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How Declining Budgets at U.S. Regulatory Agencies Could Improve Performance

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ABSTRACT

Although spending on U.S. regulatory programs has doubled in the last 20 years, that trend is unlikely to last. How these programs manage budget cuts will determine whether downsizing harms or helps regulatory performance. Leaders of regulatory agencies must avoid satisfying tighter budgets with temporary “mindless austerity” measures that anger workers. Instead managers should use scarcity to find, with workers, “frugal innovations” that can significantly and permanently improve program value.

¹ This comment reflects the views of the author, and does not represent an official position of the GW Regulatory Studies Center or the George Washington University. The Center’s policy on research integrity is available at <http://regulatorystudies.columbian.gwu.edu/policy-research-integrity>.

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Introduction

An unprecedented change in U.S. government spending is squeezing the budgets of regulatory agencies. Scarcity can motivate managers to be creative, but lower budgets can also spell disaster for how these offices perform in the future. Recent budget cuts in federal operations have often been met by across-the-board and temporary cost-cutting measures such as hiring freezes and eliminating travel. This type of “mindless austerity” can anger workers and be counterproductive to improving agency performance. An alternative approach is for managers to reject short-term fixes and embrace scarcity as a long-term condition that can encourage innovation. This attitude, called “frugal innovation,” includes engaging employees in rethinking systems to maximize program value.

This paper lays out why regulatory agencies will soon need to downsize, why budget cuts can hurt performance—or greatly enhance it, and why leadership is needed to encourage frugal innovation as a means of improving regulatory activities.

Rising Regulatory Budgets are About to Drop

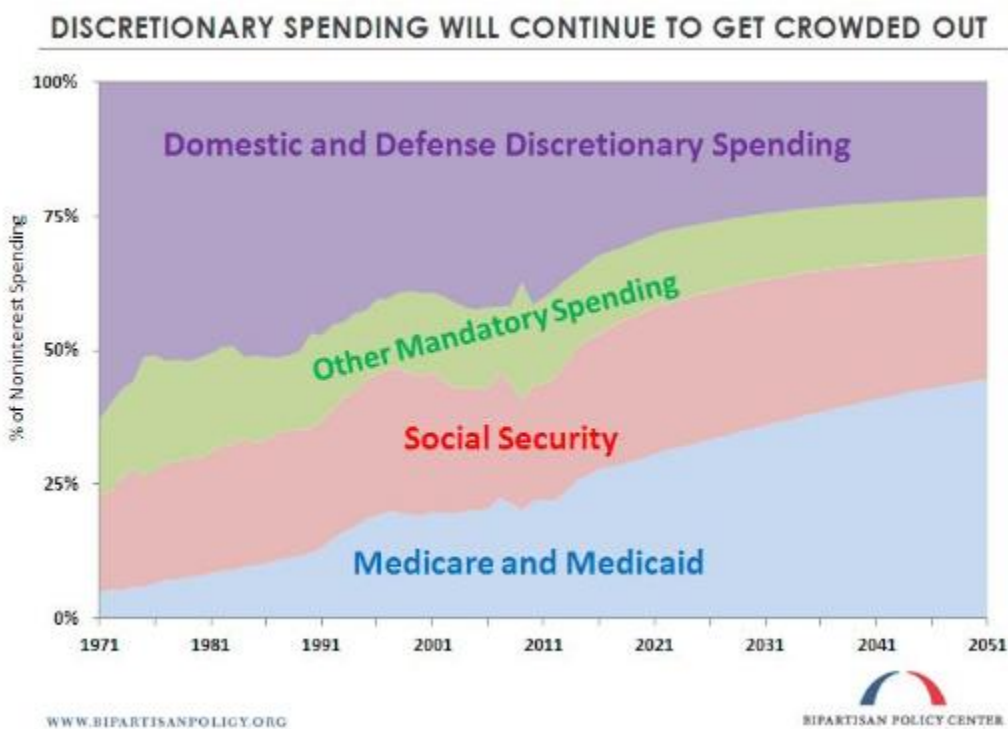
Over a fifty-year span, federal regulatory programs in the United States, as a whole, have enjoyed large increases in funding. In 1960 regulatory agencies spent about \$533 million.³ In real terms, spending rapidly grew over the next two decades, especially at new agencies such as the National Highway Traffic Safety Administration and the Environmental Protection Agency. After a temporary decline in the early 1980s, real annual expenditures for regulatory activities again rose sharply. By 2015 federal outlays for regulatory activities were well over \$60 billion. Adjusting for inflation, federal spending on regulatory activities increased 18-fold over the 55-year period 1960–2015. This is in contrast to all federal spending which increased approximately five-fold over the same time period.⁴ While growth in spending has slowed more recently, as of 2015, spending on regulatory programs had more than doubled, in real terms, since 1995.

Despite significant growth in spending on regulatory activities over the last several decades, funding has become flat and will probably decrease, in real terms, in the next several years. This inevitable decline will happen because of an unprecedented change occurring in U.S. government spending.

³ Unless otherwise noted, figures in this section are from Susan E. Dudley and Melinda Warren, “[Regulators’ Budget from Eisenhower to Obama: An Analysis of the U.S. Budget for Fiscal Years 1960 through 2017](#),” The George Washington University Regulatory Studies Center and the Weidenbaum Center on the Economy, Government, and Public Policy at Washington University in St. Louis, May 17, 2016.

