stability, as the inertial forces represented by the previous level of public sentiment are very powerful. This is no surprise. The second and third implications are somewhat more surprising, however. The second implication is that any shock to the system, such as a spike in homicides, a dramatic event affecting public opinion, or a huge change in the net tone of media coverage, no matter how great, could not be expected to lead to an immediate change in public opinion. Any change will be gradual, taking several years to reach its full impact. This is because of the inertial character of public opinion. The third implication is a corollary of the second: Long term effects will be much more substantial than immediate effects. In fact, we can calculate that after several years the long term effect of any shock to the system will be almost four times greater than the immediate impact.

Consider this example. Imagine that homicides decreased by a factor of 1,000 in some quarter. This would translate into an immediate effect on Net Opinion of a decrease of 1.11 percentage points in the following time period. But about 73 percent of this new, lower, level of public opinion would then be propagated into the following quarter, and 73 percent into the quarter after that, and so on. There would be a continuing, but gradually decreasing, effect of this shift in homicide rate so that the first time period would see an impact of -1.11; the second, an impact of $-1.11 \times .732$, or -0.813; the third, .732 times this number, or -0.59; and so on. Eventually, the impact would peter out completely, but only after it had a cumulative impact, over several time periods, of just over 4 points. The long-run effect is 3.73 times the immediate effect.¹⁵

The second variable listed in Table 6.1 is the “net tone” of *New York Times* articles, introduced in Chapter 4. That is the number of pro- minus the number of anti-death penalty tone articles in a given period. High numbers reflect more pro-death penalty coverage. The coefficient of 0.058 indicates that for each movement of ten more pro-death penalty articles in a given quarter, we would expect Net Opinion to move by about 6/10 of one point in the pro-death penalty direction. These effects are statistically significant. Of course, the long-run effect of this change is multiplied by the same factor as above, so that a 10-point shift in Net Tone of coverage would be related to an eventual shift of almost 2.2 percentage points in Net Opinion ($(10 \times .058) \times 3.73 = 2.16$).

If we look at how Net Tone varied from the period covered in this analysis, from January 1985 to the third quarter of 2004, we find that there was one period—the second quarter of 1990—in which there were 16 more pro- than anti-death penalty stories in the *New York Times*. Similarly, in the second quarter of 2001, there were 43 more anti- stories than pro- ones. So

¹⁵ Long-run effect = Immediate effect / (1-.732). Or, equivalently, Long-run effect = Immediate Effect x 3.73.

there is quite a lot of movement in the net tone of media coverage; net tone in fact ranged from +16 to –43, or a swing of almost 60 points. Multiplying this swing by the coefficients in Table 6.1 translates into an immediate effect of about -3.5 points and a long term effect on Net Opinion moving it in the anti-death penalty direction by about 13 points. These are strong effects indeed.

The third variable listed is the number of homicides across the country. For every movement of 1,000 homicides, we predict a movement of Net Opinion of about 1.11; these findings are also statistically significant. During the period of our study, the number of homicides per quarter in the US ranged from a high of 6,179 to a low of 3,845, or by a total of 2,334. Such a movement in the number of homicides therefore would have an effect of about 2.6 points on our measure of Net Opinion. Again, this is only the immediate effect, and the long-term effect would be substantially greater (9.7 points overall). Both net tone and homicides have strong effects on Net Opinion, with the overall effect of observed changes in media coverage showing a stronger overall impact on public opinion than homicides.

We look fourth at our series of highly visible events such as the Oklahoma bombing, the Washington sniper shootings, and significant events associated with the innocence movement. Here the data show highly consistent effects in the three models, with a net impact on public opinion of about 1.2 points (4.5 points in the long run). However, these effects are just short of statistical significance so we do not focus on them here.

We separately considered both a pro-death penalty event series and an anti-death penalty event series in order to investigate more precisely the effects of events. We find that the effect is entirely from those events that raised anti-death penalty sentiment. Further, separately including our six events in the model shows that the effects are driven almost entirely by Illinois Governor Ryan's grant of clemency to all death row prisoners in the first quarter of 2003, just before

leaving office. The Governor's temporary moratorium on the death penalty in 2000 and the 100th exoneration also increased opposition, but the effects were not significant ($p = .35$ and $.28$, respectively). None of the events that we might expect to erode opposition—the Oklahoma City bombing, the DC snipers attacks, and the September 11 terrorist attacks—exerted a significant effect on sentiment.¹⁶

It is important to note that the measured effects of events are in addition to any effect of discussion of those events in the media—these are already incorporated in the net tone variable. In the case of all events we considered, there was newspaper coverage—in some cases extensive coverage. Events then can have both an independent effect and one mediated by the news. Finally, it is worth noting that some events, such as proof that we'd wrongly executed an innocent person, could have a larger effect yet, particularly if media coverage of the event was extensive.¹⁷

The results we present in Table 6.1 are highly robust. We considered various ways of modeling these results and tested many different specifications before settling on the model we presented. This included alternative statistical techniques such as Vector Autoregression (VAR) as well as the inclusion of possible other variables. One particular possibility that we tested was that increasing numbers of executions and exonerations themselves, rather than media coverage of them, could explain death penalty sentiment. Mounting numbers of executions may have made the public react with either complacency (becoming more accustomed to increasing numbers of executions as they increased during the 1980s and 1990s) or outrage (perhaps responding to a more routine usage of a punishment previously reserved only for extraordinary

¹⁶ Xxx Need to check these models; now that we revised the measure of events, these precise results may need to be adjusted or double-checked.

