SYM-AM-15-081

PROCEEDINGS
OF THE
TWELFTH ANNUAL ACQUISITION RESEARCH SYMPOSIUM

WEDNESDAY SESSIONS
VOLUME I

Three "Big Ideas" for Reforming Acquisition: Evidence-Based Propositions for Transformation

Roy Wood, DAU

Published April 30, 2015

ACQUISITION RESEARCH PROGRAM
GRADUATE SCHOOL OF BUSINESS & PUBLIC POLICY
NAVAL POSTGRADUATE SCHOOL

The research presented in this report was supported by the Acquisition Research Program of the Graduate School of Business & Public Policy at the Naval Postgraduate School.

To request defense acquisition research, to become a research sponsor, or to print additional copies of reports, please contact any of the staff listed on the Acquisition Research Program website (www.acquisitionresearch.net).

ACQUISITION RESEARCH PROGRAM
GRADUATE SCHOOL OF BUSINESS & PUBLIC POLICY
NAVAL POSTGRADUATE SCHOOL

Three "Big Ideas" for Reforming Acquisition: Evidence-Based Propositions for Transformation

Dr. Roy Wood—is currently the Dean of the Defense Systems Management College, School of Program Managers at the Defense Acquisition University at Fort Belvoir, VA. He previously served as the Principal Assistant Deputy Under Secretary of Defense for International Technology Security under the Director, Defense Research and Engineering. He is a retired naval engineering duty officer with 24 years in operational and acquisition tours and has worked in the defense industry. [roy.wood@dau.mil]

Abstract

This paper offers three specific ideas for improving key aspects of defense acquisition: reforming the process for managing capabilities, addressing technology insertion, and reengineering the acquisition workforce. Recent studies and literature are used to provide supporting evidence and rationale for the proposed changes.

Introduction

Typical acquisition reform efforts have focused in the margins, achieving marginal results. Fundamental structural and process changes need to be made for any significant change to be seen. This paper offers reform ideas in three specific areas: achieving the benefits of competition above the prime contractor level by competing capabilities among the services, reforming the technology development and transition process, and moving to an all-civilian acquisition workforce. Some of these ideas are not new and have been recommended at various times, but have never been fully embraced or implemented. The evidence of decades of acquisition reform indicates that the marginal reforms typically taken are not making the fundamental changes the Department needs. Serious consideration for the reforms suggested here might provide outcomes that actually make a difference.

Evidence-Based Management

> Evidence-based management is about making decisions through the conscientious, explicit, and judicious use of four sources of information: practitioner expertise and judgment, evidence from the local context, a critical evaluation of the best available research evidence, and the perspectives of those people who might be affected by the decision. (Briner, Denyer, & Rousseau, 2009, p. 19)

This paper looks at three difficult and persistent challenges in the defense acquisition field that have been resistant to previous improvement or reform efforts, and presents an evidence-based discussion of the issues and ideas for potential new solutions. Evidence from the literature is used, where possible, to highlight previous attempts at reforms and examples, and rationale to support these ideas.

Improving Competition

The first challenge addressed here is how the DoD can create and sustain competition with a shrinking industrial base. Competition is widely recognized as an important way to keep defense acquisitions affordable, yet this is increasingly difficult with a smaller and more specialized set of industries. Workarounds, like dual sourcing, split buys, and leader-follower procurements have propped up the industrial base, but sub-optimized some of the advantages of real competition (Wydler, Chang, & Schultz, 2012).

Encouraging competition among subcontractors has also been encouraged, but government involvement in ensuring competition at this level has met with only limited success. Strategies here have been to encourage explicit teaming of promising companies with the prime contractors, government contracting for specific items provided as government furnished equipment to the primes, component breakout, and second sourcing. These ways of increasing competition below the prime have been met with concerns over violation of privity of contract (Federal Acquisition Regulation [FAR] Part 42) and increased risks of placing the government in the role of system integrator (GAO, 2010).

If the shrinking industrial base is creating conditions where real competition is not possible, and government overreach into the subcontracts is not tenable, then perhaps the idea of competing at a level *above* the prime contractor may be necessary. Setting up a more competitive environment where services and agencies "compete" to provide a given capability may have some inherent advantages that are discussed later in more detail.

