THE SEARCH FOR GOVERNMENT EFFICIENCY

FROM HUBRIS TO HELPLESSNESS

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To the many hard-working and surprisingly efficient government employees in the United States

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The Search for Government Efficiency

PREFACE

If you are like most Americans, you believe that governments are inherently inefficient and that if all the waste in government were eliminated, taxes could be lowered substantially. You believe that government employees have extremely secure jobs with high wages and retirement benefits and that these jobs require them to do very little work. You believe that the life of an employee is much harder in private business where the drive for profits leads to a high degree of insecurity, low wages, and extreme pressure to perform. You believe that there should be less government and that what remains should be run as if it were a business. Almost certainly you believe that if you were in charge, the government would not pay \$90 for screws that cost 3 cents at any local hardware store, \$1,000 for wrenches that cost \$9 at the same store, and \$6,000 for coffee makers that are not very different from those available for \$35 or \$40.

If this book succeeds, it will force you to confront and complicate these beliefs. You will be asked to think about what evidence you actually have on the efficiency of government, and you will learn why some evidence like the much ballyhooed \$90 screws, \$1,000 wrenches and \$6,000 coffee pots are instances that may or may not be symptomatic of more general efficiency problems. You will learn that business may not be all that it cracks itself up to be in terms of efficiency. You will learn that over the past two hundred years several of the currently popular reform strategies have been tried more than once with no success. Most importantly, you will learn that the problem of government efficiency is not nearly as simple as it has been made to appear.

It is important to understand what this book does and does not argue. It does argue that governments are more efficient and businesses less efficient than popularly believed. It does argue that it is very difficult to know just how efficient any particular government agency or business firm is and virtually impossible to fairly compare the relative efficiency of these two types of organizations. It does not argue that governments are efficient and that there are no problems. The book does argue that many reform strategies have been tried again and again with no success and that there are more promising lines of reform. It does not offer a simple, sure-fire method of improving government efficiency, such as "run it like a business." Indeed, the book argues that all such methods are inherently foolish and that they enjoy periodic popularity mainly because they pander to widespread prejudices and to the American penchant for simple, quick solutions to complex problems.

The book is not a partisan tract. Democrats and Republicans alike have embraced foolish, ineffective reforms. If it appears that conservative Republicans are criticized more than other groups, it is merely because they have spent more time excoriating government for its supposed inefficiency and congratulating private enterprise for its supposed efficiency. We are not in favor of more government and

less private enterprise. We are in favor of a more balanced and thoughtful approach to the problem of inefficiency as this country sorts out the appropriate roles of business and government.

We have benefited from the comments of many people. Bob Atkins, Bill Cobb, Greg Fischer, and Hal Hovey read early versions and made helpful suggestions. Tom Anton, Bob Coulam, Jim Hudak, Steve Klepper, Larry Mohr, Richard Smith, Ken Oye and four anonymous reviewers provided exceptionally extensive and useful comments on earlier versions. We have not accepted all of their advice, but the book is certainly better as a result of their efforts. The manuscript at various stages over the past three years has been used in classes at Carnegie-Mellon University and the University of California at Davis. The student feedback has been useful both in sharpening the exposition and in sustaining our morale when it seemed that the writing and revisions would never end.

The manuscript took an interminably long time to prepare and outlasted one publisher, three computer systems, and four secretaries. We are extremely grateful to F. Dorothea Marsh for her efforts in text editing, formatting, and copying the manuscript over the last three years of the preparation odyssey.

One last point: should readers detect any remaining errors and find a particular argument inadequate, they should not hesitate to draw them to the attention of one of the authors. Experience has shown that it is invariably the author not present who is responsible.

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CHAPTER 1

The Perpetual Problem of Government Performance: If You're So Rich and Powerful, Why Aren't You Smart?

Too bad that all of the people who know how to run the country are busy driving taxicabs and cutting hair.

GEORGE BURNS

Government in the United States is perpetually a target for reform. Most people believe government is doing things that it should not do and not doing things that it should do. Almost everyone believes that government bureaucracies are inefficient and ineffective. The disagreements about what government should do are inevitable and not particularly bothersome. Indeed, they are the foundation of politics. Agreement about waste and mismanagement in government is more disturbing, because these problems seem more amenable to solution and because each succeeding national, state, and municipal administration has vowed to improve government performance.

