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Empirically Informed Regulation

Cass R. Sunstein[†]

Abstract

In recent years, social scientists have been incorporating empirical findings about human behavior into economic models. These findings offer important insights for thinking about regulation and its likely consequences. They also offer some suggestions about the appropriate design of effective, low-cost, choice-preserving approaches to regulatory problems, including disclosure requirements, default rules, and simplification. A general lesson is that small, inexpensive policy initiatives can have large and highly beneficial effects. In the United States, a large number of recent practices and reforms reflect an appreciation of this lesson. They also reflect an understanding of the need to ensure that regulations have strong empirical foundations, both through careful analysis of costs and benefits in advance and through retrospective review of what works and what does not.

Our regulatory system . . . must measure, and seek to improve, the actual results of regulatory requirements.

. . .

[E]ach agency shall identify and consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public. These approaches include warnings, appropriate default rules, and disclosure requirements as well as provision of information to the public in a form that is clear and intelligible.

Executive Order 113563¹

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¹ Executive Order 13563 §§ 1, 4, 76 Fed Reg 3821, 3821-22 (2011).

INTRODUCTION

In recent years, a number of social scientists have been incorporating empirical findings about human behavior into economic models. These findings offer useful insights for thinking about regulation and its likely consequences. They also offer some suggestions about the appropriate design of effective, low-cost, choice-preserving approaches to regulatory problems, including disclosure requirements, default rules, and simplification.²

A general lesson is that small, inexpensive policy initiatives can have large and highly beneficial effects.³ The purpose of this Essay is to explore relevant evidence, to catalogue recent practices and reforms, and to discuss some implications for regulatory policy. And while the primary focus is on small, inexpensive regulatory initiatives, there is a still more general theme, which involves the importance of ensuring that regulations have strong empirical foundations, both through careful analysis in advance and through retrospective review of what works and what does not.

I. FINDINGS AND CONCERNS

A. Findings

For purposes of regulation, the central findings⁴ of recent social science research fall in four categories. What follows is not meant to be a

² See generally William J. Congdon, Jeffrey R. Kling, and Sendhil Mullainathan, Policy and Choice: Public Finance through the Lens of Behavioral Economics (Brookings 2011) (describing implications of behavioral economics for public finance); Peter Diamond and Hannu Vartiainen, eds, Behavioral Economics and Its Applications (Princeton 2007) (examining behavioral dimensions of public economics; economic development; law and economics; health, wage determination, and organization economics); Hugh Schwartz, A Guide to Behavioral Economics (Higher Education 2008) (providing an introduction to behavioral economics for a general audience). Office of Information and Regulatory Affairs (OIRA) has provided guidance on disclosure and simplification as regulatory tools. See Cass R. Sunstein, Administrator, OIRA, Memorandum for the Heads of Executive Departments and Agencies, Disclosure and Simplification as Regulatory Tools (June 18, 2010), online at http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/disclosure_principles.pdf (visited Jan 15, 2011).

³ For a similar claim in another context, see Abijit V. Banerjee and Esther Duflo, Poor Economics: A Radical Rethinking of the Way to Fight Poverty 267-73 (2011).

⁴ See generally Thomas Gilovich, Dale Griffin, and Daniel Kahneman, eds, Heuristics and Biases: The Psychology of Intuitive Judgment (Cambridge 2002) (compiling research on how people make judgments); Daniel Kahneman and Amos Tversky, eds, Choices, Values, and Frames (Cambridge 2000).

comprehensive account of recent empirical findings; the focus is on those findings that have particular importance to regulatory policy.

1. Inertia and procrastination.

a) Default rules often have a large effect on social outcomes. Both private and public institutions often establish “default rules”—rules that determine the result if people make no affirmative choice at all. In part because of the power of inertia, default rules can be extremely important. In the domain of retirement savings, for example, the default rule has significant consequences. When people are asked whether they want to opt in to a retirement plan, the level of participation is far lower than if they are asked whether they want to opt out.⁵ Automatic enrollment significantly increases participation. More generally, people may decline to change from the status quo even if the costs of change are low and the benefits substantial.⁶ It follows that complexity can have serious adverse effects, by increasing the power of inertia, and that ease and simplification (including reduction of paperwork burdens) can produce significant benefits. These benefits include increased compliance with law and greater participation in public programs.

b) Procrastination can have significant adverse effects. According to standard economic theory, people will consider both the short term and the

⁵ See Brigitte C. Madrian and Dennis F. Shea, The Power of Suggestion: Inertia in 401(k) Participation and Savings Behavior, 116 Q J Econ 1149, 1184 (2001). For a discussion of the effect of inertia on choices of travel modes, see Alessandro Innocenti, Patrizia Lattarulo, and Maria Grazia Pazienza, Heuristics and Biases in Travel Mode Choice *20 (LabSi Working Paper No 27/2009, Dec 2009), online at <http://www.labsi.org/wp/labsi27.pdf> (visited Apr 3, 2011).

⁶ See William Samuelson and Richard Zeckhauser, Status Quo Bias in Decisionmaking, 1 J Risk & Uncertainty 7, 8 (1988); Madrian and Shea, 116 Q J Econ at 1176-77 (cited in note 3). With respect to the effects of complexity, consider the finding that efforts to ease and simplify household water connections in Morocco, and thus to create a private tap at home, produced substantial time gains and improvements in self-reported well-being. See Florencia Devoto, et al, Happiness on Tap: Piped Water Adoption in Urban Morocco *3-6 (MIT Department of Economics Working Paper No 11-05, Apr 2011), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1803576 (visited Aug 24, 2011). A noteworthy finding here is that the mere reduction of informational and administrative barriers produced large benefits, thus “underscor[ing] the power of the status quo and the potentially high returns of designing programs with simplicity and ease of access in mind.” Id at *6. See also Peter Tufano, Just Keep My Money! Supporting Tax-Time Savings with US Savings Bonds *26 (Harvard Business School Working Paper No 09-059, Aug 2010), online at <http://www.hbs.edu/research/pdf/09-059.pdf> (visited Aug 24, 2011) (finding that savings products, in particular US Savings Bonds, are significantly more likely to be chosen if the process for choosing them is eased and simplified).

long term. They will take account of relevant uncertainties; the future may be unpredictable, and significant changes may occur over time. They will appropriately discount the future; it may be better to have money, or a good event, a week from now than a decade from now. In practice, however, some people procrastinate or neglect to take steps that impose small short-term costs but that would produce large long-term gains.⁷ They may, for example, delay enrolling in a retirement plan,⁸ starting to exercise, ceasing to smoke, or using some valuable, cost-saving technology.⁹

One implication is that some people make choices that have short-term net benefits but long-term net costs (as is the case, for many, with smoking cigarettes); another implication is that some people fail to make choices that have short-term net costs but long-term net benefits (as is the case, for some, with choosing more energy-efficient products). Procrastination, inertia, hyperbolic discounting,¹⁰ and associated problems of self-control¹¹ are especially troublesome when the result is a small short-term gain at the expense of large long-term losses. There is a close connection between procrastination and myopia, understood as an excessive focus on the short-term.¹²

When procrastination is creating significant problems, automatic enrollment in relevant programs might be helpful. Moreover, complex

⁷ See Ted O'Donoghue and Matthew Rabin, Choice and Procrastination, 116 Q J Econ 121, 121-22 (2001); Richard H. Thaler and Shlomo Benartzi, Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving, 112 J Pol Econ S164, S168-69 (2004). In the context of poverty, see Banerjee and Duflo, Poor Economics at 64-68 (cited in note 3). For a popular treatment, see generally Piers Steel, The Procrastination Equation: How to Stop Putting Things Off and Start Getting Stuff Done (Harper 2011).

⁸ See Dean Karlan, et al, Getting to the Top of Mind: How Reminders Increase Saving *1, 14 (Yale Economics Department Working Paper No 82, 2010), online at <http://karlan.yale.edu/p/Top-of-Mind-April2010.pdf> (visited Apr 3, 2011).

⁹ See Esther Duflo, Michael Kremer, and Jonathan Robinson, Nudging Farmers to Use Fertilizer: Evidence from Kenya *4-5 (NBER Working Paper No 15131, 2009), online at http://econ.arizona.edu/docs/Seminar_Papers/DufloS09.pdf (visited Apr 3, 2011) (finding that farmers in Western Kenya do not make economically advantageous fertilizer investments, but that a small, time-limited discount on the cost of acquiring fertilizer can increase investments, thus producing higher welfare than either a laissez-faire approach or large subsidies).

¹⁰ See David Laibson, Golden Eggs and Hyperbolic Discounting, 112 Q J Econ 443, 445 (1997).

¹¹ See Richard Thaler and H.M. Shefrin, An Economic Theory of Self-Control, 89 J Pol Econ 392, 404 (1981). For an interesting application, see Jonathan H. Gruber and Sendhil Mullainathan, Do Cigarette Taxes Make Smokers Happier?, 5 *Advances in Econ Analysis & Pol* 1, 20 (2005).

¹² See Shlomo Benartzi and Richard H. Thaler, Myopic Loss Aversion and the Equity Premium Puzzle, 110 Q J Econ 73, 88 (1995).

requirements, inconvenience, and lengthy forms are likely to make the situation worse and perhaps unexpectedly so.

c) When people are informed of the benefits or risks of engaging in certain actions, they are far more likely to act in accordance with that information if they are simultaneously provided with clear, explicit information about how to do so.¹³ For example, those who are informed of the benefits of a vaccine are more likely to become vaccinated if they are also given specific plans and maps describing where to go.¹⁴ Similarly, behavior has been shown to be significantly affected if people are informed, not abstractly of the value of “healthy eating,” but specifically of the advantages of buying 1 percent milk (as opposed to whole milk).¹⁵ In many domains, the identification of a specific, clear, unambiguous path or plan has an important effect on social outcomes; complexity or vagueness can ensure inaction, even when people are informed about risks and potential improvements.¹⁶ What appears to be skepticism or recalcitrance may actually be a product of ambiguity.

¹³ See Howard Leventhal, Robert Singer, and Susan Jones, Effects of Fear and Specificity of Recommendation upon Attitudes and Behavior, 2 J Personality & Soc Psych 20, 27 (1965); David W. Nickerson and Todd Rogers, Do You Have a Voting Plan? Implementation Intentions, Voter Turnout, and Organic Plan Making, 21 Psych Sci 194, 198 (2010) (showing that people are significantly more likely to vote if asked to identify when and where they will vote). For a popular treatment with citations to the academic literature, see Chip Heath and Dan Heath, Switch: How to Change Things When Change Is Hard 15-17 (Broadway Books 2010).

¹⁴ See Leventhal, Singer, and Jones, 2 J Personality & Soc Psych at 22, 27-28 (cited in note 13).

¹⁵ See Heath and Heath, Switch at 15-17 (cited in note 13) (describing the effects of a targeted milk marketing campaign in West Virginia, which changed the local market share of low-fat milk from 18 percent to 35 percent over a six-month period).

¹⁶ See Jason Riis and Rebecca Ratner, Simplified Nutrition Guidelines to Fight Obesity, in Rajeev Batra, Punam Anand Keller, and Victor J. Strecher, eds, Leveraging Consumer Psychology for Effective Health Communications: The Obesity Challenge 333, 334 (ME Sharpe 2011) (discussing the importance of simplicity for health-related communications). [AP] For examples of specific advice in connection with dietary guidelines, see also Selected Messages for Consumers (USDA Jan 2011), online at <http://www.cnpp.usda.gov/Publications/DietaryGuidelines/2010/PolicyDoc/SelectedMessages.pdf> (visited Apr 4, 2011). These take the form of relatively specific guidance, such as, “Make half your plate fruits and vegetables,” “Switch to fat-free or low-fat (1%) milk,” and “Drink water instead of sugary drinks.” Consider Katherine L. Milkman, et al, Using Implementation Intentions Prompts to Enhance Influenza Vaccination Rates *4-7 (NBER Working Paper No 17183, June 2011), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1879044 (visited Aug 24, 2011) (finding that people are significantly more likely to become vaccinated if they are given a prompt that asks them to write

2. Framing and presentation.

a) People can be influenced by how information is presented or “framed.”¹⁷ If, for example, people are informed that they will gain a certain amount of money by using energy efficient products, they may be less likely to change their behavior than if they are told that they will lose the same amount of money by not using such products.¹⁸ When patients are told that 90 percent of those who have a certain operation are alive after five years, they are more likely to elect to have the operation than when they are told that after five years, 10 percent of patients are dead.¹⁹ It follows that a product that is labeled “90 percent fat-free” may well be more appealing than one that is labeled “10 percent fat.” It also follows that choices are often not made based solely on their consequences; assessments may be affected by the relevant frame. The importance of the particular frame depends on context; for healthy eating, gain-framed and loss-framed appeals do not show substantially different effects, while for physical activity, gain-framed appeals are actually more effective.²⁰

down the date and time when they will do so, while also finding that a prompt that simply asks them to write down the date has no such effect). See also the discussion of the replacement of the “Food Pyramid” with the “Food Plate” accompanying notes 115-117.

¹⁷ See Irwin P. Levin, Sandra L. Schneider, and Gary J. Gaeth, All Frames Are Not Created Equal: A Typology and Critical Analysis of Framing Effects, 76 *Org Behav & Hum Dec Processes* 149, 150 (1998).

¹⁸ See Marti Hope Gonzales, Elliot Aronson, and Mark A. Costanzo, Using Social Cognition and Persuasion to Promote Energy Conservation: A Quasi-Experiment, 18 *J Applied Soc Psych* 1049, 1062 (1988). For a demonstration that people’s decisions about when to claim social security benefits are affected by framing, see Jeffrey R. Brown, Arie Kapteyn, and Olivia S. Mitchell, Framing Effects and Expected Social Security Claiming Behavior *4-5 (NBER Working Paper No 17018, May 2011), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1833155 (visited Aug 24, 2011) (finding that use of “breakeven analysis” leads people to claim early and that people are more likely to delay claiming when later claiming is framed as a gain rather than a loss).

¹⁹ See Donald A. Redelmeier, Paul Rozin, and Daniel Kahneman, Understanding Patients’ Decisions: Cognitive and Emotional Perspectives, 270 *JAMA* 72, 73 (1993). For a discussion of the efforts by the US Department of Agriculture (USDA) to inform consumers about nutrition by preventing potentially misleading framing of fat content (for example, if a label says that meat is 90 percent lean, it must also say that it contains 10 percent fat), see text accompanying note 88.

²⁰ See Daniel J. O’Keefe and Jakob D. Jensen, The Relative Effectiveness of Gain-Framed and Loss-Framed Persuasive Appeals Concerning Obesity-Related Behaviors: Meta-Analytic Evidence and Implications, in Batra, Keller, and Strecher, eds, Leveraging Consumer Psychology at 171, 178-81 (cited in note 16).

b) Information that is vivid and salient can have a larger impact on behavior than information that is statistical and abstract.²¹ With respect to public health, vivid displays can be more effective than abstract presentations of statistical risks.²² This point bears on the design of effective warnings. Attention is a scarce resource, and vivid, salient, and novel presentations may trigger attention in ways that abstract or familiar ones cannot.²³

In particular, salience greatly matters. Why, for example, do people pay bank overdraft fees? One of the many possible answers is that such fees are not sufficiently salient to people, and the fees are incurred as a result of inattention or inadvertent mistakes. One study suggests that limited attention is indeed a source of the problem, and that once overdraft fees become salient, they are significantly reduced.²⁴ When people take surveys about such fees, they are less likely to incur a fee in the following month, and when they take a number of surveys, the issue becomes sufficiently salient that overdraft fees are reduced for as much as two years.²⁵ In many areas, the mere act of being surveyed can affect behavior by, for example, increasing use of water treatment products (thus promoting health) and the take-up of health insurance; one reason is that being surveyed increases the salience of the action in question.²⁶

A more general point is that many costs (or benefits) are less salient than purchase prices; they are “shrouded attributes” to which some consumers do not pay much attention. Such “add-on” costs may matter a

²¹ See Richard Nisbett and Lee Ross, Human Inference: Strategies and Shortcomings of Social Judgment 57-58 (Prentice-Hall 1980). For a discussion of graphic health warnings on cigarette packages finalized by the Food and Drug Administration, see text accompanying notes 120-123.

²² See Nisbett and Ross, Human Inference at 43-62 (cited in note 21); Richard E. Nisbett, et al, Popular Induction: Information Is Not Necessarily Informative, in Daniel Kahneman, Paul Slovic, and Amos Tversky, eds, Judgment under Uncertainty: Heuristics and Biases 101, 112 (Cambridge 1982).

²³ For a discussion of some of the foundational issues, see Pedro Bordalo, Nicola Gennaioli, and Andrei Shleifer, Salience Theory of Choice under Risk *1 (NBER Working Paper No 16387, Sep 2010), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1683137 (visited Apr 4, 2011).

²⁴ See Victor Stango and Jonathan Zinman, Limited and Varying Consumer Attention: Evidence from Shocks to the Salience of Bank Overdraft Fees *27-28 (Fed Reserve Bank of Philadelphia Working Paper No 11-17, Apr 2011), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1817916 (visited Aug 24, 2011).

²⁵ Id at *25, 27.

²⁶ See Alix Peterson Zwane, et al, Being Surveyed Can Change Later Behavior and Related Parameter Estimates, 108 *Proceedings Natl Acad Sci* 1821, 1825-26 (2011).

great deal but receive little consideration, because they are not salient.²⁷ A field experiment finds that simple textual reminders that loan payments are due have a significant effect on payments – indeed, the same effect as an economic incentive in the form of a 25 percent decrease in interest payments.²⁸ An absence of attention to energy costs, which may be “shrouded” for some consumers, has intriguing implications for regulatory policy, including information provision.²⁹

c) People often display loss aversion; they may well dislike losses more than they like corresponding gains.³⁰ Whether a change counts as a loss or a gain depends on the reference point, which can be affected by policy decisions, and which is often the status quo. In part for this reason, the initial allocation of a legal entitlement can affect people’s valuations; those who have the initial allocation may value a good more than they would if the allocation were originally elsewhere, thus showing an endowment effect.³¹

²⁷ See Xavier Gabaix and David Laibson, Shrouded Attributes, Consumer Myopia, and Information Suppression in Competitive Markets, 121 Q J Econ 505, 511 (2006).

²⁸ See Ximena Cadena and Antoinette Schoar, Remembering to Pay? Reminders vs. Financial Incentives for Loan Payments (NBER Working Paper No 17020, May 2011), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1833157 (visited Aug 24, 2011).

²⁹ See Hunt Allcott, Sendhil Mullainathan, and Dmitry Taubinsky, Externalizing the Internality *5-6 (unpublished manuscript, July 2011), online at <http://web.mit.edu/allcott/www/AMT%202011%20-%20Externalizing%20the%20Internality.pdf> (visited Aug 24, 2011).

³⁰ See Richard H. Thaler, Daniel Kahneman, and Jack L. Knetsch, Experimental Tests of the Endowment Effect and the Coase Theorem, in Richard H. Thaler, Quasi Rational Economics 167, 169 (Russell Sage 1991); A. Peter McGraw, et al, Comparing Gains and Losses, 21 Psych Sci 1438, 1444 (2010). Vivid evidence of loss aversion can be found in David Card and Gordon B. Dahl, Family Violence and Football: The Effect of Unexpected Emotional Cues on Violent Behavior, 126 Q J Econ 103, 105-06, 130-35 (2011) (finding an increase in domestic violence after a favored team suffers from an upset loss in football).

³¹ See Thaler, Kahneman, and Knetsch, Experimental Tests at 167 (cited in note 30). A detailed literature discusses the mechanisms behind the endowment effect and the circumstances in which it will be found. See, for example, Keith M. Marzilli Ericson and Andreas Fuster, Expectations as Endowments: Evidence on Reference-Dependent Preferences from Exchange and Valuation Experiments *23 (unpublished manuscript, May 2010), online at <http://ssrn.com/abstract=1505121> (visited Apr 4, 2011). For a recent finding of loss aversion in an interesting setting, see Devin G. Pope and Maurice E. Schweitzer, Is Tiger Woods Loss Averse? Persistent Bias in the Face of Experience, Competition, and High Stakes, 101 Am Econ Rev 129, 132 (2011) (concluding that loss aversion costs each of the top twenty golfers in the world \$640,000 a year on average).

3. Social influences.

a) In multiple domains, individual behavior is greatly influenced by the perceived behavior of other people.³² With respect to obesity, proper exercise, alcohol consumption, smoking, becoming vaccinated, and much more, the perceived decisions of others have a significant influence on individual behavior and choice.³³ The behavior of peers has been found to have a significant effect on risky behavior among adolescents, including tobacco smoking, marijuana use, and truancy.³⁴

In particular, food consumption is greatly affected by the food consumption of others, and indeed the body type of others in the relevant

³² See David Hirshleifer, The Blind Leading the Blind: Social Influence, Fads, and Informational Cascades, in Mariano Tommasi and Kathryn Terulli, eds, The New Economics of Human Behavior 188, 189 (Cambridge 1995) (“When people can observe one another’s behavior, they very often end up making the same choices.”); Esther Duflo and Emmanuel Saez, The Role of Information and Social Interactions in Retirement Plan Decisions: Evidence from a Randomized Experiment, 118 Q J Econ 815, 839 (2003) (discussing retirement plan decisions); Hunt Allcott, Social Norms and Energy Conservation *5 (MIT Center for Energy and Environmental Policy Research Working Paper No 09-014, Oct 2009), online at <http://web.mit.edu/allcott/www/Allcott%202010%20-%20Social%20Norms%20and%20Energy%20Conservation.pdf> (visited Apr 5, 2011) (discussing energy conservation); Scott E. Carrell, Mark Hoekstra, and James E. West, Is Poor Fitness Contagious? Evidence from Randomly Assigned Friends *17 (NBER Working Paper No 16518, Nov 2010), online at <http://www.nber.org/papers/w16518> (visited Apr 5, 2011) (concluding that peers influence personal fitness and the likelihood of failing fitness requirements); Banerjee and Duflo, Poor Economics at 68 (cited in note 3) (noting that “knowledge travels” and that friends and neighbors of those given a free bed net “were also more likely to buy a net themselves”). For a general treatment with a great deal of evidence, see Nicholas A. Christakis and James H. Fowler, Connected: The Surprising Power of Our Social Networks and How They Shape Out Lives (Little, Brown 2009).

³³ See Hirshleifer, The Blind Leading the Blind at 188-89 (cited in note 32) (attributing patterns of alcohol, cigarette, and illegal drug consumption to “localized conformity”). For a finding of significant effects from social comparison on water consumption, see generally Paul J. Ferraro and Michael K. Price, Using Non-pecuniary Strategies to Influence Behavior: Evidence from a Large-Scale Field Experiment (NBER Working Paper No 17189, July 2011), online at <http://www.nber.org/papers/w17189.pdf> (visited Aug 24, 2011).

