

**THE TWENTY-NINTH GILBERT A. CUNEO LECTURE IN  
GOVERNMENT CONTRACT LAW\***

**HONORABLE JACQUES S. GANSLER<sup>†</sup>**

---

\* This article is based on the transcribed edited lecture delivered by the Honorable Jacques S. Gansler to members of the staff and faculty and students attending the 2012 Government Contract and Fiscal Law Symposium on November 16, 2012, at The Judge Advocate General's Legal Center and School, U.S. Army, located in Charlottesville, Virginia.

The Cuneo Lecture is named in memory of Gilbert A. Cuneo, who was an extensive commentator and premier litigator in the field of government contract law. Mr. Cuneo graduated from Harvard Law School in 1937 and entered the United States Army in 1942. He served as a government contract law instructor on the faculty at The Judge Advocate General's School, and he then taught at the University of Michigan Law School from 1944 to 1946. For the next twelve years, Mr. Cuneo was an administrative law judge with the War Department Board of Contract Appeals and its successor, the Armed Services Board of Contract Appeals. He entered the private practice of law in 1958 in Washington, D.C. During the next twenty years, Mr. Cuneo lectured and litigated extensively in all areas of government contract law and was unanimously recognized as the dean of the government contract bar.

<sup>†</sup> The Honorable Jacques S. Gansler joined the faculty of the University of Maryland School of Public Affairs, in January of 2001 where he holds the Roger C. Lipitz Chair in Public Policy and Private Enterprise. He teaches graduate school courses and leads the school's Center for Public Policy and Private Enterprise, which fosters collaboration among the public, private, and non-profit sectors in order to promote mutually beneficial public and private interests.

Previously, Dr. Gansler served as the Under Secretary of Defense for Acquisition, Technology and Logistics from November 1997 until January 2001. In this position, he was responsible for all matters relating to Department of Defense acquisition, research and development, logistics, acquisition reform, advanced technology, international programs, environmental security, nuclear, chemical and biological programs, and the defense technology and industrial base. Dr. Gansler oversaw an annual budget of over \$180 billion and a workforce of over 300,000.

Prior to this appointment, Dr. Gansler was Senior Vice President and Corporate Director for The Analytic Sciences Corporation (TASC), Inc., an applied information technology company, in Arlington, Virginia, from 1977 to 1997. During his tenure, Dr. Gansler played a major role in building the company from a small operation into a large, widely-recognized and greatly-respected corporation, serving both the government and the private sector.

From 1972 to 1977, he served in the government as Deputy Assistant Secretary of Defense (Material Acquisition), responsible for all defense procurements and the defense industry; and as Assistant Director of Defense Research and Engineering (Electronics), responsible for all defense electronics Research and Development.

His prior industrial experience includes: Vice President (Business Development), International Telephone and Telegraph (I.T.T.) (1970–1972); Program Management, Director of Advanced Programs, and Director of International Marketing, Singer Corporation (1962–1970); and Engineering Management, Raytheon Corporation (1956–1962).

What I want to do today is talk about 21st century acquisition issues. I want to start with the most obvious issue, namely the budget cycle. If I had brought my crystal ball with me, I would tell you what is going to happen with sequestration, but I did not, I left that at home. So I do not know where this will go, but I do know that it is not going to go up; it is going to go down. And that is pretty clear.

I want to point out a couple of things. When I was Under Secretary the acquisition budget was about 180 billion. Now that has sort of doubled. And now, as it heads down, the question is: How are we going to get what we need for the next generation, with fewer dollars? And I am going to cover that in my talk.

I might point out that the budget peaks have been growing, and there are some people who erroneously think this is a natural law; every eighteen years we get another peak. The reality is that it is exogenously driven; and, of course, and we do not know what is going to happen in the future (e.g., a Pearl Harbor, a 9/11, or what; and when). Thus, uncertainty is the big issue. But I can say that historically what has always happened is that whenever the budget has plummeted, the first three things to go are these: travel, training, and research. And there is no question in my mind that training and research are the wrong things to be cutting. Of course, it is giving up the future for the present, and there is an institutional inertia that favors that. Thus, that is the problem. The next thing that goes is the procurement account and that is what happened in the post Cold War period when we had to cut \$100 billion; and \$60 billion of that was out of procurement.

