



Interview with Dr. David Chu, Former Under Secretary of Defense for Personnel and Readiness
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PETER LEVINE: I'm Peter Levine, the Director of the Defense Management Institute. And we're here today as a part of a planned series of interviews of individuals who have made significant contributions to improving the management of the Department of Defense. Today, we are speaking with Dr. David Chu, who served as Assistant Director of the Congressional Budget Office from 1978 to 1981, Director of the Pentagon's Office of Program Analysis and Evaluation from 1981 to 1993, Under Secretary of Defense for Personnel and Readiness from 2001 to 2009, and for those of us here at the Institute for Defense Analyses as President of IDA from 2009 to 2019. Doctor Chu has also served as a member of the Defense Science Board and a fellow of the National Academy of Public Administration. Those of us who have had the privilege of working with Doctor Chu over the years know that nobody is more committed to making the Department a more effective and more efficient organization. Doctor Chu, welcome. We're pleased to have you here.

DAVID CHU: Thank you for having me.

PETER LEVINE: Let me start at the beginning, what brought you to government service?

DAVID CHU: A combination of historical circumstances and serendipity. So, I started college in the fall of 1961. And that is when the Berlin Wall goes up, and 10% of my class, including myself, joined ROTC in that year. So, a different era, different kind of perspective. And that started me on a career that had a strong military content by, virtue of my service. But it also meant since every junior officer in that era got to go to Vietnam, that I needed a job I got out of

the Army; I didn't intend to make it a career. And I had a colleague who invited me to stop at RAND on the way to Vietnam and they were very gracious, offered me a position. Of course, it probably had a certain calculation, you might not have to actually come through with that offer in the end. I was a graduate student at that point pursuing a PhD in economics. And of course, like all graduate students, my ambition was to be a faculty member. And I did try to get the Army to send me to West Point. It was uninterested in that opportunity. So, I took the RAND offer, easy way to start, all set up when I was mustered out. And that sort of one thing led to another. And in fact, the same colleague who helped me approach RAND in the first place or be considered by RAND was my predecessor at the Congressional Budget Office at the national security group there. And so, when he left for a different position, he recommended me to Alice Rivlin who was the then-director, and she offered me that position. So, it's one thing after another. And of course, it's that connection and the advent of the Reagan Administration, which didn't have the same kind of farm team support that the Democratic side of the aisle did that I got put on the list to be considered for positions in defense. And was offered the Program Analysis and Evaluation shop.

But they first approached me about it. I first approached about the one I eventually received the manpower shop, but they switched signals in in the middle of that recruitment process. And the rest is history in terms of how it then unfolds, you become part of the as you know, and appreciate it, having been yourself part of this really bipartisan group that serves the Department of Defense in terms of staffing many of the major positions in the Department over the years. And I was therefore part of that sequence and got considered again when the Bush 43 administration took office.

PETER LEVINE: What surprised you most about seeing the way the Department operated at senior levels when you first came into the Department?

DAVID CHU: When I came to the Department, the big surprise to me was the distrust of the Congress. So, as you pointed out, I started out my government career, setting aside military service, on the hill or as a staff member to an agency to support the hill. And so, I had some, at least elementary appreciation of its rhythms and everyone's needs might be, and it was my impression even then, that in its own, sometimes awkward way, with many detours and zigs and zags, the Congress often got the big questions right. Maybe not posed in elegant fashion, in a manner that New York Times editorial board would support, but often on the mark. And so I come to the Department and I discovered this considerable hostility toward the Congress. And I encountered that again, my second DoD job where people really put off the armed services committees as an opponent of some kind. In fact, my experience, particularly my second position, the first position I was supposed to have as little to do with the Congress as possible since I was an inside critic. And in that era that, that I did not testify. And we made every effort to stay out of the public domain and as private as possible. But especially I found the Congress really always supportive; that the professional staff members were really colleagues.

Now that doesn't mean that they were going to agree with you, but they were willing to listen to a rational argument. They were willing, once you had some degree of trust, to be candid with you about where their members were going to come out and what their problems were in terms of forging a solution to your problems, in that regard. Of course, we had the advantage that 9/11 happened shortly after I took office in my second government position, and that opened the door to really a period of a great deal of collaboration between the executive military branches about how to change the rules of the game so we could respond to this attack on the United

States. So to me, the big surprise was why is there in the executive branch this antipathy to the Congress, seeing it as an opponent as opposed to a partner. You're not going to get everything you want, but they're often more right on big questions than the Executive Branch is.

PETER LEVINE: What do you see is the most dramatic change in the way the Department operates or the Department relates to Congress, or sort of in this area of defense management over the years since you first came into the Department?