⁴ Calculated by author from U.S. Office of Management and Budget, [Budget of the United States Government for Fiscal Year 2017: Historical Tables](#), Table 1.3.

Regulatory programs are primarily funded by what is called “discretionary spending,” funding provided through annual appropriations bills. Discretionary spending funds the operation of most domestic government programs as well as the Department of Defense. In what some commentators call the “The Big Squeeze,”⁵ discretionary spending is being crowded out of the U.S. budget by so-called “mandatory” (or entitlement) spending. Mandatory spending supports such programs as Medicare, Medicaid and Social Security. For instance, in the 1970s, more than half of all federal spending was discretionary. Today discretionary spending accounts for less than a third of all spending and that proportion continues to decrease (see the graph produced by the Bipartisan Policy Center below⁶). Confirming this trend, recently the Congressional Budget Office projected that by 2026 total discretionary spending will account for 5.2 percent of GDP, its lowest level since 1962.⁷



It is highly unlikely policymakers will significantly adjust future budgets to alleviate the squeeze on discretionary spending. In general, Democrats have proposed to stop reductions in discretionary spending by offsetting them with higher taxes. This is strongly opposed by most Republicans. For their part, many Republicans have attempted to get more discretionary funding,

⁵ See, for instance, Veronique de Rugy, “[The Big Discretionary-Spending Squeeze](#),” *National Review*, April 12, 2013.

⁶ Shai Akabus and Loren Adler, “[The Discretionary Squeeze](#),” Bipartisan Policy Center, 7 October 2011.

⁷ CBO, “[The 2016 Long-Term Budget Outlook](#),” July 2016, p. 50.

especially for defense, by reducing mandatory spending. This is strongly opposed by most Democrats.

It is doubtful this impasse will be broken in a way that will lead to increases in discretionary spending. Between the options of larger deficits, reducing entitlement spending, or increasing taxes, it is very likely discretionary spending will remain the lowest priority. “It’s the path of least resistance,” observes economist Robert Samuelson. We could trim entitlements or raise taxes but “both Obama and Republicans evade this unpopular exercise.”⁸ Former Budget Committee Chairman Bill Frenzel predicted, “As long as the big entitlements continue to be the third rail of politics and tax reform remains off the table, there will be precious few new initiatives, and discretionary spending will be depressed.”⁹

As noted above, regulatory programs as a whole are only starting to feel the discretionary squeeze, but reductions in discretionary spending will only become increasingly severe.

Budget Cuts May Hurt Regulatory Program Performance

Cutting funding for operating federal agencies has been variously called “cutback management,”¹⁰ the “helpless approach,”¹¹ “downsizing,” and the “starvation agenda.”¹² Such budget reductions are typically not intended as a management strategy but either a tactic small government advocates use to limit the size of government and/or, as described above, a necessity to meet financial constraints. After decades of spending growth, U.S. regulatory program managers now need to manage chronic budget cuts which could have a significant effect on their activities including: the formulation of regulatory options; the thoroughness of benefit-cost analyses; the quantity and quality of regulations issued; and their enforcement.

Many government workers, policymakers, and other experts view budget cuts as harmful to government performance. Long before the recent budget impasse, President Howard Taft, an avid government reformer, opined that spending cuts could reduce government productivity asserting, “A reduction in the total of the annual appropriations is not in itself a proof of economy, since it is often accompanied by a decrease in efficiency.”¹³

⁸ Robert J. Samuelson, “[The Twisted Priorities of a Graying Nation](#),” *Washington Post*, 8 February 2015.

⁹ “Paul M. Krawzak and Tamar Hallerman, “[The Budget Act Comes of Age](#),” *CQ Weekly*, 29 July 2014

¹⁰ See, for instance, Robert D. Behn, “Cutback management: six basic tasks,” *Governing*, March 1996, p. 68.

¹¹ This term is used in George W. Downs and Patrick D. Larkey, *The Search of Government Efficiency: from Hubris to Helplessness*, Random House, First Edition, 1986, p. 183.

¹² Among others this term is used by Paul C. Light in *A Government Ill Executed: The Decline of the Federal Service and How to Reverse It*, (Harvard University Press: Cambridge, MA) 2008, p 37.

¹³ Howard Taft, [Message from the President on Efficiency and Economy](#), 17 January 1912, p. 3.

Two theories support this conclusion. First, funding reductions anger workers. Frustrated and demoralized workers, in turn, undercut changes managers may try to put in place to rationally manage funding cuts. The second theory holds that during cutbacks federal managers themselves become more risk averse at the very time they need to be more creative to find and implement innovations that will improve efficiency.

Both of these theories have been examined by researchers. First, experts have studied why employees may become angry and/or frustrated about budget cuts. Some experts believe budget cuts, and the budget fights over those cuts, may create an emotional and psychological backlash among workers. The backlash, so the theory goes, comes from employees sensing a breaking of the “social contract” at work.¹⁴ That is, workers perceive their employment to include an implicit agreement with the employer that if they work hard and perform adequately, the employer will not fire them. Downsizing potentially abrogates the unspoken contract between employees and employers by threatening the worker’s continued employment despite the fact the employee may have remained loyal to the employer. Breaking this unspoken contract results in anger and a justification for the employee to no longer remain deferential.