---

Dr. Gansler has served on numerous special committees and advisory boards, including Vice Chairman, Defense Science Board; Chairman, Board of Visitors, Defense Acquisition University; Director, Procurement Round Table; Chairman, Industry Advisory Board of Visitors, University of Virginia, School of Engineering; Chairman, Board of Visitors, University of Maryland, School of Public Affairs; member of the FAA Blue Ribbon Panel on Acquisition Reform; and senior consultant to the "Packard Commission" on Defense Acquisition Reform. Additionally, from 1984 to 1977, Dr. Gansler was a Visiting Scholar at the Kennedy School of Government, Harvard University (a frequent guest lecturer in Executive Management courses).

Dr. Gansler holds a BE (Electrical Engineering), Yale University; a MS (Electrical Engineering), Northeastern University; a MA (Political Economy), New School for Social Research; and a Ph.D. (Economics), American University. He is the author of five books and numerous other publications.

The danger, and the real problem we have, is that the difference between two sequential peaks (e.g., the Vietnam peak and the September 11th, 2001 peak), where the dollars went up significantly, unfortunately we also got a lot less equipment for the increased procurement dollars. What does that mean? Obviously, what it means is that the cost of each individual weapon went up dramatically. And so, as a result of getting far fewer weapons, we had a lot less force effectiveness. And I will cover that in a minute.

So what is the environment today? Great uncertainty; but we know a few things: the resources are declining, and the equipment and manpower costs are rising across the board. Demographics are also a major problem, in terms of the overall economy. Every year in America 10,000 people age into Social Security. Of course, the solution for that, which is shooting all of the old people, is not an attractive one. So we do have to face that and we are going to have that as a driving factor. In addition, we have the debt payments, depending on whose analysis you read in either 2014 or 2017, the payment on the debt alone will equal the entire defense budget.

It is pretty clear what direction the budget is going. Yet the world is changing rapidly: technologically, economically, geopolitically, (pick one) and that means we have to change. There is an enormous institutional resistance to that change, which I will cover later.

Globalization. No question it is a reality—technology, industry, labor—everything is globalized; except for Congress. I gave a talk recently where I did not know someone in the audience was from the press; and I made the observation: relative to globalization, Congress is a leading trailing indicator. There is no question in my mind that with all of the laws that are being passed, Congress does not recognize the reality of globalization. And yet, every U.S. weapon system today has foreign parts in it. The reason for that is because they are better, not because they are cheaper. We want to take advantage of globalization, and not fight it as much as we are. In many areas, technology exists outside of the United States that exceeds our own.

A simple example would be quantum computing. We are not ahead in that. I got a briefing recently—I am on the Defense Science Board—from the Army's Night Vision Lab, which said that we used to "own the night," because of our export controls, now the French "own the night," in terms of advanced night vision devices. So there are a lot of things

that we do that hurt us, relative to maintaining our technological edge. The most obvious thing is that the spectrum we have to cover, in terms of security, is huge and uncertain.

Now, if I gave this talk ten years ago, I would not have had pirates as an issue for national security. On the other hand, that is one of the issues. But, more important, I think, are cyber security and some of the other issues of the 21st century that we have to be able to handle. For example, today, roadside bombs are the largest single killer and maimer of U.S. troops—there is no question about that. We have to be able to handle all of these things, in addition to other elements like regional instability. Just pick up the paper today. See what is happening in the Middle East and it is easy to see that there is great danger and uncertainty. The way to prepare for all of these is known. We can prepare for each one separately, except we do not have the money to do it. It is unaffordable.

So, the only way to handle the situation is through rapid response; and the DoD is not known for rapid responsiveness. I have been teasing the Air Force about the reason their new airplane is called the F-22; in that it took just over twenty-two years to develop it. Now, think about that with the electronics in there. The electronics change every eighteen months and the system took twenty-two years to develop—and it is very electronic-intensive and cyber-intensive. So we have to change in terms of responsiveness, too.

Some summary statements have been issued relative to this new environment. Admiral (retired) Michael Mullen, who was Chairman of the Joint Chiefs, said, “Our number one security threat is the debt.” Clearly the threat spectrum that I went through is a major issue relative to how we are going to handle it, and how we will respond to it; in terms of the uncertainty with the economy, and security. Put those two together and we have a real challenge facing us right now. Additionally, the weapons’ cost growth needs to be controlled. A large share of it is caused by the “changes clause” in the contract, based on a study recently completed by the Research And Development (RAND) Corporation.

You know the game: “bid low and then maximize the changes clause.” Some of you may have seen the photograph. It is a cynical contractor’s yacht. Its little dingy is labeled “original contract,” and the large yacht is labeled “changes clause.”

How do you respond to this environment? It is very clear that we have to change the way we do business, across the board; particularly in the acquisition arena. We have to stress affordability. That is harder for us to do, because after 9/11 we were living in a rich man's world.