DAVID CHU: One of the big changes is the now fairly, in my estimation, anyway, I would be interested in your view, fairly solid partnership between the authorizing committees and appropriations committees. So, when I started out, the two were often at loggerheads, and that of course invited a certain amount of mischief as it were. And, some of the mischief continued even in my later part of my government career. I can remember being sat down by the chairman of the House Appropriations Subcommittee on Defense and he asked me in the most engaging way, "how can we help you, David?" Meaning how should I stab the President's budget request in the back? Which of course didn't earn me any points with him, I should acknowledge. But that partnership is now quite solid in my estimation, such that the, as you know, the Authorization Act is generally the blueprint for what the appropriations committee is going to do. There's not this appropriated, but not authorized fight that was true there in the eighties for a long period of time. So greater comity on the Hill.

What has slipped a bit is this question of the timeliness of appropriation. It used to be for a long time that Christmas (forgive the reference to a religious holiday), but Christmas was a real forcing function. The authorization bill was to get done by Christmas. I think it was Christmas Eve. And sometimes in a way that would mystify bystanders. So, one year there was never a conference, as you may remember. But that's like some genie coming out of the magic lantern.

The conference, the document in lieu of a conference report emerges with negotiations is voted through, obviously all the behind the scenes work having been accomplished. So, to me, the big change was the greater degree of agreement on the hill of how to proceed, but an increasing tendency to let things slip such that things did sometimes go beyond January 1st, and of course, in the more recent years, it's gone well beyond January 1st sometimes.

PETER LEVINE: Do you think the Department has gotten harder to manage? Since obviously it's continued to grow, become more complex, Congress has become more engaged in detail. Do you see a difference from 1980 to now in terms of just how hard it is to get the Department on a course to change the course?

DAVID CHU: Yes, but I don't blame the Congress entirely. Some of it is the result of the Executive Branch accepting some of the changes Congress has made. One I point to as being particularly destructive in my judgment is the proliferation of PAS officials in DoD. So, if we go back to Eisenhower as president, there's a limo or exchange between Eisenhower and another official about the number of assistant secretaries of the Department and Eisenhower says, "five is about right." Now that didn't count the Comptroller, it wasn't an Assistant Secretary, although confirmed at that level. And it didn't count what was then called DDR&E, but nonetheless much smaller group. Now, of course, Congress moved to create undersecretaries starting in the late seventies as a movement, but never got rid of the underlying layer beneath it. And now we've seen an addition of more assistant secretaries underneath that layer. It's not clear to me that's a constructive step. It balkanizes offices within DoD and create separate power centers.

Few Secretaries of Defense says, you know well, control all the appointees in the Department. So, some are, I don't want to say political payoffs, but have a strong political content to them in terms of satisfying various stakeholder groups. It means that the incumbent

may not really be someone who is loyal to the secretary, or how the secretary interprets the President's agenda. So, I think that is part of the problem, is the proliferation of offices; that's not helpful. I think a more streamlined system is better. Get rid of undersecretaries, which I acknowledge is kind of ironic since I became one, I was not in favor of doing when they were created. But we do have them. My question would be, "why do we have all of these assistant secretaries?" Just turn them into granted political appointments, although some could be career civil servants. But don't have them confirmed by the Senate.

PETER LEVINE: Have you seen a change in the relationship or the balance of power and, funny term, between the civilian leaders and the military leaders in the Department over the last decades?

DAVID CHU: I'm not sure I have detected a, it differs over time, but I'm not sure I see a trend that's there. It is true the Joint Staff has at some points in more recent history played a stronger role than was true before. I would not ascribe that to Goldwater Nicholls. Some of it is the issue of whom do you choose as the chairman? So, Colin Powell was a particularly effective chairman. As Secretary Cheney acknowledged, he basically bonded, I think he used the word married, Colin Powell in order to create a consensus about how to reduce the military in the post-Cold War era. And that was successful as a political matter. In my judgment, this was my criticism at the time evade the central issue, which is whether the force structure that was appropriate for this new era was, in fact, as indeed was the case, notwithstanding the presidential speech denying saying that a five eighths version of the existing force structure was the right answer for the Post-Cold War world. I think that's still one of the big problems around the Department: What really is the force structure that is useful in terms of safeguarding American interests and projecting American power in this different post-Cold War world.

PETER LEVINE: Your first position in the Department was as director of PA&E, a position I think is little understood outside the Department, and certainly in the general public, I don't think it's understood how important that position is. Can you talk about what PA&E does and why it's important to the way the Department functions?

