

## TWO

### An Unlikely Policy Innovation

The emergence of targeted transparency as mainstream policy represents an unlikely political innovation. In recent years, national, state, local, and international policymakers have overcome political obstacles to require both private-sector organizations and public agencies to collect and share new facts about the risks they create and the quality of their performance. Legislators have mandated new transparency despite enduring values and political interests that usually favor secrecy. They have also overcome the resistance to innovation that generally characterizes democratic systems of government.<sup>1</sup> Their actions are all the more surprising because they have invented new transparency systems without any central direction and usually without knowledge that their actions are contributing to a broader policy change.

In this chapter we explore why such an unexpected development in governance has occurred at this moment in history by examining the growth of targeted transparency policies in the United States in recent decades. We begin by documenting the frequency with which targeted transparency has been legislated in recent years across many major policy areas.

We then review the development of government-mandated transparency in the United States. We find that three factors have helped to propel this new generation of transparency into mainstream policy. First, the maturing of an early generation of right-to-know transparency measures helped to prepare the way for targeted transparency policies. Second, crises that called for urgent responses to suddenly revealed risks or performance problems helped to overcome political forces that favored secrecy and that limited innovation. Finally, a generation of research by economists and cognitive psychologists concerning information failures and communication complexities helped to provide a rationale for government action. This chapter's study of the roots of targeted transparency provides a backdrop for our detailed evaluation of effectiveness in subsequent chapters.

## AN UNPLANNED INVENTION

In the last twenty years, targeted transparency policies have played a prominent role as a chosen policy response to a surprising number of national crises. In fact, ten of the fifteen U.S. targeted transparency policies analyzed in this book were created since 1986 (see Table 1.1), with a range of goals including improving the nutritional content of foods, reducing discrimination against minority groups in bank lending, minimizing sudden disruptions for workers and communities from plant closures, furthering patient safety, improving restaurant hygiene to reduce food poisoning, and cutting toxic pollution. These recent initiatives join long-standing disclosure requirements such as those designed to reduce financial risks faced by investors and to reduce risks of political corruption associated with campaign contributions by special interests.

A detailed review of federal regulations in the United States over the last decade reveals the importance of targeted transparency as a form of government intervention. In order to measure the extent of its use, we surveyed the Code of Federal Regulations for the calendar years 1996 to 2005, recording each final federal rule adopted during that period that employed targeted transparency. Using a variety of search terms and then applying a strict definition of targeted transparency, we found a total of 133 targeted transparency rules promulgated during this period.<sup>2</sup> Although it is difficult to estimate the total number of final regulations using other forms of government intervention over the same period, the absolute number itself underscores the importance of this approach as mainstream policy.

The scope of policies where targeted transparency has been applied is also quite striking. Table 2.1 provides examples from each of the ten years, illustrating the range of final regulations issued during this period.

Almost a quarter of the final regulations pertain to financial disclosure, with the majority of those regulations issued after 2000, in the wake of corporate reporting scandals. Regulations dealing with food and with drugs each account for about 15 percent of the total approved during the ten-year period. Disclosure policies related to consumer products – ranging from automobile crash and rollover risks to energy and water consumption of home appliances – also constitute a significant proportion of the final regulations, about 23 percent. The remaining policy areas include transparency requirements relating to the environment (about 7 percent), the workplace (about 5 percent), and an array of other topics.

This survey of recent federal regulations also points to several of the recurring themes of the book. First, as the examples in Table 2.1 suggest,

Table 2.1. *Selected Final Federal Regulations Regarding Targeted Transparency, Issued Between 1996 and 2005*