³⁴ See David Card and Laura Giuliano, Peer Effects and Multiple Equilibria in the Risky Behavior of Friends *4 (NBER Working Paper No 17088, May 2011), online at <http://www.nber.org/papers/w17088.pdf> (visited Aug 24, 2011); Alberto Bisin, Andrea Moro, and Giorgio Topa, The Empirical Content of Models with Multiple Equilibria in Economies with Social Interactions *52-54 (NBER Working Paper No 17196, June 2011), available at <http://www.newyorkfed.org/research/economists/topa/multimay11b.pdf> (finding strong effects of social interactions on smoking) (visited Sept 25, 2011).

group can affect people's responses to their food choices, with a greater effect from those who are thin than those who are heavy.³⁵ Perception of the norm in the pertinent community can affect risk taking, safety, and health.³⁶ The norm conveys significant information about what ought to be done; for that reason, those who lack private information may follow the apparent beliefs and behavior of relevant others, sometimes creating informational cascades.³⁷ In addition, people care about their reputations, and for that reason, they may be influenced by others so as not to incur their disapproval.³⁸ In some contexts, social norms can help create a phenomenon of compliance without enforcement—as, for example, when people comply with laws forbidding indoor smoking or requiring buckling of seat belts, in part because of social norms or the expressive function of those laws.³⁹

³⁵ See Brent McFerran, et al, How the Body Type of Others Impacts Our Food Consumption, in Batra, Keller, and Strecher, eds, Leveraging Consumer Psychology 151, 161-63 (cited in note 16).

³⁶ See US Department of Agriculture and US Department of Health and Human Services, Dietary Guidelines for Americans 2010 56, online at <http://www.health.gov/dietaryguidelines/dga2010/DietaryGuidelines2010.pdf> (visited Apr 5, 2011) (emphasizing relevance of "social and cultural norms and values" for "nutrition and physical activity").

³⁷ See Hirshleifer, The Blind Leading the Blind at 191 (cited in note 32) ("[A]n informational cascade occurs when the information implicit in predecessors' actions—or resulting payoffs—is so conclusive that a rational follower will unconditionally imitate them, without regard to information from other sources."). See also Duflo and Saez, 118 Q J Econ at 819 (cited in note 32) (suggesting that social influences affect participation in retirement plans). For an interesting application, see Brian Knight and Nathan Schiff, Momentum and Social Learning in Presidential Primaries *13-16 (NBER Working Paper No 13637, Nov 2010), online at http://www.nber.org/papers/w13637.pdf?new_window=1 (visited Apr 29, 2011) (exploring social learning in the context of presidential primaries and finding that early voters have a disproportionate influence in the selection of candidates compared to late voters).

³⁸ See Timur Kuran, Private Truths, Public Lies: The Social Consequences of Preference Falsification 35-38 (Harvard 1997).

³⁹ See Robert A. Kagan and Jerome H. Skolnick, Banning Smoking: Compliance without Enforcement, in Robert L. Rabin and Stephen D. Sugarman, eds, Smoking Policy: Law, Politics, and Culture 69, 72 (Oxford 1993) (finding that the source of compliance with a law prohibiting smoking indoors was public support); Tho Bella Dinh-Zarr, et al, Reviews of Evidence Regarding Interventions to Increase the Use of Safety Belts, 21 Am J Prev Med 48, 49 (2001) (suggesting that efforts to enforce safety belt use are effective in large part because they help to make safety belt use a social norm); Maggie Wittlin, Note, Buckling under Pressure: An Empirical Test of the Expressive Effects of Law, 28 Yale J Reg (forthcoming 2011) (finding that laws requiring seatbelt use have significant effects even controlling for citations issued), online at

These points bear on the value and importance, in many domains, of private–public partnerships.

b) In part because of social influences, people are more likely to cooperate with one another, and to contribute to the solution of collective action problems, than standard economic theory predicts.⁴⁰ People’s willingness to cooperate is partly a product of an independent commitment to fairness; but it is partly a product of a belief that others will see and punish a failure to cooperate or to act fairly. Norms of reciprocity can be exceedingly important. In many contexts, the result is a situation in which people cooperate on the assumption that others are cooperating as well and might punish those who fail to do so.⁴¹

4. Difficulties in assessing probability.

a) In some domains, people show unrealistic optimism.⁴² The “above average” effect is common;⁴³ many people believe that they are less likely than others to suffer from various misfortunes, including automobile accidents and adverse health outcomes. One study found that while smokers do not underestimate statistical risks faced by the population of smokers, they nonetheless believe that their personal risk is less than that of the average smoker.⁴⁴ Unrealistic optimism is associated with the “good news–bad news effect,” through which people may give more weight to good news than to bad news. This finding is also related to confirmation bias, which occurs when people give special weight to information that confirms their antecedent beliefs.⁴⁵

http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1759993 (visited Apr 5, 2011).

⁴⁰ See Colin F. Camerer, Behavioral Game Theory: Experiments in Strategic Interaction 46 (Princeton 2003).

⁴¹ See James Habyarimana, et al, Coethnicity: Diversity and the Dilemmas of Collective Action 108–09 (Russell Sage 2009); Herbert Gintis, et al, Moral Sentiments and Material Interests: Origins, Evidence, and Consequences, in Herbert Gintis, et al, eds, Moral Sentiments and Material Interests: The Foundations of Cooperation in Economic Life 3, 8 (MIT 2005).

⁴² See Christine Jolls, Behavioral Economics Analysis of Redistributive Legal Rules, 51 Vand L Rev 1653, 1659 (1998). See generally Tali Sharot, The Optimism Bias: A Tour of the Irrationally Positive Brain (Knopf 2011).

⁴³ See Neil D. Weinstein, Unrealistic Optimism about Susceptibility to Health Problems: Conclusions from a Community-Wide Sample, 10 J Behav Med 481, 494 (1987).

⁴⁴ See Paul Slovic, Do Adolescent Smokers Know the Risks?, 47 Duke L J 1133, 1136–37 (1998).

⁴⁵ See David Eil and Justin M. Rao, The Good News–Bad News Effect: Asymmetrical Processing of Objective Information about Yourself, 3 Am Econ J: Microecon *4 (forthcoming 2011), online at <http://ices.gmu.edu/wp-content/uploads/2010/08/The-Good-News-Bad->

b) People often use heuristics, or mental shortcuts, when assessing risks.⁴⁶ For example, judgments about probability are often affected by whether a recent event comes readily to mind.⁴⁷ If an event is cognitively “available,” people may well overestimate the risk. If an event is not cognitively available, people might well underestimate the risk.⁴⁸ In short, “availability bias” can lead to inaccurate judgments about the probability of undesirable outcomes.⁴⁹

c) People sometimes do not make judgments on the basis of expected value, and they may neglect or disregard the issue of probability, especially when strong emotions are triggered.⁵⁰ When emotions are strongly felt, people may focus on the outcome and not on the probability that it will occur.⁵¹ (This point obviously bears on reactions to extreme events of various sorts.) Prospect theory, which does not depend on emotions at all, suggests that for low and moderate changes, people may be risk averse with respect to gains but risk seeking with respect to losses; for very large changes, people may be risk seeking with respect to gains but risk averse for losses.⁵²

These various findings are hardly inconsistent with the conventional economic emphasis on the importance of material incentives; actual and perceived costs and benefits certainly matter. When the price of a product

News-Effect-Asymmetric-Processing-of-Objective-Information-about-Yourself-by-Rao-and-Eil.pdf (visited Apr 5, 2011).

⁴⁶ See generally Daniel Kahneman and Shane Frederick, Representativeness Revisited: Attribute Substitution in Intuitive Judgment, in Gilovich, Griffin, and Kahneman, eds, Heuristics and Biases 49 (cited in note 4).

⁴⁷ See Amos Tversky and Daniel Kahneman, Availability: A Heuristic for Judging Frequency and Probability, 5 *Cog Psych* 207, 221 (1973).

⁴⁸ See Elke U. Weber, Experience-Based and Description-Based Perceptions of Long-Term Risk: Why Global Warming Does Not Scare Us (Yet), 77 *Climatic Change* 103, 107-08 (2006).

⁴⁹ See Paul Slovic, Baruch Fischhoff, and Sarah Lichtenstein, Cognitive Processes and Societal Risk Taking, in Paul Slovic, ed, The Perception of Risk 32, 37-38 (Earthscan 2000); Laurette Dubé-Rioux and J. Edward Russo, An Availability Bias in Professional Judgment, 1 *J Behav Dec Making* 223, 234 (1988).

⁵⁰ See George F. Loewenstein, et al, Risk as Feelings, 127 *Psych Bull* 267, 280 (2001).

⁵¹ See Yuval Rottenstreich and Christopher K. Hsee, Money, Kisses, and Electric Shocks: On the Affective Psychology of Risk, 12 *Psych Sci* 185, 185 (2001). For a demonstration that probability is often neglected with respect to things, but not with respect to money (without, however, emphasizing the role of emotions), see A. Peter McGraw, Eldar Shafir, and Alexander Todorov, Valuing Money and Things: Why a \$20 Item Can Be Worth More and Less than \$20, 56 *Mgmt Sci* 816, 827 (2010). For a discussion of emotions and risk, see generally Paul Slovic, ed, The Feeling of Risk: New Perspectives on Risk Perception (Earthscan 2010).

⁵² See Daniel Kahneman and Amos Tversky, Prospect Theory: An Analysis of Decision under Risk, 47 *Econometrica* 263, 268-69 (1979).

risks, or when it becomes clear that use of a product imposes serious health risks, the demand for the product is likely to fall (at least, and this is a significant qualification, if these effects are salient⁵³). But apart from strictly material incentives of this kind, evidence suggests the independent importance of (1) the social environment and (2) prevailing social norms. If, for example, healthy foods are prominent and easily accessible, people are more likely to choose them;⁵⁴ one study finds an 8 to 16 percent decrease in intake simply by making food more difficult to reach (as, for example, by varying its proximity by ten inches or altering the serving utensil).⁵⁵ The problem of childhood obesity is, at least in part, a result of the easy availability of unhealthy foods.⁵⁶ The same point bears on smoking and alcohol abuse.

Here is another way to put the point. The existing social environment and current social norms provide the backdrop for many outcomes. Consumer products are accompanied by default rules of various sorts; consider, for example, rental car and cell phone agreements, where it is possible to opt in or to opt out of a range of features, and where the default rule may much matter. With respect to water quality, air quality, sewage treatment, immunization, and health care, the social environment provides

⁵³ See Congdon, Kling, and Mullainathan, Policy and Choice at 126 (cited in note 2) (“A corrective tax on gasoline that individuals do not perceive or understand will not be effective in reducing carbon emissions.”).

⁵⁴ For a vivid presentation, see Brian Wansink, David R. Just, and Joe McKendry, Lunch Line Redesign, NY Times A35 (Oct 21, 2010), and in particular this suggestion:

A smarter lunchroom wouldn’t be draconian. Rather, it would nudge students toward making better choices on their own by changing the way their options are presented. One school we have observed in upstate New York, for instance, tripled the number of salads students bought simply by moving the salad bar away from the wall and placing it in front of the cash registers.

For related evidence, see generally Anne Thorndike, et al, A 2-Phase Labeling and Choice Architecture Intervention to Improve Healthy Food and Vending Choices (unpublished manuscript 2011) (on file with author) (finding that a color-coded labeling intervention increased healthy choices but that increased visibility and convenience of healthy choices also had a significant effect).

⁵⁵ See Paul Rozin, et al, Nudge to Nobesity I: Minor Changes in Accessibility Decrease Food Intake, 6 Judgment Decision Making 323, 329 (2011).

⁵⁶ See Janet Currie, et al, The Effect of Fast Food Restaurants on Obesity and Weight Gain, 2 Am Econ J: Econ Pol 32, 60 (2010); Dietary Guidelines for Americans 2010 at *55-56 (cited in note 36) (emphasizing that “[p]eople regularly make decisions about food and physical activity in a variety of community settings” that “play an integral role in affecting individuals’ and families’ food and physical activity choices through their organizational environments and policies”).

relevant background, which is often taken for granted, and which need not, for many people much of the time, become a serious source of deliberation and choice. In particular for people who are well-off, the relevant background, which need not be an object of reflection, is highly desirable and may be taken for granted without causing harm. For others, the background is not so benign, and it should in any case be an object of reflection and choice.

The broader point is that when some aspect of the background is changed—when, for example, a new default rule is provided for savings plans, or good choices become simpler and easier to make—significant changes may occur.⁵⁷ And when some people, cities, and nations do well and others poorly, the reason will often have a great deal to do with certain aspects of the relevant background, which allow those who do well to take for granted, and not even to think about, important matters that may have serious adverse consequences for others.⁵⁸

In many contexts, seemingly modest differences in the social environment exert a large influence on outcomes even if they do not greatly alter material incentives.⁵⁹ In addition, social norms have an independent effect: whether people smoke cigarettes, exercise, buckle their seat belts, text while driving, eat healthy foods, or enroll in a retirement plan is significantly influenced by the perceived norm within the relevant group.⁶⁰ This point suggests the potential importance of private leadership and of private–public partnerships in these and other domains.

B. Concerns

1. Are predictions possible?

It is tempting to respond that these diverse findings might point in different directions, even for the same subpopulation faced with the same problem, and hence that clear predictions cannot be made in particular cases. For example, will people save too little or too much? Will they take

⁵⁷ See Banerjee and Duflo, Poor Economics at 15 (cited in note 3).

⁵⁸ See *id.* at 68–69. See also *id.* at 269:

The poor bear responsibility for too many aspects of their lives. The richer you are, the more the “right” decisions are made for you. The poor have no piped water, and therefore do not benefit from the chlorine that the city government puts into the water supply. If they want clean drinking water, they have to purify it themselves.

⁵⁹ For a discussion of many illustrations in the context of food choices, see Brian Wansink, Mindless Eating: Why We Eat More Than We Think 10 (Bantam 2006). For discussion and many illustrations in the context of development, see generally Dean Karlan and Jacob Appel, More Than Good Intentions: How a New Economics Is Helping to Solve Global Poverty (Dutton 2011).

⁶⁰ See notes 268–271 and accompanying text.

optimal, excessive, or insufficient precautions against the risks associated with poor diet?

By itself and in the abstract, an understanding of loss aversion, the availability heuristic, and social influences does not produce clear answers. Such an understanding could, on plausible assumptions, suggest that people may save too much or take excessive precautions, or on other plausible assumptions, suggest the opposite conclusions. And it may well be the case that loss aversion, unrealistic optimism, the availability heuristic, and social influences are simultaneously at work and will point in different directions, making predictions difficult or impossible. For example, unrealistic optimism may lead people to underestimate certain risks, while the availability heuristic may lead people to overestimate the same risks. And although procrastination will cause delay, loss aversion may lead people to act promptly.

It is true that if these findings are taken as a whole and in the abstract, they will not lead to a clear or unique prediction about behavior. Particular situations must be investigated in detail in order to understand likely outcomes. We will often be able to identify mechanisms rather than law-like generalizations.⁶¹ For the purposes of this Essay, it is not necessary to engage these questions in detail. Low-cost regulatory policies, such as disclosure and simplification, may be justified even if we do not have a clear understanding, in the abstract, of whether relevant behavior is affected by loss aversion or social influences. Of course it is also true that the design of a disclosure policy should be based on an understanding of how people process information, and that a sensible approach to simplification will require an understanding of whether and why complexity can create problems and of what kinds of simplification can eliminate those problems.

2. Markets versus government.

An understanding of the findings outlined above does not, by itself, demonstrate that “more” regulation would be desirable.⁶² To be sure, some of the relevant findings supplement the standard accounts of market failures, suggesting that in some settings, markets may fail, in the sense that they may not promote social welfare even in the presence of perfect

⁶¹ See Jon Elster, A Plea for Mechanism, in Peter Hedström and Richard Swedberg, eds, Social Mechanisms: An Analytical Approach to Social Theory 45, 47-49 (Cambridge 1998) (distinguishing explanatory mechanisms from “scientific laws” on the grounds that a mechanism provides an explanation that is “more general than the phenomenon that it subsumes”); Jon Elster, Explaining Social Behavior: More Nuts and Bolts for the Social Sciences 27-31 (Cambridge 2007).

⁶² See Edward L. Glaeser, Paternalism and Psychology, 73 U Chi L Rev 133, 133-34 (2006).

competition and full information.⁶³ If, for example, people focus on short-term costs and neglect long-term benefits, it is possible that disclosure policies that specifically emphasize the long-term, or even regulatory requirements (involving, for example, energy efficiency), may be justified. It is also possible to identify “internalities”—problems of self-control and errors in judgments that produce within-person harms, as, for example, when smoking behavior leads to serious risks because of the victory of short-term considerations over the longer view.⁶⁴

But even if the standard accounts of potential market failures are supplemented, it does not necessarily follow that more regulation is justified. Perhaps markets will eventually address the problem better than regulators would, and for multiple reasons, the cure might be worse than the disease.⁶⁵

Indeed, some of the findings might argue in favor of less rather than more regulation. When, for example, people are able to solve collective action problems on their own, government is not needed.⁶⁶ In certain circumstances, automatic enrollment is preferable to mandates and bans. Moreover, market forces can provide a great deal of help in the face of human error. For example, the private sector has relied increasingly on automatic enrollment in savings plans,⁶⁷ and countless companies attempt to promote better diet and more exercise (perhaps expecting to obtain more customers as a result).

It should not be necessary to emphasize that public officials are subject to error as well. Indeed, errors may result from one or more of the findings traced above; officials are human and capable of error too. The dynamics of the political process may or may not lead in the right direction. It would be absurd to say that empirically informed regulation is more aggressive than regulation that is not so informed, or that an understanding of recent

⁶³ See Congdon, Kling, and Mullainathan, Policy and Choice at 40-48, 62-66 (cited in note 2) (discussing the implications of behavioral findings for public finance and offering a range of explorations of how standard accounts must be supplemented).

⁶⁴ See *id.* at 120-22. For a related discussion, seeing an “internality” as stemming from inattention, see Allcott, Mullainathan, and Taubinsky, Externalizing the Internality at *5-6 (cited in note 29).

⁶⁵ See Glaeser, 73 *U Chi L Rev* at 150-56 (cited in note 62) (outlining arguments against blind support for government regulations based on behavioral economics).

⁶⁶ See Congdon, Kling, and Mullainathan, Policy and Choice at 47 (cite in note 2).

⁶⁷ In 2010, 57 percent of 401(k) plan sponsors offered automatic enrollment, nearly three times the corresponding figure in 2006 (17 percent). See Karen M. Kroll, 401(k) Auto-Enrolling Jumps in Status (Computerworld Feb 23, 2011), online at <http://news.idg.no/cw/art.cfm?id=3F6628D0-1A64-6A71-CED67B3F64B2D54A> (visited Apr 5, 2011).

empirical findings calls for more regulation rather than less. The argument is instead that such an understanding can help to inform the design of regulatory programs.

For example, many such programs require disclosure, and such disclosure should be designed so as to be helpful and informative rather than unintelligible or meaningless. When procrastination and inertia are causing harm, simplification may produce unexpectedly large benefits, and officials should avoid unnecessary complexity. Private–public partnerships, maintaining freedom of choice, may be far better than top–down dictation by government.

3. Incomplete information.

Although the empirical literature is large and growing, continuing research is highly desirable. Executive Order 13563 explicitly emphasizes the importance of efforts to “measure, and seek to improve, the actual results of regulatory requirements.”⁶⁸ It also calls for “the periodic review of existing significant regulations” to ascertain those actual results.⁶⁹ With respect to retrospective review, consider the suggestion that the “single greatest problem with the current system is that most regulations are subject to a cost–benefit analysis only in advance of their implementation. This is the point when the least is known and any analysis must rest on many unverifiable and potentially controversial assumptions.”⁷⁰ On this view, it is important to consider a series of reforms designed to “instill a culture of experimentation and evaluation.”⁷¹

With respect to the particular concerns, it would be valuable to have a better understanding of how the relevant findings apply within heterogeneous groups; the findings are far from uniform within the population, and for purposes of policy, heterogeneity may matter.⁷² It would also be valuable to have a better understanding of actual conduct within diverse settings—for example, the decision whether or not to purchase fuel-efficient cars and appliances in the face of short-term costs and long-term benefits. We have good reason to believe that many people do not buy energy-efficient products even when it would be in their economic interest

⁶⁸ 76 Fed Reg at 3821 (cited in note 1). See also Michael Greenstone, Toward a Culture of Persistent Regulatory Experimentation and Evaluation, in David Moss and John Cisternino, eds, New Perspectives on Regulation 113, 114 (Tobin Project 2009).

⁶⁹ 76 Fed Reg at 3822 (cited in note 1).

⁷⁰ Greenstone, Toward a Culture of Persistent Regulatory Experimentation and Evaluation at 115 (cited in note 68).

⁷¹ *Id.* at 120.

⁷² See Hans-Martin von Gaudecker, Arthur van Soest, and Erik Wengström, Heterogeneity in Risky Choice Behaviour in a Broad Population, 101 *Am Econ Rev* *27 (forthcoming 2011), online at <http://ssrn.com/abstract=1351186> (visited Sept 25, 2011).

to do so,⁷³ but the conceptual and empirical issues are complex and have not been fully sorted out.

But even at this stage, existing research offers helpful lessons for regulatory policy.⁷⁴ Particular attention has been devoted to the possible

⁷³ See Environmental Protection Agency and National Highway Traffic Safety Administration, Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards, 75 Fed Reg 25324-01 (2010). As stated in the preamble to this rule,

The central conundrum has been referred to as the Energy Paradox in this setting (and in several others). In short, the problem is that consumers appear not to purchase products that are in their economic self-interest. There are strong theoretical reasons why this might be so:

- Consumers might be myopic and hence undervalue the long-term.
- Consumers might lack information or a full appreciation of information even when it is presented.
- Consumers might be especially averse to the short-term losses associated with the higher prices of energy efficient products relative to the uncertain future fuel savings, even if the expected present value of those fuel savings exceeds the cost (the behavioral phenomenon of "loss aversion").
- Even if consumers have relevant knowledge, the benefits of energy-efficient vehicles might not be sufficiently salient to them at the time of purchase, and the lack of salience might lead consumers to neglect an attribute that it would be in their economic interest to consider.
- In the case of vehicle fuel efficiency and perhaps as a result of one or more of the foregoing factors, consumers may have relatively few choices to purchase vehicles with greater fuel economy once other characteristics, such as vehicle class, are chosen.

A great deal of work in behavioral economics identifies and elaborates factors of this sort, which help account for the Energy Paradox. This point holds in the context of fuel savings (the main focus here), but it applies equally to the other private benefits, including reductions in refueling time and additional driving. For example, it might well be questioned whether significant reductions in refueling time, and corresponding private savings, are fully internalized when consumers are making purchasing decisions. (citations omitted).