DAVID CHU: Yeah, it's basically boiled down to its fundamentals, it's one of what I see is the two offices that see themselves as the Secretary's people. And it's the analytic arm, so to speak, to help in evaluation of alternatives and to help safeguard a process that produces alternatives for the Secretary. One of the difficulties in defense as you know, and particularly the military, this is something I think that led the Secretary Rumsfeld to have great tension with the military, is a desire to coalesce around a solution, present it to the Secretary on a silver platter and say, "Boss just sign here, this is what we should do." And so, PA&E's job from the very beginning, back to the sixties when it was created, is to create alternatives. Now, there's this wonderful book by one of the incumbents in that office in terms of how much is enough that sketches its role. And of course, the central power question is who's really in charge of the program that the Department, on behalf of the President advances to the Congress as the way forward for DoD. And the central element of that change, which really dates back to McNamara to some extent, but certainly McNamara embodies it in in both letter and spirit, is the Secretary is in charge, not the individual military departments, which the hill still I think is not totally comfortable with. That's one of the challenges for the Secretary out there. So, the PA&E office, originally called Systems Analysis as you know, and has some other titles in between, and now it's called Cost Analysis and Program Evaluation, as everybody understands, is charged with as practical matter, giving the secretary an analytic arm that responds to his mandates and his interests.

PETER LEVINE: So, would it be safe to say that it's one of the important levers that enables the Secretary to be the Secretary of the Department of Defense as opposed to governing...

DAVID CHU: Precisely, presiding over, absolutely. And, part of it is at least as I was charged with, is helping devise some alternatives to start with; not being satisfied with what “the system” will produce as the recommendation to start with. At the same time, part of the role is to provoke debate. So as one Deputy Secretary said to me, “David don't think you should ‘win every issue.’ You are the intellectual shock troops of the Department. You're there to go to everybody else to rethink how we're approaching the problem and to come to a consensus about how we might proceed.” And one example of that, I think was the debate over readiness in the 1980s. So, as you know, the seventies, the administration had squared the circle, so to speak, in terms of the size of the defense budget versus the structure we maintain by reducing readiness, basically. And so sufficiently difficult to get parts that and I have it in my CBO job, this an air base and the commander pointed out that the source of the parts for his airplane was the exemplar board in the maintenance shop, they were that short of parts, they were taking them off the board where you're going to find out which part number is this particular little thing. And then the question of course is, well, ok, how much is enough? And a variant of that was for pilots, because there were issues about the degree of preparedness of our pilots in the seventies to carry out their missions. How much flying time should there be? Now for fixed wing pilots, we had a certain amount of, I wouldn't necessarily call it science, but at least we had some data and some way to judge this. We didn't have that for helicopter pilots, and so we, and PA&E rooted around trying to produce the best we could. And that lead to a debate, and again back to the illustration of PA&E's role. So, our job was to force the debate and to say to the Army, basically, “You're not going to get from here to there with the number of hours per pilot per month that you have programmed.

What's the right number?" And what helped a lot was that General Vessey, he was then Chairman, had been trained as a helicopter pilot. So, we had a number up here, we had a number down there, Vessey with his prestige, picked the number in the middle somewhat toward our end of the scale, I would say. That became the Department standard. So not always doesn't produce a scientifically defensible answer, but it will often help produce a different answer that would otherwise come out of the bureaucracy.

PETER LEVINE: Was it a mistake to change PA&E into CAPE and make the director a Senate confirmed appointee?

DAVID CHU: I was very worried about that. Not so much Senate confirmed because it had been Senate confirmed before. In fact, there was the issue when I came to office that they had literally miscounted the number of PAS slots they had, so back to the whole issue of transition to an administration. And so since the Republican 1980 platform had called for a policy PA&E, I was therefore not going to be the Assistant Secretary, which is fine because I got paid more that way, actually, although it did cause some morale problems in the office. What I was really frightened about was the requirement to testify, because it puts the director, it seems to me, in a potentially impossible position. Isn't it true, Mr. Levine, that you recommended X the administration has proposed not X as appropriate. You know, how you're going to deal with that. Now, you can weave and dance as you know well, in these hearings and not answer the question, or answer some other questions instead, but it's not the place you want to be.

Fortunately, I think that has largely not occurred. I do think one issue is whether the emphasis by the Congress on the cost issue, which is in the title. So, it's cost analysis and program evaluation, has sent the wrong signal to the Department about the role of analysis. The most important function, in my judgment, is not getting all the costs right. Well, that's a very

important issue for DoD and a very important responsibility for CAPE, but is, as I suggested, serving the Secretary and his, eventually her deputy as the analytic arm of their ability to set the agenda for DoD, and to help devise alternatives, to help point out that there are other answers besides the ones would otherwise be the system's preference.