The budget was literally exploding. We have to be able to change and acquire less expensive 21st century elements that we need, like robots and unmanned intelligence capabilities. The war is different in the 21st century. It is a "war among the people," as contrasted to tank-on-tank engagements. More importantly, even the F-22, which I mentioned earlier, was not used in Iraq and Afghanistan. We need different things for the 21st century. However, we have to be willing to shift our resources in that direction, and there is huge institutional inertia and resistance to that shift.

I will give you a simple example. When I was the Under Secretary of Defense (1997–2001), two years in a row, the Air Force zeroed the budget for the first unmanned airplane, the Global Hawk. They did not want to pay for it because it did not have a pilot in it. But by that point, Israel had already demonstrated the effectiveness of low-cost unmanned airplanes in the Bekaa Valley; however, we needed them. So we directed the Air Force to buy them; and there are now 4,000 of them flying around. It clearly makes sense to shift your resources to 21st century needs, but there is a lot of resistance to doing that. As I mentioned earlier, the flexibility required is a shift to whatever the need is at this time.

Another thing I want to point out is the multiagency aspect. There is a combination of soft power and hard power that is going to be required. When my deputy, Admiral Oliver, went over to Iraq to set up a banking system, I was shocked, and so was he, at the fact that the State Department and the Defense Department were bidding against each other for labor; literally, who would pay more to get the labor. That is not cooperation. We are clearly going to have to combine the soft and hard power, no question about it.

And then there is the multinational aspect. I cannot think of any security scenario in the future in which we are not going to be in a coalition. For example, how do we solve terrorism by ourselves—if we do not have multinational cooperation? Or, how do we solve cyber security by ourselves—if the other country is not prosecuting their cyber attackers?

We have to do this on a multinational basis for 21st century scenarios. And, of course, the one that immediately comes to mind is China. You saw a lot of debate about that in the presidential primaries and election. Admiral Mullen said we are going to have to do joint exercises with the Chinese against the Pirates in the Gulf of Aquaba, which made sense to me. Secretary Panetta said we are going to try to start to partner with China. They are going to be the other economic superpower. They are going to be the other military superpower. The two choices are, obviously, we go to war with them, or we work with them. No choice there; it is an existential choice. We should push toward the partnership direction; I think that is very clear.

Next, we must change the way we do business. There are four ways to change the way we do business. (1) What goods and services should we be buying? That is, specifically, the “requirements” and “budget process.” (2) How do we buy the goods and services? That is the “acquisition process.” (3) Who does the acquiring? This is a critical one; the acquisition workforce. We want “smart buyers.” And lastly, (4) who do we buy from? The industrial base. I think to do more with less, we are going to have to address all four of these and change all four of them. Right now we have current problems in all four areas. I will briefly cover all four of these.

Regarding what we buy, we have difficulty emphasizing cost as a requirement. It has not been the model for the last decade. When you live in a rich man’s world, you do not worry about that, you just try and decide which car you are going to buy. You do not worry about what it costs. How do we shift the resources? Again, while overcoming institutional resistance. And then, how do we maintain “technological superiority” if we cut our research efforts; and if we are not willing to work cooperatively with people who have the state-of-the-art technologies. Specifically, how do we buy from commercial suppliers and international suppliers? I will talk about the barriers that we have created to doing that.

The logistics process is obviously one where the United States has world-class logistics people; like United Parcel Service (UPS), Federal Express (FedEx), Wal-Mart, Caterpillar and other U.S. industry suppliers. But, the Department of Defense (DoD) is not world-class in logistics. We spend the largest share of our acquisition dollars there and we are not responsive like the other logistics leaders. We are not reliable like the world-class leaders and we are certainly not low-cost. So this is

an area we have to move into. When you talk to FedEx or UPS, and ask them what business they are in, their first response is we are in the information business. When you talk to individuals in the DoD about logistics, they say “we pile up a lot of metal and put a lot of people on it, and we do a good job of it.” That is a different response than logistics leaders, and it is the way we think about it.

Competition. We give speeches about competition, but we are doing some undesirable forms of competition. I will cover that below. I talked about rapid acquisition. One thing that I find really interesting is I did a Defense Science Board Study recently looking at what share of the total acquisition dollars go to buying services, versus buying goods. It may surprise you, but 57 percent last year went to buying services rather than goods; yet all of our policies, practices, and procedures are based on buying goods. And I would argue that buying an engineer is different than buying a tank. We certainly do not put the engineer through live-fire testing. And there are other things we do not do, but the reality is that buying a service is something we have to learn how to do much better. Using the same rules for buying goods as buying services just won't work.