Motivation for sabotaging management during a government budget reduction may go even deeper than that. According to Mary Ann Feldhiem, an associate professor at the University of Central Florida, downsizing in portions of the federal government in the 1970s and 1990s “diminished the public service ethic based on the altruistic values of civic duty, social justice, and compassion.”¹⁵ As a result, employees become disengaged and actively undercut efforts to improve productivity.

The second theory as to why budget cuts harm program performance holds that crises, such as budget fights and threatened shutdowns, cause federal managers to be resistant to change, even positive change. This so-called “threat rigidity” happens when people fall back on processes, such as standard operating procedures, and behaviors with which they are familiar and comfortable. This reaction may be reinforced by the fact that, in a crisis, people simply don’t have the time to be creative.¹⁶ Robert Hale, former Comptroller and Chief Financial Officer at the Department of Defense, seemed to confirm this effect when he described the department’s limited ability to deal with the budget cuts presented by the fiscal year 2013 sequestration of

¹⁴ See Steven Kelman, “Downsizing, Competition, and Organizational Change in Government: Is Necessity the Mother of Invention?” *Journal of Policy Analysis and Management*, 25 (2006), pp. 875–895.

¹⁵ Mary Ann Feldheim, “Public Sector Downsizing and Employee Trust,” *International Journal of Public Administration* 30 (2007), p. 265.

¹⁶ For a description of “threat rigidity” and its possible effects in different settings see Barry M. Staw, Lance E. Sandelands, and Jane E. Dutton, “[Threat Rigidity Effects in Organizational Behavior: A Multilevel Analysis](#),” *Administrative Science Quarterly* 26:4 (December 1981), pp. 501-524.

funds, saying, “Budget turmoil hurts improving management. Sequestration, for instance, takes up too much of management’s time.”¹⁷

Some studies that have tried to find evidence of tighter budgets and “threat rigidity” in the public sector show weak but positive results. For instance, in the 1980s, a study of 334 public and private colleges and universities found loss of enrollment (and, therefore, revenue) lead to greater rigidity in thinking. However, the effect was strongest in small private schools and weakest in large public institutions.¹⁸ Likewise a 1992 study looking at the change in budgets of 72 drug abuse treatment organizations over a three-year period showed a modest triggering of the “rigid use of procedures” in response to budget declines.¹⁹

Budget Cuts May Make Programs Work Better

In contrast to theories that budget cuts lead to anger and resistance to change, some argue that budget cuts provide the necessary impetus to identify and adopt innovations that can greatly improve programs. In other words, “scarcity is the mother of invention.” These experts believe that “when there is a lack of resources, it’s amazing how innovative people can be.”²⁰

A large number of studies examining innovation have found funding cuts induce greater creativity. For instance, in the 1980s Roger Schroeder and his associates examined the processes by which seven separate innovations were discovered, one of which was in the public sector. They found that “innovation is stimulated by shocks” including such things as “new leadership, product failure, a budget crisis, and an impending loss of market share.”²¹

Most recently this theory has been supported by a robust meta-analysis of studies regarding innovation in both the private and public sectors. In 2007 the Mayo Clinic asked Uri Neren and his colleagues at Innovators International (a consortium created by dozens of multinational companies that rely on innovation) to build a database of known innovation methodologies from around the world. Mayo was interested in finding out if there were particularly good methods for

¹⁷ Statement during a panel discussion, “Building a 21st Century Senior Executive Service,” at the National Academy of Public Administration Fall Meeting, December 3, 2015.

¹⁸ Kim Cameron, David A. Whetten, and Myung U. Kim, “[Organizational Dysfunctions of Decline](#),” *Academy of Management Journal*, 30 (March 1987), p. 135.

¹⁹ Thomas D’Aunno and Robert I. Sutton, “[The Responses of Drug Abuse Treatment Organizations to Financial Adversity: A Partial Test of the Threat-Rigidity Thesis](#),” *Journal of Management*, 18 (1992), pp 117-131.

²⁰ Statement of technology expert Alan R. Shark during a presentation entitled “A Framework for Driving Productivity Through Self Service Technology” sponsored by the National Academy of Public Administration, 18 September 2013.

²¹ Roger G. Schroeder, Andrew H. Van de Ven, Gary D. Scudder, and Douglas Polley, “The Development of Innovation Ideas,” in Andrew H. Van de Ven, Harold L. Angle, Marshall Scott Poole eds, *Research on the Management of Innovation: the Minnesota Studies*, (Oxford University Press: Oxford, UK) 2000, p. 123.

eliciting and managing innovation in different settings. Neren’s group eventually identified 162 methodologies that had been created to explain innovation. After examining the subset of these that were backed by statistically significant data, his team reached the unambiguous conclusion that resource scarcity was the single major factor in encouraging innovation. Neren states,

So when it happens that these rigorously researched methodologies independently converge on a common factor—something they all find valuable in an innovation process—it’s pretty safe to assume that it really is important. Having done that kind of meta-analysis, we can tell you the one element that comes through loudest and clearest: the value of *scarcity* as a spur to creative problem-solving.²²

Neren continues,

This is not merely a logical theory. Again, it has been the finding of the empirically-based studies we reviewed. (One such collection of work alone looked at more than 500,000 patents and innovations.) By deliberately imposing scarcity of one kind or another on their problem-solving, inventors became demonstrably more creative, and the ideas generated under such conditions enjoyed greater success in the marketplace and society than ideas invented in more “blue sky” modes.²³

If Neren’s results are correct, budget cuts could be the single most powerful way to improve the performance of regulatory programs.