Yet, despite the promises, the history of attempts to make government more efficient and effective seems largely one of futility. In the wake of campaign after campaign, reform after reform, the incidents of bureaucratic stupidity and waste seem only to multiply. Consider the following examples from contemporary, much-reformed U.S. governments.

- The state of Pennsylvania pays out \$492,000 in subsidies to the Pittsburgh and Lake Erie Railroad, which is used by an average of 250 commuters a day. At this rate the state could afford to buy each rider a new Toyota every three years.
- A new federal program designed to determine how well the nation's meat inspectors protect consumers found that 32 percent of the meat packing plants rated satisfactory by inspectors failed to meet minimum Department of Agriculture standards.
- A funeral director had to spend \$200 to replace a sign at his funeral home because a state inspector noticed that the lettering was only 2 ¾ inches high. A 3-inch height is required by law.
- A 67-year-old crippled newspaper vendor in Charlottesville, Va., lost her Medicaid benefits when it was discovered that she had saved and invested \$1,000 in a certificate to pay for her funeral.
- Investigators for the House Appropriations Committee have charged that the Defense Department is needlessly wasting millions of dollars in "excess procurement costs"

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The Labor and Industry Department of one state refused to grant an operating permit to a McDonald's restaurant because it had no ramp to aid handicapped people trying to enter the basement. This was done over the manager's protest that there was no reason for customers—whether handicapped or not—to enter the basement.

Investigators of the Jersey City Redevelopment Agency discovered an "extraordinary array of improper fiscal practices," which ran the gamut from the outright theft of \$100,000 to the spending of \$2.5 million without adequate budgets, record keeping, or fiscal controls. "The agency's check-writing machine and blank checks were sitting on a windowsill, but the toilet paper was locked up "

Despite the fact that accountants estimate that \$10 million a year in operating costs could be saved by moving the small staff assigned there a few miles up the road to a more modern facility, Fort Monroe (Va.) remains an active army post. Characterized as an afterthought of the War of 1812, it is, in fact, the only post left with a moat around it.

In order to symbolize his commitment to eliminating red tape for small businesses, a recent governor of Pennsylvania sent out thousands of spools of the bothersome stuff. The stunt cost \$30,500.

Secretary of Commerce Malcolm Baldrige spent close to \$120,000 in 1981 replacing office carpeting that was only eight months old, expanding his official dining room, modernizing his private bathroom, and buying color-coordinated sport coats for his security guards.

Initial projections estimated that the F-15 fighter would require 11 maintenance manhours for every hour of flight time and a mean time between system failures of 5.6 hours. To date, the plane has required an average of 27 man-hours of maintenance per hour aloft and has had a mean time between failures of only 1.2 hours—a "shockingly low" figure.

Mr. Gerald L. Lichty received a notice of overdue personal property taxes from Prince William County (Va.). The notice told Lichty to pay promptly or legal action would begin on August 14. The amount in question was 1 cent.

Over a five-year period Colonel Bob Dilger managed to save the Air Force over \$124 million that had been allocated for a weapons project. He was subsequently passed over by the Air Force for promotion and resigned in disgust.

Such accounts of government behavior are common and frustrating. The majority of government employees are reasonably intelligent, honest, and well-meaning people who should be able to avoid such incidents. What's wrong?

This book examines the problem of government performance and the prospects for improving it. The central questions are: Why do citizens believe that governments are so badly mismanaged? How inefficient are governments? What reforms have been tried and how successful were they? Why do so many reforms fail? What reforms are worth undertaking in the future?

In the course of examining these questions, several interrelated themes are developed. First, governments are probably not as poorly managed and businesses are certainly not as well managed as is generally believed. Popular conceptions of government performance are not founded on careful analysis but on an amalgam of

ideology, anecdotal evidence, and invidious comparison. Images of U.S. private sector performance ignore a remarkably undistinguished record of productivity growth relative to other industrialized nations as well as countless individual instances of business inefficiency comparable to those of the worst government bureaucracies. The vast majority of supposedly rigorous comparisons of performance in the public and private sectors tend to be flawed or inconclusive and not particularly useful in devising reforms.