¹⁷ Xxx maybe revise the treatment of the event series in this and the previous two paragraphs. The coefficients with the current data are NS; we may want to look at this again with an updated data series.

circumstances). But there is no evidence in favor of either hypothesis. Executions have no effect on death penalty sentiment. Similarly, the number of exonerations may have affected public sentiment, so we considered that possibility by including the actual number of exonerations in the model. Media coverage may lead us to think that exonerations are a recent occurrence so that media attention is merely translating the effect of actual exonerations. But this possibility is easily dismissed. As defendants have been exonerated, opinion has not responded significantly. Nor did our earlier findings with regarding to the net tone of media coverage change. It is not the occurrence of executions or exonerations that influence opinion, it is media coverage, specifically its tone, that matters. Neither the number of exonerations nor the number of executions was close to statistically significant when included in a model similar to that presented in Table 6.1, and inclusion of these variables did not substantially change the coefficients reported there. In sum, the model we present in Table 6.1 is highly robust.

Overall, the simple model of public opinion presented in Table 6.1 explains 89 percent of the variation in the series presented in Figure 6.4. In fact, our predicted values track almost perfectly the actual values from Figure 6.4. Figure 6.6 shows the actual values of Net Opinion, from Figure 6.4 and our prediction of it based on the model in Table 6.1.

(Insert Figure 6.6 about here)

Figure 6.6 shows the actual values of Net Opinion, as measured in hundreds of public opinion polls from 1985 to 2004, and the values that our model predicted. The predicted and actual values track very closely; in no case is the gap between the two greater than 7 points, and 60 of the 79 quarterly predictions fall within 2 points of the actual values. In sum, the statistical model succeeds in explaining the actual movement of public opinion quite well. We can make use of this fact then to explore the impact of various scenarios on public opinion, better to

understand the relative impact of homicide rates and media coverage on observed levels of public opinion.

The complicated short-term and long-term effects of each of the variables in Table 6.1 make it hard to understand how public opinion moves, because in the real world, all the variables are shifting at the same time. That is, public opinion at any give time is partly affected by previous changes in homicide rates, media coverage, and dramatic events. But in each period there are further changes in each of these variables, some working to reinforce each other, some working in the opposite direction, and so the net impact on public opinion of immediate and historic events is very difficult to parse. We can, however, model these effects because our statistical model of public opinion tracks so well the actual values. Since our predicted model of public opinion tracks so closely the actual values, we can take our statistical model and substitute hypothetical values for one or another independent variables to see what public opinion *would have been* under different scenarios. That is, we can take our statistical model and set homicides to some level and not allow them to change. Or we can set media coverage to a set level and leave it there. By doing this carefully and one variable at a time, we can see how public opinion would have changed if one variable, and one variable alone, were changing over time. In the real world, everything changes at the same time, but in a computer simulation we can simplify things. Figure 6.7 shows two such scenarios.

(Insert Figure 6.7 about here)

The dark solid line in Figure 6.7 shows our predicted value of Net Opinion; this is the same series as in Figure 6.6. The lighter solid line (called Scenario 1) shows what Net Opinion *would have been* if media coverage had never changed from its actual value of +14 in 1993. Under this alternate scenario, public opinion continues to grow more supportive of the death

penalty until 1995. It declines after that (largely due to observed declines in the number of homicides), but much less sharply than in reality. The series ends with a value about 7 points higher than the actual observations. The largest gap in the two series comes after 2000, when the net tone of media coverage in fact declined precipitously. Holding our net tone variable constant at its highest value allows us to see what would have happened if these changes had not occurred. Public opinion would have been significantly more pro-death penalty, but it still would have declined from its peak because of the decline in homicides. Since the hypothetical series ends up, several years later, at a level 7 points higher than the actual series, we can attribute this 7-point difference solely to the impact of the observed changes in media coverage. In fact, the net tone of media coverage went down, then up, over this time. If it had reached its high point in 1993 and stayed there, public opinion in 2005 would have been 7 points higher than it was in fact.

The dashed line in Figure 6.8 (Scenario 2) presents the case where media coverage follows its actual course, but we hold the number of homicides constant at 6132, the value it actually reached in the third quarter of 1993, and very close to its all time maximum. Comparing the distance between the dashed line and the light solid line allows one to see the impact of declining homicides on public opinion. In all, had homicides not declined from 1993 to 2005, we would have Net Opinion almost 10 points higher in a pro-death penalty direction than we in fact observe.

We can of course manipulate our hypothetical model of public opinion in any way we want. Table 6.2 shows some alternative scenarios and the resulting impact on Net Opinion.

(Insert Table 6.2 about here)

Table 6.2 shows the impact of various possible changes to the tone of media coverage surrounding the death penalty, the number of homicides, and significant events. All of these events are symmetrical, so when the Table shows that a movement of 50 points towards more critical news coverage would lead to a decline in Net Opinion of 11 points, that also means that the opposite would be true: Opinion would move in the pro-death penalty direction by the same amount if media coverage shifted by the equivalent amount in that direction. It is impossible to say, of course, what are the most reasonable possible scenarios to consider. However, the movements we have illustrated here are all within the realm of what has occurred in the past. The net tone of media coverage, as we noted, has in fact shifted quite dramatically, by over 60 points, in the past 20 years, and the number of homicides has shifted by well over the 2,000 murders we illustrate in the Table. Only the events series has been manipulated more significantly than what we have observed. This is because each event is unique and in any case, most of the impact of these events is reflected in the change in the tone of media coverage. The impact of an event even twice as strong as the most powerful one we have yet observed would only be two points, over and above its impact on media coverage. But that effect would probably be quite substantial, as these events are highly newsworthy.