Too many of the DoD acquisition workforce—and I will come back and talk about “who does the buying” in a minute—but too many people don't understand industry incentives. They think you can just do it through regulation and control; when the right way to do it is through incentives: creating incentives for industry to get higher performance at lower cost, rather than simply saying “do it the right way.” It is not going to work; especially with sole-source suppliers. In the expeditionary operation in Iraq and Afghanistan, we had 170,000 contractors over there, and about 100,000 people in uniform. Yet we did not have many people monitoring those contractors. And, by the way, every day you are reading the paper about people being killed over there, the articles are always about the ones in uniform. There have been more contractors killed over there than there have been people in uniform. So it is a dangerous and different environment for contractors that are operating there.

In terms of who does the buying, there is no question, industry wants the government to have smart buyers, and the government needs smart buyers, so that's a major problem for us. Most of the senior people have retired, and 55% of the current DoD workforce have less than five years of experience—and the “mentors” are all gone. Additionally, as I noted

above, “training” is one of the areas to take the first cuts in a resource-constrained environment.

And then the fourth area, of course, is the industrial-base; and it is the public versus private question that Congress is now devoting their attention to. I am sure you are aware that the largest single caucus on Capitol Hill is the Depot Caucus; covering the weapons maintenance work being done. There are 135 members of the Depot Caucus and they recently passed a law that defines what work should be done sole-source by the public sector in these government depots which includes all software and modifications. They have expanded significantly what should be done in those depots and they have a law that says that 50 percent of all maintenance must be done in the depots. So, therefore, they are saying, we are going to increase the amount of sole-source work being done.

The issue here is not whether its public sector or private sector, the issue is whether it is competitive or not competitive. Congress has been outlawing public versus private competition. In spite of the data. For example, the Congressional Budget Office did a study showing that it was 90 percent more expensive to have the government do weapons maintenance than the competitive private sector.

The case here is the benefits of public/private competitions. In the past, over 60 percent of the time the public sector won because they really know how to do this non-inherently governmental work; and they are allowed to bid using their proposed “most efficient organization” (not what they have actually been using). The actual average savings has been over 30 percent. I will come back and give you some examples, but clearly there is this question of do we compete work of the wrench-turning kind of thing.

By the way, I would argue that wrench-turning is “not inherently governmental.” I read the Constitution very carefully and it does not say anything about wrench-turning being an inherently-governmental function. So, clearly, we should be able to at least have competitors compete for that kind of work.

You have, I am sure, heard of Machiavelli, so I do not have to go through that history. In the 16th century he said that making change in government is hard. No question about it, you are going to get lots of resistance to change. When the DoD cut the size of its forces and



therefore proposed base closures, Congress said “not in my district.” Well, we have not found a base where the base is not in somebody's district. So you cannot close any bases. The public/private competition—that I mentioned earlier—have already been eliminated.

Foreign sourcing, even though we have foreign parts in every weapon system (because the “buy American” law does not apply at the lower tiers), there is no question that foreign sourcing is an issue. Yet, the more important one is export control. I will come back to that.

The unions, particularly the government unions, are pushing for “in sourcing.” And as I noted, Congress has eliminated “competitive sourcing” via public/private competition. To shift back to the Executive Branch, I gave an Air Force counter-cultural example of not having pilots in each airplane, but the same thing applies to all the Services. Picking on the Army this time, when the robots were sent over to Iraq and Afghanistan to pick up roadside bombs, rather than soldiers picking them up, it really sounds very desirable. The Army did not send the robots to the training schools; they only sent them over to Iraq and Afghanistan. It is sort of obvious why they made that decision, I think, they did not want the robots to become part of the institution. The same thing is true of the Navy. Every day the Secretary of the Navy gives speeches about the benefits of unmanned underwater systems, and yet the Navy is not funding them (because it is considered a threat to the submarines). This is the same way that cruise missiles were resisted so seriously by the Air Force, because they were a threat to bombers. You can understand why such “disruptive technologies” always face resistance. And businesses would like to maintain the same thing they have always built. So they will urge their Congressman to keep asking for things, even if the DoD does not ask for them.

We have to overcome that, but the primary thing required for change is strong leadership; which means at all levels, not just the one person at the top.