Second, regardless of how many times and how loudly those who have not tried it assert the contrary, running a government bureaucracy is not the same as running a business. The frequently (and piously) cited experience of "meeting a payroll" is largely irrelevant to managing a governmental agency; success in meeting payrolls in business does not qualify one as an expert in government management, any more than success in playing point guard in the National Basketball Association qualifies one to play defensive tackle in the National Football League or experience playing the role of a doctor in a television series qualifies one to practice medicine. There are substantially more limitations on executive authority in government than in business. The time horizon for accomplishing programs is often shorter. Perhaps most importantly, the goals in government are different in kind as well as content. Government bureaucracies are not only often expected to achieve conflicting goals but are also frequently assigned tasks that no one inside or outside of government knows how to accomplish. In government, unlike the private sector, the feasibility and expected rate of return of a project are of less concern than its general praiseworthiness and appeal to the electorate. Government goals aren't chosen on the basis of what can be done but on what should be done. Health care costs should be reduced, cancer should be cured, illegal immigration should be checked, energy independence should be achieved, and crime should be reduced. In areas where there is no reliable technology, expecting organizations to function as efficiently and effectively as firms that manufacture beer or aspirin is expecting too much.

Third, attempts to reform government are almost never informed sufficiently by past attempts at reform. The same strategies, usually renamed, are tried again and again with limited success. Rarely do proponents ask why previous efforts achieved only modest success and what this implies for their proposals. The result is that the ideals of government efficiency and effectiveness are being pursued very inefficiently and ineffectively. Those who seek to reform government must realize both that some otherwise commendable schemes enjoy only a miniscule chance of successful implementation and that simple-minded solutions to complex problems are capable of doing as much harm as good. For example, if all that was needed to improve the performance of government was to give control to a group of hardcharging, tough-minded business executives committed to remaking government in the image of the private sector, government's problems would have been solved when this strategy was first attempted some 100 years ago in city governments. A recent grandiose reform attempt, the President's Private Sector Survey on Cost Control (PPSS)-also known as the Grace Commission-is the archetype of the ineffectual, uninformed reform initiative that would bring business methods to government.

Fourth, there are probably inherent limitations on how efficiently any large organization can operate. Most man-made physical systems (e.g., engines) achieve, at best, 20 to 30 percent efficiency in converting energy from one form to another. Plants are only 2 to 8 percent efficient in converting the potential energy of light into fuel. Knowledge of this relatively modest performance disciplines the expectations of both engineers and agronomists. There are doubtless similar if much more ambiguous limitations on the maximum efficiency of human systems like government and other large-scale organizations. These limitations should discipline the expectations of voters and reformers. Some proportion of the output of these organizations will almost certainly be flawed or produced at something less than the maximum imaginable efficiency.

Fifth, politics and administration are inextricably intertwined. While we are more concerned here with the administrative issues surrounding the design of government programs than with the political issues of which programs are undertaken, the two are not easily separated. For governments, the binding limits on efficiency and effectiveness stem partly from the need to pursue conflicting objectives simultaneously. In many cases, these conflicting objectives directly reflect conflicting special interests. For example, the federal government has substantial price support programs for tobacco farmers; simultaneously, it publicizes the harmful effects of smoking, sponsors research to mitigate these ill effects, and pays much of the health care cost for smoking-related diseases. Politically justifiable—but inherently inefficient—decisions about which programs to operate and what constraints the programs must satisfy are often a more important source of poor performance than bad management.

Sixth, performance appraisal is a treacherous business. Researchers and government officials alike have an excessive faith in the management value of productivity data. When dealing with an undeveloped and poorly understood technology (e.g., crime prevention, health planning) or an area that is affected by the uncertain impact of uncontrollable and frequently unknown external factors (e.g., foreign affairs, managing the growth of the money supply), the possession of accurate, quantitative indicators of goal accomplishment can still leave decision makers in the dark about how well government agencies are doing and what to do next. Success at balancing your checkbook and completing your income tax return does not guarantee that you will achieve your goal of becoming a millionaire.