Improving Innovation and Technology Transition

The second challenge is the well-known difficulty in transitioning new technology into acquisition programs. The so-called "valley of death" has long existed between science and technology (S&T) and acquisition. This problem has been extremely resistant to solutions, in spite of nearly continuous efforts on the parts of both S&T and acquisition. This paper examines a number of potential solutions, including leveraging commercial models of technology transition, removing barriers to technology innovation, and more disciplined management of system baselines.

Improving the Acquisition Workforce

The third challenge is possibly the most controversial and yet probably the one with the most leverage to improve acquisition outcomes overall. Multiple studies and initiatives have been undertaken in recent years to improve the performance of the program manager (PM; Ahern, 2009; Fox, 2014). Initiatives have been undertaken that range from extending the tenure of PMs, to improving the quality and quantity of training, to offering incentives and awards for good performance. Yet, PM performance, by many study standards, remains subpar (Francis, 2014).

Given the challenge that military officers, who make up a large proportion of the program manager community, have in mastering both operational and acquisition facets within a typical 20-year career, the recommendations in this paper are to shift acquisition leadership to a primarily civilian corps. The study also suggests ways to change how civilians are currently managed that will also help improve their experience and leadership capabilities as program managers.

Big Idea #1: Improving Competition

> Real competition is the single most powerful tool available to the Department to drive productivity. (USD[AT&L] Better Buying Power web portal)

Full and open competition is the holy grail of defense acquisitions. Competition is believed to lower costs to the customers, incentivize productivity and efficiency, and spur innovation among competitors. To win a competitive contract, a defense company must provide a responsive proposal for a product or system at an affordable price that meets the military requirement. To position itself to win a competitive procurement, a company must continually assess its capability to produce technical and innovative solutions to meet government needs, while keeping its cost structures lean and competitive to produce these goods at more attractive prices than its competitors. Again and again, the government has

seen evidence that competition encourages this behavior in the defense industry and has gone to great lengths to sustain a viable industrial base where competition can flourish. In short, competition is good, and more is better.

Yet, since the mid-1990s, the defense industrial base has shrunk and consolidated to an unprecedented level. With fewer businesses in the industry, it has become increasingly harder for government to encourage fierce head-to-head competition for many of its products and systems. The remaining industries have tended to become more specialized, oligopolistic providers of particular categories of products. Under these conditions, government source selections have had to be as concerned with sustaining the industrial base as with getting the best deal on any particular item. Defense costs continue to rise, in part because of this less competitive industrial base (Harrison, 2012).

Government efforts to create pseudo-competitive solicitations among the prime contractors, and to find ways to encourage competition at the subcontractor level, have met with varying degrees of success. Smaller numbers of new program starts have exacerbated the dilemma and created an environment where losing a single large procurement for ships or aircraft, for example, could force competitors out of the business, leaving the government with a single monopolistic provider in that sector.

As competition among primes becomes more challenging, the government has tried to promote and encourage competition at the subcontractor level. Organizationally and contractually, however, this is difficult for government to do directly beyond setting a general expectation for the prime contractor to manage. In some cases, government has directly procured subsystems using a “component breakout program” from a vendor and provided them as government furnished equipment (GFE) to the prime (OUSD[AT&L], 2014). Many government organizations are hesitant to use such a strategy, however, because of inherent risks of placing the government in the proxy role of system integrator.

One strategy that has not yet been seriously considered is competition above the prime. Theoretically, when capability gaps are identified by the Combatant Commanders, a full range of potential solutions are analyzed through a rigorous Analysis of Alternatives (AoA) process. Unfortunately, preconceived, Service-centric solutions often emerge from the process, sometimes cutting off more innovative solutions. The Government Accountability Office (2009) noted that ”while AOAs are supposed to provide a reliable and objective assessment of viable weapon solutions, we found that Service sponsors sometimes identify a preferred solution or a narrow range of solutions early on, before an AOA is conducted.”

A more robust and objective process might be to “compete” Initial Capabilities Documents (ICDs) among the services and let each of the “bidders” conduct its own service-centric Analysis of Alternatives (AoA) to provide the capability. Rather than having only the predictable replacement of an Air Force bomber capability with another bomber, for example, perhaps more novel and affordable solutions would emerge from the Navy or the Army. Competitive AoAs would likely become more rigorous, with both technical solutions and cost estimates coming under greater cross-Service scrutiny. The winning AoA, as judged by the Combatant Command and Joint Requirements Oversight Council (JROC), would then be “awarded” to the Service to manage through the conventional acquisition process. Armed with a more thorough and complete AoA, the government would be better equipped to negotiate with industry for a capability the joint forces require and have a much better understanding of the cost of such a system.