What would be the overall effect of various scenarios we have considered? It could easily move Net Opinion by 20 points in one direction or another. Net Opinion, of course, is just the difference between the number who support and the number who oppose the death penalty, in response to polling questions. Looking back at Figure 6.3, which shows this series over the past 40 years, it is clear that if opinion shifted by 20 points in the downwards direction, overall opinion would be significantly below zero; a majority would oppose the death penalty. This number would be even more substantially biased in the anti-death penalty direction if the

question posed to the public specified the option of Life Without Parole, which as we noted is available in 48 of the 50 states. Public opinion on the death penalty changes only slowly. But it does change, and it changes predictably in response to changes in the environment. It is impossible to say what developments might occur with regards to homicide rates and media coverage of the death penalty in the years to come. Opinion could shift toward a pro-death penalty direction. But we have shown a combination of forces here which could easily move American public opinion in a way that would support a drastic reduction in the use of the death penalty, if not its complete elimination.

Figure 6.8 illustrates two alternative scenarios. This is largely the same information from Table 6.2, but graphing it over time shows the slowly evolving nature of the trends. The simulations are very simple. We picked an arbitrary time period, in this case 1992, and substituted alternative values for the observed figures for homicides, net tone, and our events series. In the first scenario, we added 50 points to whatever the actual net tone of media coverage was in each quarter. So if the net tone in any given period was +15, we made it be +65. We did the same to homicides, adding 2,000 to each value. And when we got to the first quarter of 2003, when Governor Ryan issued his mass clemency decision (the single most powerful event in the six events that we looked at in this chapter), we substituted a 0 for a 1, indicating that the event had simply not occurred. Comparing Scenario 1 to the baseline, our actual predicted values, shows that the events take some time to reach their impact, but that after several years the two series are perfectly parallel to each other, except in the period immediately following January 2003, when our manipulated series shows no momentary drop associated with the clemency event. The series are 18 points apart.

(Insert Figure 6.8 about here)

Scenario 2 in Figure 6.8 represents the opposite case, with media coverage 50 points more negative in tone, homicides 2,000 cases lower than actually observed, and the Illinois clemency event being twice as powerful as it actually was. Like the first series, this one takes several years to allow these manipulations to reach their full impact, but after that time it is consistently 18 points lower than the baseline. The enhanced clemency event temporarily pushes the series into negative territory.

The scenarios we present may appear unrealistic. Public opinion does not move that much; over the period of our quarterly analysis, after all, Net Opinion has remained within a range of +17 to about +35. But in fact, what we really know about public opinion is mostly that moves *slowly*. Over the 40-year period where we have looked, Net Opinion has ranged from just below zero (in 1967) to 35 (in 1994). If other factors were to change, in particular the nature of political and media-related discussions of the death penalty, then we could easily see changes in public opinion. It would take some time for these changes to affect aggregate public sentiment, but sustained movement can have a strong impact.

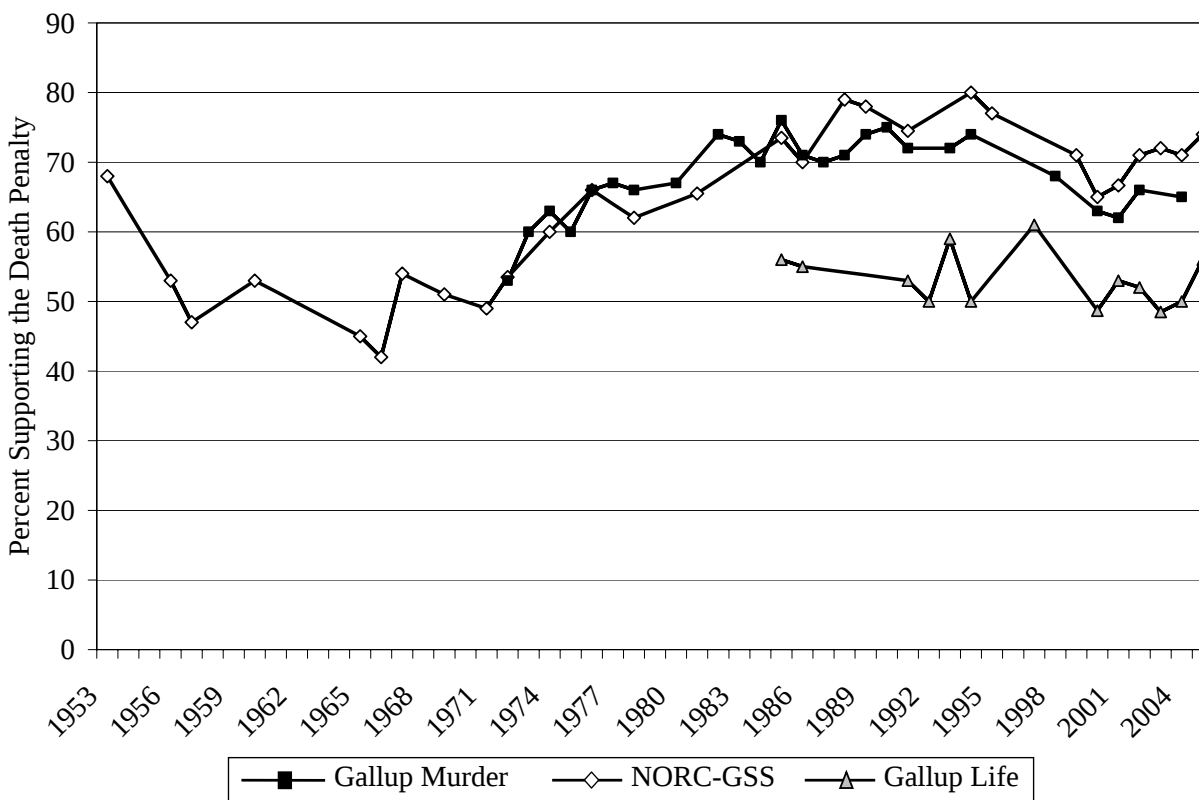
Conclusions

In this chapter we have constructed a new measure of public opinion on the death penalty, the most comprehensive assessment of trends over time in public sentiment on the topic ever assembled. The results of this survey analysis show that public opinion is highly inertial. The American public supports the death penalty, by and large. But public sentiment has waxed and waned gradually over time, moving towards greater support during the 1970s, 1980s and in the first several years of the 1990s as media coverage and the number of homicides both also trended in the direction of pro-death penalty positions. An important shift occurred in the mid-1990s, however, as the idea of “innocence” began to have a significant impact on the nature of public

