

EMBRACING UNCERTAINTY IN DoD ACQUISITION

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Uncertainty is an inherent, unavoidable aspect of life that has a significant impact on program or project management, and acquisition in general. The treatment of risk management within the Department of Defense (DoD) as a formal element of acquisition is a topic discussed extensively in the acquisition profession. DoD fares no better than industry in the number of projects or programs that fail to meet cost, schedule, or performance baselines. This article suggests that, overall, the DoD approach to uncertainty is flawed, and that we need substantive changes to the structure and policies of acquisition to become more effective in the discipline of program management.

Keywords: *Acquisition; Risk Management; Opportunity Management; Program and Project Management; Cost, Schedule, and Performance; Continuum of Uncertainty*

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Opportunity Management



Background

The “risk management” view that the Department of Defense (DoD) promotes is logical, repeatable, and auditable—but fundamentally flawed. In fairness, the DoD view is shared by virtually every organization and culture. This article will propose a different way to view and address risk management.

No universally accepted definition for risk exists. Tables 1 through 3 represent the range of definitions that can be found within government and industry. Most promote a negative view of risk. The lack of a common taxonomy and the DoD focus of risk as a negative contribute to the practice of ignoring the positive aspects of uncertainty.

The concept of opportunity planning as the complement to risk planning is not unknown, but also is not well supported. Opportunity planning looks at the possibility of good things happening and committing the resources to planning actions to get the most out of those good things. Charette (2003) promotes the view that opportunity should not be merged into a definition of risk. Some have argued against opportunity planning in the conventional sense. Meridith and Mantel (2001) pointed out “...planning is guaranteed to elicit repeated and pointed questions from top management and other stakeholders as they seek to discover why ‘nothing is being done.’” In organizations where opportunity planning is an unknown, the pressure to “get on with it” will be great, and opportunity planning—whether a combined or separate process—will likely not receive an appropriate level of attention. I must concede this point. Therefore, I am not advocating opportunity planning as a separate discipline, but rather that we view plans through the lens of uncertainty, which naturally incorporates both risks and opportunities.

Through general use, the term *risk* has become a synonym for the negative aspects of uncertainty. This use is common in contemporary government, industry, and economic theory. When the economics advisors talk about risk-adjusted rates, they are discussing the premium added to rates of return to counter the possibility of economic loss. The government views risk as an assessment of contractor capability to manage cost, schedule, and performance during the performance of the contract. The contractor views risk within the context of market forces (OUSD[AR], 2001, p. 20). For the purposes of this discussion, you will need to keep a different taxonomy in mind.

Consider the real world. Good and bad things happen. In some cases you can affect (amplify or diminish) the impact of happenstance. View this propensity for happenstance as the continuum of uncertainty (Figure 1). On the left, we have bad things; on the right—good. As we get farther from the center, the degree of goodness and badness increases. Now define everything on the left as “threats” (*t*) and everything on the right as “opportunities” (*o*). Risk is the element of uncertainty that is a function of the probability of bad things happening and the severity of their impact

TABLE 1. NEGATIVE DEFINITIONS OF RISK

Standards Document	Definition
Norges Standardiseringsforbund NS5814:1991	"...the <i>danger</i> that undesirable events represent."
IEC 3-3-9:1995 and British Standard BS8444-3:1996	"...of occurrence and the consequence of a specified <i>hazardous</i> event."
UK Construction Industry Research and Information Association: 1996	"...chance of an <i>adverse</i> event..."
Canadian Standards Association CAN/CSA-Q85-97:1997	"...the chance of <i>injury</i> or loss."
UK CCTA MSP 1999	"Events or situations that may <i>adversely affect</i> the direction of the programme, the delivery of its outputs or achievement of its benefits."
US DOD DSMC 2000	"...potential <i>inability to achieve</i> overall program objectives."
IEEE 1540:2001	"...the likelihood of an event, hazard, threat, or situation occurring and its <i>undesirable consequences; a potential hazard</i> ."

Source: David Hillson, Effective Opportunity Management for Projects: Exploiting Positive Risk, 2004, p. 28

TABLE 2. NEUTRAL DEFINITIONS OF RISK

Standards Document	Definition
UK Association for Project Management Guide 1997	"...an uncertain event or set of circumstances which, should it occur, will have an <i>effect</i> on achievements of ...objectives."
Standards Australia/New Zealand AS/NZS 436:1999	"...the chance of something happening that will have an <i>impact</i> upon objectives."
British Standard PD 6668:20	"...chance of something happening that will have an <i>impact</i> upon objectives."
British Standard BS IEC 62198:2001	"...combination of the probability of an event occurring and its <i>consequences</i> for project objectives."