Id at 25510-11. For a discussion of the energy paradox, see Adam B. Jaffe and Robert N. Stavins, The Energy Paradox and the Diffusion of Conservation Technology, 16 Res & Energy Econ 91, 92-94 (1994); Congdon, Kling, and Mullainathan, Policy and Choice at 114-15 (cited in note 2); Hunt Allcott and Nathan Wozny, Gasoline Prices, Fuel Economy, and the Energy Paradox (2010), online at <http://web.mit.edu/allcott/www/Allcott%20and%20Wozny%202010%20-%20Gasoline%20Prices,%20Fuel%20Economy,%20and%20the%20Energy%20Paradox.pdf> (visited Apr 5, 2011) (finding that people pay excessive attention to short-term costs and that energy efficiency requirements can produce substantial gains).

development of minimally burdensome, low-cost, choice-preserving approaches, such as automatic enrollment and disclosure requirements, that promote regulatory goals while maintaining individual authority, ownership, and control.⁷⁵ Empirically informed approaches, taking account of recent work in the social sciences (including behavioral economics), can be considered in many domains, including financial regulation, public health, labor, environmental protection, energy use, motor vehicle safety, and consumer protection.⁷⁶

Relevant research suggests that four such approaches have particular promise: (1) using disclosure as a regulatory tool, especially if disclosure policies are designed with an appreciation of how people process information; (2) simplifying and easing choices through appropriate default rules, reduction of complexity and paperwork requirements, and related strategies; (3) increasing the salience of certain factors or variables; and (4) promoting social norms through private–public partnerships and other approaches that operate in the service of agreed-upon public goals. Empirically informed approaches of this kind are already in place, including a number of recent initiatives.

⁷⁴ See generally Diamond and Vartiainen, eds, Behavioral Economics and Its Applications (cited in note 2) (suggesting that behavioral modeling can contribute to the design of economic policy). See also George Loewenstein, Troyen Brennan, and Kevin G. Volpp, Asymmetric Paternalism to Improve Health Behaviors, 298 JAMA 2415, 2416-17 (2007) (advocating choice-preserving policies aimed at encouraging people to choose healthier food options while also not harming those who will choose healthy options on their own).

⁷⁵ See, for example, Colin Camerer, et al, Regulation for Conservatives: Behavioral Economics and the Case for "Asymmetric Paternalism," 151 U Pa L Rev 1211, 1227-36 (2003). For a discussion of the application of behavior economics to financial savings, see William G. Gale, et al, Introduction, in William G. Gale, et al, eds, Automatic: Changing the Way America Saves 1, 3-5 (Brookings 2009). For a similar discussion of energy efficiency, see generally Hunt Allcott and Sendhil Mullainathan, Behavioral Science and Energy Policy, 327 Sci 1204 (2010).

⁷⁶ See Sendhil Mullainathan, Psychology and Development Economics, in Diamond and Vartiainen, eds, Behavioral Economics and Its Applications at 85, 95-97 (cited in note 2); Truman F. Bewley, Fairness, Reciprocity, and Wage Rigidity, in Diamond and Vartiainen, eds, Behavioral Economics and Its Applications at 157, 157-59 (cited in note 2); Richard G. Frank, Behavioral Economics and Health Economics, in Diamond and Vartiainen, eds, Behavioral Economics and Its Applications at 195, 195-96 (cited in note 2); Sendhil Mullainathan and Eldar Shafir, Savings Policy and Decisionmaking in Low-Income Households, in Rebecca M. Blank and Michael S. Barr, eds, Insufficient Funds: Savings, Assets, Credit, and Banking among Low-Income Households 121, 140-42 (Russell Sage 2009).

II. DISCLOSURE AS A REGULATORY TOOL

This Part explores the uses of disclosure as a regulatory tool. It is important to distinguish between summary disclosure, often provided at the point of purchase, and full disclosure, typically provided on the Internet. A central point is that disclosure policies should be based on an understanding of how people process information. For example, summary disclosure will not be helpful if it is ambiguous or unduly complex, or if it uses a scale that is not meaningful to consumers. A general goal should be to promote empirical testing, including randomized experiments, of disclosure policies to learn whether they are actually working;⁷⁷ such testing may well include retrospective analysis of the kind promoted by Executive Order 13563.

A. Actually Informing Choice

1. Examples.

Many statutory programs recognize that information disclosure can be a useful regulatory tool, replacing or complementing other approaches.⁷⁸ Traditionally, information production and disclosure have been considered an appropriate regulatory response to market failures that stem from asymmetric or inadequate information.⁷⁹ Properly designed disclosure requirements can significantly improve the operation of markets, leading consumers to make more informed decisions.⁸⁰ Central examples include legislative efforts to require disclosure of the risks associated with smoking,

⁷⁷ See Karlan and Appel, More Than Good Intentions at 23-38 (cited in note 59).

⁷⁸ See Archon Fung, Mary Graham, and David Weil, Full Disclosure: The Perils and Promise of Transparency 5-6 (Cambridge 2007); Brian Wansink and Matthew M. Cheney, Leveraging FDA Health Claims, 39 J Consumer Aff 386, 393, 396 (2005).

⁷⁹ See Howard Beales, Richard Craswell, and Steven C. Salop, The Efficient Regulation of Consumer Information, 24 J L & Econ 491, 513 (1981).

⁸⁰ See Fung, Graham, and Weil, Full Disclosure at 6 (cited in note 78); Yong H. Chu, et al, Improving Patrons' Meal Selections through the Use of Point-of-Selection Nutrition Labels, 99 Am J Pub Health 2001, 2002-05 (2009). For an interesting set of suggestions, see Emir Kamenica, Sendhil Mullainathan, and Richard Thaler, Helping Consumers Know Themselves *10 (unpublished manuscript, Jan 2011), online at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1742505 (visited Apr 5, 2011). For a discussion of how best to inform consumers through full disclosure, including disclosure of their own past choices, see Cass R. Sunstein, Administrator, OIRA, Memorandum for the Heads of Executive Departments and Agencies, Informing Consumers through Smart Disclosure (Sept 8, 2011), online at <http://www.whitehouse.gov/sites/default/files/omb/inforeg/for-agencies/informing-consumers-through-smart-disclosure.pdf> (visited Sept 27, 2011).

of potential savings from energy efficiency, and of information that bears on health.

a) Credit cards. The Credit Card Accountability, Responsibility, and Disclosure Act of 2009⁸¹ (Credit CARD Act) is designed in large part to ensure that credit card users are adequately informed. Specifically, the Act prohibits an increase in annual percentage rates (APR) without forty-five days notice,⁸² prohibits the retroactive application of rate increases to existing balances,⁸³ and also requires clear notice of the consumer's right to cancel the credit card when the APR is raised.⁸⁴

The Act also requires a number of electronic disclosures of credit card agreements. Specifically, it requires that (1) “[e]ach creditor shall establish and maintain an Internet site on which the creditor shall post the written agreement between the creditor and the consumer for each credit card account under an open-end consumer credit plan”; (2) “[e]ach creditor shall provide to the Board, in electronic format, the consumer credit card agreements that it publishes on its Internet site”; and (3) the “Board shall establish and maintain on its publicly available Internet site a central repository of the consumer credit card agreements received from creditors pursuant to this subsection, and such agreements shall be easily accessible and retrievable by the public.”⁸⁵

b) Tires. The Department of Transportation has been directed to require tire manufacturers to label their replacement tires for fuel efficiency, safety, and durability.⁸⁶ Such a label is designed to promote informed choices on the part of consumers.

c) Nutrition. In the domain of nutrition, a number of disclosure requirements are in place. To take just one example, a final rule has been issued by the US Department of Agriculture (USDA), requiring provision of nutritional information to consumers with respect to meat and poultry products. Nutrition facts panels must be provided on the labels of such products. Under the rule, the panels must contain information with respect to calories and both total and saturated fats.⁸⁷

The rule clearly recognizes the potential importance of framing. If a product lists a percentage statement such as “80% lean,” it must also list its fat percentage. This requirement should avoid the confusion that can result

⁸¹ Pub L No 111-24, 123 Stat 1734, codified in various sections of Titles 15 and 16.

⁸² See Credit CARD Act § 101(a), 15 USC § 1637(i)(1).

⁸³ See Credit CARD Act § 101(b), 15 USC § 1666i-1(a).

⁸⁴ See Credit CARD Act § 102(a), 15 USC § 1637(k).

⁸⁵ See Credit CARD Act § 203, 15 USC § 1632.

⁸⁶ See 49 USC § 32304A (requiring a “national tire fuel efficiency consumer information program . . . to educate consumers about the effect of tires on automobile fuel efficiency, safety, and durability” and authorizing the Department of Transportation to require information at the point of sale or via the Internet).

⁸⁷ See 9 CFR § 317.309.

from selective framing; a statement that a product is 80 percent lean, standing by itself, makes leanness salient, and may therefore be misleading.⁸⁸

d) Health care. The Patient Protection and Affordable Care Act of 2010⁸⁹ (Affordable Care Act) contains a large number of disclosure requirements designed to promote accountability and informed choice with respect to health care.⁹⁰ Indeed, the Affordable Care Act is, in significant part, a series of disclosure requirements, many of which are meant to inform consumers. Under the Act, a restaurant that is part of a chain with twenty or more locations doing business under the same name is required to disclose calories on the menu board. Such restaurants are also required to provide in a written form (available to customers upon request) additional nutrition information pertaining to total calories and calories from fat, as well as amounts of fat, saturated fat, cholesterol, sodium, total carbohydrates, complex carbohydrates, sugars, dietary fiber, and protein.⁹¹

In a similar vein, § 1103 of the Act calls for “[i]mmediate information that allows consumers to identify affordable coverage options.”⁹² It requires the establishment of an internet portal for beneficiaries to easily access affordable and comprehensive coverage options,⁹³ including information about eligibility, availability, premium rates, cost sharing, and the percentage of total premium revenues spent on health care, rather than administrative expenses.⁹⁴

It should be clear from this brief survey that the range of recent disclosure requirements is very wide. Such approaches have considerable promise.⁹⁵

⁸⁸ See 9 CFR § 317.309.

⁸⁹ Pub L No 111-148, 124 Stat 119, codified in various sections of Title 42.

⁹⁰ For one example, see Healthcare.gov, online at <http://www.healthcare.gov> (visited Jan 16, 2011), designed to increase transparency and to promote comparison shopping. See also Affordable Care Act § 6401(a), 42 USC § 1395cc(j).

⁹¹ See Affordable Care Act § 4205(b), 21 USC § 343(q)(5)(H)(ii)(III). See also 21 USC 343(q)(1)(C)-(D).

⁹² Affordable Care Act § 1103, 42 USC § 18003.

⁹³ The statute provides: “Not later than July 1, 2010, the Secretary, in consultation with the States, shall establish a mechanism, including an Internet website, through which a resident of any State may identify affordable health insurance coverage options in that State.” Affordable Care Act § 1103(a)(1), 42 USC § 18003(a)(1).

⁹⁴ Affordable Care Act § 1103(b)(1), 42 USC § 18003(b)(1).

⁹⁵ See Fung, Graham, and Weil, Full Disclosure at 170-82 (cited in note 78); Scot Burton, et al, Attacking the Obesity Epidemic: The Potential Health Benefits of Providing Nutrition Information in Restaurants, 96 Am J Pub Health 1669, 1674 (2006).

2. How, not only whether.

As social scientists have emphasized, disclosure as such may not be enough; regulators should devote care and attention to how, not only whether, disclosure occurs.⁹⁶ Clarity and simplicity are often critical. In some cases, accurate disclosure of information may be ineffective if the information is too abstract, vague, detailed, complex, poorly framed, or overwhelming to be useful.⁹⁷ Disclosure requirements should be designed for homo sapiens, not homo economicus (the agent in economics textbooks). In addition, emphasis on certain variables may attract undue attention and prove to be misleading. If disclosure requirements are to be helpful, they must be designed to be sensitive to how people actually process information.

A good rule of thumb is that disclosure should be concrete, straightforward, simple, meaningful, timely, and salient. If the goal is to inform people about how to avoid risks or to obtain benefits, disclosure should avoid abstract statements (such as, for example, of “healthy eating” or “good diet”) and instead clearly identify the steps that might be taken to obtain the relevant goal (by specifying, for example, what specific actions parents might take to reduce the risk of childhood obesity). Health claims in particular have been found more likely to succeed if they are targeted at a problem that is both personally relevant and vivid, if they emphasize quantitative health benefits, and if they are aimed at demographic groups that are particularly at risk, such as young children or pregnant women.⁹⁸

In 2010, Department of Health and Human Services (HHS) emphasized the importance of clarity and salience in connection with its interim final rule entitled “Health Care Reform Insurance Web Portal Requirements,” which “adopts the categories of information that will be collected and displayed as Web portal content, and the data we will require from issuers and request from States, associations, and high risk pools in order to create this content.”⁹⁹ The preamble to the interim final rule is

⁹⁶ See Riis and Ratner, Simplified Nutrition Guidelines to Fight Obesity at 334 (cited in note 16) (emphasizing the importance of simplicity to promote effective communication of health messages); Jessica Wisdom, Julie S. Downs, and George Loewenstein, Promoting Healthy Choices: Information versus Convenience, 2 Am Econ J: Applied Econ 164, 175-76 (2010); Julie S. Downs, George Loewenstein, and Jessica Wisdom, Strategies for Promoting Healthier Food Choices, 99 Am Econ Rev 159, 162 (2009); Wansink and Cheney, 39 J Consumer Aff at 394 (cited in note 78).

⁹⁷ See Susanna Kim Ripken, The Dangers and Drawbacks of the Disclosure Antidote: Toward a More Substantive Approach to Securities Regulation, 58 Baylor L Rev 139, 160-63 (2006).

⁹⁸ See Wansink and Cheney, 39 J Consumer Aff at 389, 391 (cited in note 78).

⁹⁹ Department of Health and Human Services, Health Care Reform Insurance Web Portal Requirements, 75 Fed Reg 24470, 24470 (2010)

empirically informed in the sense that it is directly responsive to how people process information:

In implementing these requirements, we seek to develop a Web site (hereinafter called the Web portal) that would empower consumers by increasing informed choice and promoting market competition. To achieve these ends, we intend to provide a Web portal that provides information to consumers in a clear, salient, and easily navigated manner. We plan to minimize the use of technical language, jargon, or excessive complexity in order to promote the ability of consumers to understand the information and act in accordance with what they have learned. . . . [W]e plan to provide information, consistent with applicable laws, in a format that is accessible for use by members of the public, allowing them to download and repackage the information, promoting innovation and the goal of consumer choice.¹⁰⁰

On June 30, 2010, HHS launched that web portal at <http://www.healthcare.gov/>.

3. Testing disclosure.

To the extent possible, agencies should study in advance the actual effects of alternative disclosure designs to ensure that information is properly presented and will actually inform consumers.¹⁰¹ The “Nutrition Facts” labels on many food products followed such a process of advance study, with careful investigation of consumer responses to different presentations of the relevant material.¹⁰² Actual experience can, of course, provide valuable information. Because they are more likely to yield information about actual behavior, experimental or quasi-experimental studies are preferred to focus groups; randomized experiments have particular advantages.¹⁰³ At the same time, focus groups can also be useful, especially if they are carefully designed to assess likely behavior (rather than simply asking people which presentations or formats they most like).

¹⁰⁰ 75 Fed Reg at 24471 (cited in note 99).

¹⁰¹ Note in this regard that under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Dodd-Frank Act), Pub L No 111-203, 124 Stat 1376, “[a]ny model form issued pursuant to this subsection shall be validated through consumer testing.” Dodd-Frank Act § 1032(b)(3), 12 USC §5532(b)(3).

¹⁰² See Marion Nestle, Food Politics: How the Food Industry Influences Nutrition and Health 315-16 (California 2003); Wansink, Mindless Eating at 8-9 (cited in note 59).

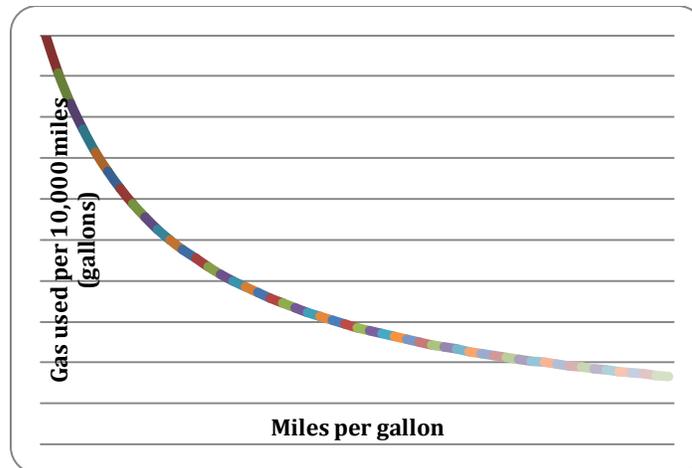
¹⁰³ See Lynette Ryals and Hugh Wilson, Experimental Methods in Market Research: From Information to Insight, 47 Intl J Mkt Rsrch 347, 348, 351 (2005).

4. Avoiding confusion.

If not carefully designed, disclosure requirements can produce ineffective, confusing, and potentially misleading messages. Empirically informed approaches are alert to this risk and suggest possible improvements.

For instance, automobile manufacturers are currently required to disclose the fuel economy of new vehicles as measured by miles per gallon (MPG).¹⁰⁴ This disclosure is useful for consumers and helps to promote informed choice. As the Environmental Protection Agency (EPA) has emphasized, however, MPG is a nonlinear measure of fuel consumption.¹⁰⁵ For a fixed travel distance, a change from 20 to 25 MPG produces a larger reduction in fuel costs than does a change from 30 to 35 MPG, or even from 30 to 38 MPG. To see the point more dramatically, consider the fact that an increase from 10 to 20 MPG produces more savings than an increase from 20 to 40 MPG, and an increase from 10 to 11 MPG produces savings almost as high as an increase from 34 to 50 MPG.¹⁰⁶ The following figure displays the nonlinearity of the MPG measure:

FIGURE 1. GALLONS OF GAS USED PER 10,000 MILES DRIVEN AS A FUNCTION OF FUEL EFFICIENCY OF CAR (EXPRESSED IN MPG)



Source: Richard P. Larrick and Jack B. Soll, *The MPG Illusion*, 320 *Sci* 1593, 1593 (2008).

¹⁰⁴ 40 CFR § 600.306-08; 40 CFR § 307-08.

¹⁰⁵ See Environmental Protection Agency, *Fuel Economy Labeling of Motor Vehicles: Revisions to Improve Calculation of Fuel Economy Estimates*, 74 Fed Reg 61537-01, 61542, 61550-53 (2009) (amending 40 CFR Parts 86, 600).

¹⁰⁶ See Richard P. Larrick and Jack B. Soll, *The MPG Illusion*, 320 *Sci* 1593, 1593 (2008).

Evidence suggests that many consumers do not understand this point and tend to interpret MPG as linear with fuel costs.¹⁰⁷ When it occurs, this error is likely to produce inadequately informed purchasing decisions when people are making comparative judgments about fuel costs. For example, people may well underestimate the benefits of trading a low MPG car for one that is even slightly more fuel efficient. By contrast, an alternative fuel economy metric, such as gallons per mile, could be far less confusing. Such a measure is linear with fuel costs and hence suggests a possible way to help consumers make better choices.¹⁰⁸ A closely related finding is that because of the MPG illusion, consumers tend to underestimate the cost differences between low-MPG vehicles and tend to overestimate the cost differences between high-MPG vehicles.¹⁰⁹ Recognizing the imperfections and potentially misleading nature of the MPG measure, the Department of Transportation and EPA proposed in 2010 two alternative labels that are meant to provide consumers with clearer and more accurate information about the effects of fuel economy on fuel expenses and on the environment.¹¹⁰

After a period of public comment, the Department of Transportation and EPA ultimately chose a label that borrows from both proposals (see Figure 3).¹¹¹ This approach calls for disclosure of the factual material included in the first option but adds a clear statement about anticipated fuel savings (or costs) over a five-year period.¹¹² The statement of fuel savings (or costs) should simultaneously help counteract the MPG illusion and inform consumers of the economic effects of fuel economy over a relevant time period.¹¹³ At the same time, the chosen approach does not include the letter grades, on the ground (among others) that it might be taken to suggest a governmental evaluation of the overall merits of the car.¹¹⁴

There is a broader lesson. With respect to energy conservation in general, a helpful approach would be to enable consumers to know, very concretely, what they might gain as a result of energy-efficient choices (or what they might lose as a result of energy-inefficient choices). Such an

¹⁰⁷ See *id.* at 1594.

¹⁰⁸ For one view, see Carolyn Fischer, Let's Turn CAFE Regulation on Its Head *1-2 (Resources for the Future, Issue Brief No 09-06, May 2009), online at <http://www.rff.org/RFF/Documents/RFF-IB-09-06.pdf> (visited Jan 17, 2011).

¹⁰⁹ Hunt Allcott, Consumers' Perceptions and Misperceptions of Energy Costs, 101 *Am Econ Rev* 98, 102 (2011).

¹¹⁰ See generally 74 *Fed Reg* 61537-01 (cited in note 105).

¹¹¹ Environmental Protection Agency and Department of Transportation, Revisions and Additions to Motor Vehicle Fuel Economy Label, 76 *Fed Reg* 39478, 39480 figure I-1 (2011) (amending 40 *CFR* Parts 85, 86, and 600).

¹¹² *Id.* at 39481.

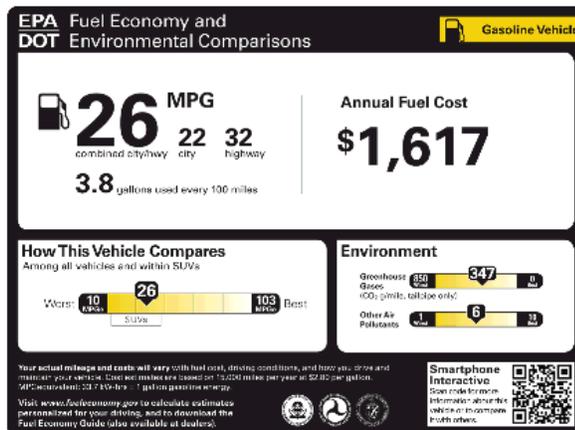
¹¹³ *Id.* at 39485-86, 39494-96.

¹¹⁴ *Id.* at 39489-90.

approach might help to overcome undue focus on the short-term costs and benefits. See, as one example, Figure 4, which is the Federal Trade Commission's energy efficiency guide, clearly identifying annual costs.

