

No. 103
February 2012

MERCATUS ON POLICY

REGULATORY OVERLOAD

By Richard Williams and
Mark Adams



MERCATUS CENTER
George Mason University

REGULATIONS ARE SUPPOSED to keep Americans safe, but a growing rulebook may actually be making us less so. The vast number of rules alone overwhelms businesses and individuals, diverting attention away from regulation's end goal—improved safety—and placing the focus on compliance. Regulators can make Americans safer by writing clear, simpler rules and eliminating ineffective regulations. Instead of telling businesses how to solve problems with prescriptive regulations, regulators should define outcomes and let businesses devise their own solutions.

GROWING REGULATION

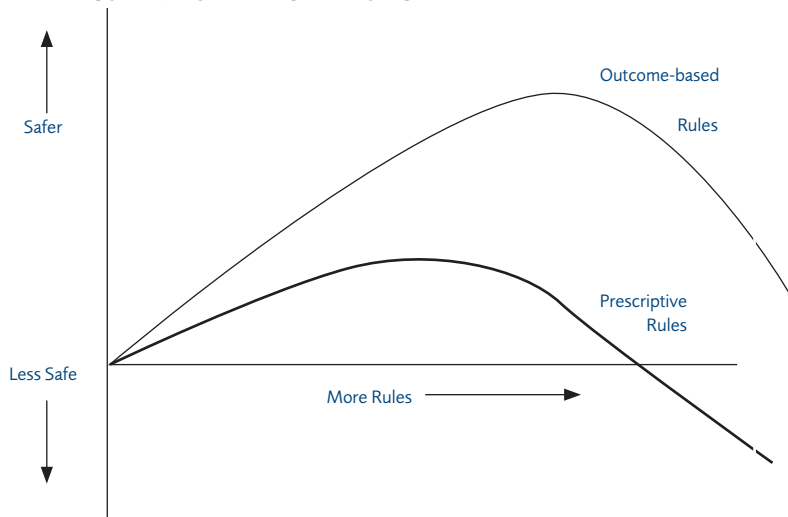
IN 2011, AMERICAN businesses had to comply with 165,000 pages of federal regulations, 20,000 pages more than in 2007.¹ As experts and politicians of both parties have recognized, this vast array of regulations imposes a substantial burden on the U.S. economy and has a particularly acute effect on small businesses.² Yet this number continues to grow as regulators write increasingly specific rules and expand the scope of regulation to fill perceived gaps in the existing code in the belief that more extensive and detailed regulation would protect workers, consumers, and the environment.³ However, studies in psychology, economics, and organizational science suggest the opposite is true.⁴

THE COST OF OVERLOAD

Reduced Compliance

REGULATIONS ARE EFFECTIVE only when people follow them. As the regulatory code grows, people find it harder to discover, let alone recall, all the rules they are supposed to follow. They are more likely to make mistakes and are often less motivated to comply.⁵ A study by nuclear power industry experts Michael Lavérie and Roger Flandrin found that large and complex regulatory codes reduced safety as additional regulations, even relatively good ones, distracted nuclear workers from the most important rules.⁶ The effect of overload applies equally in the home. Economists Kip Viscusi, Wesley Magat, and Joel Huber found that consumers forgot

FIGURE 1: MORE EFFECTIVE RULES



Note: The above chart illustrates the relationship between rules and safety described by the academic literature. Beyond a certain point, more rules reduce overall safety as people are less likely to comply and businesses are less likely to find innovative solutions to safety problems. By switching to outcome-based rules, regulators can achieve the same goal with fewer rules. Outcome-based rules also mitigate some of the motivational and innovation problems that too many prescriptive rules create.

important information about safely using and storing household chemicals when the chemicals' labels contained too many warnings.⁷

Overload not only makes it harder to comply, but it also often harms the motive to comply. Businesses that operate in only one industry may not need excessively complicated procedures as experts can easily solve problems as they arise. However, regulators who cover broad areas of law, such as environment or occupational safety, must somehow try to predict every circumstance facing every business they regulate. The result is broad but shallow regulation: complex as to the sheer number of instances for which the regulator must plan, but oversimplified as to each individual problem.⁸ The volume of rules distracts workers, causing them to dismiss the relevant rules buried within the rulebook as oversimplifications and making them less motivated to comply overall.⁹ In a study of the Dutch railway industry, 95% of workers reported that they could not do their jobs if they followed all the rules. A similar study of British railroads found that more than half of all rule breaches were intentional.¹⁰