PETER LEVINE: Over your tenure at the Department, you were in the Department for 20 years in senior positions, close to 20 years. You work with a number of different deputy secretaries, and I would say the Deputy Secretary is a key position for managing the Department. That's the place that the day-to-day decisions of how the Department is going to be run. I'm not going to be unfair and ask you who your favorite Deputy Secretary was. But I wonder if you could talk about what you see as making a good Deputy Secretary? What are the characteristics and what is the approach to the job that can make a Deputy Secretary a more effective manager and more effective at guiding the Department?

DAVID CHU: To me, the first and most important element is, is there a strong, trusted partnership with the Secretary; is the Deputy really the Secretary's person? Or even if the two have never met before, that they form a bond that is extremely strong, and the Deputy understands the Secretary's intent, and the Secretary understands what the Deputy can contribute to the partnership. So, I was blessed as I came in to the Department, so I became accustomed to that being the way the world should work and could see it affected that way to that relationship. It's exemplified by a small war story. So, one, we had a morning staff meeting every morning, and one staff meeting, Secretary Weinberger is discussing a package and it's clear that Frank Carlucci, who was then the Deputy, was not comfortable with this package. And so, Sergeant Weinberger turns to Mr. Carlucci and says, "Uh, well, Frank, have you seen this? Do you agree with this?" And Mr. Carlucci says, "No, I have not seen it." So, Weinberger ostentatiously picks

up the package, gives it physically to Mr. Carlucci and says, "Let's start over." That's the last time anyone tried to end-run around the Deputy Secretary of Defense. And you want that solid wall of coherence, as it were. And there is another side to that coin. I mean, it's a metaphor here, which is, can the Deputy go into the Secretary, who may have either said something that's unfortunate, made a decision that's unfortunate, or is about to make a decision that's unfortunate and say, "boss, you know, this probably is not going to work as well as you think." Can the Deputy turn the Secretary around? And that was also true of some of the deputies that I served: they have a strong enough relationship with the Secretary that they could persuade the Secretary, "We're on the wrong path we can back up here." I think it's very, very important.

Beyond that, I think the other ingredient is a talent for hard, bureaucratic work. Running the Department is a very challenging responsibility, as you know so well. And it takes a lot of time, energy, and real study. And so, one of the deputies when he came to office had a military assistant with whom he was very close, and the military assistant said, "This is not going to be like your corporate job. You have to go to school. You are going to take lessons every day. PA&E is going to come in here and brief you on what's in the program, et cetera. This is not a presiding type of responsibility. So that's the other ingredient in success. Beyond that, clearly, it's more effective if the person has the kind of political skill to bring the Department together. That's a very, very important ability to create a consensus around policy choices. That's very, very important. But I don't buy this, it has to be a private sector executive or it has to necessarily be government service. I do think it's a real advantage to have government service, but I don't think it has to necessarily be that way.

PETER LEVINE: We have seen some senior officials in the Department who came from the private sector and were fish out of water, had trouble adjusting to the government. But that's not universally the case with people.

DAVID CHU: No, no, that's true. But I think one of the things is, do the individuals involved, as I saw one, this is not the Deputy Secretary, Under Secretary. Does the individual understand this is not a corporation? You are not a tsar. And, don't let anyone tell you that. It's a political bureaucracy, and you have to bring it along and get it to coalesce. You cannot just give direction; that's not going to work. And that individual lasted a bit less than a year, frankly, in that position.

PETER LEVINE: So, let me turn to the issue. You were at P&R, Personnel and Readiness for essentially eight years. And so, since the time you left there probably has been...

DAVID CHU: Been a little turnover (Laughs)

PETER LEVINE: Probably at least a dozen, over the years since you've left. Probably more than that. Maybe as many as one year. Can you talk about the stability of being in that position over an extended period of time related to effectiveness, and what your concerns might be about the lack of stability or consistency that may follow when you have rapid turnover?

DAVID CHU: Yes, and I think that's true of many of these positions, maybe not all of them, that tenure matters. First of all, there's the issue of understanding the responsibility of the position. Even with some background in the area, and I did know a fair amount about military manpower issues when I came in. It does take six months to a year to understand the issues, to understand how the Department grapples with those issues, to understand where the hill is on these matters, to figure out where, given the administration's agenda, what's feasible vis a vis the Congress and where the budget will permit you some latitude: what can you do in solving problems? So, if

you're there only the standard two years or so that's typical across agencies of confirmation appointees, you have only a year which to make anything happen. Now, then you have the budget cycle and the legislative language statutory change cycle, which takes at least, except in emergency situations, is at least six months to a year, as you know, in terms of getting something to happen, to change, et cetera. You're never going to execute anything that you started. It's just not feasible. The timelines don't work. By the time you've learned what it was that you should have asked for, you ask for it, fight for it, get some of it through the Congress, you're gone.