Seventh, grandiose strategies for improving government efficiency—such as the program, planning, and budgeting system; zero-base budgeting; management by objectives; and sunset legislation—contain the seeds of their own destruction. The prospective benefits of the reform strategies must be greatly overstated at the outset in order to "sell" the strategy to the politicians. The reform strategies assume a considerable willingness on the part of politicians to follow the dictates of analysis—a willingness that rarely exists; and implementation of such strategies requires analytic and personnel resources far in excess of what is usually available. As a result, these strategies leave in their wake a cynicism that makes it more difficult to implement more "tactical" reforms that promise to achieve genuine—if more modest—results.

The picture of government operations and reform attempts presented in this book is more complicated than that reflected in the media and political rhetoric. There it is assumed that one must favor either increasing or decreasing the size and role of government in the economy and society. This dichotomy—and the attention it gets—is regrettable. It distracts us from the complexity of many important questions concerning the functions that government can and should perform and how agencies can best perform the tasks assigned them. The focus on the pros and cons of government growth is also unfortunate because it means that Republican politicians have to spend a lot of time explaining why they nonetheless cast so many votes to sustain or increase government activities, while Democrats must continually explain how they can simultaneously favor government and free enterprise.

Although there are many complaints about "big government" and many contemporary reforms seek primarily to reduce the size of government, the complaints and reforms usually stem from dissatisfactions with particular government activities rather than from objections to mere size. Even its most ardent critics want government to do more in some areas and less in others. Ronald Reagan and his conservative allies in Congress increased defense expenditures while cutting the growth

in social programs.

There is a story that St. Peter was once asked by some new arrivals about the difference between heaven and hell. He responded that the real differences are not so great as commonly imagined and turn on who performs what functions. In heaven, the French are the cooks, the British are the police, the Swiss are the administrators, the Italians are the lovers, and the Germans are the mechanics. In hell, the English are the cooks, the Germans are the police, the Italians are the administrators, the Swiss are the lovers, and the French are the mechanics. The problem in hell is not the number of cooks, the number of English, or hell's total population. Similarly, the problem with government is not simply its size or its rate of growth but what it is doing and how it is doing it.

BASIC CONCEPTS

You should never confuse efficiency with a liver condition.

MARY POPPINS

Before we can think seriously about government performance, it is essential to understand some basic terms. Popular discussions of "efficiency," "effectiveness," and "productivity" tend to be confused and confusing. Although there is an important distinction between efficiency and effectiveness, these terms are often used synonymously. Another important source of confusion is the strong tendency to describe programs whose goals you do not share, even well-managed programs, as inefficient and ineffective. The purpose of this section is to introduce and define the basic concepts.

There are two important types of efficiency: managerial (or engineering) efficiency and economic efficiency. Managerial efficiency is a ratio measure relating outputs to inputs. Inputs are the human, material, and other resources used to produce a good or service. For example, a municipal street cleaning operation uses the inputs of personnel, vehicles, gasoline, maintenance services, various materials and supplies, and building space (office, storage, etc.) in producing its service. All these inputs have some associated cost that can be summed for a total service cost. Outputs are units of goods or services produced from inputs. For the street cleaning operation, the measure might be the number of lane-miles cleaned. The managerial efficiency measure, then, is cost per unit of output or, in the example, cost per lane mile cleaned.

For all practical purposes, managerial efficiency is a relative measure based on previous performance levels or performance levels of other government agencies. If the cost of street cleaning has decreased from \$13.73 to \$10.16 per lane-mile from last year to this year, it is common to assume that the service is more efficient. The improvement might be due to an improved maintenance program that made more sweepers usable on average, fewer coffee breaks and other down time for drivers, better enforcement of parking ordinances prohibiting parking on streets to be swept, and the like. We say "assume" because the apparent improvement may also result from falsified records; crews resweeping the same streets again and again to maximize mileage; or new, more reliable equipment whose cost reflects in capital accounts but not in the efficiency measure. Similarly, if it costs Cleveland \$13.09 and Pittsburgh \$15.47 to sweep a lane-mile in the same year, the difference may be a difference in relative efficiency, or it may be attributable to a host of other factors such as physical differences between the cities, labor market differences, quality differences in the service provided, or accounting practices. One production system is more managerially efficient than another if it has a lower cost per unit of output or higher output per unit of cost and the systems are identical in all other relevant respects.