Source: David Hillson, Effective Opportunity Management for Projects: Exploiting Positive Risk, 2004, p. 28

TABLE 3. BROAD DEFINITIONS OF RISK

Standards Document	Definition
British Standard BS ISO 1006:1997	"Potential <i>negative</i> events and ... <i>opportunities for improvement</i> ...the term risk covers both."
UK Institute of Engineers Guide 1997	"...a threat (<i>or opportunity</i>) which could affect adversely (or favorably) achievement of the objectives."
British Standard BS6079-1:2002 and BS6079-2000	"...combination of the probability ...of a defined <i>threat or opportunity</i> and the magnitude of the consequences."
Project Management Institute PMBOK 2000	"...an uncertain event or condition that, if it occurs, has a <i>positive or negative effect</i> on a project objective ...includes both <i>threats</i> to the project's objectives and <i>opportunities</i> to improve on those objectives."
British Standard BSI PD ISO/IEC Guide 73:2002	"...combination of the probability of an event and its consequences ...consequences can range from <i>positive to negative</i> ."
UK Office of Government Commerce MOR 2000	"Uncertainty of outcome, whether <i>positive opportunity or negative threat</i> ."
UK MOD Risk Management Guidance 2002	"...a significant uncertain occurrence ...defined by the combination of the probability of an event occurring and its consequences on objectives ...the term "risk" is generally used to embrace the possibility of both <i>negative and/or positive consequences</i> ."

Source: David Hillson, *Effective Opportunity Management for Projects: Exploiting Positive Risk*, 2004, p. 28

(i). High probability and high consequences result in high risk, while low probability and low consequences result in low risk. On the right side of the continuum we have the complement to risk—reward. This method of quantifying risk is not substantially different from those offered by Hillson (2004), Heerkens (2002), Cooper (2005), Kerzner (2001), and others.

The continuum of uncertainty, as described here, differs little from the *Risk Management Guide for DoD Acquisition*, except that the guide presents probability and consequence as two discrete variables in a two-dimensional

FIGURE 1. THE CONTINUUM OF UNCERTAINTY

matrix. In contrast, please view both risk and reward as the product of a continuous (undefined) function—not simply multiplicative, but sensitive to the risk aversion of the organization and the political environment.

The guide defines risk as “a measure of uncertainties [s/c] in achieving program performance goals and objectives within defined cost, schedule, and performance constraints.” However, it in no way implies the potential positive aspects of these uncertainties. The terms used, e.g., “schedule slip, budget increase, cannot meet key program milestones” concentrate

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only on the negative aspects of uncertainty. This is not surprising. The guide specifically states, “While such variation could include positive as well as negative effects, this guide will only address negative future effects...” (DoD, 2006, p. 1). Most of us tend to think of risk solely in terms of negative consequences. Few academicians or organizations even address the positive potential of uncertainty. The Project Management Institute (PMI), in the 4th edition of the *Guide to the Project Management Body of Knowledge*, now acknowledges the potential of positive events, but the concept is not fully matured in the project management profession (PMI, 2008).

Although the PMI definitions of the terms “project management” and “program management” are clear and distinct (PMI, 2008), DoD’s definitions are quite ambiguous (DAU, 2005). For the purposes of this discussion, consider project and program management as synonymous

terms. In practice, DoD program and project managers (PMs) almost exclusively concentrate on the negative aspects of uncertainty for four specific reasons.

1. Risk aversion is an entrenched culture throughout DoD.
2. PMs have little flexibility.
3. Culturally acceptable practices to address uncertainty are inadequate.
4. DoD PMs concentrate on tangible, actionable events (events that can be mitigated) and spend much less time on the abstract.

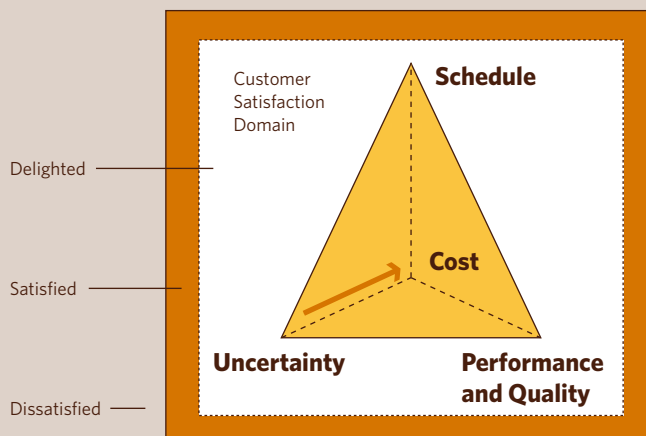
RISK AVERSION

DoD is risk averse. Strategists and decision makers will routinely forego potential rewards to reduce **even the perception of failure**. While they parrot the cliché “big risk–big reward,” their actions eschew risk. This, I believe, is a consequence of a zero defects culture that is incapable of embracing “honest failure” as a medium for creating knowledge. I am reminded of the words of a distant regimental commander of mine, “People tell me our junior officers don’t have the freedom to fail. I say they are right. I don’t want them to fail. I want them to succeed.” His heart may have been in the right place, but his method was flawed.