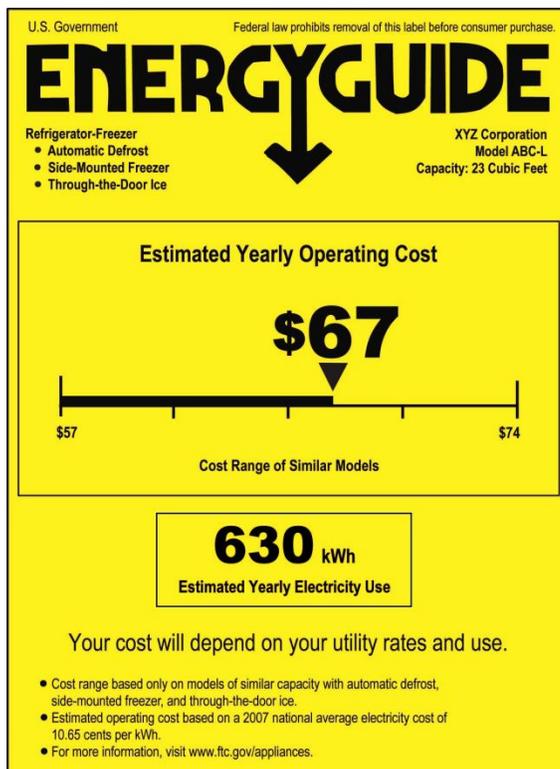


ALTERNATIVE FUEL ECONOMY LABELS



Source: EPA, Fuel Economy Label, online at <http://www.epa.gov/fueleconomy/label.htm> (visited Sept 6, 2011).

FIGURE 4. FTC ENERGYGUIDE LABEL



Source: FTC, *Concluding Two-Year Rulemaking, FTC Announces New EnergyGuide Label* (Aug 7, 2007), online at <http://www.ftc.gov/opa/2007/08/energy.shtm> (visited Apr 5, 2011).

In a related vein, the USDA has abandoned the “Food Pyramid,” used for decades as the central icon to promote healthy eating. The Pyramid has long been criticized as insufficiently informative; it does not offer people with any kind of clear “path” with respect to healthy diet. According to one critical account, “its meaning is almost completely opaque. . . . To learn what the Food Pyramid has to say about food, you must be willing to decipher the Pyramid’s markings. . . . The language and concepts here are so hopelessly abstracted from people’s actual experience with food . . . that the message confuses and demoralizes”¹¹⁵ In response to these objections, and after an extended period of deliberation, the USDA replaced the Pyramid with a new, simpler icon, consisting of a plate with clear markings for fruit, vegetable, grains, and protein.¹¹⁶

The plate is accompanied by straightforward guidance, including “make half your plate fruits and vegetables,” “drink water instead of sugary

¹¹⁵ See Heath and Heath, *Switch* at 61-62 (cited in note 13).

¹¹⁶ See US Department of Agriculture, *ChooseMyPlate.gov*, online at <http://www.choosemyplate.gov/> (visited Aug 25, 2011).

drinks,” and “switch to fat-free or low-fat (1%) milk.”¹¹⁷ This approach has the key advantage of informing people what to do, if they seek to have a healthier diet.

In a related vein, the HHS, implementing a provision of the Affordable Care Act, has proposed a rule to require insurance companies to provide clear, plain language summaries of relevant information to prospective customers.¹¹⁸ The rule includes basic information, including the annual premium, the annual deductible, a statement of services that are not covered, and a statement of costs for going to an out-of-network provider.¹¹⁹ The template offers other information as well.

In some circumstances, the tendency toward unrealistic optimism may lead some consumers to downplay or neglect information about statistical risks associated with a product or an activity. Possible examples include smoking and distracted driving.¹²⁰ In such circumstances, disclosure might be designed to make the risks associated with the product less abstract, more vivid, and salient. For example, the Family Smoking Prevention and Tobacco Control Act of 2009¹²¹ (Smoking Prevention Act) requires graphic warnings with respect to the risks of smoking tobacco,¹²² and the Food and Drug Administration (FDA) has finalized such warnings for public comment, with vivid and even disturbing pictures of some of the adverse outcomes associated with smoking.¹²³

5. Promoting competition.

If disclosure requirements are straightforward and simple, they should facilitate comparison shopping and hence market competition. Drawing on social science research, the Treasury Department’s account of financial regulation emphasizes the value of requiring that “communications with the consumer are reasonable, not merely technically compliant and non-deceptive. Reasonableness includes balance in the presentation of risks and

¹¹⁷ Id.

¹¹⁸ Department of Health and Human Services, Patient Protection and Affordable Care Act; Exchange Function in the Individual Market: Eligibility Determinations; Exchange Standards for Employers, Proposed Rules, 76 Fed Reg 51202-01, 51210 (2011).

¹¹⁹ See id; see also Healthcare.gov, Providing Clear and Consistent Information to Consumers about Their Health Insurance Coverage (Aug 22, 2011), available at <http://www.healthcare.gov/news/factsheets/labels08172011a.html> (visited Aug 25, 2011); Healthcare.gov, <http://www.healthcare.gov/news/factsheets/labels08172011b.pdf> (visited Aug 25, 2011) (providing policy information templates).

¹²⁰ See Slovic, 47 Duke L J at 1136-37 (cited in note 44); Jolls, 51 Vand L Rev at 1660 (cited in note 42).

¹²¹ Pub L No 111-31, 123 Stat 1776, codified at 21 USC § 387.

¹²² See Smoking Prevention Act § 201, 15 USC § 1333(a).

¹²³ For the original proposal, see FDA, Required Warnings for Cigarette Packages and Advertisements, 75 Fed Reg 69524 (2010).

benefits, as well as clarity and conspicuousness in the description of significant product costs and risks.”¹²⁴ The department’s analysis goes on to say that one goal should be to

harness technology to make disclosures more dynamic and adaptable to the needs of the individual consumer. . . . Disclosures should show consumers the consequences of their financial decisions. . . . [The regulator] should [] mandate or encourage calculator disclosures for mortgages to assist with comparison shopping. For example, a calculator that shows the costs of a mortgage based on the consumer’s expectations for how long she will stay in the home may reveal a more significant difference between two products than appears on standard paper disclosures.¹²⁵

In keeping with this theme, the Consumer Financial Protection Bureau is authorized to ensure that “consumers are provided with timely and understandable information to make responsible decisions about financial transactions.”¹²⁶ The Bureau is also authorized to issue rules that ensure that information is “fully, accurately, and effectively disclosed to consumers in a manner that permits consumers to understand the costs, benefits, and risks associated with the product or service, in light of the facts and circumstances.”¹²⁷

To accomplish this task, the Bureau is authorized to issue model forms with “a clear and conspicuous disclosure that, at a minimum—(A) uses plain language comprehensible to consumers; (B) contains a clear format and design, such as an easily readable type font; and (C) succinctly explains the information that must be communicated to the consumer.”¹²⁸ In addition, the director of the Bureau is required to “establish a unit whose functions shall include researching, analyzing, and reporting on . . . consumer awareness, understanding, and use of disclosures and communications regarding consumer financial products or services” and “consumer behavior with respect to consumer financial products or services, including performance on mortgage loans.”¹²⁹ Note that new technologies make it

¹²⁴ See Department of the Treasury, Financial Regulatory Reform: A New Foundation 64 (2009), online at http://www.treasury.gov/initiatives/wsr/Documents/FinalReport_web.pdf (visited Apr 5, 2011).

¹²⁵ Id at 65.

¹²⁶ Dodd-Frank Act § 1021, 12 USC § 5511.

¹²⁷ Dodd-Frank Act § 1032, 12 USC § 5532.

¹²⁸ Dodd-Frank Act § 1032, 12 USC § 5532. See also Riis and Ratner, Simplified Nutrition Guidelines to Fight Obesity at 334 (cited in note 16) (emphasizing importance of simplicity).

¹²⁹ Dodd-Frank Act § 1013, 12 USC § 5493 (describing the tasks of the Bureau’s research unit). For a relevant discussion, see John Y. Campbell, et al, Consumer Financial Protection, 25 J Econ Persp 91, 92 (2011).

possible to inform consumers of their own choices and usages, an approach that may be especially important when firms have better information than consumers do about such choices and usages.¹³⁰

In the same general vein, the Department of Labor issued a final rule requiring disclosure to workers of relevant information in pension plans. The rule is designed to require clear, simple disclosure of information about fees and expenses and to allow meaningful comparisons, in part through the use of standard methodologies in the calculation and disclosure of expense and return information.¹³¹

Yet another example is provided by a final rule of the Department of Education that promotes transparency and consumer choice with respect to for-profit education by requiring institutions to provide clear disclosure of costs, debt levels, graduation rates, and placement rates.¹³² The rule states that relevant institutions must disclose, among other things, the occupations that the program prepares students to enter, the on-time graduation rate for students completing the program, the tuition and fees charged to students for completing the program within a normal time, the placement rate for students completing the program, and the median loan debt incurred by students who completed the program. These disclosures must be included “in promotional materials [the institution] makes available to prospective students” and be “[p]rominently provide[d] . . . in a simple and meaningful manner on the home page of its program Web site.”¹³³

B. Summary Disclosure and Full Disclosure

Disclosure requirements of this kind are designed to inform consumers at the point of purchase, often with brief summaries of relevant information. Such “summary disclosures” are often complemented with more robust

¹³⁰ See Kamenica, Mullainathan, and Thaler, Helping Consumers Know Themselves at *10 (cited in note 80).

¹³¹ 29 CFR § 2550.404a-5. For a helpful summary of the rule, see Employee Benefits Security Administration, Fact Sheet: Final Rule to Improve Transparency of Fees and Expenses to Workers in 401(k)-Type Retirement Plans, online at <http://www.dol.gov/ebsa/newsroom/fsparticipantfeerule.html> (visited May 29, 2011). For a model chart that companies may use to help its employees compare retirement plan options under the new rule, see Employee Benefits Security Administration, Model Comparative Chart, online at <http://www.dol.gov/ebsa/participantfeerulemodelchart.doc> (visited May 29, 2011).

¹³² Department of Education, Program Integrity Issues, 75 Fed Reg 66832, codified in various sections of Title 34 of the CFR.

¹³³ 34 CFR § 668.6. For a helpful summary of the rule, see Department of Education, Department of Education Establishes New Student Aid Rules to Protect Borrowers and Taxpayers (Oct 28, 2010), online at <http://www.ed.gov/news/press-releases/department-education-establishes-new-student-aid-rules-protect-borrowers-and-tax> (visited Apr 5, 2011).

information, typically found on public or private websites. For example, the EPA offers a great deal of material on fuel economy online, going well beyond the information that is available on stickers,¹³⁴ and the nutrition facts label is supplemented by a great deal of nutritional information on government websites.¹³⁵ Approaches of this kind provide information that private individuals and institutions can adapt, reassemble, and present in new, helpful, imaginative, and often unanticipated ways. Some of the most valuable and creative uses of full disclosure are made by the private sector.

Other disclosure requirements are not specifically directed to consumers or end users at all. They promote public understanding of existing problems and help produce possible solutions by informing people about current practices. One example is the Emergency Planning and Community Right-to-Know Act of 1986.¹³⁶ At first, this law seemed to be largely a bookkeeping measure, requiring a “Toxic Release Inventory” in which firms reported what pollutants they were using.¹³⁷ But available evidence indicates that it has had beneficial effects, helping to spur reductions in toxic releases throughout the United States.¹³⁸ One reason involves public accountability: public attention can help promote behavior that fits with statutory purposes.¹³⁹

In 2009 and 2010, the Occupational Safety and Health Administration (OSHA) placed a significant subset of its fatality, illness, and injury data online, in a step that should promote both accountability and safer workplaces.¹⁴⁰ In 2009, the EPA issued a greenhouse gas reporting rule, requiring disclosure by many of the most significant emitters.¹⁴¹ The data

¹³⁴ See Environmental Protection Agency, Energy Efficiency & Renewable Energy, online at <http://www.fueleconomy.gov> (visited Apr 5, 2011).

¹³⁵ See US Department of Agriculture, [Nutrition.gov](http://www.nutrition.gov), online at <http://www.nutrition.gov> (visited Apr 5, 2011). See also US Department of Agriculture, [ChooseMyPlate.gov](http://www.choosemyplate.gov), online at [choosemyplate.gov](http://www.choosemyplate.gov) (visited June 13, 2011).

¹³⁶ Pub L No 99-499, 100 Stat 1728, codified at 42 USC § 11001 et seq.

¹³⁷ See Archon Fung and Dara O’Rourke, [Reinventing Environmental Regulation from the Grassroots Up: Explaining and Expanding the Success of the Toxics Release Inventory](#), 25 *Envir Mgmt* 115, 116 (2000).

¹³⁸ See James T. Hamilton, [Regulation through Revelation: The Origin, Politics, and Impacts of the Toxics Release Inventory Program](#) 248 (Cambridge 2005).

¹³⁹ See Fung and O’Rourke, 25 *Envir Mgmt* at 120 (cited in note 137).

¹⁴⁰ See US Department of Labor and Occupational Safety and Health Administration, [Workplace Injury, Illness and Fatality Statistics](#), online at <http://www.osha.gov/oshstats/work.html> (visited Apr 5, 2011).

¹⁴¹ See Environmental Protection Agency, Mandatory Reporting of Greenhouse Gases, 74 Fed Reg 56269-01, codified in various sections of Title 40 of the CFR.

may well allow businesses to find innovative ways to track their own emissions, to compare them to similar facilities, and eventually to identify low-cost reductions.

The Department of Justice (DOJ) has similarly published dozens of datasets involving crime, enforcement, and prison,¹⁴² and is preparing many more for future release. Similarly, the Department of Labor's "Searchable Enforcement Database" provides the public with one-stop access to enforcement data across the department (for example, Mines and Chemical Hazards).¹⁴³ The EPA has taken a similar approach.¹⁴⁴ Generalizing from these practices, President Obama has issued a memorandum requiring agencies "with broad regulatory compliance and administrative enforcement responsibilities" to "develop plans to make public information concerning their regulatory compliance and enforcement activities accessible, downloadable, and searchable online."¹⁴⁵

These steps fit well with the goals of the Office of Management and Budget's (OMB) "Open Government Directive," which is intended in part to ensure that high-value data sets are placed online.¹⁴⁶ Posting these data sets online can promote regulatory goals by virtue of the power of publicity. Indeed, many high-value data sets count as such because their publication helps agencies further their statutory missions. The directive explicitly emphasizes this point,¹⁴⁷ and numerous agencies have disclosed high-value data sets¹⁴⁸ and developed open government plans.¹⁴⁹ Disclosure of many of

¹⁴² See <http://www.justice.gov/open/data.html> (visited Sept 27, 2011) and <http://www.data.gov> (visited Sept 27, 2011).

¹⁴³ See US Department of Labor, Enforcement Data, online at <http://ogesdw.dol.gov/search.php> (visited Apr 5, 2011).

¹⁴⁴ See Environmental Protection Agency, Enforcement & Compliance History Online (ECHO), online at <http://www.epa-echo.gov> (visited Apr 5, 2011).

¹⁴⁵ See Presidential Memorandum, Regulatory Compliance (Jan 18, 2011), online at <http://www.whitehouse.gov/the-press-office/2011/01/18/presidential-memoranda-regulatory-compliance> (visited Apr 5, 2011).

¹⁴⁶ See Peter R. Orszag, Director, OMB, Memorandum for the Heads of Executive Departments and Agencies, Open Government Directive 2, 7 (OMB Memorandum M-10-06, Dec 8, 2009), online at http://www.whitehouse.gov/omb/assets/memoranda_2010/m10-06.pdf (visited Apr 5, 2011).

¹⁴⁷ See *id.* at 7-8.

¹⁴⁸ See, for example, US Department of Health and Human Services, Centers for Disease Control and Prevention, Community Health Status Indicators (CHSI) to Combat Obesity, Heart Disease and Cancer (May 1, 2010), online at <http://www.data.gov/raw/2159> (visited May 31, 2011) (containing data on over 200 measures of health in every county in the United States); Department of the Treasury, FinancialStability.gov TARP Transactions Data: Asset Guarantee Program (Dec 4, 2009), online at <http://www.data.gov/raw/1260> (visited Apr 7, 2011) (listing all purchases, trades, or sales of troubled assets under the Emergency Economic Stabilization Act of

the data sets (for example, in the domain of safety and health) should promote agency missions; the open government plans enlist openness for the same reason.

Disclosure is also used as a check on certain increases in health insurance premiums. For plan years beginning in 2010, Affordable Care Act § 1004 requires that the secretary and states establish a process for the annual review of “unreasonable increases” in premiums for health insurance coverage.¹⁵⁰ That process shall “require health insurance issuers to submit to the Secretary and the relevant State a justification for an unreasonable premium increase prior to the implementation of the increase.”¹⁵¹ Moreover, “such issuers shall prominently post such information on their Internet websites,” and the “Secretary shall ensure the public disclosure of information on such increases and justifications for all health insurance issuers.”¹⁵²

In addition to making data more accessible, some agencies are attempting to make the data more readily usable. An example of this kind of clean, clear, and flexible transparency technology is eXtensible Business Reporting Language (XBRL).¹⁵³ XBRL is an open standard for creating electronic reports and exchanging data via the web. Using a standardized series of “tags” for labeling information, XBRL essentially allows anyone to download and analyze huge amounts of data using a simple spreadsheet.

2008, Pub L No 110-343, 122 Stat 3765 (2008)); Department of Housing and Urban Development (HUD), Public Housing Physical Inspection Scores, online at <http://www.data.gov/raw/1258> (visited May 31, 2011) (providing historical data regarding the approximately twenty thousand physical inspections of public and multifamily assisted housing conducted by HUD every year); Department of Energy, Residential Energy Consumption Survey (RECS) Files, online at <http://www.data.gov/raw/10> (visited May 30, 2011) (providing nearly thirty years’ worth of survey data on the use of energy in residential housing units).

¹⁴⁹ See, for example, Environmental Protection Agency, Open Government Plan 1.1 1 (June 25, 2010), online at http://www.epa.gov/open/EPAOpenGovernmentPlan_11.pdf (visited Jan 17, 2011); Department of Transportation, Open Government Plan Version 1.2 10 (June 25, 2010), online at http://www.dot.gov/open/pdf/DOT_Open_Gov_Plan_V1.2_06252010.pdf (visited Apr 6, 2011); US Department of Health and Human Services, HHS Open Government Plan Version 1.1 12 (June 25, 2010), online at http://www.hhs.gov/open/plan/opengovernmentplan/openplanversion1_1.pdf (visited Apr 6, 2011); US Department of Labor, Open Government Plan Version 1.0 3 (Apr 7, 2010), online at <http://www.dol.gov/open/OGDplan.pdf> (visited Apr 6, 2011). Some of the FDA’s efforts are described in Afia K. Asamoah and Joshua M. Sharfstein, Transparency at the Food and Drug Administration, 362 New Eng J Med 2341, 2341-43 (2010).

¹⁵⁰ Affordable Care Act § 1004, 42 USC § 300gg-94.

¹⁵¹ Affordable Care Act § 1004, 42 USC § 300gg-94(a)(2).

¹⁵² Affordable Care Act § 1004, 42 USC § 300gg-94(a)(2).

¹⁵³ <http://www.xbrl.org/aboutXBRL> (visited Sept 27, 2011).

By June of this year, companies with a market capitalization over \$5 billion that use US accounting rules will need to submit all filings via the XBRL format, according to a recently announced Securities and Exchange Commission (SEC) rule, entitled “Interactive Data to Improve Financial Reporting,”¹⁵⁴ which requires

companies to provide financial statement information in a form that is intended to improve its usefulness to investors. In this format, financial statement information could be downloaded directly into spreadsheets, analyzed in a variety of ways using commercial off-the-shelf software, and used within investment models in other software formats. . . . The new rules are intended not only to make financial information easier for investors to analyze, but also to assist in automating regulatory filings and business information processing. Interactive data has the potential to increase the speed, accuracy and usability of financial disclosure, and eventually reduce costs.¹⁵⁵

The requirement will be phased in over three years for smaller public companies and mutual funds.¹⁵⁶

To be sure, mandatory disclosure can impose costs and burdens on both private and public institutions, and to the extent permitted by law, those costs and burdens should be considered when deciding whether and how to proceed. Empirical evidence on the actual effects of disclosure policies is indispensable.¹⁵⁷

C. Disclosure and Regulatory Impact Analysis

If regulation is to be empirically informed, it must be preceded by a careful analysis of its rationale and its likely consequences. Does a market

¹⁵⁴ Securities and Exchange Commission, Interactive Data to Improve Financial Reporting, 74 Fed Reg 6776 (2009).

¹⁵⁵ Id at 6776.

¹⁵⁶ Id at 6776 (requiring companies with worldwide equity value of over \$5 billion to comply in year one, and smaller companies to comply in subsequent years).

¹⁵⁷ See Greenstone, Toward a Culture of Persistent Regulatory Experimentation and Evaluation at 113 (cited in note 68). For a relevant study, see generally Janet Schwartz, et al, Would You Like to Downsize That Meal? Activating Self-Control Is More Effective Than Calorie Labeling in Reducing Calorie Consumption in Fast Food Meals (unpublished manuscript, 2011) (arguing that retrospective review is the only way to determine the “true effect of policies” because “it is generally impossible to assess regulations prospectively”). For a discussion of principles and best practices, including consideration of costs and benefits, with respect to such policies, see Cass R. Sunstein, Administrator, OIRA, Memorandum for the Heads of Executive Departments and Agencies: Disclosure and Simplification as Regulatory Tools (June 18, 2010), online at http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/disclosure_principles.pdf.

failure justify regulation—as, for example, in the form of an absence of adequate information? What are the benefits of the proposed action, in both qualitative and quantitative terms? What are the costs? What are the alternatives to the proposed action—are they more stringent, less stringent, or perhaps simply different? Do the benefits justify the costs, and if so, has the agency chosen the approach that maximizes net benefits? Do considerations of human dignity or equity bear on the agency’s decision?¹⁵⁸

Executive Orders 13563 and 12866 explicitly draw attention to questions of this sort, especially through their identification of “principles of regulation.”¹⁵⁹ Executive Order 13563 incorporates and reaffirms the principles in Executive Order 12866. Stressing the importance of attempting to measure and improve “the actual results of regulatory requirements,” it specifically adds that “each agency is directed to use the best available techniques to quantify anticipated present and future benefits as accurately as possible”—and that “each agency may consider (and discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts.”¹⁶⁰

Implementing Executive Order 12866, OMB Circular A-4 provides technical guidance for regulatory impact analyses, required for regulations whose annual impact exceeds \$100 million.¹⁶¹ Taken as a whole, Executive Order 13563, Executive Order 12866, and OMB Circular A-4 can be seen as efforts to use disclosure as a way of policing and disciplining regulation itself by ensuring that agencies have relied not on intuitions, anecdotes, or guesswork, but on a careful assessment of the likely consequences of proposed courses of action. That assessment should be exposed to public scrutiny and review, and it should be corrected if necessary.¹⁶²

Note in this regard that Executive Order 13563 requires agencies to provide “timely online access to the rulemaking docket on regulations.gov, including relevant scientific and technical findings,”¹⁶³ with an opportunity for public comment “on all pertinent parts of the rulemaking docket.”¹⁶⁴ To be empirically informed, regulatory choices must be based on a careful

¹⁵⁸ Consider 76 Fed Reg at 3821 (cited in note 1).