Year	Policy Area and Title of Final Rule	Description of Final Rule	Who Discloses?
1996	Drug safety – Sodium Labels for Over-the-Counter Drugs	Provides information on sodium content in OTC drugs similar to that found in nutritional labels	Drug manufacturers
	Consumer products – Energy Consumption and Water Use of Certain Home Appliances	Describes methods for the disclosure of energy-related operating costs of 8 categories of home appliances	Appliance manufacturers
1997	Food labeling – Serving Sizes Reference Amount for Specified Substances	Amends nutritional labeling to change reference amounts for customarily consumed food	Manufacturers of packaged foods
	Financial disclosure – Accounting Policies for Derivative Financial Instruments and Quantitative and Qualitative Information About Market Risk	Provides enhanced disclosure regarding accounting for derivatives found in financial statements	Domestic and foreign issuers of derivative financial instruments
1998	Food labeling – Irradiation in Production, Processing, and Handling of Food	Provides labeling of foods treated with radiation	Food manufacturers
	Water quality – National Primary Drinking Water Regulation – Consumer Confidence Reports	Requires community water systems to provide customers with annual reports of contaminants	Community water suppliers
1999	Consumer products – Consumer Information for Utility Motor Vehicles	Modifies rollover warnings required for small and mid-sized utility vehicles by requiring “alert” symbol to accompany previous text regarding possibility of rollover	Auto manufacturers

*(continued)*

Table 2.1 (continued)

Year	Policy Area and Title of Final Rule	Description of Final Rule	Who Discloses?
	Financial disclosure – Audit Committee Function	Requires that companies disclose in proxy statements the function of audit committees	Publicly traded companies
2000	Workplace disclosure – Enhanced Pension Plan Summary Descriptions Regarding Eligibility, Retirement Age, Cost-Sharing, and Other Provisions	Provides greater information to employees covered by pension plans about their benefits and coverage	Employers providing pension plans
	Workplace disclosure – Ergonomics Health Standard	Provides information regarding employee health risks (particularly musculoskeletal) associated with certain jobs and activities	Employers covered by OSHA
2001	Financial disclosure – Disclosure of Mutual Fund After-Tax Returns	Improves disclosure to investors of tax effects on mutual funds' performance	Mutual fund providers
2002	Consumer products – Consumer Complaints About Potential Defects in Automobiles	Requires auto manufacturers to collect and report consumer complaints	Auto manufacturers
	Mortgage lending – Loan Pricing Information	Provides information on mortgage lending practices that exceed certain benchmark levels	Banks/mortgage lenders
	Workplace disclosure – Hazardous Chemical Exposure to Miners	Requires mine operators to provide a written hazard communication program and material safety data sheets to employees	Mine operators
2003	Nutritional labeling – Trans-Fatty Acids	Requires that trans fats be disclosed in nutrition labels of purchased foods and dietary supplements	Food and supplement manufacturers

Year	Policy Area and Title of Final Rule	Description of Final Rule	Who Discloses?
	Labor union disclosure – Labor Union Annual Financial Information Regarding Revenues and Expenditures	Provides more extensive information on receipts, disbursements, and time allocation by union officers and employees toward specified activities	Labor unions
2004	Environmental protection – Hazardous Material Exposure in Communities	Increases requirements for hazard communication in the transportation of certain substances, including potential exposures in transportation incidents	Companies transporting hazardous chemicals
	Financial disclosure – Market Timing and Selective Disclosure of Portfolio Holdings	Requires disclosure regarding risks to shareholders of frequent purchases and redemptions of investment company shares	Investment management companies
2005	Financial disclosure – Accounting and Financial Reporting for Public Utilities	Requires enhanced financial reporting by public utilities information	Public utility companies

targeted transparency as an innovative form of regulation has been applied to virtually the full range of public policy problems that other forms of intervention – standards- and market-based regulation – have traditionally been deployed to address. These include reducing public exposure to health risks, reducing organizational corruption, and improving the provision of public goods like clean water and air.

Second, transparency has often been chosen as an initial – often tentative – response to emerging and thorny policy problems. For example, several years before tire malfunctions and auto rollovers gained national attention in a rash of Firestone Tire/Ford Explorer fatalities, regulators approved a rule to require auto manufacturers to collect and report consumer complaints to the government. Similarly, several narrowly constructed disclosure rules dealing with corporate governance appeared in

the years immediately before major corporate scandals at Enron and WorldCom.

A third and related point is that targeted transparency policies are subjected to ongoing refinement long after enactment. Many of the disclosure rules that deal with food refine provisions of the nutritional labeling law approved in 1990, providing specific guidance on what dietary outcomes are included (e.g., the addition of labeling regarding trans fats approved in 2003) or the basis for calculating daily allowances of different nutrients. The specific changes shown in Table 2.1 often arose from political battles between information disclosers, users, and government officials.

