

ASSESSING PROGRESS AND IDENTIFYING FUTURE  
OPPORTUNITIES IN DEFENSE REFORM

TESTIMONY BEFORE THE  
HOUSE COMMITTEE ON ARMED SERVICES

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Chairman Thornberry, Ranking Member Smith, Members of the Committee:

It is a privilege to appear one again before you today, to discuss defense reform. I have testified before you on this very same subject several times in the past, and it is gratifying to know that thanks to the efforts of Congress in general, and this committee in particular, there has been significant progress in promoting and achieving greater efficiency on the part of the Defense Department. This is especially the case with respect to the two most recent National Defense Authorization Acts. But there is still quite a ways to go, and I would like to highlight some of the areas that continue to call for reform, particularly in the realm of civilian personnel.

### Civilian Personnel

The civilian workforce currently accounts for approximately 36 per cent. of all full-time DoD personnel, including full-time National Guard and Reserves. In the past fifteen years, DoD has added 77,000 more civilians, representing an 11.5 per cent. jump in the civilian workforce since fiscal year 2002. During the same period, military end-strength declined by 8 per cent., or 120,000 personnel.

Over that same fifteen year period, civilian pay increased by a very healthy 31 per cent. Most of that increase went to General Schedule white collar workers, who account for two-thirds of all DoD civilian employees. On the other hand, blue-collar Wage Board pay actually declined by about 5.5 per cent. At the same time, total military pay for all active personnel, including full-time National Guard and Reserves, rose by a mere 0.2 per cent.

It is true that the decline in military end strength means that on a per-capita basis, military pay increased markedly since 2002; military pay increases have either equaled or exceeded civilian pay increases ever since. Nevertheless, with civilian pay consuming a significant portion of the budget, and in light of the need to bolster other elements of the defense enterprise, whether to increase active duty end-strength, or to enhance readiness, or to provide more funding to meet acquisition needs, it is important to examine whether the productivity of the civilian workforce justifies the resources it has consumed over the last decade and a half.

It is arguable that DOD has benefitted from precious few gains in efficiency despite the growth of the civilian workforce. Moreover, it is arguable that the civilian workforce is insufficiently well-trained to deal with the acceleration of changes in technology, as Moore's Law posits.<sup>1</sup> Defense civilians are therefore unlikely to be making the most of Information Technology systems available to them, operating at the cutting edge of cyber technology, or acting as an educated consumer when procuring the vast range of high technology systems that combine with our military personnel to comprise the lifeblood of America's fighting power. Finally, the availability of contractors to carry out many of the same missions as the civilian staff--politely termed staff augmentation-- has often resulted in civilians offloading to

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<sup>1</sup> Moore's Law states that the power of computer central processing units, or CPUs, doubles every two years.

contractors work for which they are themselves responsible, with the result that what is produced is more costly and often, in my experience, less than adequate for the task at hand

I will first address the question civilian manpower efficiency and then turn to some training and education issues and to the matter of staff augmentation. Numerous reports by the Government Accountability Office, most recently those of December 2015, which addressed the acquisition workforce,<sup>2</sup> and of October 2016, which called for efficiencies in both the civilian and contractor workforces,<sup>3</sup> underscore the judgment that the efficiency of the civilian defense workforce leaves much to be desired. The GAO's 2015 report on the acquisition workforce noted that DoD had yet to identify, much less address, all gaps in civilian skills that, it stated, "are essential for effective human capital management." Nor, as of the time of the report, had DoD updated its acquisition workforce plan. It noted that 26 per cent. of all acquisition-related hirings were not in line with DOD's own stated priority career fields. Most troubling, it appeared that DoD had not established time frames for addressing these concerns, all of which go to the heart of workforce efficiency.

The October 2016 report, which, as noted, addressed the entire civilian DoD workforce, not just its acquisition component, pointed out that DoD had "not developed and implemented an efficiencies plan for reducing the civilian and contracted services workforces." Indeed, DoD seemed to be circumventing the intent of Section 955 of the FY 2013 National Defense Authorization Act (NDAA), which called for such an efficiencies plan to cover the period Fiscal Years 2012-2017. Section 955 allowed DoD to exclude required reductions that it identified as critical, and the Department excluded 538,000 of its 776,000 personnel! I recognize that Section 915 of the FY 2017 NDAA repeals the provision for DoD to develop and execute such a plan. But whether or not there is a formal requirement for a plan of this sort, it is arguable that the challenge of personnel inefficiency remains as daunting as ever.