It is possible to think idly about absolute managerial efficiency where we would know all of the ways a given objective (set of outputs) might be attained and how much each would cost. We would then know how our current way compares to all other alternatives; if properly motivated, we would choose the least-cost (most efficient) alternative. It is, however, difficult to convince yourself in any real, non-trivial situation that you really know all of the alternatives and their costs. We are stuck with relative managerial efficiency measures.

Managerial efficiency takes the output you intend to produce as given; it does not question the output's benefit. Thus the Air Force can talk about the efficiency associated with different bomb delivery systems in terms of cost per kiloton of explosives on target without having to introduce data about the relative utility of tactical versus strategic weapons or defense versus domestic programs. The most efficient delivery system is simply the one that puts a given amount of explosives on target at the lowest cost or the most explosives on target for a given cost. Yet the fact that managerial efficiency is insensitive to the ultimate value of the output does not mean that it holds no implications for the general welfare. Designing a weapons system that accomplishes the same mission as an earlier system for much

less money leaves that much more available to further improve defense, increase social security, or pursue cancer research.

Economic efficiency is a much more abstract concept than managerial efficiency. The criterion of efficiency widely preferred, at least conceptually, by economists is the Pareto criterion: An economic state (a given set of organizational, allocational, and distributional arrangements) is economically efficient if it is not possible to change the state and have someone better off and no one worse off. One practical problem with this criterion is that it is extremely difficult to invent or discover new policies that do not make someone worse off. Another practical problem is in making the concept concrete. Applying the criterion in any real circumstance requires accurate forecasts of all of the relevant effects of a proposed policy change; these are usually numerous and complicated, often unmanageably so.

The more widely cited criterion of efficiency, at least in benefit—cost analysis, is the Kaldor-Hicks criterion: A state is economically efficient if it is not possible to change it so that those who are better off *could* compensate those worse off. This criterion implies that projects with positive net benefits (or a ratio of benefits to costs greater than 1) are desirable. It does not require that winners compensate losers but only that such compensation be feasible. Not surprisingly, there are few instances of actual compensation to losers, although there are exceptions. One prominent recent example of such compensation is the federal aid to industries and employees who are affected by tariff reductions under the General Agreement on Tariffs and Trade (GATT).

The primary uses of the criteria of economic efficiency are conceptual. They raise important questions about organizational arrangements, particularly market organizations versus nonmarket organizations: What functions should government perform and which ones should be left to the private sector? To what extent should government regulate business? And so on. In addition, the Kaldor-Hicks criterion provides a loose rationale for the criterion of maximizing net present value in benefit—cost analysis—an analytic reform strategy considered in Chapter 4.

Because the economic efficiency criteria are defined with respect to individuals, they do not suffer from the same potential moral insensitivity as the managerial efficiency criterion. It would obviously be very difficult to justify as economically efficient any bomb delivery system if the interests of target populations are considered; the target populations would be "worse off." But the economic efficiency criteria do presume that the prevailing distribution of benefits and costs prior to the contemplation of change is reasonable if not optimal. The criteria endorse the status quo regardless of its moral standing.

Effectiveness is a measure of attainment. It is a ratio measure relating observed (actual) output (θ_t) to the planned (or desired) output $(\hat{\theta}_t)$ for some time period (t). When multiplied by 100, the measure $\theta_t/\hat{\theta}_t$ is a statement of percentage effectiveness. For example, if our street cleaning operation planned to clean 2,500 lanemiles in the second quarter and managed to clean only 2,250, the operation would be only 90 percent effective. If the operation planned to clean 2,500 lanemiles and cleaned 7,500, it would be 300 percent effective. Note that a very effective organization need not be efficient. The operation cleaning 7,500 lane-miles

for 300 percent effectiveness may be doing so at four times the cost per lane-mile of other comparable operations.

The usefulness of an effectiveness measure depends directly on the usefulness of the planned output. If the planned output is a meaningful target—that is, we value the output and the level of planned output places reasonable demands on producers (i.e., it requires them to do their best but not more)—then the effectiveness measure can be a useful managerial tool.

Effectiveness measures raise all the problems of government goals. Who should establish them? Organized special interests? Citizens, who pay for governments but who are disorganized and usually ignorant about public services? Employees, who might want to reduce levels of planned output in order to reduce their personal work loads? Government managers, who often lack clear incentives to maximize effectiveness (and efficiency)? Politicians, who are perpetually running for reelection and representing special interests? Analysts, on the basis of economic calculations of benefits and costs? All of the above? There are no easy answers.