I think the other thing, particularly if you want to effect change, which I think is the issue that you're really headed toward here. The benefit of tenure is that, because the other parts of the system turn over, military leaders turn over every two, three, four years. The other appointees turn over every two years or so. If you are there three years or more, you become the status quo. Now that has some disadvantages, I grant, but also has some advantages. People say, "Well, you know, at least he may understand something about what he's doing in this lane," giving you a bit of the benefit of the doubt. They may also be convinced that you have more authority than you really possess in this regard, and therefore let you move forward in a way that would not otherwise be feasible, that might otherwise oppose what you want to do. So, if you want to effect change, I think tenure is important also because I, in my judgment at least, in changing things, I do not believe in this "Come in and sweep everything off the table and try to start with a fresh sheet." Oh no, that's not going to work, you just antagonize everybody. So, you have to take the long view. You have to have a goal horizon in my judgment, that's several years out. And that you work toward those conclusions, as opposed to suddenly coming in with an agenda that you don't have the support to execute.

PETER LEVINE: When you were at P&R, you designed a dashboard, a balanced scorecard I think they called it. Can you describe what the dashboard was and how you used it? Did you find that to be an effective management tool? Did it help in your position?

DAVID CHU: Not by itself. So that was really a means to an end. The end was to try to get the seniors to come together to confront the pressing issues of the day, and to discuss and see if we could coalesce around solutions. So that's what it was; a way of alerting us to issues or saying that this area is quiescent and it's not something you need to worry about. Whereas this other area is troubled and something we aren't particularly focused on. And it was a way of holding people to account. Now, part of it reflects the structure of the Department, with which you're so familiar. P&R is not actually the immediate instrument of personnel actions in the Department. It's a policy office; it's a principal staff assistant. Now, it does have certain direct authority, I grant that. But it has to not only help the Department adopt effective policies, but figure out how it's going to enforce those policies and get them to work. And the enforcement mechanism that seemed to me most important was working through the leaders in the military departments. So there you have an interesting problem because you have two leaders in charge of the same area. You have a civilian, Senate-confirmed Assistant Secretary for Manpower, title varies slightly by military department. And then you have a service Deputy Chief of Staff for personnel, manpower, they had different titles again. And so, the value of the dashboard was a bit as an excuse. I don't want to downplay it per se, but as a mechanism to force them to convene a discussion on a regular basis about what is going on in our life, and to see, because part of the issue in many cases, as you know well, is they are oblivious to the problem at hand.

PETER LEVINE: The Department is notoriously difficult to figure out what the appropriate measures are because its activities are so complex. There isn't a simple profit and loss that you

can work with. The ultimate goal is a subjective one: “Are we in a position to deter and defeat an enemy that we at some point in the future?” There's a criticism of metrics that what you measure is what people pay attention to and that if you choose your metrics poorly, people will tailor what they do to the metrics and rather than to what they need to accomplish. Did you see this problem with the dashboard you developed or was the approach that you took of using it only to identify areas for discussion, you think successful in avoiding the pitfalls of people doing things just because they're measured?

DAVID CHU: Yes, that is a real problem. I'll give you an example from my PA&E days. So, one of the issues in those days was each new web system wanted its own mapping data, which is very expensive. So, the Defense Mapping Agency, as was then called, now National Geospatial Agency was always short of money because each new system required a new map. So, we got the Secretary to announce, “If you want a unique map, you pay for it, the system component. If it's not unique, we'll pay for it.” Bad draftsmanship. We looked at what was going on, we suddenly had sort of a “Noah's ark” answer. Everybody had just two supporters for any particular map, because we hadn't said, “Oh no, there's a payoff to more partners,” et cetera. So, two was enough. So yes, so we tried not to make the dashboard mechanical in the sense that if only you got to this level, everything is fine. I mean, there was the usual red, yellow, green type of stuff. But rather to use it as a mechanism for problem identification and as a go-to discussion of potential solutions, not as, “You must exactly hit this particular number.” Now, I grant these things get overinterpreted.

So, an example out there in the manpower area, as you know, is the Congress has a floor under high school diploma, graduate entrance for enlistment. The services pride themselves in getting way above that floor. And that's partly P&R's fault, because in the nineties, the way it

dealt with the question of, “Well, how much is enough?” It could be a National Economy and Sciences Panel. It also relied on some experiments at RAND to set metrics of what the goal should be, and it set 90% as the high school public graduate total. But that's higher than the Congress has mandated by statute. So, the question becomes, when you're under duress, what's the tradeoff between either not meeting your enlistment goal, or meeting it with a slightly higher high school dropout quotient, which has a penalty attached to it. And that penalty as you know, is attrition. Dropouts don't finish their normal term of service at the same rate as those who have finished high school in a normal way, setting aside home schooling and so forth. And now that does vary by socioeconomic background. And so, it's not the same effect for people of different backgrounds. And therefore, you wouldn't want to be too obdurate about it.