LITTLE FLEXIBILITY

Most PMs have little trade-off flexibility. PMI and others view the success of a project or program on how well it adheres to three elements—cost, schedule, and performance. I posit that uncertainty should be considered

FIGURE 2. SATISFIED CUSTOMER



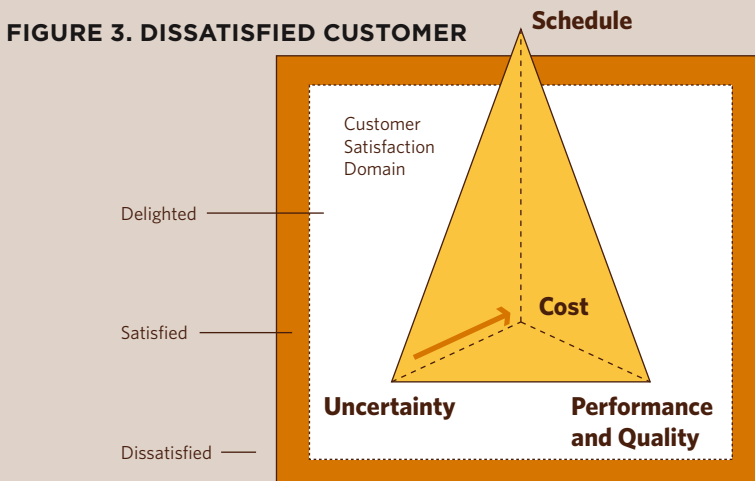
as the fourth leg of the otherwise three-legged stool. From the customer's perspective, there exists a boundary that cannot be crossed by any of these four parameters if customer satisfaction is to be maintained (Figure 2).

Although cost, schedule, and performance are generally defined, uncertainty is not. This boundary is hard to define and changes from customer to customer and over time. Often, a PM does not know the location of the uncertainty boundary until after it is breached. A poorly defined project or the dreaded scope creep further blurs the boundary. The PM is able to maneuver within the satisfaction boundaries, trading cost for performance for schedule, and sometimes for uncertainty, as long as the overall boundary is not pierced (Figure 3). In DoD, unfortunately, cost is the most rigid constraint. In the risk-averse culture in which DoD PMs operate, risk absolutely cannot increase and, therefore, is *not a candidate for the trading block*. This leaves schedule and performance as the only negotiable constraints. In practice, schedule slips are seldom palatable, and performance becomes the bill payer.

PMs routinely view it as sound program management, within the limits of the available budget, to spend money or reduce performance to reduce uncertainty, but the converse is uncommon, i.e., rarely is a PM allowed to increase uncertainty to save money or improve performance. If a PM was to reduce spending thereby increasing uncertainty and things went wrong, the fallout would likely be career-ending. I have colleagues who suggest this is an overstatement; maybe, but the "all-in" gamble does not happen.

ACCEPTABLE PRACTICES ARE INADEQUATE

DoD's view of handling risk, as outlined in the guide, presents four general approaches:



1. **Risk control.** Controlling risk encompasses efforts to mitigate (reduce) the probability or impact of a *previously identified event*.
2. **Risk avoidance.** Avoiding risk includes changes in cost, schedule, performance, or design specifications that eliminate the root causes of a *previously identified event*.
3. **Risk assumption.** Assuming risk means accepting the risk of a *previously identified event* without specification. DoD includes establishing cost or schedule reserves within the category of assumption, although the practice of establishing formal reserves is uncommon.
4. **Risk transfer.** DoD's definition of risk transfer differs from most others. In industry, transfer means "to insure." However, since the government self-insures, DoD transfer means reallocating risk among elements of the program or between the government and the contractor. The assertion is that this transfer will diminish overall risk or allow management to concentrate on specific areas of the program. Of course, when the responsibility to accept the consequences of uncertainty is assumed by a company, it tends to increase its price as compensation (DoD, 2006).