The Effect of Budget Cuts on Performance is Unclear

Regardless of underlying theories of how funding reductions may harm or help agency productivity, only a few studies have tried to empirically examine the overall effect of budget cuts in the federal government on employees and program performance. In 2006, Harvard University Professor Steve Kelman released the most pertinent and robust study of this issue.²⁴ Kelman looked at the effect of downsizing federal procurement offices, especially at the Department of Defense, during the National Performance Review (NPR) in the 1990s. The NPR was somewhat unusual in that it both attempted to convince federal programs to increase productivity while at the same time committing them to personnel cuts.²⁵

²² Harvard Business Review Blog, “[The Number One Key to Innovation: Scarcity](#),” Uri Neren, January 14, 2011.

²³ *Loc cit.*

²⁴ Steven Kelman, “[Downsizing, Competition, and Organizational Change in Government: Is Necessity the Mother of Invention?](#)” *Journal of Policy Analysis and Management*, 25 (2006), pp. 875–895.

²⁵ For a discussion of the internal contradictions of the NPR see Donald F. Kettl, “Building Lasting Reform: Enduring Questions, Missing Answers,” in Donald F. Kettl and John J. DiIulio, Jr. eds., *Inside the Reinvention Machine*, (The Brookings Institution: Washington DC) 1995, pp. 9-83.

Using a survey of about 1,600 procurement officers across 19 buying offices, Kelman analyzed the effect potential unemployment had on the officers' attitude toward management reforms. Consistent with the theory that budget cuts harm performance, he found that the cuts created an emotional crisis that induced anger that, in turn, undercut proposals to increase productivity. Importantly, Kelman concluded, "Evidence from this paper does not support the conclusion that crisis is an effective way to promote organizational change in government."²⁶ Thus Kelman's findings could not confirm that downsizing positively effects program performance and seemed to provide at least some credence to the theory that budget cuts can anger federal workers to the extent that they will thwart positive proposals for change.

But Kelman's inability to prove that budget cuts don't result in positive change does not mean cuts necessarily harm performance. This was not the first time research indicated an ambiguous result. After reviewing the country's history of previous, although temporary, efforts to downsize, government expert Don Kettl concluded in 1995, "[W]hile downsizing has in fact limited the growth of government spending and tax revenue in the United States, its effect on the quality of services and the efficiency of administration is anything but clear."²⁷

How to Get Budget Cuts to Help Rather Than Harm

The ambiguous results regarding whether budget cuts help or harm program performance may reflect a lack of adequate data and research, or they may indicate the ultimate effect of downsizing depends on how scarcity is managed. Kelman's research on procurement officers during the NPR appears to show that *how budget cuts are handled determines whether they help or harm programs*.

Despite being unable to prove budget cuts improve performance, Kelman made three important findings. First, the data generally supported the idea that employees will search out solutions when faced with downsizing—scarcity *is* the mother of invention. Second, the positive effect of downsizing is enhanced if employees see the downsizing as something that is controllable. In other words, the more there is an opportunity for employees to manage, shape, or influence what gets cut then the more creative and engaged they become. *However*, third, if they believe the 'social contract' at work has been broken, then any positive effect on behavior from downsizing can be undercut by negative feelings resulting from employee anger.²⁸ It is because of these

²⁶ Steven Kelman, "Downsizing, Competition, and Organizational Change in Government: Is Necessity the Mother of Invention?" *Journal of Policy Analysis and Management*, 2006, p 892.

²⁷ Donald F. Kettl, "Building Lasting Reform: Enduring Questions, Missing Answers," in Donald F. Kettl and John J. DiIulio, Jr. eds., *Inside the Reinvention Machine*, (The Brookings Institution: Washington DC) 1995, p. 39.

²⁸ Steven Kelman, "Downsizing, Competition, and Organizational Change in Government: Is Necessity the Mother of Invention?" *Journal of Policy Analysis and Management*, 2006. Pp. 886-887

negative reactions that Kelman could not conclude that budget cuts bring about positive change.²⁹

Importantly, the NPR downsizing was *not* controllable. The NPR's primary means of saving money were pre-established. The President had already committed to remove 252,000³⁰ workers, mostly middle managers and administrative specialists, such as procurement officers. This predetermination of how the budget cuts would be managed was rightfully perceived by many employees as capricious and unfair. Further, the number of workers chosen to be fired appeared to be an arbitrary figure.³¹

Procurement officers, in particular, felt they were in the crosshairs and there was nothing they could do about it. That, understandably, angered them. The downsizing irritated other targeted groups as well, undercutting their commitment to overall reform. "Many middle managers laughed cynically at the NPR's charge to 'do more with less,' convinced that in the long run the only enduring legacy of the movement would be the cuts in government employment," noted Don Kettl.³² Another observer, Carolyn Ban, said at the time, "Both the timing of the cuts and the way they are being made undermine the credibility of the NPR effort for many managers."³³ Ban concluded, "That perception is further intensified by the use of across-the-board cutback strategies rather than careful case-by-case analyses of program needs as the basis for reengineering organizational structures and staffing patterns."³⁴ Emphasizing the arbitrary nature of it all, management expert Peter Drucker summed up the NPR downsizing as "amputation before diagnosis."³⁵

The NPR cuts, typified by across-the-board cuts on arbitrarily targeted personnel classifications and activities, brings to mind a term coined by *New York Times* columnist Thomas Friedman: mindless austerity.³⁶ Friedman applied the term to unthinking cuts in the overall government

²⁹ Steven Kelman, "Downsizing, Competition, and Organizational Change in Government: Is Necessity the Mother of Invention?" *Journal of Policy Analysis and Management*, 2006, pp. 888-889

³⁰ Later increased to 272,900.