How do we satisfy the requirements? We need to worry about lower-cost systems and lower-cost services. How do we get them? One way to do it is to “make cost a requirement.” We have successfully done this, for example, in the Joint Direct Attack Munition (JDAM) missile. I have a copy of the handwritten note from the Chief of Staff of the Air Force in which he said there are only three requirements for that missile. First, “it should hit the target,” that is its objective, obviously. Secondly,

“it has to work when I push the button.” That is the reliability. And third, “it should cost under \$40,000 each; so I can get enough of them.” Seems to me that is a pretty clear set of “requirements.” That is the way you and I buy when we go out to buy things.

Today the JDAM missile hits the target, works, and costs \$18,000 each, because it was designed to be a low-cost system and it was done competitively. They kept the competition going until the cost was demonstrated.

I will pick another example. When the Joint Strike Fighter was first being designed, it had a \$35 million requirement per airplane, because we needed a lot of them. It was going to be the largest program in history; eleven nations were involved. Now, we kept the 35 million in the name, it is the F-35; but it costs about \$130 million each; and that is why a lot of those 11 countries are backing out and why the United States is cutting back on its quantity as well. We have to learn to stick to the cost requirement. Additionally, most of the systems that they are going to be using in the future are going to be in a “net-centric system of systems.” Yet, we still are writing requirements around individual platforms, rather than around optimizing the system of systems; including the security of that overall system, in terms of cyber security.

As I have pointed out earlier, balancing what we need versus what we would like to have, and what we have had in the past (e.g., ships, planes, and tanks), those are the things that have a lot of institutional inertia, but information systems, “land warrior” systems, and things of that sort, are what we are likely to need in the future, especially in the area of missile defense.

More than one hundred nations currently have ballistic missiles. Don’t we need the capability against them? I was in one meeting in the Secretary’s office where the Chief of Staff of the Marine Corps stood up on the table and said, “You are not going to use my money for missile defense.” That is a true story. There is a strong institutional resistance to next-generation stuff.

Interoperability of systems, on a joint (multiservice) basis, is going to be an issue in the near future. An airborne system with a ground-based system, for example, today, are still not interoperable. But we also need this on a multiagency and a multinational-coalition basis.

When those hundred missiles are coming in against tactical forces, you do not want to pick up the phone and say, “Pierre, you take the first one. Hans, you take the second one. We will take the third one.” We need an interoperable missile defense system in that case. And the United States just canceled the Medium Extended Air Defense System (MEADS) program, which was the multinational program operating within three countries for tactical missile defense, but it was not popular (with the U.S. Army) because it was multinational.

As I said, planning and exercising “as we fight” is beneficial, and since those large numbers of contractors are going to be out on the battlefield, they should be taking part in the exercises, but they are not. We exercise with the military alone and then we go overseas and more than 50 percent of our total forces are contractors. We should be exercising that way.

And, of course, maintaining technological leadership means continuing to fund research. I am assuming you are familiar with Lancaster's law, but I just want to emphasize the point. It states that total force effectiveness is proportional to individual weapon effectiveness times numbers squared. Thus, numbers matter more than individual weapon effectiveness. If that is the case, then we have got to worry about how much each weapon costs in order to get the quantity that is needed if the budget is resource-constrained. That is the challenge that we have right now. That is why cost has to be a requirement.

Now, going to the acquisition side. As I said, the JDAM proves cost can be a design requirement. We give speeches about competition all the time, but there is no question in my mind that if you continue to compete, you end up with the benefits of that. We have many examples of that (besides the JDAM case); for example, the “great engine war,” which you may have read the case study on. For the F-15 and F-16, we had GE and Pratt and Whitney continuously competing for the share of the engines; and both engines got higher performance, higher reliability and lower cost.

The Air Force says they estimate a savings of about \$4 billion as a result of that continuous competition. But today the Air Force has chosen not to compete the engine for the F-35 (with the same two suppliers)—in spite of the fact that engines are the highest maintenance cost of all of our maintenance costs. So therefore, you would think it

would make sense to worry about reliability of the engines. I will come back and cover what we are now doing relevant to competition.

Buying commercial products that are world-class. Why wouldn't we do that? One reason is that specialized cost accounting standards are a major problem for commercial suppliers. Building "dual-use" systems in the same factory, even if they are different products, causes problems. Like Boeing using the same building to manufacture the commercial and military transports together in Wichita. Because of government-required specialized cost accounting standards (in this specific case, the allocation of independent research and development (IR&D) by total sales (even though the IR&D was being done all for the government side), they had to allocate its share to the commercial side. Boeing said, this does not make a lot of sense. So they starting using two different factories and the price for both the commercial and military transports went up because they lost the economies of scale, from the higher volume in the one plant.