Adding this extra layer of competition could help address a number of current shortfalls and issues. First, it would force the Combatant Commanders and JROC to write ICDs that are focused on warfighting *capabilities* rather than telegraphing a proposed

Service-centric solution. For example, a generically-written capability for *destroying targets at long ranges* could be accomplished with manned or unmanned bombers; cruise or ballistic missiles launched from aircraft, ships, submarines, or land sites; rocket-assisted shipboard or ground artillery; or potentially other more innovative solutions. One can imagine the Navy and Air Force going head-to-head with aircraft and missile alternatives, and the Army and Navy competing on missiles or artillery, and each of the solutions competing on affordability. Likewise, and importantly, each of the services would be able to consider their own alternatives backed by supportable concepts of operations, or CONOPS, that would also have unique associated costs and opportunities.

Second, engendering real competition for real resources would create an environment where the services were incentivized to ask hard questions about solutions the other services put forward, and be better prepared to answer questions about their own proposals. This would force—and enforce—a cross-service competitive rigor that does not exist today (Fay, 2015). With little incentive for one service to call the bluff of another, overestimated claims of performance or underestimated cost estimates can go unchallenged until too late in the acquisition process.

From the literature, Birkinshaw (2001) points out three advantages to an organization to encourage internal competition: First, it increases flexibility; second, it challenges the status quo; and third, it motivates greater effort (pp. 21–22). For the DoD, these three factors would hold true as well. Flexibility is critical during this time in history of rapid changes in potential threats, and opportunities presented by new technologies. As militaries are wont to assume that the next war will be like the last one, it is critical to encourage building a more flexible and responsive military that can cross swords effectively with different or more powerful adversaries. Competing at the service level would prevent the DoD from being stuck with proposals for the usual stuff from the usual players.

Like the first point, creating a competition among services would help break the status quo. The services are quite comfortable in their mission stovepipes, each continuing to receive about an equal 30% of the annual Defense budget. Birkinshaw (2001) points out that

> large firms typically become inertia-ridden over the years, victims of their own success. Customers and their needs are taken for granted, and management systems take on a life of their own. Practices and beliefs become ingrained. Such a system is hardly conducive to revolutionary new ideas. (p. 22)

This sounds very much like the DoD. In spite of complicated and lengthy AoAs, amazingly few produce accepted solutions outside the status quo. Most new systems are incremental improvements over previous ones, becoming one-for-one mission replacements of aircraft carriers, bombers, and ground vehicles. In 2004, the Joint Defense Capabilities Study noted that

> service planning does not consider the full range of solutions available to meet joint war fighting needs. Alternative ways to provide the equivalent capability are not adequately considered—especially if the alternative solutions are resident in a different Service or Defense Agency. (p. iii)

The third point is that competition motivates greater effort. Firms—and services—could be expected to be more aggressive, innovative, and forward-leaning when faced with a direct threat to budgets and resources. One might imagine, for example, that a more thorough and lively discussion of the mix of sealift versus airlift capability would be brought forward by the Navy and Air Force if the results had the real potential to change the

resource and mission mix of each Service. Similarly, each of the services might scrutinize quite differently the output of their various laboratories and warfare centers if they were forced to compete with each other on superior technology and innovation.

Big Idea #2: Improving Innovation and Technology Transition

The GAO has identified repeatedly that technology immaturity is a major contributor to program problems (GAO, 2011, 2012, 2013, 2014, 2015). Technology that is not fully mature and ready for transition to acquisition introduces significant cost, schedule, and performance risks. Prominent examples include the F-35, the most costly defense program in history (Thompson, 2013), and the DDG-1000 Zumwalt destroyer class (Hagerty, Stevens, & Wolfe, 2008; GAO, 2008), truncated to three ships after substantial cost increases and schedule delays (U.S. Navy Fact File, 2014; GAO, 2008).

Both these programs depended on multiple cutting-edge technologies that were immature at program inception and required substantial concurrent development and maturation as the acquisition program was in *execution*. "The large number of immature technologies represented a sharp contrast from modern Navy shipbuilding philosophy. Never before had the Navy attempted to incorporate so many unproven technologies into one hull" (Hagerty et al., 2008).