³¹ The origin of the number was obscure to most employees at the time but it appears to have been derived from an estimate of the number of middle managers and administrative specialists. The goal was to cut that number in half but hold back a quarter of those cuts so there would be enough people to help administer the NPR itself. See Robert Stone, NPR Project Director, quoted in Tom Shoop, "Targeting Middle Managers," *Government Executive*, 26 (January 1994), pp. 11-12.

³² Donald F. Kettl, "Building Lasting Reform: Enduring Questions, Missing Answers," in Donald F. Kettl and John J. DiIulio, Jr. eds., *Inside the Reinvention Machine*, (The Brookings Institution: Washington DC) 1995, p. 28

³³ Carolyn Ban, "Unions, Management, and the NPR," in Donald F. Kettl and John J. DiIulio, Jr. eds., *Inside the Reinvention Machine*, (The Brookings Institution: Washington DC) 1995, p 148.

³⁴ *Loc. cit.*

³⁵ Peter F. Drucker, "[Really Reinventing Government](#)," *Atlantic Monthly*, February 1995.

³⁶ Thomas L. Friedman, "[Cut Here, Invest There](#)," *The New York Times*, December 25, 2010.

budget, but it is just as applicable to the mindless management of spending reductions at the agency, program, or office level.

Mindless Austerity Angers Workers

If it is true that how budget cuts are managed determines their effect on program performance, then program managers need to avoid mindless austerity. Mindless austerity includes tactics used to absorb budget cuts that anger workers because they are arbitrary and/or capricious. Unfortunately, these tactics are popular because they are easy to implement and can make sense if the budget reduction is simply temporary.

Acts of mindless austerity include:

- cutting or eliminating employee training;
- freezing new hires;
- delaying the purchase of new technology;
- eliminating travel and conferences; and
- across-the-board employee furloughs.

All of these tactics were employed during the fiscal year 2013 sequester which cut most agency operating budgets. Virtually every agency froze new hires and cut travel and training expenses. Training was cut so deeply across the government that the Office of Personnel Management, the agency that provides training to other federal agencies, had to lay off 81 full-time workers in their employee education program.³⁷ Nonetheless, many agencies had to adopt further arbitrary cuts to absorb reductions. Nineteen agencies announced mandatory across-the-board furloughs. For instance, the Department of Defense announced it anticipated furloughing 680,000 people for 22 days. The National Oceanic and Atmospheric Administration announced it was going to furlough 12,000 employees for four days.³⁸ At the Environmental Protection Agency, thousands of employees were asked to prepare to take 47 hours of unpaid leave before the end of the fiscal year.³⁹

Budget reduction tactics such as these may help weather a short-term spending problem but, like the pre-arranged NPR personnel cuts, they are *contrary* to the employer/employee social contract. Those people who work hard and perform well see that they are being treated just like the employees who slack off and fall short. Likewise, employees of programs that may be a higher priority see they are being treated just the same as programs that may provide less value.

³⁷ Josh Hicks, "[OPM to trim 356 employees in March](#)," *Washington Post*, January 24, 2014.

³⁸ Elizabeth Dwoskin, with Robert Levinson, "[What Happened to the Federal Furloughs](#)," *Bloomberg Businessweek*, June 24, 2013, p. 31.

³⁹ Derived from Federal News Radio, "Sequestration Tracker" at <http://federalnewsradio.com/in-depth/2013/08/sequestration-tracker-guide-to-agency-furloughs/>.

While such tactics as cutting training and delaying new technology may have little effect on workers if they are temporary and infrequent, research shows their repeated use in the federal government over time becomes a leading cause of anger and frustration.

For instance, in 2001, after the federal budget battles of the 1990s, researcher Paul Light surveyed over 1,000 federal employees. He found that a lack of resource support and training was a leading cause of frustration. Only 35 percent said they had adequate technology and 23 percent said they had adequate training.⁴⁰ The results were even worse when the same question was asked of Presidential Management Fellows, among the best and brightest employees the federal government recruits: only 16 percent said they had access to the technology they needed and 10 percent—1 in 10—said they had adequate training.⁴¹ Yet, in the face of continued funding reductions, these are often the first things that get cut.

Sustained hiring freezes can have an even worse effect on performance because their impact is random. While not filling empty slots can be an effective way to save money in the short-term, there is little control on which employees decide to leave and when. Thus the open slots and their effect on the workload of other workers is unplanned and arbitrary. As authors George Downs and Patrick Larkey note, “Too often cuts by attrition worsen efficiency rather than improve it.”⁴²

Despite these drawbacks, federal managers consistently use mindless austerity when faced with a reduction in funds. They do not develop or implement long-term cost reduction plans. There are at least two reasons for this. First, federal managers, especially in regulatory programs, have been trained to believe downsizing is always temporary and funding will soon bounce back. That is, after all, what they have experienced over the last 55 years. Second, program managers don’t want to lose any of their base budget. When more money does finally become available they wouldn’t want any permanent “savings” they may have created to be simply handed to another federal program. Don Kettl points out,

[A]lthough there often has been bold talk about using strategic planning to drive downsizing, the downsizing generally has driven whatever planning took place, not the other way around. Government decision makers and managers alike have struggled to find short-term adaptations to the spending and taxing targets far more often than they have developed long-term plans. Indeed, the tougher the targets, the shorter the time horizon of government strategists.⁴³

⁴⁰ Paul C. Light in *A Government Ill Executed: The Decline of the Federal Service and How to Reverse It*, (Harvard University Press: Cambridge, MA) 2008, p.113.