Another example is Boeing; they recently had to pay \$15 million to export a 767; not normally thought of as a military airplane. On the other hand, why did they have to do that? Because one of the chips in the electronics was also in a maverick missile and, therefore, it could not be exported because the missile and its parts are prohibited from export because they are on the International Traffic in Arms Regulation (ITAR) list.

Now, you want a more absurd example? Some of you may be familiar with the "roomba" vacuum cleaners (the robotic vacuum cleaners). They have navigational software to avoid bumping into tables and chairs. Somebody in the DoD recently said we cannot export those because navigational software is on the ITAR list. So we cannot export vacuum cleaners! We just have to think this out. When the commercial world today is spending more on their research than the DoD is, we should take advantage of that, and not have the barriers to being able to use commercial equipment.

Information Technology (IT) systems. We have logistic systems in the DoD that do not interface with industry. That does not, again, make sense to me. We should have the whole enterprise included, as Wal-Mart and other commercial firms do. Clearly, as recently demonstrated in the case of healthcare.gov, the government should use IT practices from the commercial world. We talked earlier about rapid acquisition, about

buying services; and creating incentives. It seems to me that in the case of incentives, what you want is for industry to be rewarded if they get higher performance at lower costs; not punishment for doing that. That is what we do in the real world, of course; that is called price elasticity. Your prices fall, we buy more of it. That is what we should be thinking about; trying to figure out ways to do that.

How do we get lower cost, higher quality? The big challenge here is not recognizing that higher performance and lower cost is a technical challenge, it is not an accounting challenge: and we should be using advanced technology not just for performance, but for cost, and not just in the product but also in the manufacturing process; things of that sort. That is where the commercial world is, because in the commercial world you care about cost. We need to emphasize technology for cost and performance; and right now we have insufficient emphasis in that area. Cost is a cultural issue and that is where, in the commercial world, we take advantage of it.

Let's go back to acquisitions. Many of you have been hearing that what is unfortunately happening today, is that in order to deal with this declining budget we are going to shift to a buying practice of "low price, technically acceptable." Now, let me ask, how many of you drive a Yugo? That is low-priced, technically acceptable. An even better question for me to ask you may be how many of you get your heart surgery done on the basis of a medical degree and lowest hourly rate. Would you even ask if they ever did one before? And yet today—and I am sure many of you are aware of this—the national missile command and control systems has a request for proposal (RFP) out that is based upon a "low-price, technically acceptable selection criterion." To me, that is incredible. That is comparable to heart surgery. You and I buy on the basis of "best value," a combination of performance and cost; why can't the government do that as well?

Another area where we seem to be drifting away from what was intended is the "indefinite delivery, indefinite quantity" (ID/IQ) contracts. The idea behind it was to get two or three, maybe even up to four or five, highly-qualified people that could bid on a broad range of tasks, when each task comes out. So you know you have a quality supplier and you can get real competition among each of the tasks.

The Navy recently had an increase in the SeaPort-e contract. It now has 2,200 "winners." Think about that. A lot of these ID/IQs are

requiring everybody (all winners) to bid in order to be “fair.” That means that the bidding and proposal costs skyrocket. The government has to read all of those 2,200 proposals on each task. It does not make a lot of sense. So we are just not doing things that make sense, I think, in that area.

There is also the “Better Buying Power 1.0” that you heard about, that has recently been put out by the DoD. It has a requirement in there that every service contract will be re-competed every three years. That is a total disincentive to try to reduce your cost and get higher performance during those time periods, because you know that you are going to have to re-compete it. Why wouldn’t they have simply added a second phase onto every contract saying it will be re-competed every three years unless you get higher performance at lower cost every year. In which case, you will receive a follow-on contract, with that same clause in it. That is a total incentive to keep the same thing going, keep lowering the cost and raising the performance. That is a reward for high performance at low cost. Why can’t we put that into the contract instead of saying we are going to compete it no matter what you do.

The perverse form of competition that I really get a kick out of is you give an unsolicited proposal for a really new idea; and they say, “That is a great idea; we will compete it now, thank you.” Are you going to give them any more ideas? No way. Why would I give you my ideas if you are going to take them out and compete them.

And I have also noticed lately that Congress and others have been pushing for the idea, that we will take your drawings and we will put them out for competition to “build to print,” houses. You know, Joe’s garage can build it much cheaper. Joe does not have an engineering overhead. And so, when you buy a car do you check the glove compartment to see if the drawings for the car are in there; so you can build your own car? That is not the commercial way of doing business and it does not make sense, in terms of taking away any of your intellectual property, but that also seems to be a shift that has taken place.