discussion surrounding this topic, and as the number of homicides began a long decline. Today, more Americans support than oppose the death penalty when queried using the standard survey questions. However, these numbers are significantly lower when the question offers the option of Life Without Parole. Our analysis here has suggested that public opinion, in the aggregate, responds in a meaningful, logical, and consistent fashion to changes in the environment surrounding this issue. Facts matter. Newspaper coverage matters. The tone of discussion matters. Significant events matter. The public responds to these things in the aggregate, and aggregate public opinion therefore shifts in response to these trends.

One interesting element about public opinion regarding the death penalty is how hypothetical the questions are concerning it. In the next chapter, we move from looking at public opinion in general to the actual behavior of prosecutors, defense attorneys, judges, and juries in America's courtrooms. The people involved in courtroom drama associated with the death penalty are faced with anything but a hypothetical, theoretical, discussion; rather they deal literally with questions of the life and death of an individual sitting in front of them. As we will see in the next chapter, many of the same factors which we have seen to affect public opinion in this chapter also affect the behaviors of juries and therefore the annual number of death sentences imposed across the country, but the degree of change we have witnessed in response to the rise of the innocence frame is much more substantial. Change comes quicker when the question moves from the theoretical to the individual. We turn to this question in the next chapter.

Figure 6.1. Public Support for the Death Penalty: Gallup and NORC, 1953–2005.



Note: In years in which multiple surveys were conducted, simple averages were computed.

Figure 6.2. An Index of Public Sentiment on the Death Penalty, 1953–2005.

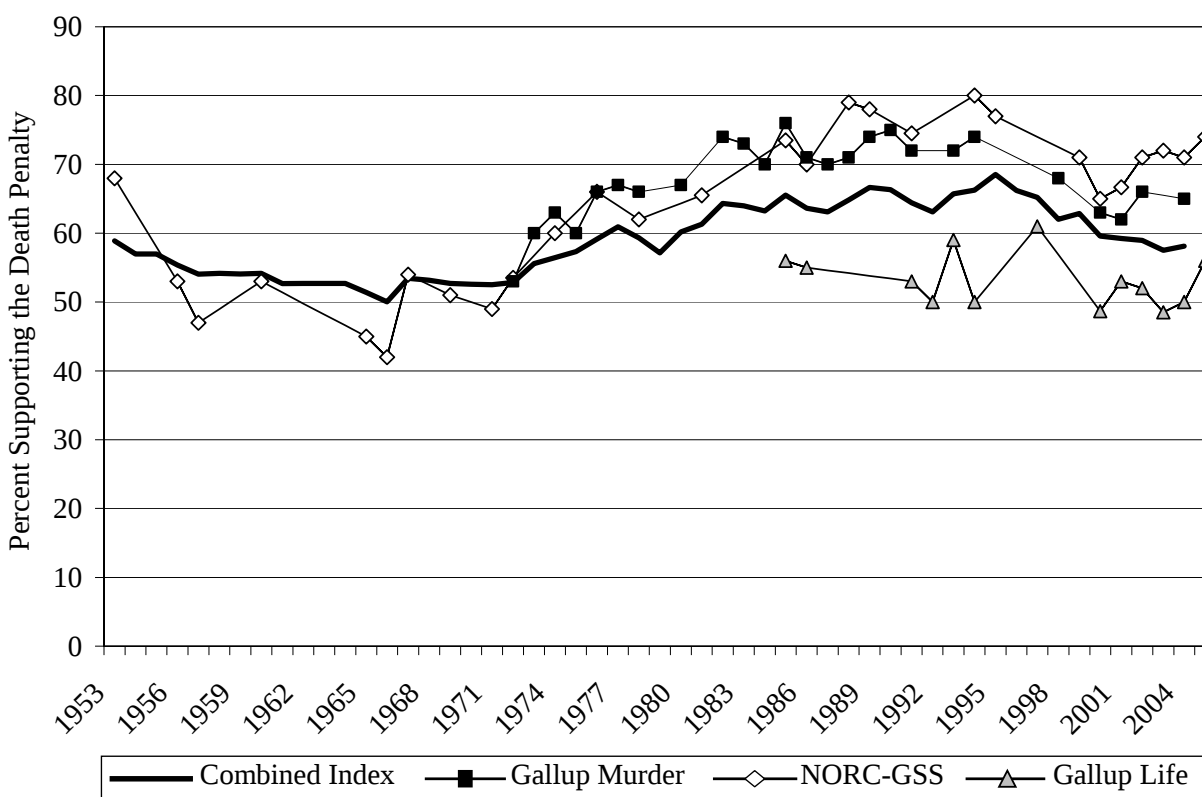


Figure 6.3. Public Support and Opposition to the Death Penalty, 1953–2004.