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 THAT CAN HAPPEN.**  
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Both control and avoidance assume that most of the pitfalls that lead to potentially increased risks have been identified. Plans are developed to identify trigger events and react to these events (control), or actions are taken to reduce the number of items (avoidance) on the list. In contrast, no list of risk events or risk triggers is going to be comprehensive. There will always be an undefined and unknowable spectrum of unpleasant things that can happen. Neither of these approaches (control, avoidance) addresses this fact.

Assumption covers this domain of the unknowable—although the DoD guide does not acknowledge this purpose. In practice, assumption of both the known and unknown is most often a disingenuous pronouncement. While the concept of a management reserve is a well established practice in industry, I have yet to meet a single government PM whose reserve survived the gauntlet of program reviews, sweep ups, agency taxes, or end-of-year "unfunded requirements." In reality, management reserves seldom exist formally, and if they do, seldom survive, particularly when fiscal boundaries

are relevant. Unfortunate events result in schedule slips, cost overruns, or performance reductions. In practice, baselines are adjusted to comport with reality, or the number of “required” units shrinks to meet current resources.

CONCENTRATE ON THE TANGIBLE

Lastly, DoD PMs tend to concentrate on foreseeable events to the exclusion of all others. Wysocki and McGary (2003) note, “...if you are certain that an event will occur; it’s certainty. This type of event [should not be] handled by risk management because it will occur. No probability is involved.” PMs commonly address relatively certain events in risk management plans. Certain (or high-probability) events better justify resources and require less abstract thought to address; however, these events should not be addressed in plans. They should be considered constraints. Plans are the place for contemplating the unknown and the uncertain.

With the 6th edition of the guide, DoD introduced the term “issues.” Risks are potential events in the future, but issues are events that have occurred and must be resolved. I suggest a slightly different set of definitions. Possible future events that are not known or are unknowable are “unknowns.” Possible, but identifiable future events are “constraints.” Events that have occurred are “issues.” The difference is subtle, but important. Issues must be actively managed (resources applied). Resources may be applied to constraints but they need not be, depending on the uncertainty tolerance of the program. Unknowns should be contemplated, “what if” strategies should be formed, but resources should not be applied unless they are unconstrained.

Note that I avoided using the term risk in the unknowns-constraints-issues paradigm. “Risk” should have the narrowest of definitions—a function of probability and impact. The units of risk are dollars. As in the financial world, DoD should only speak in terms of “risk-adjusted budgets” or “risk-adjusted schedules,” not “risks that need to be mitigated.”

A Different View

The distribution of events, like so many other things in nature, is similar to a normal curve (Figure 4)—really good and really bad things occur infrequently, but inconsequential events are relatively frequent. At the extreme ends, the *Black Swans* are found (Taleb, 2007). Figure 5 is a visualization of this point. PMs tend to concentrate their attention in the area just to the left of the mean. The area to the right is relatively ignored. The area to the extreme left is comprised of very low-probability events and events that are unknown or unknowable. Although program managers lose sleep over this area, decisive planning is very hard and usually considered to have too little potential for a positive return on investment.