PETER LEVINE: You mentioned earlier what you use with the dashboard was essentially you used as a convening tool with the services. I wonder if you could talk more about the issue of managing through the services, which is what you need to do for a wide variety of personnel issues. And you mentioned that you have both assistant secretaries and you have Deputy Chief of Staff for personnel. But it's a little bit more complicated than that because each of them, they don't report to you, they report to a secretary or chief of staff. So, the Secretary and Chief of Staff will have their own agendas, presumably. How do you work with that system to develop a common course and to figure out where you need a common course and where it's ok to let a service or a department find its own way?

DAVID CHU: I really acknowledge, with great difficulty. And the first ingredient is constant consultation. And, so I did work to try to build a constructive relationship with the Service Secretary personally, so that if I ran into real trouble on a particularly sensitive or controversial issue, I could appeal over the Assistant Secretary's head. And likewise, with the Chief of Staff of

each service; to be able to appeal to them if that were the case. Yes, in fact, the fact that services can do things somewhat differently, to me, is an advantage for the Department because, you get, flex my background in economics, you get to have natural experiments. It isn't the same for everyone. So, let's take recruiting, for example. I've long felt that the Marine Corps model is a much more interesting approach than the other services. I was told that it was unsuccessful to get anybody else to do it that way. But we wouldn't have that example, except the Marine Corps does it differently than the other services do. And so that's, I think, a source of strength over time, not necessarily always a problem.

PETER LEVINE: Could you describe a significant management challenge that you faced in the Department? Just talk about any issue that may have come up?

DAVID CHU: The big challenge, as you know, after 9/11 was could we sustain a longer-term conflict? A long war, not a short war. That was the President's words in his speech right after the attacks, with a volunteer force, which the administration was not going to use the draft; never really considered that. And that was really the focus of my efforts the next seven years or so, and against an increasingly unpopular conflict as you know, in that regard. And that was the big challenge out there. And we had all sorts of instruments we tried to bring to bear in that regard. We tried to take a strategic approach as we could, emphasizing the importance of the whole family in retaining people. So, it's not just about recruiting people that was always an issue, which we partially solved with money. And you can see that if you had to grade me on cost control, I would get a terrible grade for that period of time. But it worked. And constant attention to the mechanics, the recruiting effort, et cetera by the services in order to sustain that.

Now, there are a number of specific problems, and the other side of that effort, which was costly, was trying to be careful about cost and other parts of the personnel domain. See we get

them down. An example there, a small example being the question of the exchanges, so that's a very, very focused question. Could we get the exchanges to merge, because there'd be some modest economies, overhead, and so on and so forth. And a very difficult problem, because of course, the Navy exchanged very independent. And we failed in that, although we did get close to the goal line. We did get more... and of course, the Army and Air Force has always been together, or not always, but have long been together as an enterprise. Different example out there is this whole question of pilot training. Do we really have to have, for helicopter pilots especially, do we have to have separate training establishments in each military department? Of course, the marines often use for their training purposes the army's training establishment. Again, we made some progress on that front but not as much as I would like to have like to have seen. So, the interesting issue in all of these cases is that the strength of the existing relationships of the mixed institutions to resist your change.

To give you a pedestrian example, the Secretary wanted the commissary subsidy reduced. We managed to talk him out of an outright charge because, though he did give a speech on the 10th of September, 2001 claiming he was going to do that, we thought it was political suicide and useless expenditure of political capital. So, couldn't we have private-labeled merchandise in the commissaries? Because that's how supermarkets make money. Well, you would think that would be easy. It was not, but what we discovered, you know well, was our real opponent wasn't so much the services. It was the brand label companies who liked the way it was because they made large profits on the brand name stuff in the government store despite the discounts that are offered. So again, the strength of existing arrangements: very hard to overcome.

PETER LEVINE: I wonder if you could talk about the role of studying and analysis in the decision-making as you face these issues in your years at P&R. So, you had a series of problems

that came up. With the turnover that you often have in a position like P&R that the turnover we had recently, you might have an undersecretary who would ask for a study and then would be gone by the time he came back. But you had the advantage of being there long enough that you could see the results of the studies and analysis that you'd asked for and crank that into the next round. Did that play a role in your ability to deal with this problem of sustaining the all-volunteer force at the time?