Indeed, DoD itself has not challenged GAO's findings, nor the general assumption that the civilian workforce could be far more efficient than is currently the case. It is noteworthy that in his memo of February 17 of this year, Secretary of Defense Mattis explicitly called for "making our business operations more efficient and freeing up funds for higher priority programs." Moreover, incorporating a taxonomy that the Defense Business Board highlighted in its own January 2015 examination of DOD efficiencies,<sup>4</sup> Secretary Mattis called for "exploring efficiencies [with respect to] human resource management."<sup>5</sup> Significantly, the DBB identified civilian personnel as a major, if not the major, target of opportunity for efficiencies in the human resources realm. The Business Board noted that annual savings from what it termed "Optimizing the Government Labor Footprint" could amount to anywhere from eight to thirteen per cent. of civilian personnel costs, or anywhere from five to eight billion dollars in the FY 17 budget alone.

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<sup>2</sup> Government Accountability Office, *Defense Acquisition Workforce: Actions Needed to Guide Planning Efforts and Improve Workforce Capability* (GAO-16-80: December 2015) <http://www.gao.gov/assets/680/674152.pdf>

<sup>3</sup> *DOD Civilian and Contractor Workforces: Additional Costs Savings Data and Efficiencies Plan Are Needed* (GAO-17-128: October 2106) <http://www.gao.gov/assets/690/680415.pdf>

<sup>4</sup> Defense Business Board, *Transforming DOD's Core Business Processes for Revolutionary Change* (January 22, 2015); [http://dbb.defense.gov/Portals/35/Documents/Meetings/2015/2015-01/CBP%20Task%20Group%20Out-brief%20Slides\\_FINAL.pdf](http://dbb.defense.gov/Portals/35/Documents/Meetings/2015/2015-01/CBP%20Task%20Group%20Out-brief%20Slides_FINAL.pdf)

<sup>5</sup> James Mattis, "Memorandum for Deputy Secretary of Defense: Establishment of Cross-Functional Teams to Address Improved Mission Effectiveness and Efficiencies in the DoD," (February 17, 2017), p.1.

Part of the reason for the civilian workforce's inefficiency is its lack of the training and education required for it to keep pace with new developments in technology, including cyber, and indeed, in human resource management as well. DoD civilians can take courses in the Defense Acquisition University (DAU) in everything from auditing, to contracts management, to test and evaluation and cost estimation.<sup>6</sup> But many, if not most, of these courses are taught via distance learning, which do not necessarily ensure that students will absorb or retain what they have been taught. Moreover, DAU does not offer courses in human resource management, which is the key to ensuring that officials at every level strive for efficiency on the part of their staffs.

DAU is an important training institution. Section 214 of the FY 2017 NDAA, which authorizes both DAU and the National Defense University to enter into cooperative agreements with universities and non-profit research institutions to support their missions will further strengthen DAU's offerings (as well as NDU's). Moreover, the various Better Buying Power reforms promulgated in the past few years have helped to remedy the paucity of training requirements for acquisition officials, but there is still some way to go. Human resource training programs for DoD civilian managers are even further behind.

Finally, there is no advanced education requirement for members of the Senior Executive Service, or those seeking promotion to the Senior Executive Service. DAU offers training, not education. Yet to be proficient in the management of human resources, or indeed, to be an educated consumer of technology, more than training is required. The military has its system of professional military education; there is no such equivalent for civilians. A civilian with a Masters' Degree can serve forty years in the Defense Department without ever taking another graduate level course throughout his or her career. Such a situation is unacceptable. Specifically, no civilian should be promoted to the Senior Executive Service—which the FY 2017 NDAA limits to 1260 personnel—without receiving a year of appropriate education at either one of the Nation's top business schools, such as Harvard, Stanford, Chicago or Rice, or at a top institute of technology such as MIT, RPI, Cal Tech or Georgia Tech. The Department has never imposed such a requirement, nor has the Office of Personnel Management. Officials do take a year off to attend graduate programs, such as that at Harvard's Kennedy School, which is tailored for senior government executives. Still, participation in these programs is voluntary, and many executives are reluctant to spend a year away from their place of work; or, their superiors are reluctant to lose them for a year.