FIGURE 4. NORMAL DISTRIBUTION OF NORMALITY
The Continuum of Uncertainty

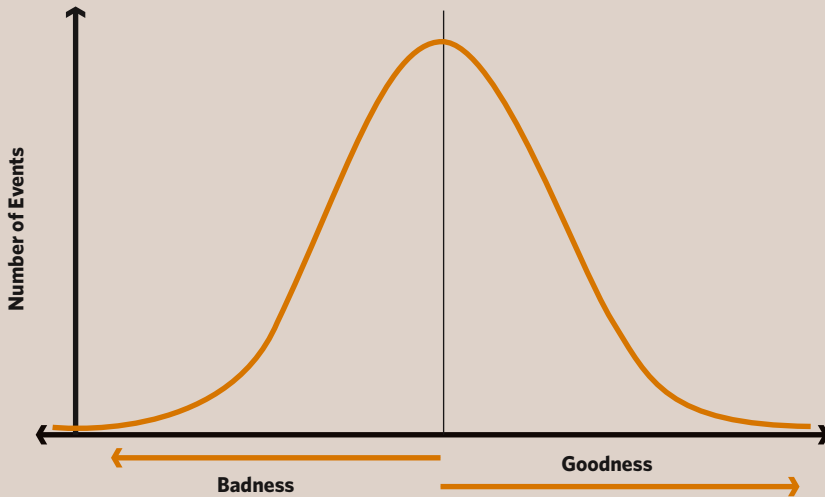
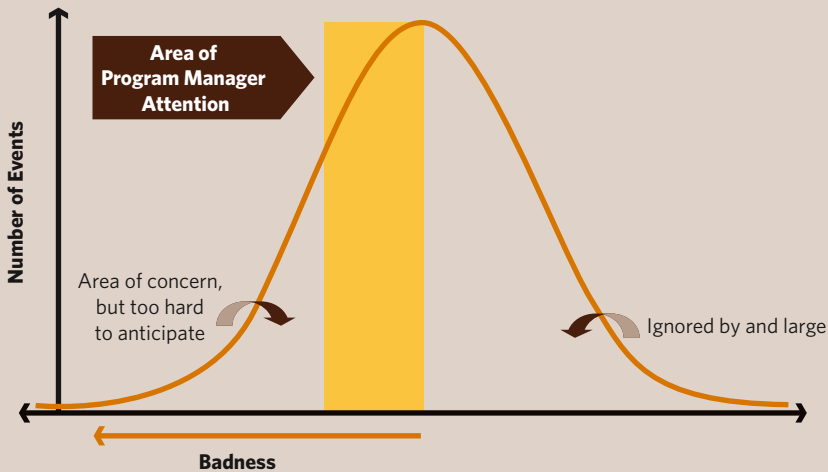
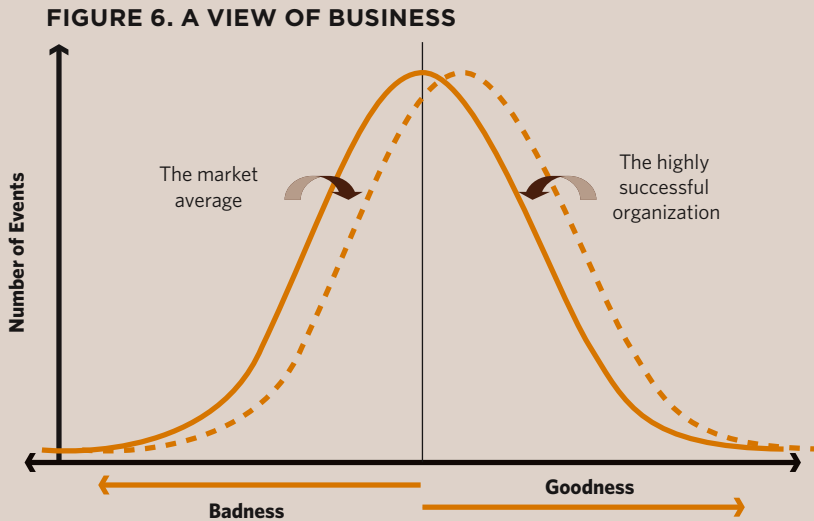


FIGURE 5. AREA OF PM ATTENTION



Just for comparison, businesses—especially risk-averse businesses—tend to make structural changes in their processes that increase the kurtosis of the curve (Figure 6). By decreasing the volatility of business—decreasing the incidence of the extremes happening—businesses develop a reputation of stability. The market likes stability and predictability. Ideally, business wants to make other changes that shift their specific curve towards the good side. In practice, highly successful businesses are only 1–2 percent more profitable than their competition, so the shift in the curve is not that significant. Trial and error can be a successful approach. The danger is the



dearth of timely feedback. Most often, management cannot tell that its change in strategic direction has put the business on a course for disaster until it is much too late to adjust.

How does a successful business shift its curve towards goodness?

1. **It cultivates a culture that encourages risk taking and innovative thinking, but does not punish honest failure.** This will increase the number of events occurring at both extremes. The management task is to evaluate opportunities and create an environment where the good outcomes outnumber the bad. Some companies even hold “failure parties” as a medium to publicly reward honest failure. Failures that happen early and inexpensively, and contribute new insights should be more than just tolerated, but celebrated.

Getting good at failure doesn’t mean encouraging anarchy in your organization. It means creating an environment safe for risk taking and sharing war stories—bringing in outsiders to provide analyses and advice, and absorb the new knowledge. It means carving out time to reflect on failure, not just success.