¹⁵⁹ See *id.*; Executive Order 12866, 3 CFR § 638.

¹⁶⁰ 76 Fed Reg at 3821.

¹⁶¹ Office of Management and Budget, Circular A-4, Regulatory Analysis 2 (Sept 17, 2003), online at http://www.whitehouse.gov/sites/default/files/omb/assets/omb/circular_s/a004/a-4.pdf (visited Apr 6, 2011).

¹⁶² See Cass R. Sunstein, Administrator, OIRA, Memorandum for the President’s Management Council, Increasing Openness in the Rulemaking Process—Improving Electronic Dockets 2 (May 28, 2010), online at http://www.whitehouse.gov/sites/default/files/omb/assets/inforeg/edocket_final_5-28-2010.pdf (visited Apr 6, 2011) (requiring supporting materials for rules, including regulatory impact analyses, to be available to the public on regulations.gov).

¹⁶³ 76 Fed Reg at 3822 (cited in note 1).

¹⁶⁴ *Id.*

assessment of relevant facts, and such choices should, to the extent feasible, be subject to public review and comment.

OIRA has posted a simple checklist and also a primer for regulatory impact analyses, as well as answers to frequently asked questions about such analysis. All of these documents are designed to promote simplicity and clarity for agencies and the public alike, and thus to improve disclosure of the anticipated consequences of regulatory choices. The checklist is reproduced as Appendix B.¹⁶⁵

It is true, of course, that prospective analysis of costs and benefits, even if done carefully and subject to public scrutiny, may rest on speculative assumptions. To be empirically informed, regulations must be revisited and reviewed retrospectively, to ensure that they are promoting their intended functions, and are not causing unintended adverse side effects. Executive Order 13563 expressly recognizes this point in calling for “retrospective analysis” of existing significant rules and in requiring agencies to produce preliminary plans for such analysis.¹⁶⁶

In their preliminary plans for retrospective review, informed by public input and meetings held nationwide,¹⁶⁷ agencies identified numerous reforms, candidate rules for review, and initiatives already underway. In recognition of the emphasis in Executive Order 13563 on public participation in the rulemaking process, agencies made these preliminary plans publicly available and requested further public comments and suggestions.¹⁶⁸

¹⁶⁵ See generally Office of Information and Regulatory Affairs, Office of Management and Budget, Agency Checklist: Regulatory Impact Analysis (Oct 20, 2010), online at http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/RIA_Checklist.pdf (visited Sept 6, 2011). See also Office of Information and Regulatory Affairs, Office of Management and Budget, Regulatory Impact Analysis: A Primer (Aug 15, 2011), online at http://www.whitehouse.gov/sites/default/files/omb/inforeg/regpol/circular-a-4_regulatory-impact-analysis-a-primer.pdf (visited Sept 6, 2011); Office of Information and Regulatory Affairs, Office of Management and Budget, Regulatory Impact Analysis: Frequently Asked Questions (FAQs) (Feb 7, 2011), online at http://www.whitehouse.gov/sites/default/files/omb/circulars/a004/a-4_FAQ.pdf (visited Sept 6, 2011).

¹⁶⁶ See 76 Fed Reg at 3821 (cited in note 1).

¹⁶⁷ See, for example, Environmental Protection Agency, Improving Our Regulations: A Preliminary Plan for Periodic Retrospective Reviews of Existing Regulations 34 (May 24, 2011), online at <http://www.whitehouse.gov/files/documents/2011-regulatory-action-plans/EnvironmentalProtectionAgencyPreliminaryRegulatoryReformPlan.pdf> (visited Sept 6, 2011) (“Verbal comments were solicited at a series of twenty public meetings. . . . Additionally, EPA held nineteen more town halls and listening sessions targeting specific program areas (e.g. solid waste and emergency response) and EPA Regions.”).

¹⁶⁸ See Cass R. Sunstein, Administrator, OIRA, Memorandum for the Heads of Executive Departments and Agencies; Retrospective Analysis

Agencies' final plans, released under Executive Order 13563, highlight numerous initiatives with significant savings in terms of both dollars and annual hours of paperwork and reporting requirements.¹⁶⁹

To offer just a few examples:

- HHS proposed to remove unnecessary regulatory and reporting requirements now imposed on hospitals and other healthcare providers, potentially saving an anticipated \$3 billion over the next five years.¹⁷⁰
- The Department of Labor is finalizing a rule to simplify and to improve hazard warnings for workers, likely saving employers over \$800 million over the next five years without compromising safety.¹⁷¹
- The Department of Transportation proposed a rule that will eliminate unnecessary regulation of the railroad industry, saving up to \$340 million in the near future, and avoiding the risk that regulatory costs will be passed on to consumers.¹⁷²
- The EPA will soon propose a rule to reduce burdens on hazardous waste generators by moving from paper-based to electronic reporting, saving up to \$124 million annually.¹⁷³

of Existing Significant Regulations (Apr 25, 2011), online at <http://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-19.pdf> (visited Sept 6, 2011).

¹⁶⁹ The final plans can currently all be viewed on the White House's website. The White House, Regulation Reform, online at <http://www.whitehouse.gov/21stcenturygov/actions/21st-century-regulatory-system> (visited Sept 6, 2011). Many agencies will also publish their preliminary plans online on their Open Government Webpages. See, for example, <http://www.dot.gov/open> (visited Sept 27, 2011).

¹⁷⁰ Department of Health and Human Services, Plan for Retrospective Review of Existing Rules 3, 8-17 (Aug 22, 2011), online at <http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/healthandhumanservicesregulatoryreformplanaugust2011.pdf> (visited Sept 6, 2011).

¹⁷¹ Department of Labor, Plan for Retrospective Analysis of Existing Rules 10-11 (Aug 2011), online at <http://www.whitehouse.gov/files/documents/2011-regulatory-action-plans/DepartmentofLaborPreliminaryRegulatoryReformPlan.pdf> (visited Sept 6, 2011).

¹⁷² Department of Transportation, Plan for Implementation of Executive Order 13563: Retrospective Review and Analysis of Existing Rules 2, 21 (Aug 2011), online at <http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/departmentoftransportationregulatoryreformplanaugust2011.pdf> (visited Sept 6, 2011).

¹⁷³ Environmental Protection Agency, Improving Our Regulations: Final Plan for Periodic Retrospective Reviews of Existing Regulations 35-36 (Aug 2011), online at <http://www.whitehouse.gov/sites/default/files/other/2011-regulatory->

- By the end of this year, the Internal Revenue Service (IRS) will eliminate 55 million hours in annual paperwork burdens by consolidating reporting requirements and streamlining various tax forms.¹⁷⁴
- The OSHA issued a final rule that will remove over 1.9 million annual hours of redundant reporting burdens on employers and save more than \$40 million in annual costs.¹⁷⁵
- Since the 1970s, milk has been defined as an “oil” and subject to costly rules designed to prevent oil spills. In response to objections from the agriculture community and the President’s directive, EPA concluded that the rules placed unjustifiable burdens on dairy farmers and exempted them. The projected annual savings are around \$145 million.¹⁷⁶
- The EPA is proposing to eliminate the obligation for many states to require air pollution vapor recovery systems at local gas stations, on the ground that modern vehicles already have effective air pollution control technologies. The anticipated annual savings are about \$87 million.¹⁷⁷
- The Departments of Commerce and State are undertaking a series of steps to eliminate unnecessary barriers to exports, including duplicative and unnecessary regulatory requirements, thus reducing the cumulative burden and uncertainty faced by American companies and their trading partners.¹⁷⁸
- To reduce administrative burdens and increase certainty, the Department of the Interior is reviewing outdated regulations under the Endangered Species Act of 1973¹⁷⁹ to streamline the process, to

action-plans/environmentalprotectionagencyregulatoryreformplanaugust2011.pdf (visited Sept 6, 2011).

¹⁷⁴ Department of the Treasury, Plan for Retrospective Analysis of Existing Rules 1, 3 (Aug 22, 2011), online at [http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-](http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/departementofthetreasuryregulatoryreformplanaugust2011.pdf)

[action-plans/departementofthetreasuryregulatoryreformplanaugust2011.pdf](http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/departementofthetreasuryregulatoryreformplanaugust2011.pdf) (visited Sept 6, 2011).

¹⁷⁵ Department of Labor, Plan for Retrospective Analysis of Existing Rules at 9-10 (cited in note 171).

¹⁷⁶ Environmental Protection Agency, Improving Our Regulations at 5, 14 (cited in note 173).

¹⁷⁷ *Id.* at 32-33.

¹⁷⁸ Department of Commerce, Plan for Retrospective Analysis of Existing Rules 3-6 (Aug 18, 2011), online at <http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/departementofcommerceregulatoryreformplanaugust2011a.pdf> (visited Sept 6, 2011).

¹⁷⁹ Pub L No 93-205, 87 Stat 884, codified as amended at 16 USC § 1531 et seq.

reduce requirements for written descriptions, and to clarify and expedite procedures for approval of conservation agreements.¹⁸⁰

Retrospective analysis has long been recommended by those interested in empirical analysis of regulations. Consider this suggestion from Michael Greenstone, former chief economist at the Council of Economic Advisers: “The single greatest problem with the current system is that most regulations are subject to a cost–benefit analysis only in advance of their implementation. This is the point when the least is known and any analysis must rest on many unverifiable and potentially controversial assumptions.”¹⁸¹ By contrast, retrospective analysis can help show what works and what does not, and in the process can help to promote the repeal or streamlining of less effective rules and strengthening or expansion of those that turn out to do more good than harm. Greenstone thus urges a series of reforms designed to “instill a culture of experimentation and evaluation.”¹⁸² These reforms include an effort to ensure that regulations are written and implemented in ways that lend themselves to experimental evaluation and creation of independent review to assess the effectiveness of regulations.

One of Greenstone’s principal themes is the importance of experimentation with respect to the likely effects of regulation. There has been a great deal of recent interest in the use of randomized controlled trials as a means of learning the effects of policy initiatives.¹⁸³ In the regulatory area, the use of such trials remains in a preliminary state, but it is easy to imagine projects that would test the effects of potential rules by examining their consequences in this way; such projects might, for example, explore the effects of efforts to reduce distracted driving. More generally, experimentation might take the form of advance testing of regulatory alternatives, followed by study of their consequences. Approaches of this kind might be used either prospectively or retrospectively, at least if the law authorizes such approaches.¹⁸⁴

Of course there are constraints—involving not merely law but also resources and feasibility—in using randomized control trials in the

¹⁸⁰ Department of the Interior, Preliminary Plan for Retrospective Regulatory Review 11-12 (Aug 19, 2011), online at <http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/departmentoftheinteriorregulatoryreformplanaugust2011.pdf> (visited Sept 6, 2011).

¹⁸¹ Greenstone, Toward a Culture of Persistent Regulatory Experimentation and Evaluation at 113 (cited in note 68).

¹⁸² *Id.* at 14.

¹⁸³ See generally Banerjee and Duflo, Poor Economics (cited in note 3).

¹⁸⁴ See Greenstone, Toward a Culture of Persistent Regulatory Experimentation and Evaluation at 113 (cited in note 68), and, in other contexts, Banerjee and Duflo, Poor Economics (cited in note 3).

regulatory context, but in some cases, they may be both appropriate and highly useful. The preliminary plans released under Executive Order 13563 offer relevant discussion. For example, the Department of Treasury states that it will work to “develop and incorporate experimental designs into retrospective analysis, when appropriate.”¹⁸⁵ The Department of Labor states that it “is contemplating how to incorporate the use of experimental designs to determine the impact of various regulations.”¹⁸⁶ The Department of Interior states that it “will consider” the use of “experimental or quasi-experimental designs, including randomized controlled trials.”¹⁸⁷

III. DEFAULT RULES AND SIMPLIFICATION

Social science research provides strong evidence that starting points, or “default rules,” greatly affect social outcomes.¹⁸⁸ In some contexts, it may be possible to promote statutory goals with sensible default rules that preserve freedom of choice and that might help to avoid the rigidity, cost, and unintended adverse consequences of mandates and bans. In the abstract, of course, there may not be an obviously appropriate default rule; the choice is best made by reference to statutory goals and policy commitments.

Default rules are one way of easing people’s choices, and they are used in countless domains by both public and private institutions. There are other ways of easing choices. One example is simplification, as with communications and forms that are shorter, easier, more intuitive, electronic, and in some cases prepopulated with information, thus reducing burdens on those who are asked to fill them out.

¹⁸⁵ Department of the Treasury, Plan for Retrospective Analysis of Existing Rules at 20 (cited in note 174).

¹⁸⁶ Department of Labor, Plan for Retrospective Analysis of Existing Rules at 22 (cited in note 171).

¹⁸⁷ Department of the Interior, Plan for Retrospective Regulatory Review at 20 (cited in note 180). See also US Department of Agriculture, Final Plan for Retrospective Analysis Pursuant to Executive Order 13563 23 (Aug 18, 2011), available at <http://www.whitehouse.gov/sites/default/files/other/2011-regulatory-action-plans/departmentofagricultureregulatoryreformplanaugust2011.pdf> (visited Sept 8, 2011) (“[The USDA] may consider the use of experimental or quasi-experimental designs, including randomized controlled trials, when promoting the empirical testing of the effects of rules.”).

¹⁸⁸ See Eric J. Johnson, et al, Framing, Probability Distortions, and Insurance Decisions, 7 *J Risk & Uncertainty* 35, 48-50 (1993).

A. Automatic Enrollment and Default Rules: Examples

1. Savings.

In the United States, employers have long asked workers whether they want to enroll in 401(k) plans; under a common approach, the default rule is nonenrollment. Even when enrollment is easy, the number of employees who enroll, or opt in, has sometimes been relatively low.¹⁸⁹ Recently, a number of employers have responded by changing the default to automatic enrollment, by which employees are enrolled unless they opt out. The results are clear: significantly more employees end up enrolled with an opt-out design than with opt-in.¹⁹⁰ This is so even when opting out is easy. Importantly, automatic enrollment has significant benefits for all groups, with increased anticipated savings for Hispanics, African Americans, and women in particular.¹⁹¹

The Pension Protection Act of 2006¹⁹² (PPA) draws directly on these findings by encouraging employers to adopt automatic enrollment plans. The PPA does this by providing nondiscrimination safe harbors for elective deferrals and for matching contributions under plans that include an automatic enrollment feature, as well as by providing protections from state payroll-withholding laws to allow for automatic enrollment.¹⁹³ Building on these efforts, President Obama has asked the IRS and the Treasury Department to undertake initiatives to make it easier for employers to adopt such plans.¹⁹⁴

¹⁸⁹ See Madrian and Shea, 116 Q J Econ at 1158-60 (cited in note 5). See also Gale, et al, Introduction at 1 (cited in note 75).

¹⁹⁰ See Gale, et al, Introduction at 13 (cited in note 75).

¹⁹¹ See Peter R. Orszag and Eric Rodriguez, Retirement Security for Latinos: Bolstering Coverage, Savings, and Adequacy, in Gale, et al, eds, Automatic 173, 182 (cited in note 75); Leslie E. Papke, Lina Walker, and Michael Dworsky, Retirement Savings for Women: Progress to Date and Policies for Tomorrow, in Gale, et al, eds, Automatic 199, 216 (cited in note 75); Ngina Chiteji and Lina Walker, Strategies to Increase the Retirement Savings of African American Households, in Gale, et al, eds, Automatic 231, 248-49 (cited in note 75).

¹⁹² Pub L No 109-280, 120 Stat 780, codified in various sections of Titles 26 and 29.

¹⁹³ PPA § 902, 26 USC §§ 401, 411, 416.

¹⁹⁴ See President Barack Obama, Weekly Address (Sept 5, 2009) (announcing a legislative and regulatory initiative to increase participation in IRAs and match retirement savings). For an example of the IRS and Treasury Department's response to this request, see generally IRS, Retirement & Savings Initiatives: Helping Americans Save for the Future, (Sep 2009), online at http://www.irs.gov/pub/irs-tege/rne_se0909.pdf (visited May 31, 2011) (discussing four notices and three rulings designed to increase the usage of automation for retirement saving programs).

PPA created two types of new automatic contribution arrangements. The first is a safe-harbor design for automatic enrollment plans called a “qualified automatic contribution arrangement” (QACA).¹⁹⁵ To qualify as a QACA, the arrangement generally must satisfy design-based safe harbor requirements such as qualified minimum percentage amounts, an annual employee notice, and certain vesting for matching contributions. The second is an “eligible automatic contribution arrangement” (EACA).¹⁹⁶ Plans that meet the EACA requirements in new § 414(w) may allow employees to elect to withdraw automatic contributions no later than 90 days from the date these contributions first start, without incurring the 10 percent early withdrawal tax.

In early 2009, the Internal Revenue Service (IRS) promulgated its final regulations regarding automatic contribution arrangements (automatic enrollment) in individual account defined contribution plans.¹⁹⁷ To qualify as a QACA, an eligible employee must be enrolled in the plan at a specified automatic contribution rate (that is, qualified percentage), beginning with an initial minimum contribution rate of 3 percent of the employee’s compensation. The default election ends when an automatic enrollee affirmatively elects to opt out or to contribute a different amount. The EACA requirements include uniform default deferral rates and notices to employees that are generally similar to those for a QACA.

2. Health care.

A provision of the Affordable Care Act requires employers with over two hundred employees automatically to enroll employees in health care plans, while also allowing employees to opt out.¹⁹⁸ Another provision of the Act is called the Community Living Assistance Services and Supports Act¹⁹⁹ (CLASS Act); this provision creates a national voluntary long-term insurance program. The Act provides for an automatic enrollment system, whereby employers enroll employees in the program unless they opt out.²⁰⁰ In addition, contains an automatic payroll deduction system for the payment of premiums.²⁰¹

On February 4, 2010, the Center of Medicare and Medicaid Services (CMS) provided guidance to states via a State Health Official (SHO)

¹⁹⁵ PPA § 902, 26 USC § 401.

¹⁹⁶ PPA § 902, 26 USC § 414.

¹⁹⁷ See 26 CFR §§ 1, 54. On November 8, 2007, the IRS issued proposed regulations relating to the automatic contribution arrangement provisions of PPA. See 26 CFR § 1.

¹⁹⁸ See PPA § 1511, 29 USC § 218A.

¹⁹⁹ Pub L No 111-148, title 8, 124 Stat 828, codified at 42 USC § 300.

²⁰⁰ CLASS Act § 8002, 42 USC § 30011-3(a)(1).

²⁰¹ CLASS Act § 9001, 42 USC § 30011-3(e)(1).

letter.²⁰² In cases where states are able to obtain all the information necessary to determine eligibility, the new option permits States automatically to enroll and renew eligible children in Medicaid or Children’s Health Insurance Program (CHIP). This approach allows states to initiate and determine eligibility for Medicaid or CHIP without a signed Medicaid or CHIP program application, as long as the family or child consents to be enrolled in Medicaid or CHIP.

3. School meals.

The National School Lunch Act²⁰³ takes steps to allow “direct certification” of eligibility, thus reducing complexity and introducing what is a form of automatic enrollment. Under the program, children who are eligible for benefits under certain programs will be “directly eligible” for free lunches and free breakfasts, and hence will not have to fill out additional applications.²⁰⁴ To promote direct certification, the USDA has issued an interim final rule that is expected to provide up to 270,000 children with school meals.²⁰⁵

4. Payroll statements.

The Department of Homeland Security has changed the default setting for payroll statements to electronic from paper, thus reducing costs.²⁰⁶ In general, changes of this kind may save significant sums of money for both private and public sectors. It would be useful to identify other contexts in which sensible default rules—or automatic or simplified enrollment—might operate in the service of legal requirements and agreed-upon social goals. Of course it is possible to imagine default rules, or approaches to automatic enrollment, that are harmful or counterproductive; this risk is discussed below.

²⁰² CMS, Re: Express Lane Eligibility Option, *1 (Feb 4, 2010), online at <http://peerta.acf.hhs.gov/uploadedFiles/Express%20Lane%20Eligibility%20SHO%20final%202-4-10%20508%20ready.pdf> (visited May 31, 2011).

²⁰³ Healthy, Hunger-Free Kids Act of 2012, Pub L No 111-296, 124 Stat 3183.

²⁰⁴ Healthy, Hungry-Free Kids Act of 2012 § 101, 42 USC § 1758 (b) (4).

²⁰⁵ US Department of Agriculture, Direct Certification and Certification of Homeless, Migrant and Runaway Children for Free School Meals, 76 Fed Reg 22785-02, 22793 (2011).

²⁰⁶ Peter Orszag, OMB, Director, SAVEings (Mar 29, 2010), online at <http://www.whitehouse.gov/omb/blog/10/03/29/SAVEings/> (visited May 31, 2011).

5. Childhood obesity.

A great deal of empirical work identifies a noteworthy contributor to the problem of obesity, including childhood obesity. If healthy foods are easily accessible, people are far more likely to choose them, and the same is true for unhealthy foods. Indeed, convenience and accessibility can significantly increase caloric intake;²⁰⁷ some studies have found that when fast food restaurants are located near schools or residences, significant weight gain occurs in both children and pregnant women.²⁰⁸ Even small differences have large effects on food choices and consumption. For example, the sizes of plates and portions have been increasing over time, and they affect how much people eat; when unhealthy foods are made slightly less accessible, their consumption is reduced.²⁰⁹ These and related issues are discussed in the report of the White House Task Force on Childhood Obesity, which places a great emphasis on the importance of accessibility.²¹⁰

In a sense, social settings produce something akin to “default rules” for food choices. These findings—about the importance of seemingly small features of context²¹¹—have implications for continuing efforts to reduce childhood obesity and many other problems. One study, for example, finds that if people are prompted to consider whether to “downsize” their meals

²⁰⁷ See Rozin, et al, 6 *Judgment Decision Making* at 324, 329-30 (cited in note 55). For a brief, vivid summary, see Wansink, Just, and McKendry, Lunch Line Redesign, *NY Times* at A35 (cited in note 54).

²⁰⁸ See Currie, et al, 2 *Am Econ J: Econ Pol* at 60-61 (cited in note 56).

²⁰⁹ See Rozin, et al, 6 *Judgment Dec Making* at 324, 329-30 (cited in note 55). For more on the general point, see Wansink, Mindless Eating at 58-68, 83-88 (cited in note 59). For a discussion of the importance of convenience and (in a sense) default choices, see Downs, Loewenstein, and Wisdom, 2 *Am Econ J: Applied Econ* at 166 (cited in note 96). For a discussion of the effect of menu positions, see Eran Dayan and Maya Bar-Hillel, Nudge to Nobesity II: Menu Positions Influence Food Orders, 6 *Judgment Dec Making* 333, 339-40 (2011) (finding, on the basis of both lab and real-world studies, that items placed at the beginning or the end of the list in their category are up to twenty percent as popular as when they are placed in the center of the list).