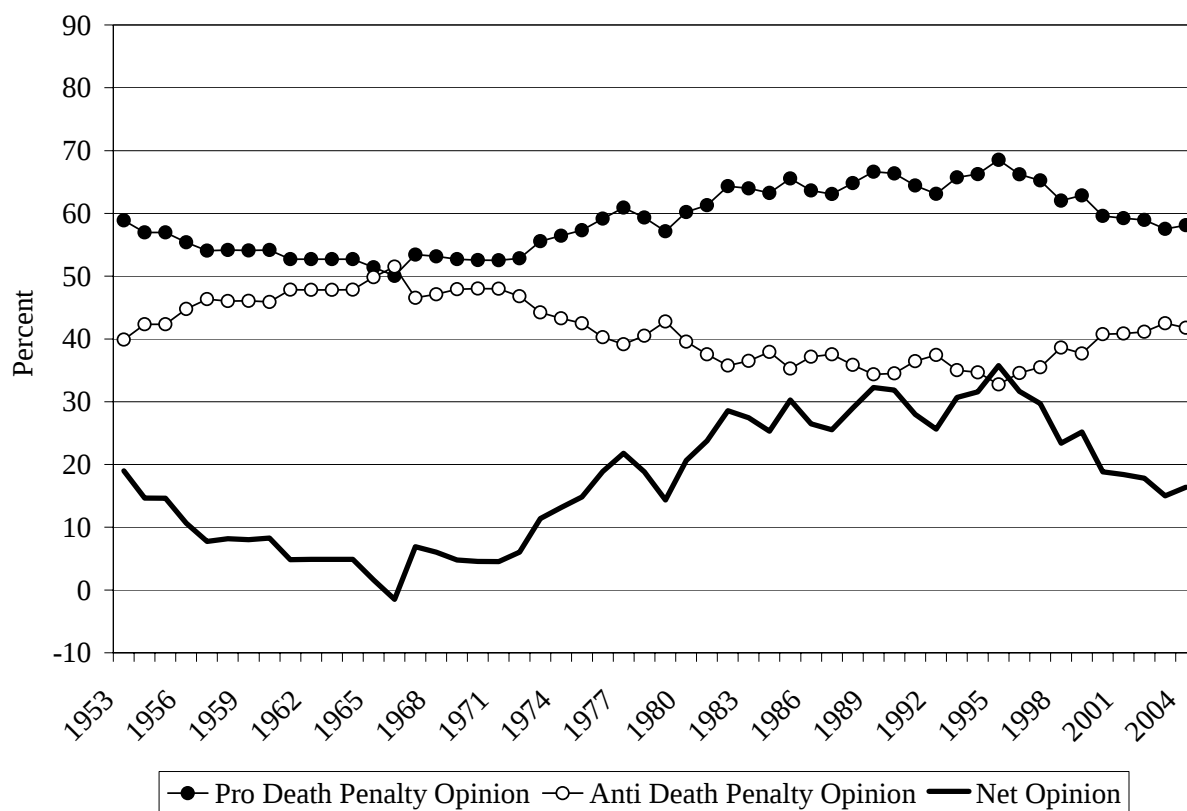


Figure 6.4. Public Attitudes, Measured Quarterly, 1985–2005.