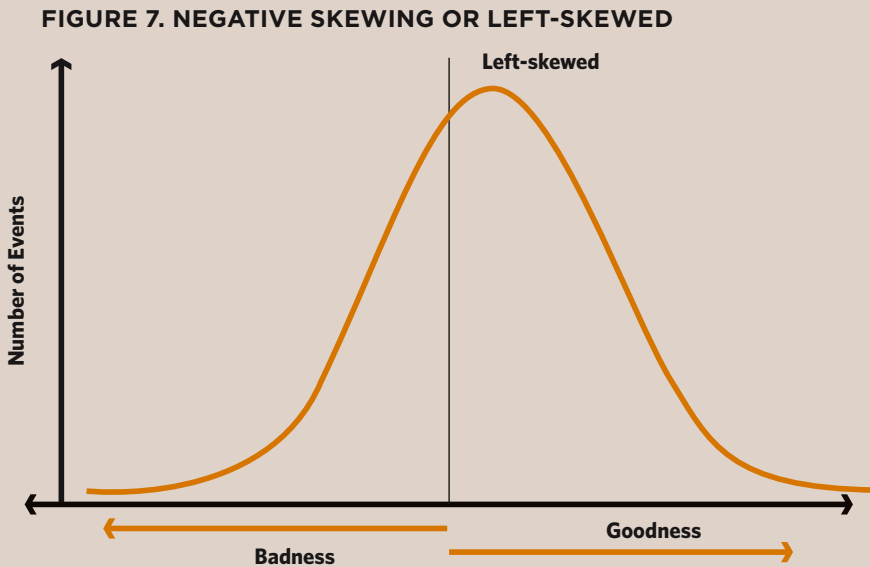
2. **It facilitates the reasoned inculcation of unanticipated discovery into business processes.** Some might define this as “agility.” Be cautious. Many businesses believe agility means jumping on the bandwagon and adopting every new technology, management practice, or manufacturing process that comes down the pike just to maintain the competitive advantage. If competitors are doing it, then we must. This belief leads to excessive changeover costs, since many new “cutting-edge technologies” or “management practices of the

day” seldom pass the test of time. Adopt the latest operating system only after service pack one has been released.

- 3. Successful managers “trust their gut” in selecting business projects.** A selection process that relies solely upon a dispassionate business analysis is dangerous. Depending upon the study used, 70–80 percent of all projects fail to achieve anticipated cost, schedule, and performance milestones. Decision theory would suggest that the principal causes are cognitive and personal biases, rational ignorance, and plain hubris. No project champion would green light a project that anticipates a loss. Human nature urges project sponsors to be optimistic in making cost and revenue predictions. The decision authority must temper the wild enthusiasm of the project champion with the tacit knowledge acquired through experience. At the subconscious level, people are able to recall experiences and previously synthesized knowledge (wisdom), and apply it to the explicit knowledge (business case) at hand. Malcolm Gladwell (2005) refers to this as the power of *Blink*. Successful leaders embrace what they know, even if they cannot explain it in words. They do not rely solely on the business case analysis.

DoD can also create a structure that left-skews the curve (moves the mean towards goodness—Figure 7). To move the curve, the structure of and the laws guiding the federal acquisition system must be significantly changed. As former Speaker of the House Newt Gingrich is wont to say, “Real change requires real change.” The federal acquisition laws and structure have evolved over the last two centuries to meet the changing needs of society. They have served their purposes, but the pace of change in contemporary society is so fast that the evolved structure is unable to react quickly enough to meet emerging requirements. I am not talking just about the pace of technology, but also the dynamic nature of the market; the changing face of our enemy; and the speed with which our smaller, more agile, greater risk-taking adversaries are able to adapt to our tactics, techniques, and procedures, rendering our plans, defenses, and infrastructure impotent. I believe that the underpinning structure contributes to our tendency to prepare to fight the last war, e.g., the “Battleship” Admirals of the 1930s and our inability at the turn of the 21st century to initially defeat and protect the nation’s armed forces from improvised explosive devices.

We collectively have lamented the glacial speed of the extant acquisition system, decrying why it takes 15–20 years to design, build, and deliver a new naval vessel; why our major weapons, telecommunications, and satellite systems are antiques on the day they are delivered; and why it takes years to successfully effect a major acquisition under conditions of



full and open competition. Unfortunately, we have done little to effectively address our lamentations. Yes, we have made some minor improvements at the edges—simplified acquisition authority does ease the bureaucracy to a small degree—but not enough. Major systems still take too long to deploy. A significant contributor to this lethargy is our approach to full and open competition. I am not advocating the elimination of competition—far from it. Competition is good. Greed is good (from the stockholders’ perspective). Competition keeps greed in check. We need full and open competition in a *full and open free market*.

So what can we do to shift the curve towards goodness?