²¹⁰ See White House Task Force on Childhood Obesity, Report to the President, *Solving the Problem of Childhood Obesity within a Generation* 49-55 (May 2010), online at http://www.letsmove.gov/pdf/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf (visited Apr 6, 2011).

²¹¹ See *id.* at 37 (“Children’s choices depend on what is most visible and easily accessible; seemingly small differences in the school environment can have large effects on what children eat. The ‘choice architecture’ intentionally or unintentionally designed into the school nutrition environment can make a decisive difference in our children’s behaviors and health.”).

through a simple question, they will eat significantly less at fast-food restaurants.²¹² Indeed, the effect of this prompt was found to be greater than that of calorie labeling. The authors suggest that at least some consumers may have difficulty in “determining appropriate portion sizes and knowing when to stop eating” and urge that “a subtle change in the fast-food ordering process can initiate self-control.”²¹³

Their central finding is that people generally think that portions are excessively large, and when people are asked, “Would you like to cut more than 200 calories from your meal by taking a half portion of your side dish?” they answer in the affirmative about 35 percent of the time. Notably, the downsize offer receives about the number of acceptances (32 percent) when it is accompanied by a 25 cent discount. One of the striking implications here is that the “downsize” question served simultaneously to save costs for restaurants and to reduce calorie consumption. Another implication is that verbal prompts can serve some of the functions of default rules.

B. Automatic Enrollment and Default Rules: Mechanisms and Complexities

A great deal of research has attempted to explore exactly why default rules have such a large effect on outcomes.²¹⁴ There appear to be three contributing factors. The first involves inertia and procrastination.²¹⁵ To alter the effect of the default rule, people must make an active choice to reject the default. In view of the power of inertia and the tendency to procrastinate, people may simply continue with the status quo. It follows that self-consciously and well-chosen default rules by individuals, or by private or public institutions, can operate as commitment devices; consider, for example, a default rule in favor of monthly transfer of money into a savings account, or in favor of savings for retirement.

²¹² See generally Schwartz, et al, Would You Like to Downsize That Meal? (cited in note 157).

²¹³ Id at *3.

²¹⁴ See, for example, William G. Gale, J. Mark Iwry, and Spencer Walters, Retirement Savings for Middle- and Lower-Income Households: The Pension Protection Act of 2006 and the Unfinished Agenda, in Gale, et al, eds, Automatic 11, 13-14 (cited in note 75); Isaac Dinner, et al, Partitioning Default Effects: Why People Choose Not to Choose *3 (unpublished manuscript, June 2009), online at <http://ssrn.com/abstract=1352488> (visited Apr 6, 2011); Gabriel D. Carroll, et al, Optimal Defaults and Active Decisions, 124 Q J Econ 1639, 1641-43 (2009).

²¹⁵ See Carroll, et al, 124 Q J Econ at 1642 (cited in note 214); Madrian and Shea, 116 Q J Econ at 1176-77 (cited in note 5). This point relates to issues of self-control. See Thaler, Quasi Rational Economics at 19 (cited in note 30). For an emphasis on the difference between “planners” and “doers,” see Gharad Bryan, Dean Karlan, and Scott Nelson, Commitment Devices, 2 Ann Rev Econ 671, 675-79 (2010).

The second factor involves what might be taken to be an implicit endorsement of the default rule. Many people appear to conclude that the default was chosen for a reason; they believe that they should not depart from it unless they have particular information to justify a change.²¹⁶

Third, the default rule might establish the reference point for people's decisions; the established reference point has significant effects because people dislike losses from that reference point.²¹⁷ If, for example, the default rule favors energy-efficient light bulbs, then the loss (in terms of reduced efficiency) may loom large and there will be a tendency to continue with energy efficient light bulbs. But if the default rule favors less efficient (and initially less expensive) light bulbs, then the loss in terms of upfront costs may loom large, and there will be a tendency to favor less efficient light bulbs.²¹⁸

In a significant number of domains, it might be possible to achieve regulatory goals, and to do so while maintaining freedom of choice and at low cost, by selecting good default rules and by avoiding harmful ones. The initial task, of course, is to identify the requirements of the law. Within the context of such requirements, one approach is to select the default rule that reflects what most people would choose if they were adequately informed.²¹⁹ Suppose, for example, that a particular default rule would place a strong majority of the relevant population in the situation that they would favor if they made an informed choice. If so, there is a legitimate reason to adopt that default rule (with the understanding that for those who differ from the majority, it remains possible to opt out).

Of course, it may be necessary to do a great deal of work in order to identify the approach that informed people would choose, and on this count, actual evidence about informed choice is extremely important. The issue is simplified if the law requires a particular set of outcomes. A default rule might well make sense if it promotes automatic compliance with the law. Hence it is important to see that use of default rules may serve either as an independent approach, used instead of a mandate or a ban, or as a complementary approach, operating to facilitate compliance with statutory or regulatory requirements.

²¹⁶ See Craig R.M. McKenzie, Michael J. Liersch, and Stacey R. Finkelstein, Recommendations Implicit in Policy Defaults, 17 *Psych Sci* 414, 418-19 (2006); Madrian and Shea, 116 *Q J Econ* at 1182 (cited in note 5). Of course it is not true that all defaults were chosen because they produce the best outcomes for people. See note 220 and accompanying text.

²¹⁷ See Dinner, et al, Partitioning Default Effects at *5-6 (cited in note 214).

²¹⁸ See *id* at *12-14.

²¹⁹ See N. Craig Smith, Daniel G. Goldstein, and Eric J. Johnson, Smart Defaults: From Hidden Persuaders to Adaptive Helpers *15-16 (INSEAD Working Paper No 2009/03/ISIC, 2009), online at <http://ssrn.com/abstract=1116650> (visited May 31, 2011).

It is also important to see that default rules can be badly chosen or misused by private and public institutions alike and that some such rules can be harmful. The FTC has expressed serious concerns about “negative option marketing,” which occurs when those who accept a “free” product are automatically enrolled in a plan or program that carries a monthly fee (unless they explicitly opt out).²²⁰ In some cases, negative option marketing has the unfortunate effect of using a default rule to exploit the tendency toward inertia in a way that is harmful to people’s welfare; it is easy to imagine both private and public analogues (consider, for example, an automatic enrollment policy that puts an unreasonably large amount of salary into savings).

To evaluate the use of automatic enrollment, the particular circumstances certainly matter. If automatic enrollment is not made transparent to those who are enrolled, it can be considered a form of manipulation, and the problem is worse if it is not in their long-term interest.

Some default rules apply to all of the relevant population, subject to the ability to opt out. Other default rules are personalized, in the sense that they draw on available information about which approach best suits individuals in the relevant population. A personalized default might be based on geographical or demographic variables; for example, income and age might be used in determining appropriate default rules for retirement plans. Alternatively, a personalized default might be based on people’s own past choices to the extent that they are available. An advantage of personalized default rules is that they may well be more accurate than “mass” default rules. As technology evolves, it should be increasingly possible to produce personalized defaults, based on people’s own choices and situations, and likely to be far more accurate than more general ones. There will be excellent opportunities to use default rules to promote people’s welfare. To be sure, any such rules must respect the applicable laws, policies, and regulations involving personal privacy and should avoid unduly crude proxies.

It is important to note that default rules may not “stick” when the relevant population has strong contrary preferences. For example, a study in the United Kingdom found that most people rejected a savings plan with an unusually high default contribution rate (12 percent of before-tax income).²²¹ Only about 25 percent of employees remained at that rate after a

²²⁰ See 16 CFR § 425; Federal Trade Commission, Negative Options: A Report by the Staff of the FTC’s Division of Enforcement 5 (Jan 2009), online at <http://www.ftc.gov/os/2009/02/P064202negativeoptionreport.pdf> (visited May 31, 2011).

²²¹ See John Beshears, et al, The Limitations of Defaults *8 (unpublished manuscript, 2010), online at <http://www.nber.org/programs/ag/rrc/NB10->

year, whereas about 60 of employees remained at a lower default contribution rate. One implication is that “extreme” defaults are less likely to stick; another implication, based on the lower incomes of those who stayed with the default, is that default rules may be more influential for low-income workers than for their higher-earning counterparts.²²²

A related finding is that workers were not much affected by a default allocation of a fraction of their tax refund to US savings bonds, apparently because such workers had definite plans to spend their refunds.²²³ A general lesson is that default rules will have a weaker effect, and potentially no effect, when the relevant population has a strong preference for a certain outcome.

C. Active Choices

An alternative approach, sometimes worth serious consideration, is to avoid any default rule and to require active choices.²²⁴ Under this approach, people are required to make an actual choice among the various options; they are not defaulted into any particular alternative. With respect to savings, for example, an employer might reject both opt-out and opt-in and simply require employees to indicate their preferences. Evidence suggests that active choices result in far higher levels of savings than a default rules that requires people explicitly to opt in.²²⁵

If inertia and procrastination are playing a significant role, then active choosing may be better than opt-in, in which people end up with outcomes that they would not prefer if they were to make a choice. In such circumstances, active choosing increases the likelihood that people will end up with their preferred outcomes.

Active choosing might also be preferred when public officials lack relevant information, so that the chosen default rule might be harmful. This is an especially important point. If officials are inadequately informed, and if the default rule is no better than a guess, that rule might lead people in the wrong direction. The same point argues against a default rule when self-interested private groups have managed to call for it, even though it is not

02,%20Beshears,%20Choi,%20Laibson,%20Madrian.pdf (visited May 31, 2011).

²²² See id at *11-12.

²²³ See Erin Todd Bronchetti, et al, When a Nudge Isn't Enough: Defaults and Saving among Low-Income Tax Filers *4 (NBER Working Paper Series 16887, March 2011), online at <http://www.nber.org/papers/w16887> (visited May 31, 2011). Note, however, that the “default” in this study consisted of a mere statement on a form, id at *11; the line between the use of the default here and active choosing is relatively thin.

²²⁴ See Carroll, et al, 124 Q J Econ at 1639-40 (cited in note 214).

²²⁵ See id at 1670.

in the interest of those on whom it is imposed. Active choosing is much less risky on these counts.

As compared with either opt-in or opt-out, active choosing can have significant advantages when the relevant group has a great deal of diversity, so that a single approach is unlikely to fit variable circumstances.²²⁶ In such contexts, a default rule may also be harmful, because the power of inertia, or the force of suggestion, may mean that many people will end up in a situation that is not in their interest. For this reason, active choosing may be better.

On the other hand, active choosing can have significant disadvantages. One disadvantage is that in situations of unfamiliarity or great complexity, in which people lack information or experience, active choosing may impose unjustified or excessive burdens. These burdens include the resources required to enforce the requirement to choose and the time required for people to obtain relevant information and to make the choice. As compared with a default rule, active choosing increases the costs of decisions, possibly significantly; it also might increase errors, possibly significantly, if the area is unfamiliar and confusing. In such situations, opt-in or opt-out might produce better outcomes for people.

In the private sector, default rules are often in people's interests, and active choosing would impose unnecessary burdens. When public officials have good reason for confidence that a particular default rule will fit with the informed preferences of the relevant group, and thus promote its interests, it may be preferable to select that default rule rather than to require active choosing.²²⁷ Personalized default rules, by virtue of their accuracy, may have particular virtues on this count.

D. Simplification

Where it is not possible or best to change the default, a similar effect might be obtained merely by simplifying and easing people's choices. Complexity can have serious unintended effects (including indifference, delay, and confusion), potentially undermining regulatory goals by reducing compliance or by decreasing the likelihood that people will benefit from various policies and programs.

With respect to rules in general, Executive Order 13563 directs agencies to promote "coordination, simplification, and harmonization."²²⁸ With respect to forms in particular, undue complexity can severely discourage applications, thus compromising important programs, and

²²⁶ See *id.* at 1672.

²²⁷ For a discussion of principles and best practices with respect to default rules, see Cass R. Sunstein, Administrator, OIRA, Memorandum for the Heads of Executive Departments and Agencies, *Disclosure and Simplification as Regulatory Tools* (June 18, 2010).

²²⁸ 76 Fed Reg at 3821 (cited in note 1).

simplification can have surprisingly large benefits. For some public programs, take-up rates are relatively low, even though the cost of participation is small; behavioral factors, including inertia, are contributing factors, and some form of simplification or automatic enrollment might help.²²⁹

For example, a series of steps have been taken recently toward simplifying the Free Application for Federal Student Aid (FAFSA), reducing the number of questions through skip logic (a survey method that uses previous responses to determine subsequent questions) and allowing electronic retrieval of information.²³⁰ Use of a simpler and shorter form is accompanied by a pilot initiative to permit online users to transfer data previously supplied electronically in their tax forms directly into their FAFSA applications.²³¹ These steps are intended to simplify the application process for financial aid and thus to increase access to college; there is good reason to believe that such steps will enable many students to receive aid for attending college when they previously could not do so. Similar steps might be taken in many other domains. Considerable thought should be given to the question whether complexity is having unintended adverse effects and undermining regulatory programs.

The Department of Treasury has also launched an important initiative in the domain of Social Security and Supplemental Security Income: the “Direct Express” card program.²³² Many people are now automatically receiving their money via a prepaid debit card. This measure increases, at the same time, both convenience and accuracy, thus reducing paperwork and costs. It provides particular help for those who lack bank accounts. Other programs might build on this approach by considering the choice between an opt-in and opt-out design and simplifying people’s choices.

²²⁹ See Congdon, Kling, and Mullainathan, Policy and Choice at 97-98 (cited in note 2); Devoto, et al, Happiness on Tap at *2-3 (cited in note 6); Tufano, Just Keep My Money! at *26 (cited in note 6) (finding that savings products, in particular US Savings Bonds, are significantly more likely to be chosen if the process for choosing them is eased and simplified).

²³⁰ See Office of Management and Budget, Office of Information and Regulatory Affairs, Information Collection Budget of the United States Government 22, 32-33 (2010), online at http://www.whitehouse.gov/sites/default/files/omb/inforeg/icb/icb_2010.pdf (visited May 31, 2011).

²³¹ For a discussion of the importance of such steps, see Eric P. Bettinger, et al, The Role of Simplification and Information in College Decisions: Results from the H&R Block FAFSA Experiment *26-29 (NBER Working Paper No 15361, Sept 2009), online at <http://www.nber.org/papers/w15361> (visited May 31, 2011).

²³² See 31 CFR § 208.6; Direct Express, online at <http://www.usdirectexpress.com/> (visited Jan 17, 2011).

Some such programs might be designed to help those without bank accounts, by giving them such accounts or the functional equivalent.²³³

In 2010, the Treasury Department also took several steps to increase simplicity by moving to electronic systems. Perhaps most importantly, the department finalized a rule to provide electronic payments to people receiving Social Security, Supplemental Security Income, Veterans, Railroad Retirement, and Office of Personnel Management benefits.²³⁴

It is estimated that these steps will save over \$400 million in the first five years.²³⁵ The initiatives from the Treasury Department are in line with a 2010 request from the OMB asking agencies for initiatives that would promote electronic filing through “fillable fileable” forms, substitute electronic for paper signatures, increase administrative simplification, and reduce burdens on small business.²³⁶ That request in turn produced seventy-two initiatives from various agencies, all designed to reduce burdens and to increase simplification.²³⁷ In total, those initiatives are expected to eliminate over 60 million hours of paperwork and reporting burdens each year.

In 2011, OMB followed the 2010 request with a new one, also emphasizing simplification and focusing in particular on small business and benefit programs.²³⁸ The request drew particular attention to the potential harms of complexity, noting that

the process of renewing or applying for benefits can be time-consuming, confusing, and unnecessarily complex, thus discouraging participation and undermining program goals. Sometimes agencies collect data that are unchanged from prior applications; in such

²³³ See Michael S. Barr, Financial Services, Saving, and Borrowing among Low- and Moderate-Income Households: Evidence from the Detroit Area Household Financial Services Survey, in Blank and Barr, eds, Insufficient Funds 66, 76-77 (cited in note 76).

²³⁴ 29 CFR § 1926.

²³⁵ See 31 CFR § 208; Department of Treasury, Press Release, Treasury Goes Green, Saves Green: Broad New Initiative Will Increase Electronic Transactions, Save More Than \$400 Million, 12 Million Pounds of Paper in First Five Years Alone (Apr 19, 2010), online at <http://www.treasury.gov/press-center/press-releases/Pages/tg644.aspx> (visited Apr 7, 2011).

²³⁶ See Cass R. Sunstein, Administrator, OIRA, Memorandum for Chief Information Officers, Data Call for the 2010 Information Collection Budget 1-2 (Apr 20, 2010), online at http://www.whitehouse.gov/omb/assets/inforeg/2010_icb_datacall.pdf (visited Jan 17, 2011).

²³⁷ For a listing of these initiatives, see Office of Information and Regulatory Affairs, Information Collection Budget of the United States Government at 23-123 (cited in 230).

²³⁸ See Cass R. Sunstein, Administrator, ORIRA, Memorandum for Chief Information Officers, Minimizing Paperwork and Reporting Burdens 1 (Feb 23, 2011), online at http://www.whitehouse.gov/sites/default/files/omb/inforeg/icb/2011_ICB_Data_Call.pdf (visited Apr 7, 2011).

circumstances, they might be able to use, or to give people the option to use, pre-populated electronic forms.²³⁹

And indeed, there is reason to believe that imperfect take-up of existing benefit programs, including those that provide income support, is partly a product of behavioral factors such as procrastination and inertia.²⁴⁰ It follows that efforts to increase simplicity, including automatic enrollment, may have substantial benefits.²⁴¹

E. Structuring Choices

Complexity can also create problems through a phenomenon known as choice overload. In the traditional view, having more choices helps, and never harms, consumers or program participants. This view is based on the reasonable judgment that, if an additional option is not better than existing options, people will simply not choose it. In general, more choices are indeed desirable, but an increasing body of research offers certain potential qualifications, especially in unusually complex situations.²⁴² For example, there is some evidence that enrollment may decline,²⁴³ and asset allocations may worsen,²⁴⁴ as the menu of investment options in a 401(k) plan expands.

Responding to this general problem in the context of prescription drug plans, CMS has taken steps to maintain freedom of choice while also reducing unhelpful and unnecessary complexity.²⁴⁵ The CMS Medicare Part D program rules require sponsors to ensure that when they provide multiple plan offerings, those offerings have meaningful differences. The rules also

²³⁹ Id at 5.

²⁴⁰ See Congdon, Kling, and Mullainathan, Policy and Choice at 157-61 (cited in note 2).

²⁴¹ Id at 160 (“[M]aking it easier for individuals to qualify for and perceive the terms of benefits may have high returns in terms of take-up rates. Simplifying the application process—requiring fewer forms, using automatic or default enrollment, and so on—could have large effects on take-up.”).

²⁴² See Sheena Sethi-Iyengar, Gur Huberman, and Wei Jiang, How Much Choice Is Too Much? Contributions to 401(k) Retirement Plans, in Olivia S. Mitchell and Stephen P. Utkus, eds, Pension Design and Structure: New Lessons from Behavioral Finance 83, 84-87 (Oxford 2004).

²⁴³ See id at 88-91.

²⁴⁴ See Sheena S. Iyengar and Emir Kamenica, Choice Proliferation, Simplicity Seeking, and Asset Allocation, 94 J Pub Econ 530, 536-38 (2010).

²⁴⁵ For a discussion of the underlying problem, see Jonathan Gruber and Jason T. Abaluck, Choice Inconsistencies among the Elderly: Evidence from Plan Choice in the Medicare Part D Program, 101 Am Econ Rev *41 (forthcoming 2011), online at <http://www.nber.org/papers/w14759> (visited June 7, 2011).

eliminate plans with persistently low enrollments, on the ground that those plans increase the complexity of choices without adding value.²⁴⁶

IV. INCREASING SALIENCE

It is often possible to promote regulatory goals by making certain features of a product or a situation more salient to consumers. As a simple example of salience effects, consider alcohol taxes. There is evidence that when such taxes are specifically identified in the posted price, increases in such taxes have a larger negative effect on alcohol consumption than when they are applied at the register.²⁴⁷ Incentives matter, but in order to matter, they must be salient.²⁴⁸ Sensible regulatory policies, especially those that involve disclosure, are attentive to the importance of salience.

People's attention is limited, and regulatory goals are not always served merely by altering policy or disclosing information. The relevant policy or information must also be salient. In the context of fiscal policy, consider the question whether to provide payments in the form of a one-time check or instead in the form of reduced withholding. Would one or another approach lead to increased spending?

In the abstract, it may be predicted that there would be no difference as a result of delivery method. But evidence suggests that a one-time stimulus payment has significantly greater effects in increasing spending than does an economically equivalent reduction in withholding.²⁴⁹ A potential explanation, with support in the evidence, involves the importance of salience or visibility. Indeed, a majority of households did not notice the withholding changes in the relevant study, and households who found "a small but repeated boost to their paychecks" appear to be less likely to use the money for significant purchases.²⁵⁰

²⁴⁶ See 42 CFR § 422.506(b)(1)(iv). For a related discussion, with particular emphasis on the abilities of those who create menus, see David Goldreich and Hanna Halaburda, Rational Preference for Smaller Menus: Variability in Menu-Setting Ability and 401(k) Plans *3 (2011) online at <http://www.hbs.edu/research/pdf/11-086.pdf> (visited Apr 7, 2011).

²⁴⁷ See Raj Chetty, Adam Looney, and Kory Kroft, Salience and Taxation: Theory and Evidence, 99 Am Econ Rev 1145, 1163 (2009). For a discussion in a similar vein, see Amy Finkelstein, E-ZTAX: Tax Salience and Tax Rates, 124 Q J Econ 969, 1008-09 (2009).

²⁴⁸ See Congdon, Kling, and Mullainathan, Policy and Choice at 126-27 (cited in note 2).

²⁴⁹ See Claudia R. Sahm, Matthew D. Shapiro, and Joel Slemrod, Check in the Mail or More in the Paycheck: Does the Effectiveness of Fiscal Stimulus Depend on How It Is Delivered? *20-22 (Finance and Economics Discussion Series 2010-40, Feb 2011), online at <http://www.federalreserve.gov/pubs/feds/2010/201040/201040pap.pdf> (visited Apr 7, 2011).

²⁵⁰ Id at *20-21.