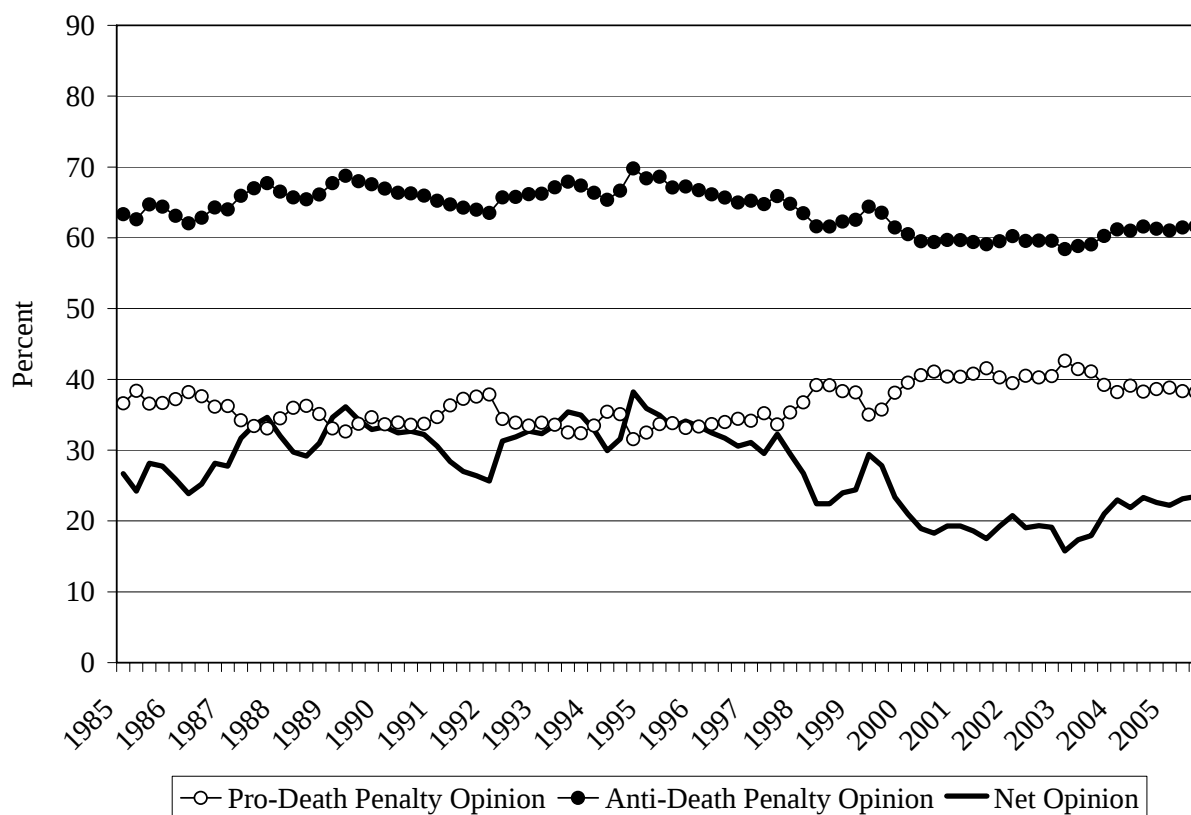
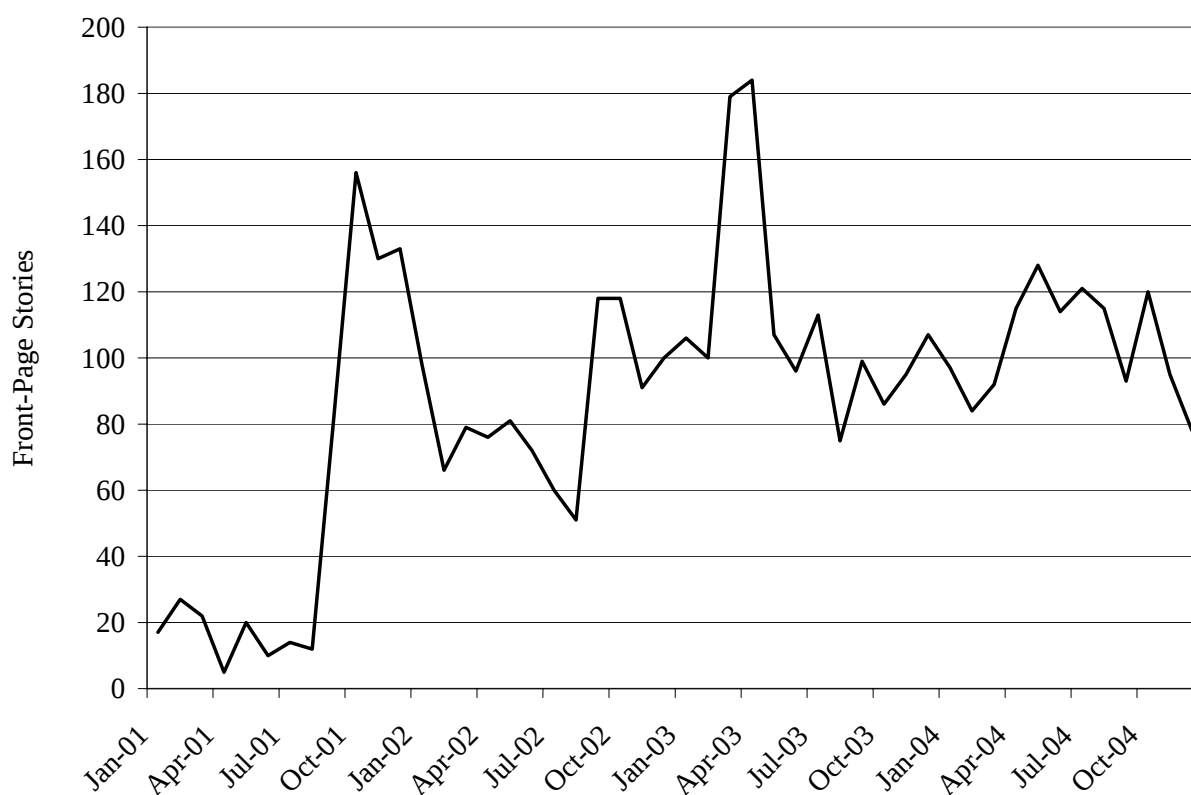


Figure 6.5. Front Page *New York Times* Coverage of the War on Terror, 2001–2004.

Note: The figure shows the number of articles appearing on the front page of the *New York Times* containing the words terror*, Iraq*, Afghanistan*, or Al Qaeda. Source: Lexis-Nexis search. During this period, the total number of front page stories averaged 277 and ranged from a low of 229 to a high of 315. One-hundred stories is therefore about 40 percent of the total.