1. Stop the madness of technology-driven acquisition.

Engineers “love” technology! Historically, DoD has subscribed to the theory that the United States “must” be able to technologically defeat the potential capability of every potential adversary. The consequence of this belief is an over reliance on “bleeding-edge technology.” Major programs are often based on the promise of unproven or emerging technology, e.g., the propulsion system for the DDG-1000. The sad truth is that sometimes emerging technologies never actually emerge on time to meet program schedules. Cost overruns, schedule slips, and reduced capability are the natural consequence of this gamble. Supposedly, we are addressing this issue by requiring that all prototypes be “mature” by Milestone B. I am not convinced that sliding the uncertainty in technology development to the left in the

acquisition cycle makes any difference in the long run. Who bears the cost of failure in the short run may shift slightly from the government to industry, but in the long run the citizenry will still bear all the ultimate costs. Technology must be mature prior to Milestone C. Whether it should be mature before or after Milestone B is debatable. One factor that may tip the scale is whether business proves to be better disposed than government in recognizing and admitting failure.

In the 1967 6-Day War, Israeli tank crews were arguably more effective against their contemporary enemy crews despite a numerical and technological disadvantage. The argument that our troops only deserve the best is specious. No value is to be found in developing a technological advantage when you cannot sustain the force. We will never be able to afford all of the technology that we want. I understand the desire to rely on technology to reduce the manpower requirements of the DDG-1000—manpower costs are by far the most expensive component of any system's life-cycle costs—but I cringe at the thought of a call for “all hands man your fire stations.” With a crew of only 140 and little redundancy, the fire crews may be woefully small.

- 2. Truly accept and plan for the unknown.** Business insures against the unforeseen with insurance or management reserves. The government gives the practice passive acceptance, but in reality, management reserves for the government program manager very rarely exist—unless they are hidden somewhere, which speaks to integrity and openness. The only way to adjust for bad events while maintaining planned schedule and performance is to add money. Conversely, programs should not be punished by losing resources as a consequence of budget underruns. These underruns are often ephemeral and will be erased by future overruns. Indiscriminate budget reductions when good things happen are a formula for program failure. Congress must express its collective will to address the unforeseen by authorizing formal program reserves. Congress can tightly control these reserves, but they must be authorized.

Program budgets must be couched in terms of uncertainty. Decision makers and Congress should have the full story—the most likely costs and the risk-adjusted costs. Congress should know that the new, high-tech \$1 widget will cost us \$3 each if everything goes wrong. DoD is not intentionally misrepresenting the most likely costs of programs; but today, uncertainty is addressed in subjective terms. We tend to be optimistic or success-oriented. “Moderate risk” may mean

different things to different people, but dollars are objective. We might debate whether moderate risk means \$2 or \$20, but once we come to agreement, the decision becomes an objective one. If Congress does not believe that a program warrants committing to a reserve, the program can be quashed before it starts. Killing a program early eliminates the unpleasant consequences of cost overruns and a public perception of incompetence.

- 3. Truly embrace agile acquisition.** If the circumstances can tolerate multiple rounds of full and open competition, then such an approach should be the norm. However, for commercial items, executives should be allowed to form and operate under strategic alliances—something the commercial world uses to great success. When we buy toilet paper, why do we saddle ourselves with the same rule set used to buy tanks? This greater authority to act on behalf of the people must be coupled with more severe consequences for acting unethically or illegally—which takes us to the next topic.
- 4. Leaders must tolerate honest failure.** Sometimes people of pure heart and honest intentions fail. This is especially true in conditions of uncertainty and when we are striving to achieve stretch goals. Honest failure must not only be tolerated but rewarded. Humans learn by analogy. We must see both success and failure in order to learn. If Edison had stopped after 100 or 500 failed experiments, he would not have invented the light bulb. We can and should punish dishonest failure—waste, fraud, abuse, negligence, or dishonesty, and do so with fanfare. We should also reward honest failure with equal fanfare.
- 5. Grant programs multiyear budgeting authority as the rule and not the exception.** The annual appropriations process is too costly, too ineffective, and a constant annoyance to resource managers and the defense acquisition workforce as they fight to meet end-of-fiscal-year deadlines. Program managers have been known to adjust resource decisions to comport with annual appropriations even when these decisions were less than optimal. I understand Congress's desire to not commit future Congresses; but like the family, agencies and program managers should be allowed to adjust for smart purchases. I also understand the allure of annual appropriations, but a biennial appropriations cycle would be much more efficient, and Congress should give up a little control to *increase* efficiency. Whether you meet a milestone in this fiscal year or next should never be a life-or-death decision for a program.

6. Business and government view risk differently. When the government speaks of risk, it most often refers to technical, schedule, or cost risk. The government must understand that a company interprets risk in a different way. To a company, risk is the potential impact on the value of events not proceeding as planned. Risk to a company is, therefore, a measure of the likelihood of achieving the financial objectives of the project (OUSD[AR], 2001, p. 17).