Next, who does the buying? Smart buyers are a really critical issue. We have to have people with experience and enough of them, but I would emphasize the importance of the experience not just “having taken the course.” In the last fifteen years, we have not been emphasizing the

importance of the acquisition workforce; we have been undervaluing them.

Remember when we had the overpriced toilet seats, hammers, coffee pots, and stuff? Congress fixed that, right? They passed a law with two parts to it about the toilet seats. One, no toilet seats shall exceed \$220; literally, that is a law. And secondly, that we add 5,000 auditors to make sure that the toilet seats did not exceed \$220. So now you have to add 5,000 more people in the industry to match those auditors and the price for both the government and industry went up significantly. I think there are probably other ways to control the price of a toilet seat.

The acquisition workforce undervaluing came out in the post-Cold War period. Dollars went down, so the workforce went down (in terms of the numbers). What happened in this period was proper; you expect the dollars to go down, so the workforce goes down. It makes sense. Then Congress, (specifically, the head of the House Armed Services Committee, Duncan Hunter) said, “those are just ‘shoppers,’” let’s cut another 25 percent of them. So that was the reason for the big drop.

And then came September 11th, 2011. Zoom, the dollars went up, but we chose not to increase the workforce. And so it is not surprising that we have problems in this period with the dollars versus workforce. And, I would argue, the problem is not just quantity, it’s quality, it’s seniority. For example, the Army had five general officers with contracting backgrounds in the beginning of that cycle and then they had zero in 2007. The Air Force cut theirs in half, both civilians and the military. The Defense Contract Management Agency went from four general officers to zero. They went from 25,000 people to 10,000 people. I should point out that the government finally recognized its need, but the solution has been to hire interns. Essentially, people with no experience at all; today a little over one third of the federal government acquisition workforce has less than five years of experience. I think a lot of what I discussed earlier, in terms of practices that are happening, are the result of that lack of experience. Most important, most of those people do not have any industry experience. We used to have much more rotation (industry, government, industry, government, back and forth). We have largely cut out much of that as well. So without any understanding of what creates industry incentives, it makes it a lot harder to try to get higher performance at lower costs.

One of the things I have just done recently (at the University of Maryland) is establish a Master's program with a specialization in acquisition. I hope that helps to at least improve the workforce.

The last of the acquisition items is "from whom the government buys its goods and services." There was a Defense Science Board Report in 2008 that basically said that what we have done is we have consolidated the defense industry in the post-Cold War period, we went from fifty major firms to six major firms at the prime contractor level. We did not transform it for the equipment and practices that were needed for the 21st Century.

So, in order to do that, we need a clear vision of where we want to go, we need to be responsive, we need to be technologically-advanced, we need to be taking advantage of globalization, we need to be profitable so we can invest, we need to include the commercial, and, most importantly, we need to maximize the dual-use facilities.

I should emphasize this last point: recently China just came out with its dual-use defense industrial policy (i.e., build commercial and defense equipment in the same plants). Japan has always had it. If you toured any Japanese aircraft plant you would notice they are building commercial and military products with the same machine tools, and so forth. Russia has had it, and China is now explicitly emphasizing it, including investments for dual use. But, as I said earlier, we have regulatory and legislative barriers to integrating the operations, with the specialized export controls, data rights, cost accounting, etc. So we are hampering ourselves in this area; and yet the evidence, historically of the overall economy benefiting from military R&D, is clear. I am sure you are all aware of who paid for the Wright Brother's airplane. You know, that was the Army. And the Internet, that was not Al Gore, it was actually the Defense Advanced Research Projects Agency (DARPA); and jet engines, satellites, and so forth. Management skills, interchangeable parts were an Army rifle idea. And, of course, the military have benefited significantly from civilian R&D.

In areas such as biotechnology, nano-technology, information technology and many other areas, the civilian economy is well ahead of the DoD. Commercial industry has emphasized low-cost designs and manufacturing, and we should take advantage of high-volume when you can combine the two. So it makes much more sense for us to be integrating them (commercial and military) as dual use; but we have



barriers to doing it. We need to be able to help the government in integrating its systems of systems.

Unfortunately, the Justice Department has been putting a lot of pressure on government people, saying that we have to cut back on government to industry communication. When you and I buy, the first thing we do is market research. We try to find out what is out there: we talk to people who are in the business of supplying things. If the government is going to be stricter about whether you talk to every potential buyer or supplier, then that is what people are afraid of. They forget Sam's garage out in Kansas. They did not talk to them; they only talked to six others; and yet wrote an RFP for something. If they talked to the other six, then Sam's garage might protest or complain that they were not included. So the government people are now starting to get scared about detailed dialogue between government and industry, and I think that is terrible. We need to improve the communication between a supplier and a buyer; those two should be working closely together.