Disagreement on goals and therefore on desired outputs and on what constitutes "effectiveness" is endemic to U.S. governments. We each bring a personal vision, however rough, of what levels of various governments' outputs are acceptable, and that vision changes with roles, experience, and what we are attending to at the moment. Because practical measures of effectiveness require specificity and can often be achieved only by arbitrary simplification, this means that effectiveness measures are, at best, problematic.

Still another way to gauge performance is by measuring productivity. Productivity measures are most closely related to managerial efficiency measures. The most common productivity measure relates a single input factor, labor, to output. These "single factor" productivity measures tell us how many person-years, person-months, person-days, or person-minutes it takes to produce an automobile or refrigerator. They are often used to compare productivity changes over time (e.g., it took x person-hours to produce a refrigerator in 1940 and it takes y-where y is less than x—person-hours today) or across locales (e.g., the average Japanese compact car uses 19.7 hours of labor while the comparable American car uses 49.3 hours). Although widely cited, such measures are less useful than they appear because of the difficulties in relating particular inputs to particular outputs. Once we leave the world of the assembly line, we find that labor often contributes to multiple outputs, and it is hard to apportion the effort among them. Perhaps the most extreme example of this difficulty is the problem of apportioning the efforts of a chief executive officer (CEO) of a multiproduct firm to the firm's products. Many of the CEO's activities involve more than one product, and there is no unequivocal way to decide what proportion of his or her effort is associated with a given product; there are only arbitrary ways (e.g., the cost of the CEO times each product's sales as a proportion of gross revenues).

A second serious problem with single-factor productivity measures is joint output. Multiple inputs determine outputs jointly. Single-factor comparisons are meaningless unless we somehow control for other relevant factors that play a role in determining output. A single-factor comparison in 1982 of a corn farmer in

Kentucky who is farming a few acres on a hardscrabble hillside using a mule and a plow forged in 1900 with a corn farmer in Indiana who is farming several hundred acres of prime bottom land with the advantages of modern farm machinery and new high-yield strains of corn from genetic research will show that the Indiana farmer uses much less labor input per bushel than the Kentucky farmer. Few of us would be tempted to make the inference commonly made from other productivity comparisons (e.g., Japanese and American steel workers) that the Indiana farmer is working harder than the Kentucky farmer. Other inputs, in this example land and capital, determine production simultaneously with labor. Single-factor productivity comparisons do not control for these other factors and are apt to be misleading. Dissatisfaction with single-factor productivity measures has led economists to devise total-factor productivity (TFP) measures that relate output to all inputs. TFP measures are essentially efficiency measures. We will examine productivity measures and the ways in which they have been used (and misused) later.

Although the basic concepts are simple enough in the abstract, the world is a messy, complex place and there remains a substantial gap between clear, concise definitions of efficiency, effectiveness, and productivity concepts like those just given and an ability to use the concepts in practical situations. This is true both in trying to understand how efficient or effective a government is and in trying to improve its efficiency and effectiveness. This gap has been apparent throughout the history of attempting to reform government.

BELIEFS ABOUT GOVERNMENT PERFORMANCE

Nobody notices when things go right.

ZIMMERMAN'S LAW OF COMPLAINTS

Although certain political leaders and public programs have been able, at times, to achieve some measure of popularity, this popularity has almost never carried over to "government" as an institution. Historically, most governments have been perceived as inefficient, ineffective, and venal. Contemporary U.S. governments are not exceptions to this general rule and the situation is worsening. The results of periodic surveys summarized in Table 1.1 show a clear trend of declining support for government in all five questions. The trend in question 3 about the wastefulness of government, the most directly relevant question here, is striking; 76 percent of the sample in 1976 believed that "people in government waste a lot of money we pay in taxes," compared with only 45 percent in 1958. More than half of those surveyed in 1976 believed that many of those running the government don't know what they are doing.

Few beliefs are more widely and persistently held in the United States than the belief that government employees are overpaid and underworked. Results like those from a recent survey on federal government employees reported in Tables 1.2 and 1.3 are the norm. Government employees are the butt of many jokes and cartoons. Politicians from both major political parties and at all levels of government employees.