The high costs and prolonged timelines for fielding superb systems has long been a frustration for operational commanders. As former Chief of Naval Operations, Admiral Gary Roughead, pointed out, "As a Service Chief, my greatest frustration was to be briefed on an exquisite acquisition timeline that delivered an initial operating capability more than a decade hence when the need was immediate" (U.S. Senate, 2014, p. 148). Getting a partial capability now and full capability later is undoubtedly better, in most cases, than going for a long period of time with no capability. Designing programs with off-the-shelf technologies today, while embarking on a more rational offline technology development strategy for later insertion appears to be a way to achieve this aim.

Improve the Technology Insertion Baseline Process

In order to reduce system development time and field an improved capability, it is necessary to enforce a proven and rigorous technology insertion strategy in acquisition programs. This is not a new idea, but one that seems to get lost in the euphoria of planning a new program. Many successful programs, like the Navy's AEGIS and submarine programs, have been very disciplined in the use of time-certain baseline upgrades that provide the technology community the opportunity to prove out new technologies and be prepared to enter the acquisition process at certain points in the acquisition life cycle (Holzer & Truver, 2014; Mitchell, 2010).

New program starts should survey the state-of-the-shelf for proven and available technologies to use in the initial baseline, providing some—but perhaps not all—of the capabilities the system may ultimately need. The Service or Agency should then embark on S&T efforts to create or mature new technologies outside the acquisition program to close the capability gap. The program would identify baseline upgrade points in the acquisition program schedule. If any given technology can be matured to meet the desired schedule, then it can be integrated into the next baseline; if not, it is shifted to a future insertion point. This approach requires significant planning and discipline by the program manager and close coordination with technology developers to establish hard deadlines and performance expectations. Buy-in from the operational and requirements communities is also needed so they understand the capabilities and limitations of the baseline approach. In general, this

strategy should get new capabilities to the field sooner and promise predictable upgrades over time.

Improve the Technology Transition Process

Technology and innovation happen—it's unavoidable, and frankly, it's fun. S&T organizations happily invest decades and millions of dollars in science projects that produce potential and promise, but many projects may never transition into acquisition programs. One issue at the heart of this problem is that maturation of required program technologies beyond the laboratory or prototype stages is often left to the acquisition programs and their contractors. Accepting immature technology, however, is anathema to acquisition program managers whose role it is to reduce the program's cost, schedule, and performance risks. Unsurprisingly then, there is a transition gap in the efforts between S&T innovation and acquisition program fielding.

A way to close this gap may be found in the way commercial companies transition their technologies to products. In 2006, the GAO conducted a study that contrasted DoD and commercial technology transition practices. The GAO found that the best commercial practices involved the S&T community keeping responsibility for maturing technologies well beyond the point that the DoD currently does, and assigning relationship managers to work with both the S&T and production managers to facilitate technology transition. The GAO's specific recommendation for the DoD was to allocate a portion of 6.4 funding (advanced component development and prototyping) to the S&T community specifically for technology maturation. Unfortunately, the DoD rejected this recommendation, and only partially concurred with the idea of a relationship manager. Both these ideas continue to have considerable merit.

Commercial firms, like those in the GAO study, have had successes by holding their S&T organizations responsible for maturing technologies to the point where the risk of productizing them is minimal. This includes responsibility for prototyping and testing the technologies in realistic environments—exactly the process needed by the DoD to allow acquisition PMs to have confidence to accept new technologies for integration with minimal risk for cost and schedule overruns or performance failures. The DoD should reconsider its reluctance to the GAO's recommendation and institute more rigorous S&T involvement and responsibility in technology maturation prior to transition.

Similarly, the GAO report identified an industry best practice of assigning relationship managers to facilitate transition, solve problems, and improve communication. Given that DoD S&T and acquisition managers have different languages, cultures, and processes that are often not mutually supportive, there is a clear need to bridge these gaps between S&T and acquisition, if there is to be the hope of successful technology transition. Relationship managers could serve these problem-solving and cross-communication purposes.

