On why (despite all of the inevitable and persistent complaints)

Every Public Agency Needs Redundancy

The word "redundancy" has an unfortunate reputation. From the *Oxford Living Dictionaries,* the first definition is: "the state of being not or no longer needed or useful."

Being "no longer needed or useful" could cause a person, a dog, or a public agency to question his, her, or its place in the world: "What is my reason for being here?"

What could be worse than being "no longer needed or useful"? Being redundant has to be depressing.

Indeed, if you work in the United Kingdom, you fear your personal redundancy. For as the *Oxford Living Dictionaries* further explain, on the British Isles, the word "redundancy" has a second, colloquial, and only slightly different meaning: Redundancy is "the state of being no longer in employment because there is no more work available."

That is Oxford's polite (if awkward) way of putting it: "the state of being no longer in employment." In ordinary language, (though certainly not in the Queen's English), being "redundant" means being "fired," as in *"you* have been fired." That's really depressing!

The causal clause in the *Oxford Dictionaries*—"because there is no more work available"—does not, however, always apply. Any individual can be in "the state of being no longer in employment" because someone decided that he or she could not do the job, or that a robot could do it better.

In government, having too much redundancy—indeed, having any redundancy—is, almost by definition, bad, wrong. If an agency has more of something than it needs—more offices than it needs, more computers than it needs, more humans than it needs, more robots than it needs—this redundancy should be eliminated.

After all, this redundancy—indeed, any government redundancy—is a burden to the taxpayer. If an agency doesn't need its third computer, or its fifth field office, or a sixtieth widget, they should be eliminated. Citizens need not pay taxes for something that is "no longer needed or useful"

Redundancy is bad. Except when it is necessary.

Jim Lovell, John Swigert, and Fred Haise certainly appreciated that NASA had built plenty of redundancy into Apollo 13. As George Low, a deputy administrator of NASA observed:

"The principles of manned spacecraft design involve a combination of aircraft design practice and elements of missile-design technology: Build it simple and then double up on many components or systems so that if one fails the other will take over."

> *In government, too much redundancy—indeed, any redundancy—is bad, wrong. Yet, to function continuously, efficiently, and effectively, every public agency needs operational redundancy. For as Murphy wisely observed, "If anything can go wrong, it will."*

Low's principles of aircraft design are general principles of engineering design. Indeed, they are general principles of strategic design. All are based on the wisdom of Murphy: "If anything can go wrong, it will."

Before a future engineer graduates from college, he or she personally reinvents Murphy's Law. Several times a week, an engineering student goes to a laboratory to reproduce an experiment that thousands of engineers have done before. Quickly, each one learns: "Yes. Lots of people have done this experiment successfully. That, however, doesn't mean that I can make it work." Indeed, the probabilities support Murphy's observation.

Certainly everything will not go wrong at precisely the same time. In most organizations, however, Murphy does not need everything to go wrong.

Sometimes just one thing has to go wrong—only one small, but nevertheless critical thing. One very critical thing can disrupt a trip to the beach or a flight to the moon. It may take only one very small thing going wrong for a public agency to malfunction.

Engineers seek to create mission-critical redundancy and safety-critical redundancy. The leadership team of a public agency needs to do the same. They need to develop redundancy for their mission-critical functions and for their safety-critical functions.

Every agency has several mission-critical functions. Some functions are large and critical. Some are small yet also critical. An inventory of these critical functions might prove very revealing—particularly to managers who never worked on the front line or haven't done so for years.

Safety-critical functions will vary greatly depending upon the nature of the work people must do. Today, many organizations have a safety officer charged with overseeing the safety-critical functions.

Making sure that everyone in the organization is focused on his or her mission-critical function(s) is the responsibility of the chief executive. In a large organization, he or she can't know how every individual is contributing to every mission critical function. But he or she has to know who has the management responsibility for each. More importantly, this manager has to ensure that the organization has enough redundancy to carry out every mission-critical function.

Redundancy is good except when it isn't. Redundancy is bad, except when it is good. Redundancy is evil, except when it is necessary. **B**

Robert D. Behn, a senior lecturer at Harvard University's John F. Kennedy School of Government. In March 2018, he will again chair Harvard's executive-education program "Driving Government Performance: Leadership Strategies that Produce Results." His book, *The PerformanceStat Potential,* is available in paperback.