As rules become more complex, the act of compliance becomes the imperative, displacing the end goal of safety.¹¹ In a study of the Australian mining industry, safety expert David Borys found that workers had become less concerned with evaluating situations for actual safety and more concerned with avoiding sanctions. The motivation to comply remained less than the motivation to stay safe. The workers' lost sense of ownership of the safety procedures further compounds the problem: although workers can identify problems more easily than regulators, they cannot change regulations as easily as they can their own company's procedures. Thus,

workers become less motivated to find solutions to problems. When the miners ceased to regard following the rules as part of an overall goal of improving safety, they focused, at best, on simply following the rules. At worst, they focused on how to break the rules without being caught.¹²

Reduced Incentives to Improve Safety

REGULATORY OVERLOAD ALSO discourages firms from finding innovative solutions to problems.¹³ Managers may invest more in legal expertise to satisfy regulatory demands to achieve compliance at the lowest possible cost than in experts who can solve safety and business problems. An Australian government task force found that some 25% of managers' time was devoted to compliance.¹⁴ Furthermore, firms will tend to hire managers with skills best suited for regulatory tasks.¹⁵ This approach may be effective if regulators could capture all the complexity and the various problems facing businesses, but this is often

not the case.¹⁶ A study of the nuclear power industry found that while the engineers who built power plants and wrote their operating procedures often believed they could predict every eventuality in advance, this was rarely the case. When there are problems no one could have accounted for, such as the earthquake and tsunami that struck a nuclear power plant in Japan, there are no specific or general rules that can work. Moreover, nuclear plants in compliance-oriented regulatory environments are less able to cope with these circumstances while innovation-oriented businesses are more likely to succeed, a finding reflected in studies of other industries.¹⁷

Firms often do effect change through lobbying, but, having little incentive to oppose rules that hurt their competition, firms often lobby for rules that raise the cost of entry for competitors.¹⁸ Large businesses have an advantage in gaining access to regulators, who often base regulations on existing large-firm procedures, and in spreading the cost of lobbying over a larger base. They are also differently structured than small companies, relying more on formal internal rules.¹⁹ Small businesses rely more on expertise to solve problems, making them better placed to identify innovative solutions. However, it is harder for small firms to arrange their business around rigid rules imposed from outside.²⁰ Small businesses end up paying a disproportionate cost—at least 30% higher per employee, according to the U.S. Small Business Administration—and may be shut out altogether.²¹

Increased Uncertainty

REGULATORS USING PRESCRIPTIVE rules can find themselves in a catch-22 dilemma. Businesses must update their procedures continuously to stay competitive; something they cannot do when prescriptive rules lock-in existing practices.

When regulators try to keep pace with change, they create the uncertainty of an unstable set of rules. Businesses are less likely to invest or innovate until they know how future regulations will affect their business.²² Regulators can mitigate uncertainty by grandfathering in businesses that follow the old rules, but grandfathering creates perverse incentives for businesses to avoid investing lest they become subject to the new regime.

Excessive regulation also creates uncertainty if businesses are unable to identify all the rules that apply to them. Even regulators may not know or enforce all the regulations on the books and may focus on a smaller subset of regulations. Businesses that cannot know or hope to comply with all the regulations in place must wait to discover which rules they are expected to follow. Risk-management experts Robyn Fairman and Charlotte Yapp found that many small businesses simply wait for inspectors to identify violations of occupational safety rules before making efforts to comply.²³ Again, small businesses bear the greatest cost of this uncertainty.

TOWARD EFFECTIVE REGULATION

REGULATORS SHOULD FOCUS on building fewer, more effective regulations. Regulators are often biased toward avoiding visible errors rather than minimizing overall risk. A comparison of drug safety in the United States and Europe found that the relatively more stringent approach of the U.S. Food and Drug Administration cost more American lives by delaying the release of life-saving drugs than it saved by keeping dangerous ones off the market.²⁴ Similarly, regulators often respond to accidents or perceived risks by writing overly detailed regulations while ignoring the cost to safety of reduced innovation and competition.²⁵ The Dutch government has seen significant success by replacing prescriptive regulations with outcome-based ones that let businesses and industry groups develop their own rules.²⁶

Focus on What's Important

FEWER, CLEARER RULES can help businesses and workers know about and understand those rules that facilitate compliance.²⁷ When regulators fail to prioritize the most effective rules, consumers, workers, and businesses find it harder to comply. For example, California requires companies to label a product as carrying a cancer risk if there is a 1 in 100,000 chance of any person exposed to the product over a period of 70 years contracting cancer.²⁸ As a result, consumers have no idea which products carry a serious cancer risk and are prone to ignore all warnings. Fewer warnings could help consumers identify and avoid serious risks. Benefit-cost analysis can help regulators identify the most effective rules—for instance, the rules prohibiting lead in gasoline—but they should also update current methods to consider the costs of regulatory overload.

