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Odds Against

IN THE *ONE PERCENT DOCTRINE*, Pulitzer Prize winner Ron Suskind chronicles America's secret "war on terror" since Sept. 11, 2001. He summarizes the title doctrine thus:

"Even if there's just a one percent chance of the unimaginable coming due, act as if it is a certainty.... In terms of the basic capabilities of even the world's most powerful nation, this is an enormous bite. What, for instance, does it cost—in terms of manpower and firepower and, maybe, in terms of blood and treasure—to chase a hundred 'one percent' chances? How about a thousand of them? Or 10 thousand?"

I'm not an actuary, but I've been around them long enough to realize that's exactly what actuaries are paid to assess—the treasure part, at least, if not the firepower, manpower, and blood. So I put the question to a few actuaries in various disciplines: Does the 1 percent doctrine make sense actuarially?

Robert Rietz, a pension actuary with Deloitte Consulting in Detroit, couched his response in the form of an analogy:

"Suppose pension assets could be invested such that they earn a compounded rate of X percent over a sufficiently long period of time. However, there's a 1 percent probability that the investment strategy will cause assets to decline 40 percent over a three-year period. A different investment strategy could remove this risk, but would lower the long-term expected return by 2 percent a year. A pension actuary could calculate the expected cost of adopting the different investment strategy that 'guarantees' the 1 percent event won't happen. Is this cost acceptable to the plan sponsor?"

Rietz answers his own question: Large employers are freezing or terminating their underfunded pension plans left and right.

David Shea, an actuary with Wellpoint in Richmond, Va., poses a similar analogy from the health field.

"There's a 1 percent probability that, in a large population, an individual claim will exceed \$50,000 annually. If an insurer rates as if this were a certainty (i.e., 100 percent probability), health insurance would become

immediately unaffordable for all but the richest individuals, and health insurance profits would skyrocket."

Michael McCarter, a vice president with AIG in New York City, has probably given this issue more thought than most actuaries. He's chair of the Academy's Terrorism Risk Insurance Subgroup.

"On the one hand," says McCarter, "treating a 1 percent chance event as if it were a certainty isn't correct from an actuarial or economic point of view. Such a strategy would encourage over-commitment of resources to mitigate the risk.

"On the other hand, if the potential magnitude of the loss caused by the event is great enough, then significant efforts to mitigate that loss may well be justified. Academy studies have shown the potential cost to the United States from terrorist use of weapons of mass destruction could exceed \$700 billion in insured losses alone. It certainly makes sense for the United States to mitigate such a risk, even if it has only a 1 percent chance of happening.

"In such cases, insurance can only be a part of the answer, and the society must deal with 1 percent chance events in other ways if it is to survive in the long run."

"Casualty actuaries normally look at the chance of an event occurring (frequency) and the possible economic consequences if the event does occur (severity)," says Margaret Tiller Sherwood, president, Tiller Consulting Group, Inc. "The consequences of terrorism encompass much more because there also are psychological, emotional, and strategic consequences, which may be more serious than the economic consequences. In this arena, the usual analysis that carefully (and often slowly) looks primarily at the economic aspects of an issue is not as important as an immediate and serious response."