Section 215 of the FY 2017 NDAA strengthened the link between DoD and major universities, as well as industry and non-profits, by creating the Manufacturing Engineering Education Program, which enables DoD to issue grants to these institutions, both individually and in consortia, in order to support programs that further the Department's missions. There is a parallel need for legislation to ensure that our top civil servants, and those aspiring to the make it to the top, could benefit from these and related university offerings, in order to obtain both the education and the training that they need to carry out their tasks in a most efficient manner. Section 861 of the 2017 NDAA calls on the Office of Management and Budget to identify critical skills for program and project managers and establish a career path for them. Doing so

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<sup>6</sup> The DAU course catalog can be accessed at <http://icatalog.dau.mil/onlinecatalog/tabnav.aspx>

should provide an excellent guidelines for the types of courses that senior executives should attend at major institutions of higher learning as they pursue OMB's recommended career path.

Finally, the acquisition corps in particular needs to be better trained and educated. In addition to the suggestions noted above, there would be considerable value in expanding the Secretary of Defense Corporate Fellows program. Unlike many other DoD fellowship programs, which focus on providing personnel with a better understanding of government processes, the SecDef Corporate Fellowship provides up to twenty officers with the opportunity to spend a year in industry. This program should be increased manifold, allowing perhaps as many as sixty officers to benefit from this valuable experience in industry. It should also be expanded to include civilians as well. The more our military and civilian personnel are familiar with the inner workings of industry, the more likely they will function as "educated consumers."

In addition to changes in the way civil servants are trained and educated for their jobs, there is an urgent need to alter the culture that seems to govern their behavior. Too often, DoD civilians rely all too heavily on contractors for work that they should undertake themselves. For example, many reports to the Congress actually are prepared by contractors, often "staff augmentees" who retired from the military or the civil service only to return to virtually identical jobs in the same office, with the same colleagues, but now are wearing a contractor badge. Yet the reports these contractors produce are often poorly written and formulated; it is questionable whether civilian DoD staffs carefully review what has been produced before forwarding the reports up their command chain. It was for good reason that Secretary Bob Gates sought to reduce the level of staff augmentees; the work should be done by civil servants themselves.

In that regard, the Congress has taken a major step in Section 865 of the FY 2017 NDAA by limiting the funds for staff augmentation contracts to FY 2016 levels and further reducing those funds to 75 per cent. of those levels after FYFY 2018. More needs to be done however. One way to help change what might be termed a poisonous symbiosis of DoD civilians and contractors would be to prohibit anyone retiring from the military, as well as any retiring DoD civilian, from serving in a staff augmentation position for five years after retirement. DoD staff would then either take on the work themselves, or, if they feel uneasy about their workload, find jobs elsewhere.

Given the cost of DoD's civilian workforce and its acknowledged lack of efficiency, it might have been expected that the proposed FY 2018 defense budget as well as the FY 2017 budget amendment would call for a reduction in its end strength. Ironically, however, even as the Trump Administration is proposing cuts to the total Federal civilian workforce, it has not identified any such reductions in the Department of Defense. Neither the proposed \$52 billion increase for Fiscal Year 2018, as well as the \$25 Billion budget amendment for Fiscal Year 2017 reveals any indication that Administration plans to reduce DOD civilian personnel levels. It is true that the current hiring freeze, combined with anticipated retirements, should result in some reduction in current civilian levels.<sup>7</sup> On the other hand, the proposed increases for FY 2018, could well result in a higher civilian force level should the freeze be lifted.