Define Outcomes

INSTEAD OF IMPOSING detailed rules, regulators should define outcomes and then leave the details to business because experts on the ground have better grasps of both the problems and the solutions than regulators do. This approach would also let firms identify and avoid the conflicts between regulations that inevitably result when multiple regulators oversee many of the same industries. For example, instead of mandating specific technologies, the Environmental Protection Agency has now implemented tradable emissions caps for environmental hazards such as acid rain and nitrous oxide.²⁹ These caps limit pollution but allow businesses to take measures that suit their changing, individual needs.

CONCLUSION

REGULATORS TRY TO reduce risks by creating a more prescriptive and growing regulatory code. The evidence suggests, however, that the difficulty of complying with such complex regulation may actually be making Americans less safe. To reverse this trend, regulators need to prioritize the most effective rules, eliminate those that are not needed, and define outcomes, leaving businesses to work out the details.

ENDNOTES

1. Code of Federal Regulations, U.S. Government Printing Office, <http://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR>.
2. For example, see Barack Obama, "Toward a 21st-Century Regulatory System," *Wall Street Journal*, January 18, 2011.
3. Neil A. Gunningham and Richard Johnstone, *Regulating Workplace Safety: Systems and Sanctions* (Oxford: Oxford University Press, 1999); Neil A. Gunningham and Darren Sinclair, "Designing Smart Regulation" in *Smart Regulation: Designing Environmental Policy*, ed. Neil A. Gunningham and Peter Grabosky (Oxford: Oxford University Press, 1998), 1–19; Neil A. Gunningham and Darren Sinclair, *Leaders and Laggards: Next Generation Environmental Regulation* (Sheffield, United Kingdom: Greenleaf Publishing, 2002); Svein Jentoft and Knut H. Mikalsen, "A Vicious Circle? The Dynamics of Rule-Making in Norwegian Fisheries," *Marine Policy* 28 (2004): 127–35; Lord Robens, *Report of the Committee on Safety and Health at Work 1970–1972* (London: Her Majesty's Stationery Office, 1972); and Philip K. Howard, *The Death of Common Sense: How Law is Suffocating America* (London: Random House, 1994).
4. For a general review, see Andrew Hale, David Borys, and Mark Adams, "Regulatory Overload: A Behavioral Analysis of Regulatory Compliance," (working paper, Mercatus Center at George Mason University, Arlington, VA, 2011). See also, Rien Elling, "Veiligheidsvoorschriften in de Industrie" [Safety Rules in Industry], (PhD diss., University of Twente, the Netherlands, 1991); David Maidment, "Privatisation and Division into Competing Units as a Challenge for Safety Management," in *Safety Management: The Challenge of Change*, ed. Andrew Hale and Michael Baram (Oxford: Pergamon, 1998): 221–32; Wesley A. Magat, W. Kip Viscusi, and Joel Huber, "Consumer Processing of Hazard Warning Information," *Journal of Risk and Uncertainty* 1, no. 2 (1988): 201–32; and Laura Langbein and Cornelius M. Kerwin, "Implementation, Negotiation

and Compliance in Environmental and Safety Regulation," *The Journal of Politics* 47, no.3 (1985): 854–80.