DAVID CHU: Yes. The analysis is very helpful, including analyses that reached conclusions that were disappointing to the analyst in terms of what he or she thought might be exciting from the Department's perspective. An example from right here at IDA, Stan Horowitz confessed to me that he was very upset that his study of employer response to guard mobilization had not made more of an impact. And I said, "No, no, Stan. What you told us was what we needed to know. Were the employers so upset that we were going to have a serious political problem on our hands? And basically, the answer to your study, although you had suggestions that didn't go very far, was no, they were not." They would like some changes made, yes, so that's all very interesting to hear. But this was not an existential threat to our mobilization reserves to sustain the long global war against terror. And so that, in some sense, negative conclusion, which the analyst does not see as all that interesting, is actually very powerful, potentially depending upon the situation at hand. So yes, it was very helpful to have analysis. I do think it's been an unusual situation in the Department in which outside analytical organizations, especially the three so-called studies, FFRDCs play a disproportionate role and that reflects history. I was a junior staff member at RAND when ABF started, and the Department came to RAND specifically to seek significant long-term assistance and had a big check in its hands saying, "we'll support you if you'll devote energy to this question." And that has continued down in the present day.

PETER LEVINE: Tell me about a management issue that you think the Department faces today going forward. A significant challenge the Department has going forward.

DAVID CHU: If I am allowed two, I will. One is, can it get its operating costs in better control? And I think that's partly a function of, what I see, the related question of the overuse of acting duty military as the answer to every problem that it faces. Instead of using some combination of reserve forces, civilians, and contractors who might be much better at carrying out the mission, depending upon the circumstances, but where there are for various reasons, it's an affection for the active duty solution. So, cost control, of operating costs, I think is the big problem.

The other big question, as I indicated earlier is, well, exactly what kind of structure, and therefore, what kind of weapon systems would be best to support American interests in the world going forward? And I remain convinced that we have not really found the answer. We're still, in my estimation, too much a prisoner of the platforms. There's an old book called, "The Masks of War" by Carl Builder, which I think should be mandatory reading for every new incoming appointee in the Department, that points out how the service loves certain types of platforms and will focus on those platforms, even though they may no longer be terribly germane to what's at hand. And so, we saw that in the battleship navy prior to World War Two, for example, is a classic example. I won't indict any particular system here, but we have the same problem again in my estimation, both with the nature of the structure and the systems in it.

PETER LEVINE: Let me ask you a question about each of those. So first on the operating expenses, it's interesting that you chose operating expenses rather than personnel expenses, which is something that many people worry about. And as a former Undersecretary for P&R, you would obviously be expert on. Why the specific focus on operating expenses rather than personnel expenses?

DAVID CHU: Because I think there's too much the wrong problem or wrong solution to the current problem if you focus on personal expense, per se. I'll give an old example: from the seventies, a comparison was done of Reese versus Vance Air Force Base in terms of the support for, they were undergraduate training bases, undergraduate pilot training bases, both closed now. But one was supported with active duty manpower for maintenance. One was supported by contract for maintenance. The effectiveness of the two support operations was roughly the same, maybe a slight edge to the contractor. And the costs were not all that different, but the ingredients were significantly different. So, the contractor base ran with far fewer people, but paid them a lot more money because it emphasized experienced hands who would stay with the program for long periods of time. Whereas the active duty support was high turnover, you have to constantly train new people, et cetera, et cetera. In fact, when we figure in the whole training cost, it probably was more expensive to run it with the military personnel. So, getting costs down is not just a matter of pinching on wages or benefits, necessarily, although you have to be careful and thoughtful about those aspects. But, finding the most efficient mix of ingredients, given the price you need to pay for those of you. So as an economist speaking, obviously, and therefore, I would emphasize operating costs, which opens the door on a larger number of variables to look at, rather than just "Ok, how much do we pay this person to do the job in front of us."

PETER LEVINE: Let me then ask you about the platform issue that you raise. Is the problem one of concept, that we haven't yet figured out the concept we want to get to, so we don't know what we want to move to? Or is the problem more of the sunk cost and vested interests that, even if we knew where we wanted to go, we can't get there because we're so committed to the platforms and structures that we have today?

DAVID CHU: I think it's some of each. So, the old has, as Builder's book emphasizes, a strong grasp on the present. So, I'll be more specific here. We are, in my judgment, overinvested in fixing aircraft. Now, fixed-wing, manned aircraft. And even when we go to unmanned aircraft, our institutions have great difficulty changing practice. Air force piloting of drones being an example. The Air Force for a long time insisted, and I think still does, that they have to be trained pilots who fly a real aircraft in the cockpit, which comes down to issues like, "How do you land the drone?" So, I had the privilege of asking Air Force and Army about this, the Air Force as you know, has the drone that's landed by a pilot. I asked the Army how, they said, "We don't let the operators land the drone, the computer lands the drone." So, there's a whole different mindset associated with it.