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<sup>7</sup> James Mattis, "Memorandum for Secretaries of the Military Departments, et. al.: Implementation of Civilian Workforce Hiring Freeze," (February 1, 2017), <https://www.defense.gov/Portals/1/Documents/pubs/OSD000999-17-RES-Final.pdf>

Even if the freeze remains in place, civilian personnel levels are unlikely to decline significantly. Only a major targeted effort will result in lowering those levels. The FY 2016 NDAA called for a 25 per cent. reduction in headquarters staffs, and the FY 2017 NDAA reduced OSD and headquarters personnel to 3767—but neither distinguished between military and civilian personnel. Section 1101 of the FY 2016 act required that DoD should establish procedures for using performance as the primary factor in separating employees, but such a standard may not be sufficiently rigorous for reducing overall workforce levels. On the other hand, civilian workforce reduction is the precise objective of the Rebalance for an Effective Defense Uniformed and Civilian Employees Act, commonly known as the R.E.D.U.C.E Act.

This bill, which Congressman Ken Calvert first proposed in January 2015 and has subsequently proposed each year since, would, in its current form, limit full-time positions in the Department of Defense, in each year of fiscal years 2024 to 2028, to a number not greater than 85 per cent. of the number of such positions at DOD as of September 30, 2018. To begin the process, the bill would authorize the Secretary to offer separation incentive early retirement payments to civilian employees. Most importantly, it also requires the Secretary to use involuntary measures, such as reductions in force, beginning on October 1, 2018, “to achieve required reductions in personnel levels if voluntary measures are inadequate.”<sup>8</sup>

Needless to say, this bill, and any similar efforts, have been strenuously opposed by the civil service unions that represent DoD civilians. The unions have been a major stumbling block in the way of civil service reform; they wish to see no changes to the 1978 Civil Service Reform Act (CSRA), which, among other things, enabled civil servants to unionize. Thus, when Secretary of Defense Rumsfeld sought to initiate a merit-based system for evaluating and promoting civilian personnel, which would clearly have led to an improvement in civilian efficiency, he was met with a torrent of criticism and lawsuits filed by the unions and eventually dropped the proposal.

It should be noted, however, that the CSRA also allowed the president to exempt groups in the name of national security.<sup>9</sup> Indeed, the armed services, employees of the CIA and the FBI already are exempted. Should the Trump Administration exempt DoD civilians, it would clear the way for both reducing the level of DoD civilians and implementing reforms along the lines that Secretary Rumsfeld proposed.

### Re-organizing OSD

The size of the Office of the Secretary of Defense (OSD) staff has expanded over the years. This due in no small part because more and more Assistant and Deputy Assistant Secretaries have

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<sup>8</sup> <https://www.congress.gov/bill/114th-congress/house-bill/340>

<sup>9</sup> "(2) The President may issue an order suspending any provision of this chapter with respect to any agency, installation, or activity located outside the 50 States and the District of Columbia, if the President determines that the suspension is necessary in the interest of national security." PUBLIC LAW 95-454—OCT. 13, 1978  
<https://www.govtrack.us/congress/bills/95/s2640/text/en>

been added to its ranks, all of whom, like the Under Secretaries, have staffs, as do their principal deputies. There is no reason why there should be a separate layer of principal deputies, with staffs all their own. One Assistant Secretary should be dual-hatted as the principal deputy, with a single staff to support both functions.

In this regard, while there is considerable merit to the legislation that divides the office of the Under Secretary for Acquisition, Technology and Logistics into two new under secretariats, for Research and Engineering and for Acquisition and Sustainment, there is a need to ensure that the aggregate size of these two offices does not exceed that of their predecessor. New offices invariably call for additional staff beyond the levels that they have inherited. Indeed, for too long the measure of merit for senior officials in DoD (and in the government as a whole) has been the size of their staffs. While this may be perfectly sensible in the military hierarchy, it is not nearly as important in the civilian workforce. The measure of merit for civilian staffs should be their efficiency, that is, the quality and speed of their output, not their size. It is true that Section 1101 of the FY 2017 NDAA removes restrictions on managing civilian personnel on the basis of man-years, end-strength, or maximum number of employees. Despite a requirement to report annually to the Congress on management of DoD civilians, there is no guarantee that for the most part, promotions and personnel management will undergo drastic change. DoD's civilian personnel management practices are deeply rooted in the bureaucratic culture, and will take more aggressive direction on the part of the Congress, as will be outlined below, if change is to come about.