5. Ibid; Anthony Ogus, "Comparing Regulatory Systems: Institutions, Processes and Legal Forms in Industrialised Countries," (working paper no. 35, Centre on Regulation and Competition, University of Manchester, Manchester, United Kingdom, December 2002); and Genn Saji, "Safety Goals in 'Risk-informed, Performance-based' Regulation," *Reliability Engineering and System Safety* 80, no. 2 (May 2003): 163–72.
6. Elling; and Maidment.
7. Magat, Viscusi, and Huber.
8. Gudela Grote, Johann C. Weichbrodt, Hannes Günter, Enikő Zala-Mező, and Barbara Künzle, "Coordination in High-risk Organizations: The Need for Flexible Routines," *Cognition, Technology & Work* 11, no. 1 (February 2009): 17–27; John C. McCarthy, Peter C. Wright, Andrew F. Monk, and Leon A. Watts "Concerns at Work: Designing Useful Procedures," *Human-Computer Interaction* 13, no. 4 (December, 1998): 433–57; and Yuichi Otsukaa, Ryo Misawab, Hiroshi Noguchic, and Hiroyuki Yamaguchib, "A Consideration for Using Workers' Heuristics to Improve Safety Rules Based on Relationships Between Creative Mental Sets and Rule-Violating Actions," *Safety Science* 48, no. 7 (August 2010): 878–84.
9. Ibid.
10. Rien Elling, Confidential Incident Reporting & Analysis System (CIRAS), "Are rules really made to be broken?" *The Reporter* 12, no. 1 (February 1, 2007).
11. David Borys, "The Role of Safe Work Method Statements in the Australian Construction Industry," *Safety Science* 50, no. 2 (February 2012): 210–20.
12. Ibid.
13. See Michael Lavérie and Roger Flandrin, "Relations Between the Safety Authority and the Nuclear Power Plant Operators," *Nuclear Engineering and Design* 127 (1991): 215–18; and Lord Robens.
14. William Burman and Robert Daum, "Grinding to a Halt: The Effects of the Increasing Regulatory Burden on Research and Quality Improvement Efforts," *Clinical Infectious Diseases*, 49 (2009):328–35; Mary Olson, "Agency rulemaking, political influences, regulation and industry compliance," *The Journal of Law, Economics & Organization* 15, no. 3 (October 1999): 573–601; Gary Banks, "Reducing the Regulatory Burden: The Way Forward," lecture, Monash Centre for Regulatory Studies, Melbourne, Australia, May 17, 2006.
15. Ibid.
16. Grote et al.; McCarthy et al.; and Otsukaa et al.
17. Joel Brockner, E. Tory Higgins, and Murray B. Low, "Regulatory Focus: Theory and the Entrepreneurial Process," *Journal of Business Venturing* 19, no. 2 (March 2004): 203–20.
18. Sam Peltzman, "Toward a More General Theory of Regulation," *Journal of Law and Economics* 19, no. 2 (August 1976): 211–40; and George J. Stigler, "The Theory of Economic Regulation," *The Bell Journal of Economics and Management Science* 2, no. 1 (Spring 1971): 3–21.
19. See Markus C. Becker, "Organizational Routines: A Review of the Literature," *Industrial and Corporate Change* 13, no. 4 (2004): 643–78.
20. Ibid.
21. Nicole V. Crain and W. Mark Crain, "The Impact of Regulatory Costs on Small Firms," Small Business Administration Office of Advocacy, *Small Business Research Summary* no. 371 (September 2010). While elements of this study are controversial, the problems identified with the authors' methodology do not affect the figure on relative costs for small and large firms.
22. Joshua Aizenman and Nancy P. Marion, "Policy Uncertainty, Persistence and Growth," *Review of International Economics* 1, no.2 (1993): 145–63; Jun Ishii and Jingming Yan, "Investment under Regulatory Uncertainty: U.S. Electricity Generation Investment Since 1996" (working paper, Center for Study of Energy Markets, March 2004); and Robert Lensink, Hong Bo, and Elmer Sterken, "Does Uncertainty Affect Economic Growth? An Empirical Analysis," *Review Of World Economics* 135, no. 3 (1999): 379–96.
23. Robyn Fairman and Charlotte Yapp, "Enforced Self-Regulation, Prescription, and Conceptions of Compliance within Small Businesses: The Impact of Enforcement," *Law & Policy* 27, no.4 (October 2005): 491–519.
24. Dale H. Gieringer, "The Safety and Efficacy of New Drug Approval," *Cato Journal* 5, no. 1 (1985): 177–201.
25. Ulrich Beck, *Risk Society: Towards a New Modernity* (New Delhi: Sage Publications, 1992); and Lord Young, *Common Sense, Common Safety: Report to the Prime Minister* (London: Her Majesty's Stationery Office, 2010).
26. Paul Baart and Tamara Raaijmakers, "Developments in the field of work and health in the Netherlands in the period of 1990–2010," Recommendation Paper for the Network of WHO Focal Points for Workers' Health, Amersfoort, the Netherlands (2010); Jan Heijink and Shirley Oomens, "De werking van arbocatalogi: Evaluatie van het project arbocatalogi van de Stichting van de Arbeid (The working of the Working Conditions Catalogues of the Foundation for Work)," Project no. 340000768, Group ITS, Radboud University Nijmegen, Netherlands (February 2011).
27. Magat, Viscusi, and Huber; Elling; and Maidment.
28. California Health and Safety Code, Safe Drinking Water & Toxic Enforcement Act of 1986, ss. 25249.5-25249.13 (West 1992 & Supp. 1997) (Proposition 65).
29. U.S. Environmental Protection Agency, "Quick Facts about Cap and Trade," *Cap and Trade*, <http://www.epa.gov/captrade/>.

The Mercatus Center at George Mason University is a research, education, and outreach organization that works with scholars, policy experts, and government officials to connect academic learning and real-world practice.

The mission of Mercatus is to promote sound interdisciplinary research and application in the humane sciences that integrates theory and practice to produce solutions that advance in a sustainable way a free, prosperous, and civil society.

Richard Williams is the managing director of the Regulatory Studies Program and the Government Accountability Project at the Mercatus Center. Dr. Williams is an expert in benefit-cost analysis and risk analysis, particularly associated with food safety and nutrition.

Mark Adams is an alumnus of the Mercatus Center MA Fellowship at George Mason University. He is currently a PhD candidate in the Department of Economics at George Mason University.