⁴¹ *Ibid.*, p.155.

⁴² George W. Downs and Patrick D. Larkey, *The Search of Government Efficiency: from Hubris to Helplessness*, Random House, First Edition, 1986, p. 211.

⁴³ Donald F. Kettl, “Building Lasting Reform: Enduring Questions, Missing Answers,” in Donald F. Kettl and John J. DiIulio, Jr. eds., *Inside the Reinvention Machine*, (The Brookings Institution: Washington DC) 1995, p 39.

Embracing Scarcity: Frugal Innovation

Research on innovation indicates that if budget cuts are to help, rather than harm, agency performance, federal managers can use scarcity as a stimulus for lasting change. That means eschewing arbitrary, across-the-board, and temporary cost reduction measures and, instead, committing to look for long-term positive changes. Managers cannot just aim to weather the latest budget cut.

A dedicated and optimistic rethinking of a system or program in the face of scarcity is called frugal innovation. This attitude has also been called “Yankee ingenuity,” “doing a MacGyver,” or, in India, “jugaad” (pronounced joo-GOD) after a colloquial Hindi word meaning “a clever fix.”

According to business experts Navi Radjou, Jaideep Prabhu and Simone Ahuja, frugal innovation happens when an individual with a flexible mindset and never-say-die commitment to finding a solution is faced with significantly limited resources.⁴⁴ It has most recently been practiced in developing countries where resources the developed world takes for granted (electricity, clean water, good roads) can be scarce, but frugal innovation can be practiced anywhere there is scarcity.

Frugal innovation is not a process or a technology or a system. Like being frugal, it is a mindset people decide to adopt. Radjou, Prabhu and Ahuja note,

Jugaad is, quite simply, a unique way of thinking and acting in response to challenges; it is the gutsy art of spotting opportunities in the most adverse circumstances and resourcefully improvising solutions using simple means. Jugaad is about *doing more with less*.⁴⁵

Two particular traits distinguish frugal innovators. “The first and perhaps most important strategy of jugaad innovators is *reframing*—that is, *changing the lens through which they perceive the situation they face*.”⁴⁶ Rather than fight the situation they are in, they embrace it, changing their point of view so that they see it as a positive challenge. They change their attitude. “The second way jugaad innovators find opportunity in adversity is *by making constraints work for them rather than against them*.”⁴⁷ They think hard about the advantages the constraints offer.

⁴⁴ Much of the information in this section comes from Navi Radjou, Jaideep Prabhu and Simone Ahuja, *Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth*, (Jossey Bass: San Francisco, CA) 2012. This definition is from page 17.

⁴⁵ *Loc. cit.*

⁴⁶ *Ibid.*, p. 42.

⁴⁷ *Ibid.*, p. 44.

Many researchers and for-profit companies continue to search for ways to encourage innovation in organizations.⁴⁸ Creating scarcity can be an important element in inspiring new ideas and is being used by such companies as PepsiCo,⁴⁹ Haier,⁵⁰ and Siemens.⁵¹ But it can also be utilized in government. For example, the population of India is 1.27 billion, almost 4 times the United States, yet their government's budget is only \$250 billion, less than a tenth of that of the U.S. When the U.S. sent a lander to Mars it cost about \$670 million. India also sent a lander to Mars, yet it cost less than \$75 million—less than it cost to make the movie *Gravity*.⁵²

In the United States, examples of frugal innovation in government are more prevalent at the state and local level, since they have tended to face tighter budget constraints for a longer period of time. Take for example the Natural History Museum of Los Angeles County. In the face of constant budget deficits year after year and the prospect of further declining revenues, the museum looked for an inventive solution to stabilize funding. It eventually signed an unusual agreement with the County whereby the County government agreed to guarantee a level of funding every year, but at an amount much *lower* than what the Museum had been receiving on average.⁵³ This removed the Museum from participating in the annual budgeting process including relieving the Museum of all the standard operating procedures and red tape that came with it.

The decrease in County funds forced the Museum to think in new ways about its mission and other sources of funding. According to the Museum's Director, Dr. Jane Pisano,

Flexibility allowed us to innovate in unexpected ways that greatly increased the education we can provide. For instance, we greatly underestimated the potential of a new light rail line to bring us paying visitors which we were able to exploit by quickly redistributing funds. Before the agreement, we had a stovepiped, demoralized staff. We were not nimble. We've changed all that. We've changed the culture. We changed to focus on the visitor and dropped a lot of other commitments. Our goal is to inspire wonder about the world in our visitors. We

⁴⁸ See, for instance, Bartley J. Madden, "[Management's Worldview: Four Critical Points About Reality, Language, and Knowledge Building to Improve Organization Performance](#)," *Journal of Organizational Computing and Electronic Commerce* 22 (2002), pp. 334–346.