The appearance of conflicts of interest has become a major issue as well. I was chosen recently to chair a Defense Science Board Study on contract logistics, but was told I cannot accept because I am on the board of a company that does logistics. They basically said I would have influenced the results, where the results are pretty obvious in the first place. It seems to me that for not-inherently-governmental work, competing is obvious. Again, Congress is always giving speeches about the benefits of the free enterprise system's competition, and then passing laws that more than 50 percent of work has to be done sole-source in government-owned, government-operated facilities; seems counter to the speech they just gave the day before.

As, you know, President Obama proposed it, and Secretary Gates was following that by saying we are going to do more "in-sourcing" of work in the government. This is obviously being driven by the government union convincing Obama of the desirability of doing this. The Air Force proposed all of these jobs to be done in-house, the maintenance work—wrench-turning again.

In fact, the Air Force said they expected to get a 40 percent savings; and I'm sure you know why—because they were just comparing the hourly rate of the government worker versus the fully-loaded rate of the industry worker. In fact, I joked with Secretary Gates and said, "You know, the 33,000 people you are going to bring in (which is what he

proposed) are all going to sit out on the lawn.” He said, “What do you mean?” I said, “You cannot have any charges for facilities, gas, heat, electric, building. Also, by the way, they don’t get any legal support or any financial support, or any IT support, or any of your time; that is what overhead is.”

And, unfortunately, there are a lot of people in the government that still do not appreciate that the Air Force would not say they are going to have a 40 percent savings on work that is not inherently governmental. There is a role for the government here, and I have no problem at all with the government managing, overseeing and, in fact, doing it, if they are the most cost-effective operation; so let them compete for it. But the idea that says you are going to have a 40 percent savings when the Congressional Budget Office did a study comparing maintenance and said that it was 90 percent cheaper to use competitive sources than it would be to do sole-source with the government, why wouldn't Congress read their own report? Why would they insist that we have competition for such work and why wouldn't the Air Force, in that case, have read that report as well?

By the way, performance went up significantly when these things had been shifted from doing it sole-source government to private competitors doing it; or with public/private partnerships. There was a distinct responsiveness improvement when they were contractor-based, and with significant improvement in availability. These measures matter (in regards to response time and availability). And when they had public/private competitions in the past, the public sector often won; and in many cases, for example the C-5 maintenance the Air Force awarded it to Warner Robins, their government operators subcontracted 60 percent of the work to the private sector.

In another case (of an auxiliary power unit), Honeywell won it and they subcontracted some of that to the Depot. But clearly that makes sense, i.e., the public/private partnership; but again it comes from the competitive environment. The legislated sole-source environment does not eliminate costs, it creates monopolies; thus, it does not have a tendency to minimize cost or maximize performance.

Today, we have to address affordability. So, we have to address the uncertainties; we have to address the workforce; we have to address the way we do business. People are the first and primary key to this, along with processes and actions. What we buy, how we buy, who does the

buying, and from whom we buy—all have to be changed; and that's a cultural change, and culture changes are hard.

The literature is clear, though, on how to make culture changes. And there have been lots of success stories on cultural changes. In fact, when I teach, I use fourteen case studies of examples of government culture change and in all cases, two things are required. One is the recognition of the need for change. I think, generally, people recognize that today there is a need for change. The 21st century is different from the 20th; we have a challenge, in terms of the budget, and we really need to address our acquisition workforce, put those together and there is recognition of the need for change and, I think, it is pretty widespread. Everyone says we need change, the problem is what changes. That is where “leadership” is the second requirement; leadership has to have a vision, a strategy, an action plan, and an ability to align and motivate at the lower levels. So you develop a leadership team not just an individual. Everybody is saying they want to do it, but the question is will “it” be the things that result in rapid response and lower costs, and higher performance, all at once. That is the challenge.

I guess it is partly because, in the sixth grade, I was voted the biggest optimist in the class; I still think things can be done. And I think it is a matter of people taking the lead in making it happen. I think it is going to take a lot of courage and strong leadership, in both the executive and legislative branches; and, certainly, right now, we have not seen that. Certainly not in Congress, they need parental guidance right now. They really have not been moving in this direction. Frankly, I think our men and women in the Armed Forces deserve this kind of a change. It is necessary to “get more for less,” and I just think it can be done, if we all push together to get it done.

Thank you.