To meld these disparate views into a unified outlook, we must establish and retain a truly qualified cadre of PMs for major programs. PMs must be qualified “before” they are assigned to critical acquisition positions. As a matter of policy, we do this. However, what DoD considers as qualified looks much different from what the rest of the world considers qualified. Service PMs tend to be field grade officers who have not made project management their profession of choice. The skill set to be a successful “steely eyed killer” is vastly different from the skill set of the successful PM.

Turn major program acquisition over to a permanent cadre of civilian professionals trained in the profession of program management as defined both by DoD and the rest of the world. The DoD PM should be certified as a Project Management Professional (PMP) to appreciate the business view of projects; hold a graduate degree in project management (or an MBA) to better understand the financial aspects of business; and, to add the DoD criteria to the mix, meet the Defense Acquisition Workforce Improvement Act standards appropriate for the PM’s scope of responsibility. With a median salary in industry of around \$120,000 for qualified PMs, DoD will frankly face a challenge in retaining a qualified workforce; however, we have the authorities in place to meet that challenge.

This may seem a slap in the face of the Federal Acquisition Institute (FAI) and the Defense Acquisition University (DAU). That is not the intent. Both FAI and DAU serve the public well in educating PMs in the mysterious ways of the federal acquisition process. Taxpayers also receive value from the knowledge and skills acquired by PMs at FAI and DAU in that these institutions afford PMs an excellent opportunity to network in the nongovernment realm and understand the perspective of their counterparts in industry.

Cadres of professional civilians who truly embrace project and program management as a profession will, at a minimum, establish a framework in which DoD can better retain the knowledge of its acquisition professionals. A former commander of mine, now an agency head, was overheard recently saying, “They shouldn’t be called ‘lessons learned’; they should be called ‘lessons observed.’” How many times must we observe the same lesson before it is learned and becomes institutional knowledge?

Conclusions

What I have presented here is clearly opinion, but I hope it is sufficiently provocative to spur further debate. No one can reasonably deny that the world has changed significantly from the time the policies of DoD acquisition were first penned. Today's world is much more dynamic. Seemingly innocuous events across the globe are much more likely to affect our plans and programs—for the good or bad. We need to actively view and embrace the continuum of uncertainty and not simply concentrate on the negative. We constantly ask ourselves, "What bad things have happened that *force* me to change my plan?" What is so unnatural in asking at the same time, "What good things have happened that *allow* me to change my plan?" In the long run, is spending admittedly limited resources in the hope of good things happening prudent and beneficial to the taxpayer? I encourage those of you of like mind (and even those of a differing opinion) to put pen to paper and bring forth your arguments.

Author Biography



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REFERENCES

- Charette, R. N. (2003). Changing the definition of risk—why risk it? Appendix E in E. H. Conrow (Ed.), *Effective risk management: Some keys to success* (2nd ed.). Reston, VA: AIAA Publishing.
- Cooper, D. F. (2005). *Project risk management guidelines: Managing risks in large and complex procurements*. West Sussex, UK: Wiley and Sons.
- Defense Acquisition University (DAU). (2005). *Glossary of defense acquisition acronyms and terms* (12th ed.). Alexandria, VA: Author.
- Department of Defense. (2006). *Risk management guide for DoD acquisition* (6th ed.). Washington, DC: Author.
- Gladwell, M. (2005). *Blink: The power of thinking without thinking*. New York: Little, Brown, & Company.
- Heerkens, G. (2002). *Project management*. New York: McGraw-Hill Professional.
- Hillson, D. (2004). *Effective opportunity management for projects: Exploiting positive risk*. New York: Marcel Decker.
- Kerzner, H. (2001). *Project management—A systems approach to planning, scheduling, and certainty* (7th ed.). New York: Wiley and Sons.
- Meredith, J. R., & Mantel, S. J., Jr. (2001). *Project management—A managerial approach* (5th ed.). Hoboken, NJ: John Wiley and Sons.
- Office of the Under Secretary of Defense for Acquisition Reform (OUSD[AR]). (2001). *Incentive strategies for defense acquisitions*. Alexandria, VA: Defense Acquisition University Press.
- Project Management Institute (PMI). (2008). *A guide to the project management body of knowledge* (4th ed.). Newton Square, PA: Author.
- Taleb, N. N. (2007). *The black swan*. New York: Random House.
- Wysocki, R. K., & McGary, R. (2003). *Effective project management: Tradition, adaptive, extreme*. Indianapolis, IN: Wiley and Sons.



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