Likewise, technology professionals are quick to point out that average users don't know what they don't know. For example, there was no known demand for an iPod or smartphone until the technology was introduced. For most of us, it is hard to imagine life before those technologies. Users may not be able to imagine what new technology is within the art of the possible, while some technologists go happily about their business without an appreciation for what the users may actually need. Many television cable companies, for example, continue to develop their offerings as more people opt to "cut the cable" in favor of internet programming. This technologist–user disconnect is also prevalent in the DoD, but can easily be bridged by individuals who are "bilingual" and experienced in both S&T and acquisition. One way to accomplish this quickly is to post a senior S&T professional on the staff of each Program Executive Office (PEO). S&T liaison officers who "speak technology"

could work closely with the PEO and its acquisition program offices to help find technology solutions across the PEO's portfolio of programs. This arrangement could create the much-needed linkage between the S&T network and the PEO and program managers to meet match technology needs with emerging technologies.

Improve Innovation by Removing Barriers

Defense has become more isolated and less innovative, in part by its own actions and those of Congress. The Department has driven industry to consolidation, established substantial barriers to new entrants, and contributed to risk aversion. According to former Principal Deputy Under Secretary of Defense for Acquisition, Technology, and Logistics, the Honorable David Oliver,

> While that defense industrial base was once robust enough to tolerate many failures, that circumstance no longer exists. Our defense industry is no longer based upon the entire vibrant American commercial industry, as it was in World War II. Instead, during the Cold War, the defense industry grew into an isolated one. … America is now the only Western nation with an isolated (by regulation and practice) defense industry. The rest of the Western world has adopted different approaches which seek to better access the technologies being developed in the commercial industries and is accelerating ever faster away from the American defense acquisition model. (U.S. Senate, 2014, p. 142)

Congress and the Department have imposed on industry significantly greater oversight, restrictions, requirements, and negative incentives than commercial customers could or would. Commercial contractors or subcontractors generally work under provisions derived from the Uniform Commercial Code, a 270-page document (USLegal, 2014), while government vendors must labor under the regulatory burden of the FAR, DFAR, and supplements totaling over 4,000 pages. Government contractors must deal with a bid and proposal process far more involved than those needed for most commercial contracts. Many contractors are required to have certified cost accounting systems to work for the government, and are subject to audits and penalties for violating any of the rules or referenced clauses in those thousands of pages of regulations. Government contractors are subject to contract termination for cause or simply for the convenience of the government, and the government can unilaterally change the contract without the contractor's consent.

Should a contractor be willing and able to navigate the maze of obstacles and barriers and perform superbly, delivering great value to the government, there is no guarantee of follow-on work. Should a contractor wish to work on classified projects, there are substantial additional requirements for clearing the facility and workforce. Also, many companies have find themselves with restrictions on releasability of information, their ability to sell to, or work with, foreign governments, companies, or individuals. They also face the potential for products or components to be designated dual use (Dual Use, 2012) or fall under the International Trafficking in Arms Regulations (ITAR), severely limiting a company's markets and sales (ITAR, 2014).

In total, these are significant barriers that keep many companies from choosing to deal with the government and the Department of Defense. The legal obligations and potential penalties, arcane regulations and restrictions, and bureaucratic hurdles represent a tremendous time and resource investment. It should not be surprising that many of the most innovative companies choose not to work on government contracts, and those companies that do are likely to be, or become, more bureaucratic, cautious, and risk averse.

If the Department truly wants to attack a root cause that will improve innovation by lowering barriers to innovative companies, this is an area ripe for reform. Improvements would require re-engineering of the FAR and DFAR—a task easier said than done. The Department would have to work closely with Congress, and there would undoubtedly be some pushback from current defense industries that benefit from the high barriers to new competition. Nevertheless, this is a big idea worth pursuing.

Big Idea #3: Improving the Acquisition Workforce

> Although there is a pressing need for the Defense Department to perform the active manager role, the current approach to program management is fundamentally flawed. After fifty years, we know that an Army or Air Force colonel or Navy captain (0-6) with limited industrial management knowledge and experience is ill prepared to direct and oversee a first-of-a-kind multi-hundred million dollar industrial program with hundreds of complex challenges and dilemmas. (Fox, 2012, p. 200)

Importance of Military Involvement in Acquisitions

Most leaders in the Pentagon would agree that it is important for military operators to be involved in the procurement of military equipment and supplies. In the current acquisition system, military serve in relatively small numbers in virtually all capacities, including as systems engineers, contracting officers, financial managers, logisticians, and others. However, in the key position of program manager, military tends to dominate. Overall, military members represent only 10% of the total acquisition workforce, but in program management, a disproportionate 42% are military (Gates et al., 2013). The military members bring broad leadership, enthusiasm, and operational experience to the business of procuring military equipment and, in many cases, firsthand judgment about the military utility of a system's design. These aspects of having a military involvement in a program are largely beneficial, but there are a number of deep-seated problems.