Figure 6.6. Quarterly Net Opinion: Actual vs. Predicted Values

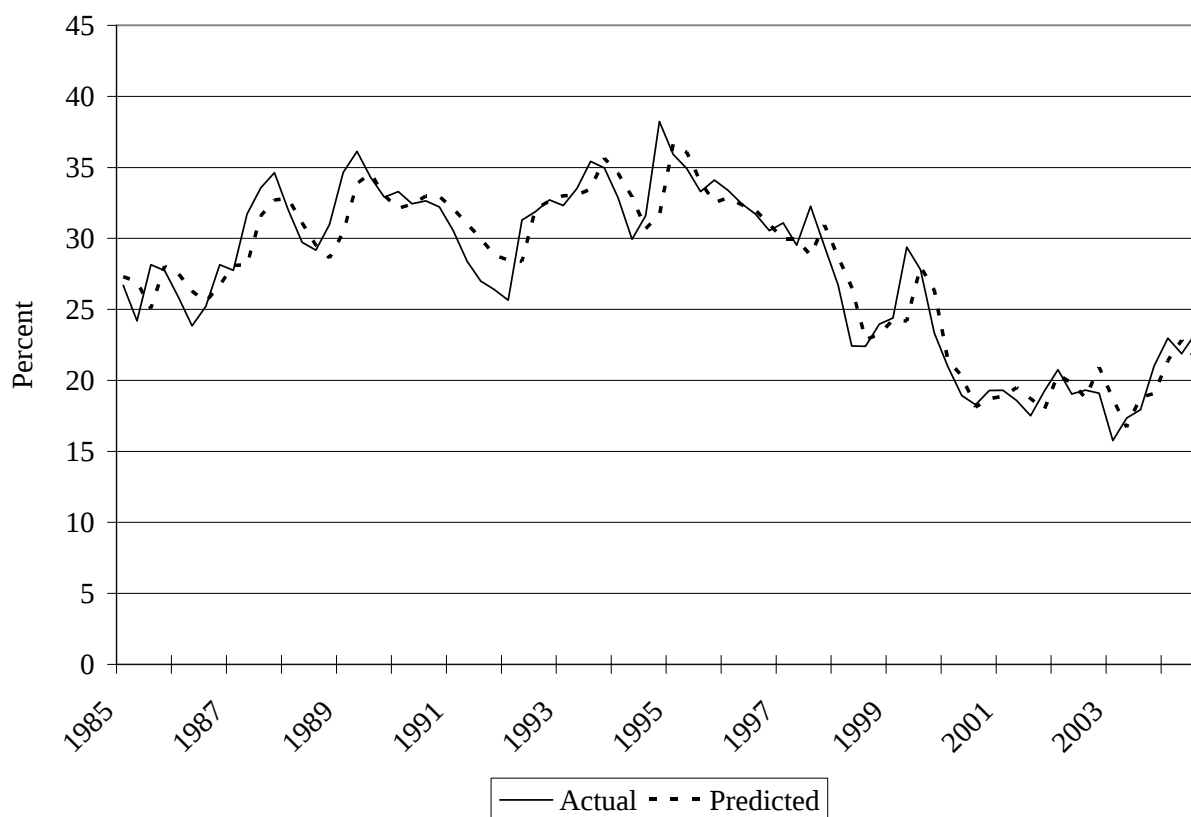
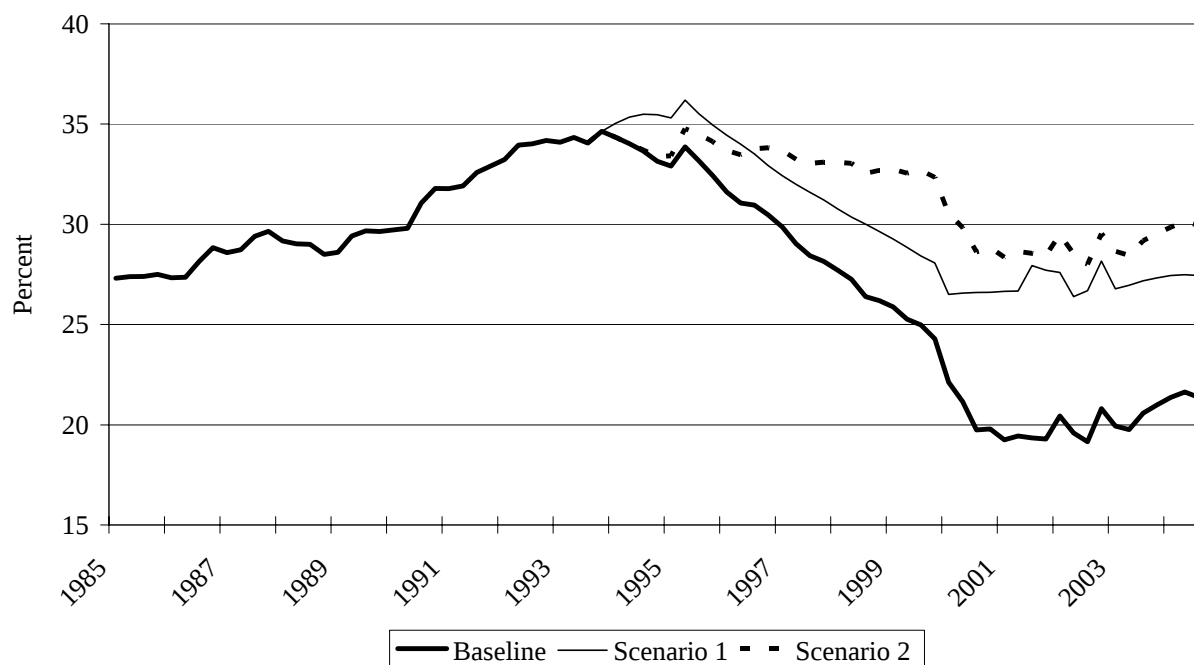
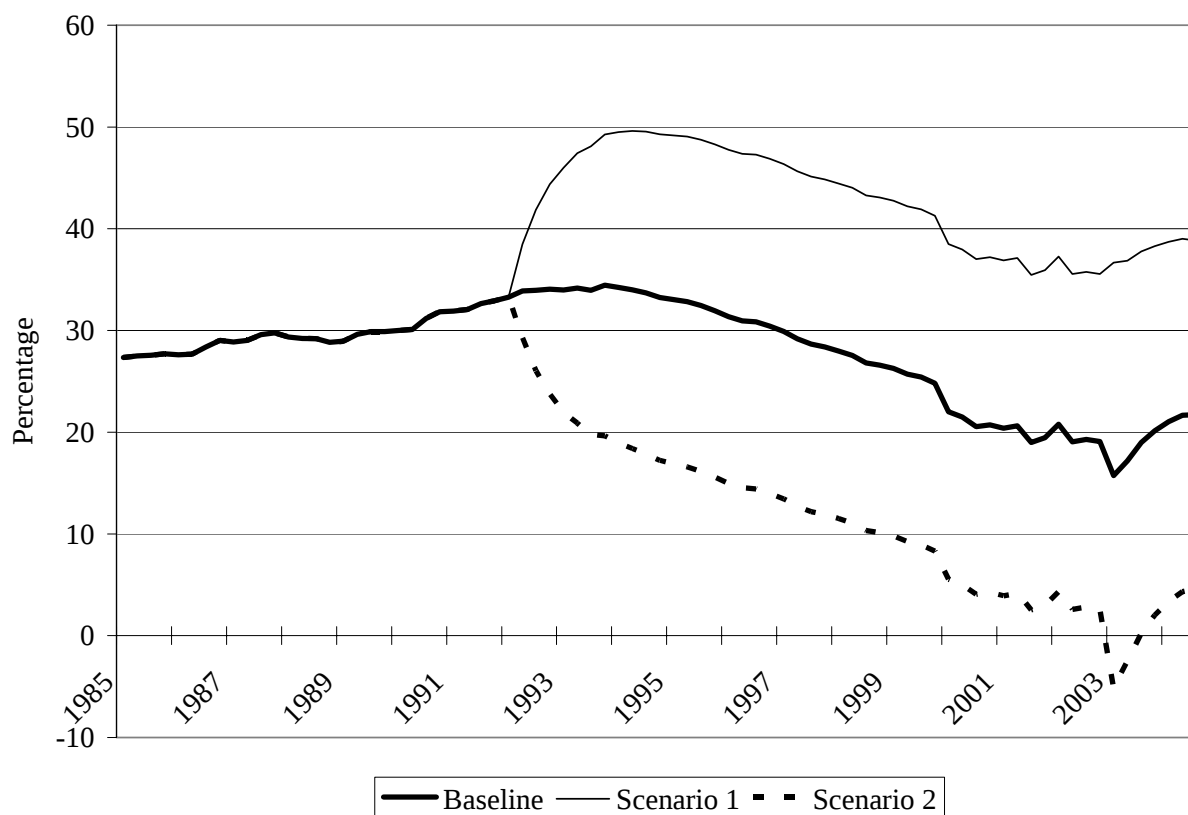