The large number of disclosure rules adopted in recent years to flesh out broad public policies like nutritional labeling, financial disclosure, and environmental toxic releases also demonstrate that crafting effective transparency policies is far from a simple matter. It is one thing to advocate that Congress give the public “more information” and quite another to devise systems that actually deliver the public benefits they set out to accomplish.

#### THE STRUGGLE TOWARD OPENNESS

The notion that public access to information is central to democratic governance has a long history in the United States. In often-quoted phrases that are carved into the exterior of the Library of Congress in Washington, D.C., James Madison declared: “A popular government without popular information or the means of acquiring it, is but a Prologue to a Farce or a Tragedy or perhaps both. Knowledge will forever govern ignorance and a people who mean to be their own Governours, must arm themselves with the power knowledge gives.”<sup>3</sup> John Stuart Mill noted the importance of permitting “the widest participation in the details of judicial and administrative business . . . above all by the utmost possible publicity and liberty of discussion.”<sup>4</sup>

However, political thinkers have also long understood that powerful forces stand in the way of the public’s access to information. Sociologist Max Weber warned that “[e]very bureaucracy seeks to increase the superiority of the professionally informed by keeping their knowledge and intentions secret.”<sup>5</sup> Senator Daniel Patrick Moynihan argued that “secrecy is an institution of the administrative state that developed during the great conflicts of the twentieth century.”<sup>6</sup> Political scientist Alan Altshuler noted that “people in government fear nothing more than newsworthy failure.”<sup>7</sup>

As a result, government action to increase transparency has remained a struggle. A first generation of legislated transparency, *right-to-know policies*,

gradually improved government openness. By the 1960s, national policies provided access to most government processes and files with the general aim of informing the public and guarding against arbitrary government action. A second generation of legislated transparency, *targeted transparency policies*, evolved from these right-to-know policies. Targeted transparency policies are more specific in their requirements and goals. They mandate access to precisely defined and structured factual information from private or public sources with the aim of furthering particular policy objectives. A nascent third generation of *collaborative transparency policies* has the potential to employ computer power and the Internet to combine information from first- and second-generation policies with a new user-centered orientation and a government facilitating role in order to create adaptable, real-time, customized information that reduces risks and public service flaws.

These three generations of transparency policy in the United States have proven complementary and overlapping. Targeted transparency did not lessen the need for right-to-know laws, nor will technology-enhanced collaborative transparency lessen the need for targeted disclosure requirements.

The generations of transparency policy also have much in common. Each has gained strength by a slow, evolutionary process with many setbacks. Each has been challenged by sometimes compelling arguments in defense of secrecy. Each has been dogged by persistent gaps between the public's legal right to data and the public's practical access to usable information. Each has also given rise to unintended consequences.

### A Slow March Toward Right-to-Know

In practice, the march toward government openness in the United States began early but proceeded slowly. Although the proceedings that created the U.S. Constitution were held in secret, with sentries posted at the State House doors in Philadelphia to turn away onlookers, the Constitution itself required that most deliberations of Congress be public. Article 1, Section 5, states: "Each House shall keep a Journal of its Proceedings, and from time to time publish the same, excepting such Parts as may in their Judgment require Secrecy." Likewise, Supreme Court arguments, from the first sessions held in 1790, were open to spectators.<sup>8</sup>

However, it was not until 1946 that Congress opened the regulatory proceedings of the executive branch to public view and participation. The Administrative Procedure Act of that year represented a belated and controversial response to mounting concerns about fairness and accountability that accompanied the extraordinary growth of federal agencies during the

New Deal and war years. The new law required executive branch agencies to publish the substance of and rationale for proposed and final regulations and to allow opportunity for public comment.<sup>9</sup>

More right-to-know laws adopted between 1960 and 1990 sought to further open the increasingly complex and voluminous proceedings and records of government to public view. The most far-reaching of these laws, the federal Freedom of Information Act (FOIA), initially adopted in 1966 and strengthened by later amendments, created a broad presumption that the public had a right to information held by government. It was enacted after a decade of debate as an acknowledgment that the Administrative Procedure Act had fallen short of its goals and “had come to be looked upon as more of a withholding statute than a disclosure statute.”<sup>10</sup>

In the Freedom of Information Act, Congress ambitiously tried to compress into a few paragraphs of legal prose the problematic balance between the need for open government and the need for secrecy in some deliberations. The law granted “any person” a right to receive data, transcripts, and other “agency records” in response to a formal request, unless disclosure threatened national security, personal privacy, or other interests specified in nine exemptions.<sup>11</sup> In time, all fifty states adopted right-to-know laws modeled after the federal statute.