Section 901 of the FY 2017 NDAA, which establishes the two new Under Secretaries, also creates a Chief Management Officer and repeals the pending authority to create an Under Secretary of Defense for Business Management. The impulse for creating this new office is clear: despite recent legislation, the Department continues to lag well behind state-of-the-art management methods, with the result that considerable potential savings remain foregone. For example, the DoD has been conducting Business Process and Systems Reviews along core lines of DoD business, most of which were identified by the DBB.<sup>10</sup> Yet all the Department could report on this effort was the vague promise that “using this focus on core lines...[will] result in cost savings over the next 8 years,” without specifying even a rough order of magnitude estimate of those savings.<sup>11</sup> Similarly, the Department advertised that it launched an effort to “review requirements for, and ... potential redundancies of, service contracts supporting the OSD and DA/FAs [Defense Agencies/Field Activities]. Yet all this effort appears to have yielded was savings estimated at \$1.9 billion for the five years beginning Fiscal Year 2017,<sup>12</sup> in other words, less than 0.1 per cent. of the five year defense program, a far cry from the DBB's most modest projections of potential contract savings that were thirty times as large.

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<sup>10</sup> These include the six lines identified by the DBB: 1) human resources management; 2) health management; 3) financial flow management; 4) supply chain and logistics; 5) acquisition and procurement; 6) real property management. OSD staff added two more: Defense Resale and Acquisition Technology.

<sup>11</sup> “Statement of David Tillotson III Acting Deputy Chief Management Officer Department of Defense before the House Oversight and Government Reform Committee On “Findings of the Defense Business Board Study ‘Transforming DoD’s Core Business Processes for Revolutionary Change’” (March 21,2017), p. 5. <https://oversight.house.gov/wp-content/uploads/2017/03/Tillotson-DOD-Statement-DBB-Efficiency-Study-3-21.pdf>

<sup>12</sup> *Ibid.*, p. 6.

Moreover, an under-secretary would have overlapping authority with the other under-secretaries, creating considerable confusion and generating unnecessary turf wars. It is hoped that a Chief Management Officer would on the one hand, deliver meaningful efficiencies, not vague promises, and, on the other hand, benefit from a clear line of authority devolving from the Secretary of Defense.

The effective management of DoD's back office activities requires, as the legislation puts it, "an extensive management or business background and experience with managing large or complex organizations." Such a background is necessary for an official whose responsibilities are meant to include: "business transformation, business planning and processes, performance management, and business information technology management and improvement activities and programs, including the allocation of resources for business operations, and unifying business management efforts across the Department."

Clearly, the scope of the Chief Management Officer's mandate is exceedingly broad. Indeed, it may be too broad. Traditionally, it has been the Deputy Secretary of Defense who was meant to be, in effect, the Department's Chief Operating Officer, with responsibility for overall management of the DoD's back office activities.<sup>13</sup> Nevertheless, even those Deputy Secretaries who were management oriented have not had the time to monitor the complex of agencies, field activities and headquarters staffs, what has been termed the so-called "Fourth Estate," as carefully as they might have wished. Nor have the Under Secretaries within whose organizational structure the various agencies are to be found.

The reason for this situation is quite straightforward. The Defense-Wide activities that constitute the bulk of the Fourth Estate, many of which are agencies as large as Fortune 500 companies, consumes about 103 billion dollars or 18 per cent. of the FY 2016 and the FY 2017 DoD proposed budget. Managing this complex is itself a full-time task. Yet both the Deputy Secretary and the Under Secretaries have other priority responsibilities. For that reason, the Chief Management Officer might be most effective if he/she focused solely on managing these agencies. That official in effect would serve as the "Under Secretary for Defense Agencies." In that capacity, the Chief Management Officer would have a more focused area of responsibility, yet one that would be of major importance and critical to the achievement of greater efficiency on the part of the Department.

Finally, rationalizing OSD should include a further reduction in the number of Assistant Secretaries, which would ipso facto reduce the number of OSD personnel. In particular, it is not clear why there should be three Assistant Secretaries covering international matters, when one would be sufficient. Similarly, the Assistant Secretary for Strategy and Plans, a position that was not long ago held by a Deputy Assistant Secretary, could incorporate special operations and homeland defense.