Acquisition is a difficult, high-stakes business. Fox (2006) described the skills required of a program manager, most of which are not core warfighting skills, and must be gained through training and experience in acquisition: "Managers [of large, complex programs] must augment a strong foundation of conventional management skills in planning, organizing, and controlling, with knowledge of the requirements, resources, and constraints of a specific project as it progresses" (p. 109). Military program managers must be able to negotiate the complicated planning, programming, and budgeting system and have a good understanding of government financial management. The PM must also become knowledgeable in the technology of the program to be able to understand complex engineering issues and make tradeoff decisions. The military PM must manage both a largely civilian workforce of direct reports and a vast web of contractors. Traditional military leadership training may not equip a PM to operate in that environment. Again, Fox points out that "skilled project managers focus more on monitoring and influencing decisions, and less on giving orders" (p. 124).

Experience Challenge With Dual-Track Military

In the first place, it has always been problematic for military personnel planners to effectively allocate time in a typical military member's career to both gain the required operational experience *and* sufficient acquisition experience to manage large, complex procurements. To gain broad operational experience in the field, officers are typically rotated through increasingly challenging positions every 18–36 months. Their promotions in an "up-or-out system" depend on this mobility. Longer tours can be seen as career stagnation by

promotion boards. Operational career paths are strictly regimented, with success depending on doing well in command and other must-do tours, including Joint Service tours.

Each of the military services treats operators differently when they are transitioning into acquisition careers, but most officers start the transition mid-career or later. With only a few, if any, short acquisition tours under their belts, many military PMs are ill-equipped to lead large, complex acquisitions. As noted by independent analyst, Katherine Schinasi, "An operational commander does not make good business decisions. He was not trained to do so nor is he rewarded. Military advancement depends on frequent rotations; sound program management and accountability relies on continuity" (U.S. Senate, 2014, p. 157). As Augustine noted in recent congressional testimony,

> The issue most assuredly is not one of dedication or native ability: the issue is a lack of relevant experience and the freedom to exercise that experience. One hundred managers with one year's experience should never be considered to be the same as five managers each with 20 years' experience. (U.S. Senate, 2014, p. 12)

Few, Short Acquisition Tours Preclude Deep Experience

Short tour lengths carry over to assignments in senior PM positions, and this tenure issue has also been identified and addressed by a mandate that PMs sign agreements to serve at least four years or until the next major milestone of a program (DoD, 2005). Unfortunately, this agreement is largely unenforceable, as many PMs reach retirement eligibility or are promoted out of the position before their tenures are reached. Despite the tenure agreement mandate being in place, the GAO found in 2007 that the average PM tenure was only 17 months (GAO, 2008a).

Shorter tours are not only a systemic problem, but many feel that a military PM may be incentivized to serve in this position for as little time as possible before moving on. Similarly, few military program managers are ever given a second program, since this would be viewed broadly as not moving up and, again, likely to stop a promising career in its tracks. Lessons learned by a military leader on one program are therefore not transitioned to another, losing significant opportunities to create a learning organization and improve future outcomes.

All-Civilian Defense Acquisition Workforce—With Military Requirements Advisors

As an alternative to the current system, which continues to resist reform efforts because of the deep, systemic challenges, the Department of Defense should consider transitioning to an all-civilian acquisition corps *with military requirements advisors assigned to large programs or PEOs.*

Longer Tenures in a Dedicated Single Career

An all-civilian workforce would not immediately be a panacea for improving acquisition outcomes. There are challenges associated with the way civilians acquisition professionals are assigned and developed, most having a less aggressively managed career than the typical military officer. Yet, with a potential 40-year career to devote exclusively to acquisition, these members have significantly more career capacity to develop the requisite skills and experience to become expert program managers and functional leaders than their military counterparts. There are no ill effects to a civilian who remains in a particular program office or in a leadership role for a decade or more—a time frame that would doom any military member's career.