Congress amended FOIA in the 1970s to narrow exemptions, speed disclosure, and increase oversight. An important further amendment in 1996 required agencies to make new records available electronically within a year of their creation and to make frequently sought records available on the Internet.<sup>12</sup>

Later federal right-to-know laws elaborated on the dual themes of informing the public about the workings of government and reducing the influence of narrow interests. In 1971, Congress required candidates for federal office to disclose campaign contributions and expenditures in order to reduce the political influence of large contributors, requirements that were substantially strengthened in later amendments.<sup>13</sup> The next year, Congress required that advisory committees appointed by agencies to help develop or implement policy make public their meetings and records in the hopes of reducing the influence of special interests.<sup>14</sup> In 1976, Congress required that government regulatory commissions also open their meetings to the public.<sup>15</sup>

Nonetheless, government transparency remained contentious. By the mid-1990s, nearly four thousand disclosure disputes involving the Freedom of Information Act had been decided by the courts, including nearly three dozen that were litigated all the way to the Supreme Court. Some centered on where to draw the line between openness and other competing values like



national security, privacy, and corporate trade secrets. Others challenged the administrative chasm between the law's promise and agency practice. Information seekers could gain information only if they could correctly identify its substance and location, and agencies sometimes took months or years to respond to FOIA requests.<sup>16</sup>

The drive toward transparency was also challenged by periodic executive branch efforts to expand secrecy. Executive orders and reinterpretations of right-to-know reduced public access to information during the Cold War with the Soviet Union, the Vietnam War, and other international conflicts.

Presidential leadership remained critical in establishing a climate of openness or secrecy. Beginning in 2001, for example, President George W. Bush created an extended period of retrenchment in public access to government information, driven both by national security concerns and by politics and bureaucratic instincts. After the terrorist attacks of September 11, 2001, federal agencies quickly removed thousands of pages about health and safety risks from government Web sites. They included reports about accidents, risks, and emergency plans at factories that handled dangerous materials, information about security breaches at airports, and reports on reservoirs and other water resources. Administration officials argued that making such information available on the Web created mosaics of opportunity for terrorists.<sup>17</sup>

But even before the attacks of September 11, the Bush administration had taken unprecedented steps to expand official secrecy. Early in 2001 Vice President Dick Cheney provoked the first-ever suit by Congress's General Accounting Office against the executive branch by refusing to reveal the names of energy-industry executives who had advised a task force he headed on energy policy. Also before September 11, the Justice Department began work on a policy to reverse a presumption in favor of disclosure by supporting agency actions to keep any information secret when there was a "sound legal basis" for withholding it. These unilateral executive branch actions, typically adopted without public debate, demonstrated once again how much discretion officials had to foster or restrict public access to information.<sup>18</sup>

Right-to-know policies also produced unexpected consequences. Open government proved surprisingly costly. By the mid-1990s, the executive branch was processing more than half a million requests for information each year at a cost of about \$100 million. Even more surprising, few individual citizens used the law to gain information about their government. Nearly all FOIA requests came from businesses seeking to gather information about other businesses. Fifteen years after the law was passed, the General Accounting Office reported that 82 percent of requests came from business,

nine percent from the press, and only 1 percent from individuals or public interest groups.<sup>19</sup>

### Targeted Transparency Emerges

Targeted transparency policies grew out of right-to-know measures but were more ambitious in their goals and requirements. While right-to-know policies aimed generally to create a more informed public, targeted transparency policies aimed to reduce specific risks or improve particular aspects of public services. While right-to-know policies required simply that existing government reports and other documents be made available to the public, targeted transparency policies required that government agencies, companies, and other private-sector organizations collect, standardize, and release factual information to inform public choices. Sometimes such information was new even to the agency or corporation that collected it.