Figure 6.7. Simulating Public Opinion on the Death Penalty.



Note: The figure shows simulated public opinion compared to our baseline prediction from Figure 6.6. Scenario 1 shows the predicted level of Net Opinion if the Net Tone of media attention had achieved its actual value of +14 in the third quarter of 1993 and then remained constant at that level. Scenario 2 shows predicted Net Opinion under the case where homicides reached their value of 6132 in that same period and then never changed. In each scenario, values for all the other variables in the model retain their actual observed values.

Figure 6.8. Simulations of Public Opinion based on Two Composite Scenarios.



Note: The figure shows simulated public opinion compared to our baseline prediction from Figure 6.6. Scenario 1 shows the trace that public opinion would have followed if, in 1992 and thereafter, media coverage were 50 points more positive than actually observed, there were 2,000 more homicides per quarter, and the Illinois mass clemency in January 2003 had not occurred. Scenario 2 presents the opposite: media coverage 50 points more negative, 2,000 fewer homicides, and the Illinois event having twice its observed impact.

Table 6.1. Explaining Public Opinion on the Death Penalty, 1985–2004

	Net Opinion
Opinion _{t-1}	0.732 [*] (.067)
Net Tone _{t-1}	0.058 [#] (.032)
Homicides _{t-1} (in thousands)	1.11 ⁺ (.51)
Death Penalty Events _{t-1}	1.205 (.843)
Constant	2.033 (2.334)
R-Squared	.887
RMSE	1.99
StDev	5.78

Note: ^{*} denotes $p < .001$, ⁺ denotes $p < .05$, and [#] denotes $p < .10$, one tailed.

N = 79; data are quarterly from the first quarter of 1985 to the third quarter of 2004. Entries are regression coefficients (standard errors in parentheses). The dependent variable is the Net Opinion series from Figure 6.4.

Table 6.2. The Impact of Various Scenarios on Public Opinion.

Hypothetical Scenario	Projected Impact on Net Opinion
Reduce Net Tone of Media Coverage by 50	–11.12
Reduce Homicides by 2,000	–8.64
Have an Event Twice as Powerful as the Mass Commutation by Governor Ryan	–1.96
Both 1 and 2	–19.44
All Three Events	–21.40

The Table shows the long-term impact on Net Public Opinion of each change in the independent variables as listed. Individual events, occurring just once, have only a short term impact, lasting several quarters, so we show only the short term impact there. All the impacts are symmetrical, so the impact of events moving opinion in the pro-death penalty direction would be equal in size to those shown here.

Table 6A.1. Explaining Public Opinion on the Death Penalty, 1985–2004

	Opposition	Support	Net Opinion
Opinion _{t-1}	0.687 [*] (.074)	0.771 [*] (.060)	0.732 [*] (.067)
Net Tone _{t-1}	−0.033 [#] (.018)	0.026 [#] (.014)	0.058 [#] (.032)
Homicides _{t-1} (in thousands)	−0.61 ⁺ (.28)	0.50 ⁺ (.24)	1.11 ⁺ (.51)
Death Penalty Events _{t-1}	−0.575 (.477)	0.628 (.387)	1.205 (.843)
Constant	14.315 [*] (3.541)	12.221 [*] (3.402)	2.033 (2.334)
R-Squared	.841	.911	.887
RMSE	1.13	.915	1.99
StDev	2.84	2.99	5.78

Note: ^{*} denotes $p < .001$, ⁺ denotes $p < .05$, and [#] denotes $p < .10$, one tailed.

N for all models = 79; data are quarterly from the first quarter of 1985 to the third quarter of 2004. Entries are regression coefficients (standard errors in parentheses). The three dependent variables are the three series presented in Figure 6.4. The Net Opinion column is the same as that presented in Table 6.1.