Compensating for Lack of Military Operational Experience

A major drawback to having an all-civilian workforce, of course, is the perceived lack of firsthand military field experience. This is mitigated somewhat by veterans' hiring preference that encourages former military members move into the civil service. A recent RAND study noted that

> although military members represent a minority of the AW [Acquisition Workforce] overall, they appear to be an important and growing source of future civilian AW leaders. The share of new hires into the AW who have prior military experience has grown dramatically over time, along with the share of those who were high ranking at the time they left the military. (Gates et al., 2013, p. 50).

To more intentionally ensure that military equities and nuances are represented in defense programs, military operators could, and should, be assigned as advisors to the program manager of every large program or to PEOs with many smaller programs. This officer should be collocated with the program or PEO, but have reporting responsibility back to the Service or sponsoring organization that initiated the capability requirement. In this scenario, the military advisor would be immersed in the day-to-day business of the program office, observing tradeoffs and advising engineers and managers when questions arose about how a particular piece of equipment or feature would be used in the field. The military advisor would also be well positioned to report progress and potential operational issues back to the requirements originator for action or clarification. As an advisor, the military member would not need the in-depth training or experience to actually run the program, nor would they be obliged to accept extended tours of duty in a program office that could hurt their opportunities for promotion.

Fewer Incentives for Short-Term Decision-Making

Unlike their military counterparts who are sometimes incentivized to short term decision-making, civilian leaders in programs for long career assignments would be better served to take the long view, knowing that they must live with the decision they make. Further, civilians who gained experience and were successful in one program could be assigned to larger, more challenging ones, taking with them the knowledge and experience they gained along the way. Since civil servants are not subject to the "up-or-out" policy of the military, pressures and disincentives that would be career ending for a military member would have far less influence on a civilian's career. Civilians would be more apt to make decisions based on the long-term good of the program, rather than their immediate good of their careers. This is especially true, since they would be faced with the downstream likelihood of having to live with the consequences of their decisions.

Summary & Recommendations

There has been, and continues to be, a long and continuing saga of defense acquisition reform efforts. Most have either failed, or only succeeded in making improvements at the margins. This paper presented three big ideas to help move acquisition reform from treating symptoms to addressing root causes. The ideas impact the way material solutions are developed by introducing competition among the services and agencies for the privilege of managing the program and its resources; to the way technology is inserted, suggesting a more rational and rigorous approach to the transition process; and in making fundamental changes to the way programs are managed, by moving toward an all-civilian workforce with military requirements advisors. As with most change efforts, those with the most potential for gain are also the ones most difficult to plan and implement. All three of these big ideas are possible, but will require substantial willpower and collaboration

inside the Department and between the Department and the Congress. The question is, are we ready for real acquisition reform?

References

Ahern, D. (2009). *OSD study of program manager training and experience*. Washington, DC: Office of the Secretary of Defense.

Birkinshaw, J. (2001). Strategies for managing internal competition. *California Management Review, 44*(1), 21–38.

Briner, R. B., Denyer, D., & Rousseau, D. M. (2009). Evidence-based management: Concept cleanup time? *Academy of Management Perspectives, 23*(4), 19–32.

DoD. (2005). *Operation of the Defense Acquisition, Technology, and Logistics Workforce Education, Training, and Career Development Program* (DoD Instruction 5000.66). Retrieved from http://www.dtic.mil/whs/directives/corres/pdf/500066p.pdf

Dual Use. (2012). *Dual use export licenses*. Washington, DC: U.S. Department of Commerce. Retrieved from http://www.export.gov/regulation/eg_main_018229.asp

Fay, M. (2015). *Pentagon should service competition, not customer service*. Retrieved from http://www.realcleardefense.com/articles/2015/02/24/pentagon_should_service_competition_not_customer_service_107656.html

Fox, J. R. (2012). *Defense acquisition reform 1960–2009: An elusive goal.* Washington, DC: U.S. Army Center of Military History.

Fox, J. R. (2014). *Report to Congress on Department of Defense 2014 study of program manager training and experience.* Washington, DC: Office of the Secretary of Defense.

Fox, J. R., & Miller, D. B. (2006). *Challenges in managing large projects*. Fort Belvoir, VA: Defense Acquisition University Press.

Francis, P. L. (2014). *Where should reform aim next?* (GAO-14-145T). Washington, DC: GAO.

GAO. (2006). *Stronger practices needed to improve DoD technology transition processes* (GAO-06-883). Washington, DC: Author.