⁴⁹ Navi Radjou, Jaideep Prabhu and Simone Ahuja, *Jugaad Innovation: Think Frugal, Be Flexible, Generate Breakthrough Growth*, (Jossey Bass: San Francisco, CA) 2012, p. 85.

⁵⁰ *Ibid.*, pp. 96-97.

⁵¹ *Ibid.*, p. 122.

⁵² Alan Boyle, "Why India's Mars Orbiter Cost Less than 'Gravity' Movie," *NBC News*, September 24, 2014.

⁵³ Letter from David E. Janssen to Los Angeles County Supervisors, "[Funding Agreement with the Los Angeles County Museum of Natural History Foundation and Related Appropriation Adjustment](#)," May 31, 2005.

re-imagined what we were about and now we have balanced our budget for the first time.⁵⁴

Another example is the San Ramon, California Fire Department. Like other towns in California, revenues from the state were declining and resources were being stretched to the point it was getting harder and harder to provide the same level of services. In response the Fire Department decided to leverage the talent of its citizens. It created a mobile app notification system and solicited volunteers from the city's population who knew how to perform cardiopulmonary resuscitation to download it.⁵⁵ Now, in the event of someone having a heart attack, the volunteers are immediately notified on their phone and, if possible, provide aid until the regular emergency responders show up. The result is a faster response time at less cost: a frugal innovation.

Crucially, unlike mindless austerity, frugal innovation is much less likely to anger workers. Adopting an attitude of frugal innovation in place of mindless austerity requires *focusing on value*. Frugal does not mean being cheap or a tightwad. The word comes from the Latin word for "fruit" or "produce" (frux) and connotes something that is useful, worthy, honest and productive. Frugal means being economical but that does not mean being a miser. A frugal person spends money, perhaps a lot of money, but only if it produces net benefits or value. Some governments call this concept of weighing the net benefits (quantitative and qualitative benefits) of increasing or decreasing inputs "value for money."⁵⁶

Mindless austerity tactics largely disregard value. This is one reason they tend to be mindless. Such tactics often devolve to solving a simple math problem (such as calculating how long all employees must be furloughed) rather than rethinking the system. In contrast, frugal innovation requires managers to include employees in helping figure out what changes might provide the most value in the long-term. Unlike mindless austerity, it obligates a leader, for instance, to communicate with workers about what the organization most values about what they do.

For example, in agreeing to accept less funding from Los Angeles County for the County Museum, the museum's director, Jane Pisano, engaged employees in making decisions about the new direction of the museum and finding alternative funding sources that would more than make up for the loss of County funds. As one member of the Museum community described it, "Jane brought the whole staff very much together into a kind of cohesive family feeling." Potentially

⁵⁴ Conversation with the author, November 14, 2013.

⁵⁵ Lisa Fernandez, "San Jose fire department announces free, life-saving app developed in San Ramon Valley," *San Jose Mercury News*, February 14, 2012.

⁵⁶ See, for instance, Organization for Economic Cooperation and Development, *Value for Money in Government: Norway 2013*, July 12, 2013.

contentious decisions about how to divide funding among different needs and departments was “all done in a really good spirit.”⁵⁷

Frugal actions based on maximizing value can strengthen the social contract between employers and employees. If managers stop treating everyone as if they perform at the same level and, instead, distinguish between poor and good performers and low and high priority activities, credible leadership is reaffirmed. If managers stop automatically cutting support services, like training and travel, for everyone but, instead, consider what value they may add in each instance, employees will be less frustrated. If managers listen to what their employees value most and consider that before taking action, employees are much more likely to support change. However, managers need to get to a place where they automatically respond to scarcity by engaging with their staff and listening to new ideas, rather than robotically implementing old temporary fixes.

How to Encourage Frugal Innovation

To get the managers of regulatory programs to replace an attitude of mindless austerity with frugal innovation will, at the very least, require their leaders to encourage such a change. An excellent example of such leadership at a federal agency is Secretary Arne Duncan.

Arne Duncan was President Obama’s first Secretary of Education. In November 2010 he delivered a speech in Washington D.C. directed at his department and educators throughout the country. He started by telling them that they could no longer count on a steady stream of government funds. Federal stimulus money was running out and there was nothing to replace it. “For the next several years,” he said, “educators are likely to face the challenge of doing more with less.” He called this the New Normal.

He then called for a change in attitude.

It’s time to stop treating the problem of educational productivity as a grinding, eat-your-broccoli exercise. It’s time to start treating it as an opportunity for innovation and accelerating progress.⁵⁸

He continued, “there are productive and unproductive ways to meet this challenge of doing more with less.” When faced with reductions in the past, Duncan said, quoting another educator, “districts often make cuts that are more harmful than helpful.” For instance, Duncan said, “they gut music instruction rather than close down under-enrolled schools.” In other words, they adopt mindless austerity.

⁵⁷ Mike Boehm, “[Lori Bettison-Varga named new president of L.A. County’s Natural History Museum](#),” *The Los Angeles Times*, July 8, 2015.

⁵⁸ Arne Duncan, Remarks at the American Enterprise Institute, November 17, 2010.