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<sup>13</sup> It is true that not all DepSecDef's functioned that way; some preferred to be alter-egos to the Secretary, and focused primarily on policy not management. Still, the role of the Deputy was widely understood to be that of a COO.



## Acquisition Reform

The Congress has made great strides, especially over the past few years, in legislating changes to the acquisition system. The Department's series of Better Buying Power have been helpful as well. The creation of the two new Under Secretaries will further improve the Department's ability both to focus on innovation and new technologies and then to acquire and maintain the systems that are based on them.

More can still be done, however. Deputy Secretary of Defense Bob Work rightly identified the need for a "Third Offset" to address the accelerating technological advances by potential adversaries. The Third Offset Strategy, so named because it is meant to emulate two previous offset strategies that enabled the United States to rely on the quality of its force posture rather than its quantity has been subsumed within the broader Defense Innovation Initiative (DII), encapsulating advances in technologies, in innovative leadership, war gaming, operational concepts and business practices. The widely advertised Third Offset comprises six major thrusts: accelerated research on anti-area/access denial (A2/AD) technologies, on guided munitions and on addressing submarine and other undersea warfare challenges; human-machine collaboration and teaming; cyber and electronic warfare; and war-gaming and the testing of operational concepts. In addition, DOD increased funding for its the Strategic Capabilities Office, which was created in 2012 to repurpose existing weapons for asymmetric advantage and which has already managed and fielded over twenty projects. Finally, as part of the strategy, DOD established three Defense Innovation Unit Experimental (DIUx) offices, commonly known as DIUx, to draw upon technological innovations in the non-defense industrial base.

While the objective of the Third Offset Strategy is certainly worthy, its introduction seemed to be a vehicle for offsetting ongoing declines in force structure. Moreover, the overall research and development budget was not increased as a result of the new strategy; rather, funds appeared to be moved from other r&d accounts to finance the strategy. Finally, the Department's bureaucratic culture did not bode well for the entire Third Offset effort. Technological advances require experimentation; attempts to accelerate those advances even more so. Experimentation, by its very definition, calls for risk-taking, and a recognition that experiments can and will fail. Yet experimentation flies in the face of the Department of Defense's risk-averse bureaucratic culture. How such behavior can be modified in accordance with the strategy's urgent timetable remains an open question.

The Third Offset Strategy confronts other pitfalls as well. The system has too many review cycles, while too many offices must concur before a project can move forward. It tolerates too many changes to engineering proposals (ECP's) during the course of a project's development, adding unnecessary costs and schedule delays. As a result, many systems have been terminated well before their anticipated production runs. In some cases, a weapon system has taken so long to develop that it is virtually obsolescent upon its incorporation into the force structure and must be terminated. A case in point was the Army's Division Air Defense gun, later called the Crusader, that took so long to develop that it was out-ranged by its anticipated targets. Schedule delays, even more than cost increases, would completely undermine the intent and potential of the "Third Offset Strategy."

In the context of the third offset strategy, the Strategic Capabilities Office's mission is to accelerate DOD's acquisition programs. Yet one might question why accelerated efforts were not already launched some time ago, when force levels began to drop. Examples would include underwater acoustics and related anti-submarine warfare programs, as well as hypervelocity development.

These and related concerns appear to have been part of the mixed response to the strategy encapsulated in FY 2017 NDAA. It rightly extends authorization for the DoD's Rapid Innovation Program, which accelerates funding of innovative technologies, such as those incorporated in the Third Offset. On the other hand, it calls for a limit on the availability of DIUx funding pending a report on the program.

DIUx certainly confronts major challenges. To succeed, the Office will have to find ways to enable the commercial sector to work more closely with DOD than has been the case in the past. This is no small matter. Commercial firms are profit-driven. They invest in research in order to get returns when their products reach the market. They seek both to develop a competitive advantage and maintain it.