GAO. (2008a). *Defense acquisitions: Department of Defense actions on program manager empowerment and accountability* (GAO-08-62R). Washington, DC: Author.

GAO. (2008b). *Defense acquisitions: Assessments of major weapon programs* (GAO-08-467S). Washington, DC: Author.

GAO. (2009). *Defense acquisitions: Many analyses of alternatives have not provided a robust assessment of weapon systems options* (GAO-09- 665). Washington, DC: Author.

GAO. (2010). *Defense acquisitions: Additional guidance needed to improve visibility into the structure and management of major weapon system subcontracts* (GAO-11-61R). Washington, DC: Author.

GAO. (2011). *Defense acquisitions: Assessments of selected weapon programs* (GAO-11-233SP). Washington, DC: Author.

GAO. (2012). *Defense acquisitions: Assessments of selected weapon programs* (GAO-12-400SP). Washington, DC: Author.

GAO. (2013). *Defense acquisitions: Assessments of selected weapon programs* (GAO-13-294SP). Washington, DC: Author.

GAO. (2014). *Defense acquisitions: Assessments of selected weapon programs* (GAO-14-340SP). Washington, DC: Author.

GAO. (2015). *Defense acquisitions: Assessments of selected weapon programs* (GAO-15-342SP). Washington, DC: Author.

Gates, S. M., Roth, E., Srinivasan, S., & Daugherty, L. (2013). *Department of Defense acquisition workforce: Update to methods and results through FY 2011*. Washington, DC: RAND Corporation.

Hagerty, J. C., Stevens, P. D., & Wolfe, B. T. (2008*). DDG 1000 vs. DDG 51: An analysis of U.S. Navy destroyer procurement*. Monterey, CA: Naval Postgraduate School. Retrieved from http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA494009& Location=U2& doc=GetTRDoc.pdf

Harrison, T. (2012). *The effects of competition on defense acquisition*. Washington, DC: Center for Strategic and Budgetary Assessments.

Holzer, R., & Truver, S. C. (2014). Not your "Father's AEGIS." *Center for International Maritime Security*. Retrieved from http://cimsec.org/not-fathers-aegis/13697

International Trafficking in Arms Regulations (ITAR). (2014*). International Traffic in Arms Regulations*. Washington, DC: U.S. Department of State. Retrieved from https://www.pmddtc.state.gov/regulations_laws/itar.html

Joint Defense Capabilities Study. (2004). *Improving DoD strategic planning, resourcing and execution to satisfy joint capabilities*. Washington, DC: DoD.

Mitchell, S. W. (2010). *Model-based system development for managing the evolution of a common submarine combat system*. Retrieved from http://www.omgsysml.org/Model_Based_Approach_to_Manage_Evolution-SteveMitchell_CI_C4I_2010v6.pdf

Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics (OUSD(AT&L]). (2014). *Guidelines for creating and maintaining a competitive environment for supplies and services in the Department of Defense*. Washington, DC: Author.

Thompson, M. (2013, February 25). The most expensive weapon ever built: The Pentagon's $400 billion F-35 is running into turbulence just as deeper budget cuts loom. *Time*. Retrieved from http://content.time.com/time/magazine/article/0,9171,2136312,00.html

USLegal. (2014). Universal Commercial Code. Retrieved from http://uniformcommercialcode.uslegal.com

U.S. Navy Fact File. (2014). Destroyers–DDG. Retrieved from http://www.navy.mil/navydata/fact_display.asp?cid=4200&tid=900&ct=4

U.S. Senate. (2014). *Defense acquisition reform: Where do we go from here?* Testimony before the Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs. Retrieved from http://www.mccain.senate.gov/public/_cache/files/7f54fe2e-9c26-4f66-b940-ebf8a9e9ef9c/psi-report---defense-acquisition-reform---a-compendium-of-views-10-2-14.pdf

Wydler, G., Chang, S., & Schultz, E. (2012). *The limits of competition in defense acquisition*. Retrieved from http://www.dau.mil/research/symposiumdocs/Wydler_Continuous%20Competition%20slides.pdf

ACQUISITION RESEARCH PROGRAM
GRADUATE SCHOOL OF BUSINESS & PUBLIC POLICY
NAVAL POSTGRADUATE SCHOOL
555 DYER ROAD, INGERSOLL HALL
MONTEREY, CA 93943

www.acquisitionresearch.net