The new has the problem that people haven't figured out, "How is this going to pay off? What's going to be the result if we introduce this," and I'll offer you a historical example, which is NAVSTAR GPS. NAVSTAR GPS was approved by the outgoing Carter Administration in January of 1981, according to someone who was there at the time. Because well, these Reagan people are going to spend a lot of money and this isn't necessarily a very compelling system, but it isn't terrible either, so let's let it go ahead. And everyone thought of it just as a navigation system as the name suggested. But in fact, of course, it's transformed the world's economy. The whole idea of time, very precise time for overhead being the way to regulate devices on earth. That was not, in my judgment, widely foreseen at the time. And so, we have this irony, the DoD is still running what amounts to a major international utility.

PETER LEVINE: Let me take this back around to where we started. It seems to me that these major issues that you've just described are the kinds of issues where you would hope that PA&E, now CAPE, would play a role in figuring out what are the alternatives, as you say, provoking the

debate. Do you think that PA&E has a big enough focus to do that? Or is the need to put together a program, and look at the immediate balance of that program so overwhelming that it can't take on these big picture issues the way it needs to?

DAVID CHU: I am worried about that issue. Now I don't have really good firsthand observations, so I may be being unfair here. But the reports I guess suggest yes, there's too much attention to the mechanics of the system, exacerbated, I think, by constraints on a staff size. I do understand the current administration is trying to expand the analytic staff, and that's terrific, because size does matter up to a certain point. But back to our operating cost discussion. What really counts most of all is the quality and the mindset and the outlook of the people on the staff. And so a small but highly skilled staff can actually substitute, and can perform often better than a larger staff that is not quite as adept in character. But I think that is a real issue for DoD. Does it have the right set of incentives for the office and resources for the office to produce what the Secretary, the current and future secretaries need to have?

PETER LEVINE: Let me wrap up now with a couple of sort of overarching questions. The first is, do you have any thoughts as to what the Department can do to better position itself to address future management challenges?

DAVID CHU: Take the long view. This view that we have to solve everything next budget submission, it's not very helpful, as you know so well. Despite PPBES and its effort to look out a few years, the next budget is so much governed by what you already are committed to doing. It's the budgets after that, that you have a real opportunity to affect. And that's where the five-year horizon is a real problem in my judgment. So, one of the things that I'm most proud of was the creation of, toward the very end of my tenure, of a what we call defense program projection. At that point, we were in the six-year horizon mode, as you may remember. And we therefore look

out three 6-year periods, 18 years. And we started with a very simple question, “what would be required to finance current policy or an 18-year horizon?” Which led to the first discovery, which is we weren't always sure what current policy was. So, let's accept the force structure we have. Is the decision to buy airplane X, for example, a decision to replace every airplane in the current structure? Or is it as much procurement/production sense to provide X airplanes, and somehow, we will figure out what the search is going to look like after we get them all on board. It wasn't clear. The Navy, of course, has long classically been reluctant to say how many ships of each class they're really going to buy to say nothing, making them all the same, standard ships. So different crews could operate the same ship. They're basically custom yachts, as a practical matter, creating huge manning and maintenance problems for the Navy over time. So, in my estimation, trying to get these things under control by taking the longer view, “What's the longer-term goal here?” Which was the whole point in the beginning of the PBBES system. The horizon of five years is a little too short in my estimation. And I grant that 18 years is too long in some sense, but maybe something more like of a 10 year, 5 to 10-year horizon, or maybe eight years given presidents' hope to serve two terms would be a nice number for a new administration to select.

PETER LEVINE: Last question. What advice would you give individuals entering senior management positions in the Department today? Say if you are looking at a younger version of you coming into the Department of Defense now or next year, with the perspective you have of having observed the Department so long, what advice would you give?

DAVID CHU: Besides offering this answer to the last question which is take that long view, my other point would be start with the view that you trust the civil service. My experience is these people are hard working. They may have their own political preferences, but in defense, at least,

it is not so much true in other departments, I regret, in my estimation. But in defense, they really are devoted to the country's military strength as the outcome they seek to promote. They may have different views how to do that, there are controversies I grant all of that. But don't set up barriers between yourself and the civil service and open yourself to hearing from all ranks in this regard. I think one of the biggest problems defense and other agencies have is sort of this pyramid effect, in which you only talk to a few key subordinates, and the person who did the real work is not the person you're talking to, who understands the nuances, the shortcomings, the weaknesses, the strengths, et cetera of what is being discussed in detail. And so, you want to hear from that person. So, one of things I would advise is don't just let the next senior come and brief you. Make sure that he or she brings whoever actually did the work to talk to you, and to allow you to ask that person direct questions, not just some kind of bureaucratic process where three days later you get an answer to your group.

PETER LEVINE: I can't think of a better note on which to end our interview. Dr. Chu, thank you.

DAVID CHU: My pleasure, sir.

PETER LEVINE: Great to have you here.

DAVID CHU: Great talk with you, as always.