Most targeted transparency policies overcame political obstacles because they were serendipitous inventions that responded to perceived crises. They were the creations of stock market crashes, toxic chemical accidents, bank discrimination, and perceived public school failure. They were adopted as last-ditch compromises or as eleventh-hour add-ons to larger legislative measures. Their inventors were executive branch officials, senators or House members, congressional staffers, advocacy groups, and scholars.

With rare exceptions, those who drafted the requirements did not know they were helping to create a mainstream policy tool. Like most lasting changes in democratic governance, transparency policies percolated up through the political system as pragmatic responses to problems that seemed to call for public action. Newly revealed risks or service flaws momentarily caught the public's attention, creating a political opportunity for innovative remedies. The policies' creators were simply solving pressing problems.

If these policies in one sense represented a surprising political innovation, in another sense they represented the next logical step in a long progression of government mandates to place vital information in the public domain. Like first-generation transparency policies, the second-generation policies that became common in the 1980s and 1990s had important historic precursors that created a foundation for political innovation.

In the early 1900s, Congress began requiring accurate product labeling and adding statutory requirements to the common-law duty that held manufacturers responsible for warning the public about foreseeable harm from their products. The Pure Food and Drug Act of 1906 required the accurate labeling of packaged foods shipped in interstate commerce, and the

Insecticide Act of 1910 required labeling of pesticide products, for example. Among the best-known legislated product safety warnings are the statements prominently printed on labels of alcoholic beverages and tobacco products.<sup>20</sup>

In what remains the United States' most sophisticated and familiar targeted transparency policy, Congress required companies to inform investors about financial risks after the collapse of American financial markets in 1929. In the Securities and Exchange Acts of 1933 and 1934, Congress required publicly traded companies to disclose financial information to investors in quarterly and annual accounts.<sup>21</sup>

In the mid-1980s, growing concern about pollution and workplace hazards led to issue-specific right-to-know requirements that represented a bridge between first-generation and second-generation transparency policies. In *A Citizen's Right to Know*, Susan G. Hadden traces parallel efforts by labor unions and environmental groups beginning in the 1970s to gain access to information about toxic chemicals in the workplace and in communities. By the mid-1980s, those efforts had merged. Philadelphia, Cincinnati, and several cities in California required public disclosure of both workplace and public chemical hazards. California voters also approved Proposition 65 in 1986, which required businesses that exposed the public to more than minimal levels of certain toxins to inform the public of those risks.<sup>22</sup>

These disclosure requirements for toxic hazards featured all the characteristics of targeted transparency policies but cloaked them in right-to-know language. For instance, a 1983 federal Occupational Safety and Health Administration (OSHA) rule required employers to inform workers of chemical risks in the workplace by posting structured factual information (material safety data sheets) about specific chemicals for the purpose of improving employees' safety and health.<sup>23</sup> In 1986, Congress required manufacturers to make annual disclosures of toxic pollution released into the environment, factory by factory and chemical by chemical. The results of this little-noticed right-to-know mandate surprised the federal regulators and environmental groups that had been working for decades to reduce such pollution. Even before the first company reports, executives of some large companies made commitments to reduce this pollution by as much as 90 percent. The mere *anticipation* of bad publicity had created strong incentives to improve environmental protection. Ten years later, reported toxic releases had been reduced by half, and federal environmental officials were referring to this modest right-to-know measure as one of the nation's most effective environmental safeguards. Targeted transparency, an accidental innovation, had become accepted as part of mainstream environmental policy.<sup>24</sup>

## WHY DISCLOSURE?

Why have policymakers turned to targeted transparency policies in the last twenty years – particularly in a market-based economy, where companies presumably have significant incentives to provide sufficient information on their own?

In fact, a number of economists have argued *against* the need for such policies on precisely these grounds. The logic behind their view is straightforward. On one hand, if a firm has favorable information about its products or services, it will benefit from voluntary disclosure. On the other hand, if a firm has unfavorable information that it fails to disclose, that refusal should lead consumers to draw negative conclusions about the firm and its products or services. These consumer responses will either cause the price of the goods to fall (because of the lower quality implied by the failure to disclose) or create an incentive for the firm to improve its products or services and then disclose.<sup>25</sup> In the world described by this theory, transparency policies are at best redundant and at worst costly mandates that force organizations to disclose information they would readily release on their own.