There are many potential applications. With respect to smoking prevention, for example, increased salience is a central purpose of disclosure requirements. The Smoking Prevention Act reflects recognition of this point in calling for new and more graphic warnings; the chosen images are vivid and will be highly salient.²⁵¹ Similarly, OSHA has proposed a regulation that would require chemical manufacturers and importers to prepare labels for hazardous chemicals that include pictograms and signal words that can be easily understood by workers.²⁵² Well-designed labels make relevant factors salient to those who will see them. The significant consequences of easy accessibility and convenience (return to the issue of obesity) can be seen as a close cousin of salience effects.²⁵³

A similar point applies in the domain of energy efficiency. For many consumers, the potential savings of energy-efficient products may not be salient at the time of purchase, even if those savings are significant. The “Energy Paradox” refers to the fact that some consumers do not purchase energy-efficient products even when it is clearly in their economic interest to do so. Empirical work suggests that nonprice interventions, by making the effects of energy use more salient, can alter decisions and significantly reduce electricity use.²⁵⁴ There is evidence that such interventions can lead to private as well as public savings.²⁵⁵ Consider, for example, the fact that energy costs are generally salient only once a month, when people are presented with the bill. Efforts to increase the salience of such costs, by displaying them in real time, can produce significant savings.²⁵⁶

Executive Order 13514 builds directly on this idea in an effort to cut costs and reduce greenhouse gas emissions by setting energy and environmental goals and by imposing a series of requirements on federal

²⁵¹ See text accompanying note 122.

²⁵² See 29 CFR §§ 1910, 1915, 1926.

²⁵³ See notes 207-213 and accompanying text.

²⁵⁴ See Hunt Allcott and Sendhil Mullainathan, 327 *Sci* at 1204 (cited in note 75); Paul J. Ferraro and Michael K. Price, Using Non-pecuniary Strategies to Influence Behavior: Evidence from a Large Scale Field Experiment *20-22 (NBER Working Paper No 17189, July 2011), online at <http://www.nber.org/papers/w17189.pdf> (visited Aug 28, 2011) (finding that social comparison information significantly decreased water consumption). For a discussion of the importance of reminders in increasing savings, with particular emphasis on salience, see Karlan, et al, Getting to the Top of Mind at *23-24 (cited in note 8). For a discussion of the policy implications of consumer inattention in the context of energy savings, see Allcott, Mullainathan, and Taubinsky, Externalizing the Internality *5-7 (cited in note 29).

²⁵⁵ See Richard B. Howarth, Brent M. Haddad, and Bruce Paton, The Economics of Energy Efficiency: Insights from Voluntary Participation Programs, 28 *Energy Pol* 477, 484-85 (2000).

²⁵⁶ See Congdon, Kling, and Mullainathan, Policy and Choice at 113 (cited in note 2).

agencies.²⁵⁷ One of the central goals of this executive order is to make certain costs more visible and salient than they have been within the federal government. Recent efforts to respond to the problem of childhood obesity similarly attempt to increase the salience of the health risks and of numerous small choices that, in the aggregate, contribute to that problem.²⁵⁸ Consider, in a similar vein, the suggestion that pediatricians calculate the body mass index (BMI) of young children and inform parents of the results;²⁵⁹ this suggestion is an effort to increase the salience of important health-related information.

A related approach attempts to identify and consider the frame through which people interpret information. There is some evidence that some consumers may not seriously consider annuities in retirement to insure against longevity risk—the risk that they will outlive their assets—because they do not fully appreciate the potential advantages of annuities.²⁶⁰ One hypothesis is that some people evaluate annuities in an investment frame that focuses narrowly on risk and return.²⁶¹ Looking through such a frame, consumers focus on the risk that they could die soon after annuity purchase and lose all of their money. Some evidence suggests that efforts to shift consumers into a consumption frame, which focuses on the end result of what they can consume over time, help consumers appreciate the potential benefits of annuities.²⁶² The goal here is not to suggest a view on any particular approach to retirement; it is merely to emphasize that the relevant frame can increase salience.

V. SOCIAL NORMS

Social scientists have emphasized the importance of social practices and norms, which have a significant influence on individual decisions.²⁶³ If

²⁵⁷ See Executive Order 13514, 74 Fed Reg 194 (2009).

²⁵⁸ See White House Task Force on Childhood Obesity, Report to the President: Solving the Problem of Childhood Obesity within a Generation 26-27, 32, 35 (2010), online at http://www.letsmove.gov/sites/letsmove.gov/files/TaskForce_on_Childhood_Obesity_May2010_FullReport.pdf (visited June 7, 2010).

²⁵⁹ See id at 33-34.

²⁶⁰ See Jeffrey R. Brown, Rational and Behavioral Perspectives on the Role of Annuities in Retirement Planning *21 (NBER Working Paper No 13537, Oct 2007), online at <http://www.nber.org/papers/w13537> (visited Jan 17, 2011).

²⁶¹ See Jeffrey R. Brown, et al, Why Don't People Insure Late-Life Consumption? A Framing Explanation of the Under-Annuity Puzzle, 98 Am Econ Rev 304, 305 (2008).

²⁶² See id at 307.

²⁶³ For general overviews, see Christakis and Fowler, Connected (cited in note 32); Sushil Bikhchandani, David Hirshleifer, and Ivo Welch, Learning from the Behavior of Others: Conformity, Fads, and Informational Cascades, 12 J Econ Persp 151 (1998). For relevant discussion, see also P. Wesley Schultz, et al, The Constructive,

people learn that they are using more energy than similarly situated others, their energy use may decline—saving money while also reducing pollution.²⁶⁴ The same point applies to health-related behavior. It has long been understood that people are more likely to engage in healthy behavior if they live or work with others who so engage.²⁶⁵ And if people are in a social network with other people who are obese, they are significantly more likely to become obese themselves.²⁶⁶ The behavior of relevant others can provide valuable information about sensible or appropriate courses of action. As noted above, informational cascades are a possible consequence, as people rely on, and thus amplify, the informational signals produced by the actions of their predecessors. Similarly, those actions can provide information about what others will approve and disapprove.²⁶⁷

These points have implications for regulatory policy. For example, smoking and seat belt regulations appear to have worked hand in hand with emerging social norms, helping to reduce deaths and injuries. In the context of seat belt usage, there has been a dramatic change in behavior, with an increase in a few decades from usage rates under 15 percent to usage rates

Destructive, and Reconstructive Power of Social Norms, 18 *Psych Sci* 429, 432-33 (2007); Robert B. Cialdini, et al, Managing Social Norms for Persuasive Impact, 1 *Soc Influence* 3, 10-12 (2006). Note in particular the finding in Managing Social Norms that drawing public attention to the existence or pervasiveness of undesirable behavior can actually increase such behavior:

It is worthy of note that our most ineffective persuasive message simulated the sort of negatively worded, descriptive norm message that . . . is regularly sent by public health and community service officials regarding a wide variety of social problems. Our results indicate that appeals of this type should be avoided by communicators in their persuasive undertakings. Unfortunately, this is not always the case. . . . For instance, after we reported the outcomes of the present study [showing the ineffectiveness of park signs containing negatively worded, descriptive normative messages] to park administrators, they decided not to change the relevant aspects of their signage. . . . We were disappointed—but, truth be told, not surprised—that park officials weighted visitors' subjective responses more than our empirical evidence in their signage decision.

Cialdini, et al, Managing Social Norms at 12 (cited in note 263).

²⁶⁴ See Allcott, Social Norms and Energy Conservation at *16-17 (cited in note 32). See also generally Ferraro and Michael, Using Non-pecuniary Strategies to Influence Behavior (cited in note 254).

²⁶⁵ See Jean K. Langlie, Social Networks, Health Beliefs, and Preventive Health Behavior, 18 *J Health & Soc Behav* 244, 244-45 (1977).

²⁶⁶ Christakis and Fowler, Connected at 105-12 (cited in note 263).

²⁶⁷ For a relevant discussion, see Kuran, Private Truths, Public Lies at 61 (cited in note 38).

over 70 percent,²⁶⁸ in significant part as a result of social norms that operated in concert with regulatory changes. In some domains, social norms have helped to promote compliance with law even without active enforcement.²⁶⁹ Public-private partnerships can be especially important in this domain, as those in the private sector emphasize norms that increase compliance with law and promote safer choices.

Consider as well the problem of distracted driving. On October 1, 2009, the President issued an executive order that bans federal employees from texting while driving.²⁷⁰ Such steps can help promote a social norm against texting while driving, thus reducing risks. This same approach—emphasizing social norms—might be applied in many domains. In the domain of childhood obesity, for example, a social norm in favor of healthy eating and proper exercise²⁷¹ could produce significant health benefits. Here, as elsewhere, public-private partnerships can play a key role, with those in the private sector helping to spur emerging norms that promote better choices by and for children.

In particular, the “Let’s Move” initiative has emphasized such partnerships. First Lady Michelle Obama has collaborated with Walmart to promote healthier choices.²⁷² As part of that initiative, Walmart has committed to reformulating thousands, of everyday packaged food items by 2015 by reducing sodium 25 percent and added sugars 10 percent, and by removing all remaining industrial produced trans fats. It has also committed to reduce the costs of healthier options, thus making those costs comparable to the costs of less healthy choices, and at the same time to reduce the costs

²⁶⁸ See Dinh-Zarr, et al, 21 Am J Prev Med at 48 (cited in note 39) (documenting an increase in safety belt use from 14 percent in 1983 to 71 percent in 2000).

²⁶⁹ See Kagan and Skolnick, Banning Smoking at 72 (cited in note 39).

²⁷⁰ Executive Order 13513, Federal Leadership on Reducing Text Messaging while Driving, 74 Fed Reg 51225, 51225 (2009) (“Federal employees shall not engage in text messaging (a) when driving [government owned vehicles], or when driving [privately owned vehicles] while on official Government business, or (b) when using electronic equipment supplied by the Government while driving.”).

²⁷¹ See Carrell, Hoekstra, and West, Is Poor Fitness Contagious? at *18 (cited in note 32). See US Department of Agriculture and US Department of Health and Human Services, Dietary Guidelines for Americans 2010 at 56 (cited in note 36) (pointing to the relevance of social and cultural norms and values).

²⁷² See Jamie Mulligan, First Lady Michelle Obama Announces Collaboration with Walmart in Support of Let’s Move Campaign (Jan 26, 2011), online at <http://www.letsmove.gov/blog/2011/01/25/first-lady-michelle-obama-announces-collaboration-walmart-support-lets-move-campaign> (visited Apr 7, 2011).

of fruits and vegetables.²⁷³ Finally, Walmart has agreed to develop a “healthy seal” to help consumers to identify healthy choices.²⁷⁴

In a similar vein, a number of companies, including Kraft Foods, General Mills, Coca-Cola, Pepsi, and Kellogg, have pledged to remove 1.5 trillion calories from their products by 2015, in an effort to combat childhood obesity.²⁷⁵ The relevant steps include reduction of product sizes and introduction of lower calorie foods.²⁷⁶ Finally, the Food Marketing Institute and the Grocery Manufacturers Association have agreed to promote informed choice through a “Nutrition Keys” label, designed in part to combat childhood obesity.²⁷⁷

CONCLUSION

The goal of this Essay has been to outline some of the key findings in recent empirical research and to sketch potential implications for regulatory policy. A general conclusion is that while material incentives (including price and anticipated health effects) greatly matter, outcomes are independently influenced by (1) the social environment and (2) prevailing social norms.²⁷⁸ When some people, cities, and nations do well and others

²⁷³ Press Release, Walmart Launches Major Initiative to Make Food Healthier and Healthier Food More Affordable (Walmart, Jan 20, 2011), online at <http://walmartstores.com/pressroom/news/10514.aspx> (visited Sept 27, 2011).

²⁷⁴ See *id.* See also Sheryl Gay Stohlberg, Wal-Mart Shifts Strategy to Promote Healthy Foods, NY Times B1 (Jan 20, 2011).

²⁷⁵ See Food Giants Pledge to Cut 1.5 Trillion Calories out of Products (USA Today, May 21, 2010), online at http://www.usatoday.com/money/industries/food/2010-05-17-cutting-calories_N.htm (visited Apr 7, 2011).

²⁷⁶ *Id.*

²⁷⁷ See Food Market Institute, Press Release, Food & Beverage Industry Launches Nutrition Keys Front-of-Pack Nutrition Labeling Initiative to Inform Consumers and Combat Obesity: Nutrition Icon to Be Supported by \$50 Million Industry-Funded Consumer Education Campaign (Jan 25, 2011), online at http://www.fmi.org/news_releases/index.cfm?fuseaction=mediatext&id=1207 (visited Apr 7, 2011).

²⁷⁸ A possible concern about some of the approaches discussed here is that they may be unacceptably paternalistic. Note, however, that they typically do not take the form of mandates or bans on private conduct; they retain freedom of choice. Simplification, designed to avoid some of the unintended adverse effects of complexity, should be used to improve program performance; such improvements are hardly paternalistic. Consider, for example, a reduction in the number of questions on forms, and easier or automatic qualification for participation in programs when relevant requirements are met. Disclosure policies, mandated or authorized by law, should be designed sensibly, so as to inform people rather than to be unduly complex or unintelligible; there is nothing objectionably paternalistic about efforts to provide consumers with clear, accurate information. On the contrary, such efforts promote freedom of choice.

less so, it is often because the former, and not the latter, are able to benefit from aspects of the environment, and from prevailing norms, that enable them to take for granted, and perhaps not even to think much about, a set of practices that serve them well.

While disclosure of information is an important regulatory tool, steps must be taken to ensure that disclosure will be not merely technically accurate but also meaningful and helpful. Such steps require careful attention to how people process and use information. It is useful to distinguish between summary disclosure, typically provided at the point of purchase, and full disclosure, typically provided on the Internet. Summary disclosure should be clear, simple, and salient, and it should emphasize factors that matter to people (such as annual dollar value of fuel economy or energy-efficient choices).

Full disclosure should provide information that can be used in multiple ways, thus improving the operation of markets; often the most important uses come from the private sector. In all cases, disclosure is most useful if it informs people of what, precisely, they might do in order to avoid significant risks or obtain significant benefits.

Default rules can greatly affect social outcomes, and in some circumstances, sensible defaults can serve as a complement or alternative to mandates and bans. One of the advantages of well-chosen default rules is that they can simplify and ease choices—for example, by producing automatic enrollment in programs that are generally beneficial while also allowing people to opt out. A potential problem is that regulators may not know which default rule is best and one size may not fit all. When the relevant group is diverse and the domain is familiar, active choosing is likely to be preferable to default rules.

Because complexity can often have undesirable or unintended side effects—including high costs, noncompliance with law, and reduced participation in useful programs—simplification may well help to promote regulatory goals. Indeed, simplification can often have surprisingly large effects. Reduced paperwork and form-filling burdens (as, for example, through fewer questions, use of skip patterns, electronic filing, and prepopulation) can produce significant benefits. It may also be desirable to take steps to ease participation in both private and public programs by increasing convenience and by giving people clearer signals about what, exactly, they are required to do.

People are far more likely to respond when certain facts, risks, or possibilities are salient; effective warnings take account of this fact. Finally, regulation can work in concert with social norms, helping to promote agreed-upon public goals and to increase compliance with legal requirements. Public-private partnerships, enlisting the creativity of the private sector, can be especially helpful in this regard.

APPENDIX A

The President

Executive Order 13563 of January 18, 2011

Improving Regulation and Regulatory Review

By the authority vested in me as President by the Constitution and the laws of the United States of America, and in order to improve regulation and regulatory review, it is hereby ordered as follows:

Section 1. *General Principles of Regulation.* (a) Our regulatory system must protect public health, welfare, safety, and our environment while promoting economic growth, innovation, competitiveness, and job creation. It must be based on the best available science. It must allow for public participation and an open exchange of ideas. It must promote predictability and reduce uncertainty. It must identify and use the best, most innovative, and least burdensome tools for achieving regulatory ends. It must take into account benefits and costs, both quantitative and qualitative. It must ensure that regulations are accessible, consistent, written in plain language, and easy to understand. It must measure, and seek to improve, the actual results of regulatory requirements.

(b) This order is supplemental to and reaffirms the principles, structures, and definitions governing contemporary regulatory review that were established in Executive Order 12866 of September 30, 1993. As stated in that Executive Order and to the extent permitted by law, each agency must, among other things: (1) propose or adopt a regulation only upon a reasoned determination that its benefits justify its costs (recognizing that some benefits and costs are difficult to quantify); (2) tailor its regulations to impose the least burden on society, consistent with obtaining regulatory objectives, taking into account, among other things, and to the extent practicable, the costs of cumulative regulations; (3) select, in choosing among alternative regulatory approaches, those approaches that maximize net benefits (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity); (4) to the extent feasible, specify performance objectives, rather than specifying the behavior or manner of compliance that regulated entities must adopt; and (5) identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.

(c) In applying these principles, each agency is directed to use the best available techniques to quantify anticipated present and future benefits and costs as accurately as possible. Where appropriate and permitted by law, each agency may consider (and discuss qualitatively) values that are difficult or impossible to quantify, including equity, human dignity, fairness, and distributive impacts.

Sec. 2. *Public Participation.* (a) Regulations shall be adopted through a process that involves public participation. To that end, regulations shall be based, to the extent feasible and consistent with law, on the open exchange of information and perspectives among State, local, and tribal officials, experts in relevant disciplines, affected stakeholders in the private sector, and the public as a whole.

(b) To promote that open exchange, each agency, consistent with Executive Order 12866 and other applicable legal requirements, shall endeavor to provide the public with an opportunity to participate in the regulatory process. To the extent feasible and permitted by law, each agency shall afford the public a meaningful opportunity to comment through the Internet on any proposed regulation, with a comment period that should generally be at least 60 days. To the extent feasible and permitted by law, each agency shall also provide, for both proposed and final rules, timely online access to the rulemaking docket on regulations.gov, including relevant scientific and technical findings, in an open format that can be easily searched and downloaded. For proposed rules, such access shall include, to the extent feasible and permitted by law, an opportunity for public comment on all pertinent parts of the rulemaking docket, including relevant scientific and technical findings.

(c) Before issuing a notice of proposed rulemaking, each agency, where feasible and appropriate, shall seek the views of those who are likely to be affected, including those who are likely to benefit from and those who are potentially subject to such rulemaking.

Sec. 3. *Integration and Innovation.* Some sectors and industries face a significant number of regulatory requirements, some of which may be redundant, inconsistent, or overlapping. Greater coordination across agencies could reduce these requirements, thus reducing costs and simplifying and harmonizing rules. In developing regulatory actions and identifying appropriate approaches, each agency shall attempt to promote such coordination, simplification, and harmonization. Each agency shall also seek to identify, as appropriate, means to achieve regulatory goals that are designed to promote innovation.

Sec. 4. *Flexible Approaches.* Where relevant, feasible, and consistent with regulatory objectives, and to the extent permitted by law, each agency shall identify and consider regulatory approaches that reduce burdens and maintain flexibility and freedom of choice for the public. These approaches include warnings, appropriate default rules, and disclosure requirements as well as provision of information to the public in a form that is clear and intelligible.

Sec. 5. *Science.* Consistent with the President's Memorandum for the Heads of Executive Departments and Agencies, "Scientific Integrity" (March 9, 2009), and its implementing guidance, each agency shall ensure

the objectivity of any scientific and technological information and processes used to support the agency's regulatory actions.

Sec. 6. *Retrospective Analyses of Existing Rules.* (a) To facilitate the periodic review of existing significant regulations, agencies shall consider how best to promote retrospective analysis of rules that may be outmoded, ineffective, insufficient, or excessively burdensome, and to modify, streamline, expand, or repeal them in accordance with what has been learned. Such retrospective analyses, including supporting data, should be released online whenever possible.

(b) Within 120 days of the date of this order, each agency shall develop and submit to the Office of Information and Regulatory Affairs a preliminary plan, consistent with law and its resources and regulatory priorities, under which the agency will periodically review its existing significant regulations to determine whether any such regulations should be modified, streamlined, expanded, or repealed so as to make the agency's regulatory program more effective or less burdensome in achieving the regulatory objectives.

Sec. 7. *General Provisions.*(a) For purposes of this order, “agency” shall have the meaning set forth in section 3(b) of Executive Order 12866.

(b) Nothing in this order shall be construed to impair or otherwise affect:

(i) authority granted by law to a department or agency, or the head thereof; or

(ii) functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(c) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

APPENDIX B

THE WHITE HOUSE, January 18, 2011.

EXECUTIVE OFFICE OF THE PRESIDENT

OFFICE OF MANAGEMENT AND BUDGET WASHINGTON, D.C. 20503

June 18, 2010

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS
AND AGENCIES

FROM: Cass R. Sunstein Administrator

SUBJECT: Disclosure and Simplification as Regulatory Tools

In the Memorandum on Transparency and Open Government, issued on January 21, 2009, the President called for the establishment of “a system of transparency, public participation, and collaboration.”²⁷⁹

The Memorandum required the Office of Management and Budget (OMB) to issue an Open Government Directive “that instructs executive departments and agencies to take specific actions implementing the principles set forth in this memorandum.”

Following the President’s Memorandum, OMB’s Open Government Directive requires a series of concrete measures to implement the commitments to transparency, participation, and collaboration.²⁸⁰

Section 4 of the Directive specifically instructs the Administrator of the Office of Information and Regulatory Affairs to “review existing OMB policies . . . to identify impediments to open government and to the use of new technologies and, where necessary, issue clarifying guidance and/or propose revisions to such policies, to promote greater openness in government.”

Executive Order 12866 directs agencies “to foster the development of effective, innovative, and least burdensome regulations” (Section 6(a)(2)), and to “identify and assess available alternatives to direct regulation, including . . . providing information upon which choices can be made by the public” (Section 1(b)(3)). Executive Order 12866 also directs agencies to analyze “potentially effective and reasonably feasible alternatives to the planned regulation, identified by the agencies or the public (including improving the current regulation and reasonably viable nonregulatory actions)” (Section 6(a)(3)(C)(iii)).

The purpose of the following documents is to set out guidance to inform the use of disclosure and simplification in the regulatory process. To the extent permitted by law, and where appropriate in light of the problem

^b out efforts to provide consumers with clear, accurate information. On the contrary, such efforts promote freedom of choice.

to which they are attempting to respond, agencies should follow the relevant principles.

Disclosure as a Regulatory Tool

PURPOSE. In many statutes, Congress requires or permits agencies to use disclosure as a regulatory tool. Executive Order 12866 provides, “Each agency shall identify and assess available alternatives to direct regulation, including . . . providing information upon which choices can be made by the public.” The Open Government Directive of the Office of Management and Budget calls for disclosures that will “further the core mission of the agency.” The purpose of this guidance is to set forth principles designed to assist agencies in their efforts to use information disclosure to achieve their regulatory objectives. Agencies should follow the principles outlined here in accordance with their own authorities, judgments, and goals, to the extent permitted by law.

DISCLOSURE AS A REGULATORY TOOL. Sometimes Congress requires or authorizes agencies to impose disclosure requirements instead of, or in addition to, mandates, subsidies, or bans. For example, automobile companies are required by law to disclose miles per gallon (MPG) ratings for new vehicles, and a standardized Nutrition Facts panel must be included on most food packages. The goal of disclosing such information is to provide members of the public with relevant information at the right moment in time, usually when a decision is made. Often that decision is whether to purchase a particular product.

Well-designed disclosure policies attempt to convey information clearly and at the time when it is needed. People have limited time, attention, and resources for seeking out new information, and it is important to ensure that relevant information is salient and easy to find and to understand. There is a difference between making a merely technical disclosure—that is, making information available somewhere and in some form, regardless of its usefulness—and actually informing choices. Well-designed disclosure policies are preceded by a careful analysis of their likely effects.