The alternative he outlined can be described as a plea for frugal innovation. “By far, the best strategy for boosting productivity is to leverage transformational change in the educational system to improve outcomes for children.” In other words, innovate. “Broadly speaking, there are two large buckets of opportunity for doing more with less. The first is reducing waste throughout the education system.” He continued, “The second bucket of opportunities is doing more of what works—and less of what doesn’t. That is a simple and sound idea.”

Duncan summed up by asserting, “Working together, with candor, courage, and commitment, I believe the New Normal can be a wake-up call to America—and a time to rethink how we invest in education for our nation’s children.”⁵⁹

Sources of Innovative Ideas for Regulatory Programs

Frugal innovation means finding significantly different ways of operating that will cost less and, perhaps, deliver more. However, the innovations managers pursue need to fit their programs since not all regulatory programs are the same. Management of a program must match its mission. One could argue there are very few opportunities for federal programs to innovate. This section shows there are many sources of innovative ideas and many different ways to innovate. Many programs just haven’t availed themselves of the opportunities that are out there.

As civil servants tend to define it, innovation in the federal government does not mean inventing something new.⁶⁰ It means adopting a significant change in a process or task that is new *to that situation*. That means when federal managers embrace frugal innovation, they are not trying to create something that has never been seen before. They are, instead, attempting to discover some existing method, process, or system—some kind of tool—that has been used elsewhere, but in some other context, such as in a state program or another, very different, federal program. They would then try adopting it, or some version of it, in their own program. They are not inventing something as much as discovering something that already exists but executing it in a new way. The federal manager’s creative energy is primarily used in getting the change, once found, implemented.

If this type of passive innovation seems like it expects too little from government managers, consider that each year since 1986 the Kennedy School of Government has recognized the greatest innovations in state, local, and the federal government and, “Overwhelmingly, the award-winning programs in the Innovations program competitions have been based upon

⁵⁹ Loc. cit.

⁶⁰ See Marc D. Zegans, “The Dilemma of the Modern Public Manager,” in Alan A. Altshuler and Robert D. Behn, *Innovation In American government: Challenges, Opportunities, and Dilemmas*, 1997, p. 108

discovery rather than invention.”⁶¹ Thus, federal managers who adopt frugal innovation will likely be looking for existing tools that would work well in their program.

It will be a messy process, not one that is planned out. But it will not be a process that is foreign to them. Government managers tend to solve problems by “groping along.”⁶² Government expert Robert Behn explains, “we might expect that successful public sector innovations frequently do not arise from a single clear statute or executive policy but from a messy process of evolution and adaptation, featuring many changes and wrong turns.” Successful public managers use an iterative approach, trying out promising ideas and then modifying them as necessary. The manager “tests different ideas and gauges their results. Then he tries different combinations and permutations of the more productive ideas.”⁶³

According to General Electric Chief Executive Officer Jeff Immelt, Thomas Edison readily absorbed ideas from every source.⁶⁴ What sources might a manager seek out for innovative ideas? Federal managers have scads of potential helpers including vendors who are often trying to push particular ideas into their inboxes. But an excellent place to start is to look at the types of tools and changes states are adopting. States, like the federal government, operate a variety of regulatory programs and are often responsible for implementing and/or enforcing federal regulations. Many states have to balance their budgets so state regulatory agencies are under constant pressure to find and implement ideas that work better and cost less.

Other sources of ideas include the list of Harvard Kennedy School’s Innovations in American Government Award winners. There are also numerous independent third-parties that are constantly looking for ways government can get better results. There is, for instance, the National Academy of Public Administration, the Partnership for Public Service, the American Society of Public Administrators and the Government Accountability Office. And this barely scratches the surface. There are “clearinghouses” for innovative ideas in government all the way from the international level (see, for instance, the New Synthesis Labs⁶⁵) to within the federal government (the Performance Improvement Council⁶⁶).

⁶¹ Alan A. Altshuler and Marc D. Zegans, “Innovation and Public Management: Notes from the State House and City Hall,” in Alan A. Altshuler and Robert D. Behn, *Innovation In American government: Challenges, Opportunities, and Dilemmas*, 1997, p. 76

⁶² See Robert D. Behn, “Management by Groping Along,” *Journal of Policy Analysis and Management* 7 (1988), pp. 643-663.

⁶³ Behn quoted in Olivia Golden, “Innovation in Public Sector Human Services Programs: The Implications of Innovation by ‘Groping Along’,” in Alan A. Altshuler and Robert D. Behn, *Innovation In American Government: Challenges, Opportunities, and Dilemmas*, 1997, p. 147.

⁶⁴ See Eric Ries, *The Lean Startup*, (Crown Business: New York, NY) 2011, p. 9.

⁶⁵ See <http://nsworld.org/NSLab>

⁶⁶ See <http://www.gsa.gov/portal/content/133807>

If a regulatory manager thinks they have a different approach that may be better at achieving the outcomes for their program, there are even organizations that will help determine if investing in that particular approach may be worth the cost. For example, Accenture has developed a method for assessing the value of different investments in public programs called the “public sector value” model. It may also be worth looking at what particular approaches appear to be most effective at achieving a particular policy goal. The nonprofit Coalition for Evidence-Based Policy, begun in 2001 under the auspices of the Council for Excellence in Government, promotes strategies that are shown to be effective at reaching certain outcomes.

There is no shortage of sources of different strategies, methods and processes, what could collectively be called “tools,” to achieve public policy goals. What matters most is motivating workers to seriously consider them, try them, and adopt those that work.