Ronald Coase's seminal paper "The Problem of Social Cost" provided a different argument for a limited information-focused approach to address problems like environmental damage. Coase showed that parties facing low transactions costs should be able to resolve problems like pollution privately and reach socially desirable outcomes through bargaining. In particular, if both polluters and those harmed by pollution had information about the problem, self-interested negotiations could lead to a solution that left both parties – and society – better off. If information was readily available to the parties, legislated transparency was not necessary.

A generation of research, however, points out why these theoretical conclusions may seldom apply in practice and therefore why transparency policies may be socially beneficial. Markets alone often do not provide the information needed by consumers, investors, and employees to make informed choices. And even when sufficient information is available, people do not always process that information accurately and logically when making decisions. As a result, bargaining over pollution and other risks may not lead to the socially optimal outcomes Coase described.<sup>26</sup>

Together, these insights indicate that the natural flow of information in an unfettered marketplace and its application by individuals to real-world decision making may not always lead to the optimal outcomes predicted by economic theory. Understanding these problems of information processing

provides insight into how transparency policies might help redress them. But it also suggests why such policies may be difficult to implement.

### Imperfections of Real-World Information

One of the fundamental assumptions underlying classical economic theory is the availability of perfect information to the actors in an economic system. Armed with all the information they need, individuals, firms, and markets allocate scarce social resources efficiently in transactions mediated principally by signals sent by prices.<sup>27</sup> This picture is appealingly simple and clear – but it is also inaccurate.

A wide-ranging set of theoretical and empirical papers produced in recent years demonstrates that even relatively small imperfections in information can dramatically change the behaviors of businesses, consumers, workers, and other economic actors, producing inefficiencies that scuttle the neat predictions of social welfare economics.<sup>28</sup>

There are three major problems that lead to imperfect information in the marketplace and, in turn, to the misallocation of financial and social resources. The first arises because of the peculiar nature of information itself.

New information has one of the central characteristics of a so-called public good: its consumption is *non-rival*, meaning that new information can be consumed by one party without diminishing its value to another party. Consequently, actors in private markets will either produce less-than-optimal amounts of information or attempt to limit access to information in order to capture economic value from its production. Either way, private incentives lead to the dissemination of too little information, and so society as a whole should benefit from policies that lead to its increased provision.<sup>29</sup>

Disparities in information – *information asymmetries* – among the actors and organizations of a market economy lead to two additional problems.

The first problem, known as *adverse selection*, arises in cases where the underlying characteristics of the subject of a transaction vary, with one party to the transaction having more information about those characteristics than the other. The subject of a transaction might be a product, a service, a job, or an investment – anything being traded for money in the marketplace. Its characteristics might include its quality, productivity, or risks associated with it.

Adverse selection reflects the fact that there is considerable uncertainty in markets about the underlying characteristics of products or services beyond those expressed in price or readily observable by a consumer. The classic

example is the so-called lemons problem described by George Akerlof.<sup>30</sup> Because the seller of a used car knows much more about its underlying characteristics than any buyer, a buyer must make guesses about the car's quality, which will tend to lower its perceived value. Furthermore, used cars on the market are likely to be of relatively low quality, because owners are more likely to hold onto cars with fewer problems. As a result, even if one is selling a high-quality used car, information asymmetry leads it to have a lower market value than it would have if complete and accurate information were generally available.

In similar fashion, because sellers of health insurance are unable to observe the underlying state of health of those seeking insurance policies, and because those with more severe health problems will be more likely to seek coverage, premiums will tend to be priced higher than they would be in a world of perfect information. Adverse selection, then, leads to market transactions that are less optimal than would be the case if all parties were fully informed.

Information asymmetries also lead to a second class of problems, related to *moral hazard*. Moral hazard occurs when one party to a market transaction cannot directly observe the actions of another party. Many economic transactions involve one party agreeing to act in return for payment – for example, employees work in exchange for wages, while managers run a company in exchange for salaries. But because it is costly for the party contracting for the services to observe the party who has been hired to carry them out, the actual behavior of the executing party may diverge from the desired behavior – employees may nap rather than work, managers may run the company to maximize their incomes rather than long-term shareholder value, and so on.