There are two general types of release that Congress may require or permit: summary disclosure and full disclosure. With summary disclosure, often required at the point of purchase, agencies highlight the most relevant information in order to increase the likelihood that people will see it, understand it, and act in accordance with what they have learned. Full disclosure is more comprehensive; it occurs when agencies release, or require others to release, all relevant information (often including underlying data).

SUMMARY DISCLOSURE. With summary disclosure, agencies attempt to provide people with clear, salient information at or near the time that relevant decisions are made. Examples include nutritional labeling, energy efficiency labeling, tobacco warnings, and government provision of

information (e.g., fact sheets, telephone hotlines, and public interest announcements).

Principle One: In order to select which information to highlight and how to present that information, agencies should explicitly identify their goals.

Explicit identification of goals will have important implications for the nature of disclosure. If the goal is to discourage behavior by informing people that certain activities or products impose certain risks (for example, tobacco smoking), agencies should decide whether they seek to use vivid descriptions and persuasive images or merely to disclose relevant facts. If the goal is to present a warning, then graphic messages might be justified; the same is not true when the aim is simply to inform. And if the goal is to present a warning, it will often be useful to inform users of the precise steps that they might take, or the plans that they might formulate, to avoid the risk in question. Warnings (and disclosures in general) are most effective when people have a clear and specific sense of an appropriate course of action. They are likely to be less effective when the appropriate course of action is abstract, vague, or ambiguous.

Principle Two: Summary disclosure should generally be simple and specific, and should avoid undue detail or excessive complexity.

Summary disclosure should focus on the central issues and should be presented in a manner that is straightforward and easy to understand. Simple, specific disclosure is generally preferable. People have limited time and attention, and their reactions to new information are not always predictable. If information is unduly complex and detailed, there is a risk that it will not be carefully read or processed, especially if the relevant area is technical or new and unfamiliar. Agencies should be aware of the importance of how information is presented; if a potential outcome is presented as a loss, for example, people may pay more attention than if it is presented as a gain. Effective disclosure also avoids abstraction and ambiguity. Summary disclosure should be designed so as to be relevant to the affected population, enabling people to know why and how the information is pertinent to their own choices.

Principle Three: Summary disclosure should be accurate and in plain language.

By its very nature, summary disclosure can be misleading; a summary of complex material might give undue prominence to isolated aspects of a product or a context, and might divert attention from what most matters. Summary disclosure should be designed to be as fair and accurate as possible. Summary disclosure should also avoid jargon, technical language, or extraneous information. Each of these is distracting and threatens to turn away or to confuse users.

Principle Four: Disclosed information should be properly placed and timed.

Careful thought should be given to the time and location of summary disclosure. Agencies should attempt to offer the information that users need when they need it. To this end, they should take steps to provide people with relevant information when they are actually making the decision or taking the action in question. For example, information about fuel economy is most useful if it is present and visible when people are shopping for motor vehicles. Similarly, summary disclosure should be provided in a prominent place, so that it will actually come to people's attention.

Principle Five: Summary disclosure through ratings or scales should be meaningful.

Summary disclosure may involve numerical ratings or scales, because these are convenient ways to simplify and display complicated information. For nutrition, percent daily values are a common example of this sort of summary disclosure. When users understand what such scales mean, they can be among the most effective ways to communicate information. But if the scales are unclear or poorly designed, people may have a difficult time knowing what to make of the information; they might fail to incorporate it into their choices or draw the wrong conclusions. Agencies should select numbers and scales that are meaningful to users. For example, the Energy Guide label provides an estimate of annual operating cost, along with a cost range for similar models. Annual savings or benefits, measured in terms of dollars, provide a metric that is both meaningful and easy to understand. When monetary values are at stake, agencies should give careful consideration to disclosure of savings or benefits in terms of dollars.

Principle Six: To the extent feasible, agencies should test, in advance, the likely effects of summary disclosure, and should also monitor the effects of such disclosure over time.

For all significant summary disclosure, it is important to observe whether and how people react to a given piece of information. To the extent feasible, and when existing knowledge is inadequate, agencies should consider several alternative methods of disclosure and test them before imposing a disclosure requirement. Scientifically valid experiments are generally preferable to focus group testing, and randomized experiments can be especially valuable. When focus groups are used, they should attempt to elicit information about actual choices and behavior (rather than simply reactions to or preferences for labels and formats). Consultation with experts can also be a valuable supplement to focus group testing.

Consistent with available resources, an agency requiring or making a disclosure should also consider performing market surveys or research to determine whether the desired effect is being achieved. These studies should determine whether users are aware of the disclosure, whether they understand the disclosure, whether they remember the relevant information

when they need it, whether they have changed their behavior because of the disclosure, and, if so, how. Agencies should be aware that users might not report their behavior accurately; self-reports may be misleading. To the extent possible, agencies should attempt to verify whether reported changes are actually occurring (for example, through empirical study of practices or through surveys that reliably measure behavior).

With respect to summary disclosure, agencies will often be able to learn more over time. A disclosure requirement that seems promising at one stage may turn out to be less effective than anticipated. A disclosure requirement that was effective at an early stage may turn out to have less or little impact as time passes. New strategies will often emerge as experience accumulates and circumstances change. Agencies should be open to fresh evidence and consider new approaches to the extent feasible and as the evidence warrants.

Principle Seven: Where feasible and appropriate, agencies should identify and consider the likely costs and benefits of disclosure requirements.

Executive Order 12866 requires agencies, to the extent permitted by law, “to assess both the costs and the benefits of the intended regulation” and “recognizing that some costs and benefits are difficult to quantify,” to proceed only “upon a reasoned determination that the benefits of the intended regulation justify the costs.” In accordance with this requirement, and where feasible and appropriate in the circumstances, agencies should adopt disclosure requirements only after considering both qualitative and quantitative benefits and costs. That assessment should, in turn, help agencies to decide which requirements to select.

It is important to acknowledge that in some contexts, the costs and benefits of disclosure may be difficult or even impossible to specify, and a formal analysis may not be feasible or appropriate. Quantitative assessment of benefits may involve a high degree of speculation, and a qualitative discussion, based on available evidence, may be all that is feasible. In assessing benefits, agencies should consider the fact that improvements in welfare are a central goal of disclosure requirements, but should also note that informed choice is a value in itself (even if it is difficult to quantify that value).

It is also important to recognize that people may react differently to disclosure requirements. While some consumers might use calorie information to reduce their overall calorie intake, others might not. Heterogeneity can have potentially significant effects; those who have the most to gain or to lose may or may not be benefiting from the relevant disclosure. Agencies should attempt to take divergent behavior and preferences into account when formulating disclosure policies and assessing their likely consequences.

FULL DISCLOSURE. Sometimes Congress requires or authorizes agencies to promote regulatory goals by disclosing, or by requiring others

to disclose, a wide range of information about existing practices and their effects. Full disclosure will include far more detail than is available in a summary. It may well include multiple variables, supporting data, and materials that extend over long periods of time. For example, agencies use the Internet to provide detailed information about fuel economy and nutrition; such information is far more comprehensive than what is provided through summary disclosure.

Full disclosure can often promote the purposes of open government, including transparency, participation, and collaboration. The central goals of full disclosure are to allow individuals and organizations to view the data and to analyze, use, and repackage it in multiple ways, typically taking advantage of emerging technological capacities (perhaps including social media). To promote those goals, agencies should consider the following principles.

Principle One: Disclosed information should be as accessible as possible. For that reason, the Internet should ordinarily be used as a means of disclosing information, to the extent feasible and consistent with law.

Transparency is generally good practice, and agencies cannot always know which information will be most useful and in what format it will prove most valuable. Engaging in full disclosure (to the extent feasible, subject to valid restrictions, and to the extent permitted by law) is often both desirable and important.

Full disclosure will frequently involve large amounts of complicated data, and most people may not find it worth their time to seek out and analyze all or most of it. In such cases, the data may be most directly useful to groups and organizations with technical capabilities and with an interest in obtaining, analyzing, and repackaging relevant information. Such groups and organizations may reorganize and disseminate the information in ways that turn out to be highly beneficial to the general public (sometimes by improving the operation of markets). At the same time, agencies should strive to make full disclosure as useful as possible, and should therefore promote clarity and accessibility.

Principle Two: Disclosed information should be as usable as possible. For that reason, information should usually be released in an electronic format that does not require specialized software.

Consistent with the goals of open government, it is important to make information not merely available but also usable. If information is made available electronically, it will be easier for people to sift through it and to analyze or repackage it in various ways. Agencies should select an electronic format that is suitable to achieving that goal. The best method should be chosen in light of existing technology. At the present time, a structured XML format is conducive to this purpose.

Principle Three: Agencies should consider making periodic assessments of whether full disclosure is as accurate and useful as possible.

Where feasible and to the extent consistent with relevant laws, regulations, and policies (including protection of privacy), agencies should consider steps to investigate whether current disclosure policies are fulfilling their intended purposes. They might explore, for example, what information is being frequently used by the public and how those in the private sector are adapting and presenting information. By so doing, agencies can improve their disclosure policies and practices after learning about the value of particular information to the public. Similar forms of continuing assessment might prove useful for summary disclosure as well.

Agencies should also consider whether it might be useful to seek public comment on significant disclosures. As appropriate, agencies might use the Federal Register to obtain such comment. The public comment period associated with the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq., might also be used for this purpose. Agencies might consider requesting public comment on the following:

- 1) The quality of the information;
- 2) The usefulness of the information;
- 3) Other related information the agency should collect and/or disclose; and
- 4) Means of improving disclosure, such as more effective methods for collecting, organizing, analyzing, and disseminating information.

Principle Four: Where feasible and appropriate, agencies should consider the costs and benefits of full disclosure.

As noted above, Executive Order 12866 requires agencies, to the extent permitted by law, “to assess both the costs and the benefits of the intended regulation” and to proceed only upon “a reasoned determination that the benefits of the intended regulation justify the costs.” In addition, the Paperwork Reduction Act of 1995 imposes a series of requirements on efforts to collect information; these requirements are designed (among other things) to increase the practical utility of information collections and to minimize burdens on the private sector. In accordance with these requirements, and to the extent feasible and appropriate, agencies should evaluate full disclosure in terms of both qualitative and quantitative benefits and costs.

Here, as with summary disclosure, quantitative assessment of benefits may involve a degree of speculation, and a qualitative discussion, based on available evidence, may be all that is feasible. In assessing benefits, agencies should consider the fact that improvements in welfare are a central goal of disclosure requirements, that informed choice is also a value in itself (even if it is difficult to quantify that value), and that full disclosure may effectively complement and improve on summary disclosure. It is also important to recognize that significant benefits may be associated with recombining information in new and different ways, even if

quantification of those benefits is difficult.

SUMMARY DISCLOSURE AND FULL DISCLOSURE.

Congress may require or authorize agencies to require summary disclosure but not full disclosure; alternatively, Congress may require or authorize agencies to require full disclosure but not summary disclosure. When Congress grants agencies discretion, and to the extent feasible, they should consider the likely effects — including the qualitative and quantitative costs and benefits — of both approaches.

Summary disclosure is the best method for informing consumers at the point of decision. Full disclosure is the best method of allowing groups and individuals access to a broad range of information, allowing them to analyze and disseminate that information in creative ways, and to use it to inform private and public decisions or otherwise to promote statutory goals. The two approaches may well be complementary. For example, it may be desirable to use summary disclosure at the point of purchase while also making full information available on the Internet.

Simplification As A Regulatory Tool

PURPOSE. In some statutes, Congress requires or permits agencies to simplify regulatory requirements. In other statutes, Congress requires or permits agencies to use default rules, such as automatic enrollment, to simplify people's decisions and to promote regulatory objectives. Executive Order 12866 provides, "Each agency shall identify and assess available alternatives to direct regulation." It also provides, "Each agency shall draft its regulations to be simple and easy to understand, with the goal of minimizing the potential for uncertainty and litigation arising from such uncertainty." It adds, "When an agency determines that a regulation is the best available method of achieving the regulatory objective, it shall design its regulations in the most cost-effective manner to achieve the regulatory objective."

The purpose of this guidance is to set forth principles designed to assist agencies in using simplification to achieve their regulatory goals. Agencies should follow the principles outlined here in accordance with their own authorities, judgments, and goals, to the extent permitted by law.

SIMPLIFICATION AND DEFAULT RULES. In recent years, significant attention has been given to the possibility of improving outcomes by easing and simplifying people's choices. Sometimes this goal can be achieved by reducing complexity, ambiguity, and paperwork burdens; sometimes it can be achieved by selecting appropriate starting points or "default rules." A default rule (such as automatic enrollment) specifies the outcome in a given situation if people make no choice at all.

In the domain of savings for retirement, for example, private and public employers might create an "opt in" system, in which employees do not reserve any of their salary for savings unless they affirmatively elect to do so (and hence opt in). Alternatively, employers might create an "opt out"

system, in which a certain amount of salary is placed in a retirement plan unless employees affirmatively elect not to participate in the plan. Default rules play a large role in many domains. Both private and public institutions make numerous choices between opt-in and opt-out design.

Considerable evidence suggests that the choice of the default rule can have a significant effect on behavior and outcomes, even if it is simple and essentially costless to opt in or opt out. A typical finding is that under an opt-in system, fewer people are likely to participate than in an opt-out system. One reason is that inertia can be a powerful force; people may procrastinate or decline to make the effort to rethink the default option. Another reason is that the default rule might be taken to carry an implied endorsement by those who have chosen it; people may not depart from the default rule on the ground that it might have been selected because it is helpful or appropriate. Whatever the reason, it is clear that in some contexts, the chosen default rule can have significant effects, perhaps more significant than alternative possibilities, including disclosure of relevant information and even monetary incentives. It follows that if, for example, the relevant goal is to enable people to increase savings, an opt-out regime could be helpful for achieving that goal (as many private employers have found).

Instead of choosing opt in or opt out, private or public institutions might select a distinctive approach, which is to require “active choosing.” Under this approach, no default rule is put in place. People are asked to make an explicit statement of their preference among the alternatives. Compared to opt in, active choosing has been found to increase participation rates substantially. Agencies may wish to consider whether active choosing is preferable to a default rule as a means of promoting their objectives. If, for example, agencies are uncertain about which default rule will be best for the public, or if any default rule creates risks, requiring active choices may be an attractive alternative.

More generally, people may not participate in important programs simply because the required steps for participation are complex and daunting; agencies can often improve outcomes by reducing unnecessary paperwork burdens and by simplifying choices. For example, many agencies have taken active steps to dispense with paper and to allow people to use electronic forms (“fillable fileable,” including electronic signatures). Others have reduced burdens by eliminating unnecessary questions, using skip patterns, allowing “prepopulation” of forms, authorizing less frequent reporting, and eliminating redundancy.

In making choices among possible approaches, agencies should consider the following principles, to the extent permitted by law.

Principle One: To promote regulatory goals, agencies should consider whether it is appropriate to use default rules (such as automatic enrollment) as a substitute for, or as a supplement to, mandates or bans.

In some contexts, appropriate default rules have advantages over mandates and bans, because they preserve freedom of choice. Sometimes people's situations are diverse and a mandate is poorly suited to individual circumstances; a default rule has the virtue of permitting people to adjust as they see fit. And when the statutory goal is to improve outcomes without imposing firm mandates, a default rule may be simpler, more effective, and less costly than other possibilities.

Sometimes, of course, the law requires certain behavior (often to prevent harms to third parties), and in such cases, a default rule may not be sufficient. But in such contexts, default rules may be useful and complementary. If, for example, people are required by law to engage in certain behavior, it may be both useful and appropriate to select the default rule that promotes compliance and best achieves the regulatory objective. Such an approach can increase ease and simplicity for those who are asked to comply with the law.

Principle Two: When choosing among potential default rules, agencies should attempt to specify their likely effects, and should identify the rule that would most benefit the relevant population.

According to standard economic theory, a default rule should generally have little or no effect, at least if it is not burdensome or costly for people to depart from it. But empirical evidence suggests that in many contexts, outcomes are significantly affected by the choice of default rules. Many people will not opt in to a certain program or situation, even if they would also not opt out.

When choosing the appropriate default rule, agencies should attempt to specify and assess the likely effects of the alternative possibilities (including, to the extent feasible and permitted by law, both qualitative and quantitative costs and benefits, in accordance with Executive Order 12866). An important question is whether most people in the relevant population would benefit from participation in the pertinent program or activity. This question will not always be easy. It should ordinarily be answered by asking what most people would choose if they had adequate information. And if one set of outcomes is required by law, agencies should consider selecting a default rule that would simplify and promote compliance.

One approach to the choice of default rule is to choose a general rule that will apply to all of the relevant population, subject of course to opt in or opt out. An alternative approach is more personalized, in the sense that it attempts to distinguish among, and to suit the diverse situations of, members of the affected group. For example, geographic or demographic information (such as age) might be taken into account if it helps to increase the likelihood that the default rule will be suited to the situations of those to whom it applies. Agencies might consider a personalized approach if they have good reason to believe that such an approach would more accurately

reflect the informed judgments of members of the affected population. On the other hand, agencies should avoid a personalized approach if the underlying categories would be too crude or inconsistent with relevant laws, regulations, or policies, such as those involving privacy.

Principle Three: Agencies should consider active choosing as an alternative to a specified default rule, especially when the relevant group is diverse and appropriately informed.

In some cases, it may be difficult for agencies to be confident about which default rule will be best for the public or the relevant population; they may lack adequate information. In such cases, active choosing might well be preferable. This approach avoids a specified default rule. Instead, active choosing asks people to make an explicit selection of the option that they prefer.

Active choosing has particular advantages over a default rule when preferences and situations are diverse and heterogeneous, so that a single approach does not fit all. To that extent, active choosing can be preferable to either an opt-in or an opt-out regime. And when preferences and circumstances are diverse, a default rule may have the disadvantage of giving uniform treatment to differently situated people. More personalized default rules may avoid some of the problems of a uniform default rule, but when agencies lack full information, active choosing might well be the best approach.

These points also suggest the circumstances in which a default rule might be preferred to active choosing. Where agencies have reason to be confident about the appropriate default rule, and when preferences and situations are not relevantly diverse, active choosing may not be the best approach; a default rule might be best. Where the situation is unfamiliar, highly technical, and complex, a default rule might be preferred to active choosing, to the extent that the latter approach requires people to make decisions for which they lack experience and expertise. Provision of information might, of course, help to reduce the latter problem. Agencies should consider whether existing evidence provides a basis for deciding between a specified default rule and active choosing, or whether it is appropriate to attempt to obtain such evidence. Assessment of likely effects, including both qualitative and quantitative costs and benefits, will prove useful in making that decision.

Principle Four: Agencies should consider how best to eliminate unnecessary complexity and to simplify people's choices.

In some cases, a default rule will not fit with the relevant law or help solve the problem with which agencies are concerned. In such cases, agencies should nonetheless take steps to eliminate undue complexity and should attempt, where appropriate and consistent with law, to simplify and ease people's decisions.

For example, burdensome paperwork requirements can impose large costs on the private and public sectors, have unintended adverse effects, reduce compliance, and prevent significant numbers of people from participating in relevant programs. Consistent with the Paperwork Reduction Act of 1995, 44 U.S.C. 3501 et seq., and the Government Paperwork Elimination Act, 44 U.S.C. 3504, and to the extent permitted by law, agencies should attempt to reduce such requirements by eliminating unnecessary, ambiguous, excessive, and redundant questions; by permitting electronic filing (including electronic signatures); by allowing “prepopulation” of forms, where appropriate and feasible by sharing information across offices or agencies; and by promoting administrative simplification by coordinating and reducing requirements from multiple offices and agencies.

APPENDIX C

AGENCY CHECKLIST: REGULATORY IMPACT ANALYSIS

With this document, the Office of Information and Regulatory Affairs is providing a checklist to assist agencies in producing regulatory impact analyses (RIAs), as required for economically significant rules by Executive Order 12866 and OMB Circular A-4.

Nothing herein alters, adds to, or reformulates existing requirements in any way. Moreover, this checklist is limited to the requirements of Executive Order 12866 (available at: http://www.reginfo.gov/public/jsp/Utilities/EO_12866.pdf) and Circular A-4 (available at: <http://www.whitehouse.gov/OMB/circulars/a004/a-4.pdf>); it does not address requirements imposed by other authorities, such as the National Environmental Policy Act, the Regulatory Flexibility Act, the Unfunded Mandates Reform Act, the Paperwork Reduction Act, and various Executive Orders that require analysis. Executive Order 12866 and Circular A-4, as well as those other authorities, should be consulted for further information.

Checklist for Regulatory Impact Analysis:

- Does the RIA include a reasonably detailed description of the **need for the regulatory action**?
- Does the RIA include an explanation of how the regulatory action will **meet that need**?
- Does the RIA use an appropriate **baseline** (i.e., best assessment of how the world would look in the absence of the proposed action)?
- Is the information in the RIA based on **the best reasonably obtainable scientific, technical, and economic information** and is it presented in an **accurate, clear, complete, and unbiased manner**?
- Are the data, sources, and methods used in the RIA provided to the public **on the Internet** so that a qualified person can reproduce the analysis?
- To the extent feasible, does the RIA quantify and monetize the anticipated **benefits** from the regulatory action?
- To the extent feasible, does the RIA quantify and monetize the anticipated **costs**?
- Does the RIA explain and support **a reasoned determination that the benefits of the intended regulation justify its costs** (recognizing that some benefits and costs are difficult to quantify)?
- Does the RIA assess the **potentially effective and reasonably feasible alternatives**?
 - o Does the RIA assess the benefits and costs of different regulatory provisions separately if the rule includes a number of distinct provisions?
 - o Does the RIA assess at least one alternative that is less stringent and at least one alternative that is more stringent?
 - o Does the RIA consider setting different requirements for large and small firms?

- Does the preferred option have the highest **net benefits** (including potential economic, environmental, public health and safety, and other advantages; distributive impacts; and equity), unless a statute requires a different approach?
- Does the RIA include an explanation of why the planned regulatory action is **preferable** to the identified potential alternatives?
- Does the RIA use appropriate **discount rates** for benefits and costs that are expected to occur in the future?
- Does the RIA include, if and where relevant, an appropriate **uncertainty analysis**?
- Does the RIA include, if and where relevant, a separate description of **distributive impacts** and **equity**?
- o Does the RIA provide a description/accounting of transfer payments?
- o Does the RIA analyze relevant effects on disadvantaged or vulnerable populations (e.g., disabled or poor)?
- Does the analysis include a clear, plain-language **executive summary**, including an **accounting statement** that summarizes the benefit and cost estimates for the regulatory action under consideration, including the qualitative and non-monetized benefits and costs?
- Does the analysis include a clear and transparent **table** presenting (to the extent feasible) anticipated benefits and costs (quantitative and qualitative)?