On the other hand, despite protestations to the contrary, DOD's business practices act as disincentives to working with firms that are outside the defense industrial base. The DOD procurement system is complicated, stove-piped and overregulated. Its cost accounting standards (CAS) require firms to have a second set of financial statements alongside those that comply with Generally Accepted Accounting Principles (GAAP). Its emphasis on lowest price, technically acceptable contracting, upon which Section 813 of the FY 2017 NDAA discourages and imposes limits, is the polar opposite of the profit-driven practices of commercial firms.

Few of the Department's career acquisition officials have any real experience in the private sector, so that even when they do have the opportunity to acquire commercial items in accordance with Federal Acquisition Regulations (FAR Part 12), they default to traditional contract by negotiation (FAR Part 15) with which they are more familiar and therefore more comfortable. It is therefore not surprising that many commercial firms, especially technology leaders, have been loath to entangle themselves with DOD's regulations and its DOD bureaucracy and have therefore shown far less enthusiasm for the DIUx effort than the Department had anticipated.

Finally, even if DIUx successfully orchestrates the sale to the military of hi-tech prototypes produced by non-traditional suppliers, these systems may still have to undergo modification, unless military specification "milspec" requirements are fully waived. For DIUx' efforts to succeed in generating DOD acquisition of commercial cutting edge technologies; in encouraging companies to make such technologies available to the military; and in ensuring that commercial hi-tech products are not so transmogrified that their costs skyrocket and their delivery schedules seriously delayed, DOD will have to ensure that the military's approach to "milspec" undergoes fundamental revision.

Nevertheless, in spite of all these legitimate concerns, there is a case for revisiting the budget limitations that have been imposed on on DIUx. Its initial staff has been replaced with

individuals, including reservists who have an intimate knowledge of the high-tech industry. Until now the military has not had a consistent policy of assigning hi-tech experts, whether corporate leaders or staff technologists, to related fields—such as cyber, or defense research—while serving in their capacity as Reserves. All too often, a cyber expert, or a CEO of a cutting edge hi-tech firm, will find him or herself driving trucks or working in the ship’s engine room when they don the uniform. Incorporating Reserves into the DIUx effort, and giving them leadership positions, as is the case in the Austin, Texas DIUx cell, actually have implications well beyond this small program and should serve as both a model for, and a spur to, the Services to create Military Occupational Specialties (MOS) that relate directly to the hi-tech capabilities of their Reserve personnel.

It is also noteworthy that the Services have shown a willingness to co-fund projects with DIUx. For example, acting on behalf of the Navy Special Warfare Command, DIUx awarded \$1 million to a small California company for a nine-month project to develop a prototype development of an autonomous tactical airborne drone. Finally, if DIUx and any of the hi-tech initiatives are to succeed, they require stable leadership. Annual changes to these programs will discourage hi-tech industry officials from participating in the Third Offset effort, despite legislative and DoD encouragement to the contrary. For the Third Offset to succeed, it must be given the same priority that it has received from the previous Administration.

I have touched upon only a few of the many DoD activities that continue to call for reform. For example, while the FY 2017 made great strides with respect to TRICARE choice, streamlining the Defense Health Agency, and addressing battlefield medicine, especially trauma issues, it still did not completely overhaul the TRICARE system as had been recommended by the Military Compensation and Retirement Modernization Commission on which I had the privilege to serve. There is also a need to focus more stringently on the steady growth in Operation and Support costs that have eaten into other elements of the defense budget. I have nevertheless attempted to highlight some key issues that I do hope this Committee and the Congress will focus on as it prepares the FY 2018 NDAA.

In sum, legislation should focus on reducing the size of the DoD civilian workforce. It should call for transforming that force, and the acquisition corps in particular, into a true educated consumer that benefits from, and draws upon, a rigorous program of continuing education. It should continue to mandate efforts to streamline both the Office of the Secretary of Defense and the number of staff augmentation contractors. It should seek additional efficiencies in the workings of the “Fourth Estate.” And it should pursue further progress in defense innovation, and outreach to commercial industry beyond the traditional industrial base, notably sustaining and expanding the “Third Offset” strategy.

All of these, and other reforms, are urgently needed, given an increasingly unstable and threatening international environment that will continue to call upon American military capabilities in both the shorter term and for the foreseeable future. Again, thank you for the opportunity to appear before this Committee; I will be happy to respond to the Committee’s questions.