Similar perverse incentives may exist in non-employment transactions. For example, households purchasing fire insurance may become less vigilant about fire safety, leaving the insurer more vulnerable to claims. As a result of moral hazard, contracting parties must seek means to monitor behavior or create incentives to compensate for their inability to do so, while other contracting parties have incentives to take advantage of the fact that observing their behavior is costly.

These three problems imply that (1) information will tend to be under-produced in markets; (2) real-world market transactions will differ significantly from those in a world where information is costless to obtain; and (3) individuals, firms, and companies will have different incentives to resolve information asymmetries. In the words of economist Joseph Stiglitz, “[R]esults of information economics show forcefully that the

long-standing hypothesis that economies with imperfect information would be similar to economies with perfect information – at least so long as the degree of information imperfection was not too large – has no theoretical basis.”<sup>31</sup>

Of course, government intervention is not the only possible response to information asymmetries. Private parties and institutions often use different types of contracts and organizational forms to compensate for these problems. For example, “efficiency wage” theory predicts that wages in certain settings will be set above what would be predicted under a model with perfect information about worker activity as a means of boosting productivity. However, the economics of information literature does suggest the potentially important role that government-mandated disclosure may play in some instances.

### Difficulties of Comprehension

Information, then, is neither costless to acquire and share nor equally available to all parties in market transactions. But even if it were, a second set of insights offered by cognitive and behavioral psychologists, sociologists, and economists challenge the notion that people with access to information will use it to make rational decisions. Building on the pioneering work of Herbert Simon, these researchers use the term *bounded rationality* to describe how people make decisions individually, in groups, and in organizations. Even in the presence of seemingly objective information, individuals are prone to a host of cognitive distortions that may lead them to make decisions far different from those predicted in a world of perfect rationality.<sup>32</sup>

Consider the following examples of the kinds of cognitive errors people tend to commit when making decisions with uncertain outcomes:<sup>33</sup>

- People tend to substantially overestimate risks associated with unlikely events over which they have little control (such as chemical accidents or airplane crashes). By contrast, they tend to underestimate risks posed by events in which they perceive themselves as having greater control (such as smoking, eating high-fat foods, or speeding on the highway).<sup>34</sup>
- People are more likely to take action to reduce risks when outcomes are described in graphic (rather than clinical) terms. In the extreme case, they will pay little attention to different probabilities of risk if the outcomes have highly emotional and negative consequences.<sup>35</sup>
- People do not seek or use information about risks even when making risk-related purchases. For example, when buying product warranties,

customers do not seek out information about the probabilities of repair, even when it is available.<sup>36</sup>

- People regard a loss of a given magnitude as having a much higher value than an equivalent gain. This form of “loss aversion” applies even to gains and losses of relatively small amounts.<sup>37</sup>

These and other behavioral responses mean that information – whatever its source – may not always lead people to make decisions in their individual or collective best interest. This finding has direct implications for policies that mandate information disclosure.

First, people may make decisions contrary to the public interest in response to information about risks. For example, the public may over-react to information about a potential terrorist threat whether provided by “voluntary” media reporting or by an announcement from the Department of Homeland Security.

Second, organizations have incentives to “game” the release of information to take advantage of common cognitive distortions. This dynamic applies to companies seeking to expand demand for their products, policy advocates seeking to affect political outcomes, candidates seeking votes, and government agencies attempting to expand public support for their programs. It also implies that transparency policies create both opportunities and dangers.

Third, even when some compelling public interest supports disclosure, providing information in a way that leads to desired changes in behavior may be very difficult. As political scientist Cass Sunstein notes with regard to disclosure of information concerning health risks:

An understanding of the nature of fear raises cautionary notes about disclosure policies. . . . The problem is not simply that people may well misunderstand risk disclosures, seeing the hazard as far greater than it is in fact. The problem is also that the disclosure may greatly alarm people, causing various kinds of harms, without giving them any useful information at all.<sup>38</sup>

So it may not be enough for disclosure systems to provide, in the words of Sergeant Joe Friday of *Dragnet*, “Just the facts, ma’am.” Such systems may need to aggregate, translate, simplify, or benchmark the facts so that resulting decisions fit the objectives that motivated disclosure in the first place. One reason these systems often fall short is that their creators fail to recognize that potential users may not respond in the ways that models of rational behavior predict.