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KEYNOTE ADDRESS

“An Analytic History of the All-Volunteer Force”

Under Secretary of Defense for Personnel and Readiness Bernard Rostker
September 28, 2000

Instead of speaking from prepared remarks, **Under Secretary Rostker** chose to discuss a future project he is considering undertaking. The project would be to write a book, tentatively titled “An Analytic History of the All-Volunteer Force (AVF),” that would follow the development of the AVF and the role that economists and analysis played in its evolution.

Under Secretary **Rostker** posited that over time, there have been three main phases in the types of analytic questions AVF researchers have explored. When the move from conscription was under consideration, questions emerged about the hidden and societal costs of the draft, which in turn led to questions about compensation under a voluntary system. The analytic work conducted during this phase focused on developing a labor supply curve, based on draft rates. Three examples were the original article in the *American Economic Review* (AER) by Altman and Fetcher in about 1965, the White and Cook study on Air Force recruits, and a study on the supply of reservists done by Dr. Rostker.¹ This first set of analytic problems in the late 1960s and early 1970s addressed three basic issues: (1) whether there was a supply curve for military volunteers; (2) estimating its elasticity; and (3) evaluating the budgetary implications. The Gates Commission further explored the issue of factor substitution and the expansion of the military labor supply (e.g., by relying more on women).

The second analytic phase revolved around the question of whether it was possible to move to a more efficient supply curve, through such steps as improving recruiter efficiency and advertising more effectively. Advances in recruiting are largely attributable to General Maxwell Thurman, who initiated a number of reforms when he led the Army’s recruiting command. Other analyses looked at first-term accessions, with some forays into career retention patterns. Most of the early work on retention used the same models as were used to explore accession policies, and looked at wages at the end of the first enlistment term. With the work of Glenn Gotz, John Warner, and Gary Nelson, among others, these efforts evolved into models of dynamic retention, which increased the sophistication of the type of retention data that were collected and analyzed.² Work in this area continued into the late 1980s, and could be characterized as a series of attempts to better understand (1) the nature of the supply curve;

¹ Alvin A. Cook and John Patrick White, *Estimating the Quality of Air Force Volunteers* (RAND: Santa Monica, CA), 1970, and Bernard Rostker, *Air Reserve Forces Personnel Study*, Vols. 1 and 2 (RAND: Santa Monica, CA), 1973.

² For example, Richard Fernandez, Glenn Gotz, and Robert Bell, *The Dynamic Retention Model* (RAND: Santa Monica, CA), 1985.

(2) possibilities of moving along it through greater efficiencies; and (3) both first-term and career retention.

Moving into the early 1990s, the third analytic phase was characterized by a hiatus in interest in the AVF. The military drawdown, coupled with a decline in recruiting requirements, fed this trend. Consequently, the intellectual and management edge in building the force was lost, and by the late 1990s the military services began to miss their recruiting goals. At the same time, there were some important analytic efforts ongoing in related areas, including on the issue of comparable wages. Jim Hosek developed the Defense Economic Cost Index, and Beth Asch and John Warner analyzed ways to better rationalize the compensation system.³ These works, among others, sought ways to use compensation to attract, retain, and *motivate* people (not just to attract and retain them), an important and more sophisticated approach.

The book he would like to write, Under Secretary **Rostker** concluded, would follow that analytic history, highlighting the relevant work and analytic advances. Other than military manpower, he knows of no other area, at least in the defense realm, where the way the problem is structured and thought about so closely parallels the academic approach, and that has benefited so extensively from quality analysis.

PANEL ONE: What Did We Expect Would Happen? September 28, 2000

Chair: David Kassing

Panelists: David Kassing, Walter Oi, Robert Murray, and Christopher Jehn

David Kassing introduced each panel member, and stated that when he was serving on the staff of the Gates Commission, he had not expected that the All-Volunteer Force (AVF) would last as long as it did. Nor had he anticipated the broad-based political and military support for the AVF that exists today. He noted that Nixon had long favored a volunteer force, while his opponent Hubert Humphrey wanted a draft lottery. Today, both presidential candidates' platforms support the AVF.

The Gates Commission was established, **Kassing** recalled, not to address the question of whether there should be an AVF, but how to effectively implement it. The Commission worked quickly --- there was some preliminary work immediately following Nixon's election, the directive establishing the Commission was signed on March 27th, 1969, and the Commission's report was delivered less than a year later, on February 20, 1970.

³ James Hosek, Christine Peterson, Jeanette Van Winkle, and Hui Wang, *A Civilian Wage Index for Defense Manpower* (RAND: Santa Monica, CA), 1992; and, for example, Beth Asch, *Designing Military Pay: Contributions from the Economics Literature* (RAND: Santa Monica, CA), 1992, and Beth Asch and John Warner, *A Theory of Military Compensation and Personnel Policy* (RAND: Santa Monica, CA), 1994.

The Commission's work reflects the input of all of the economists on the staff. They addressed such issues as the conscription tax, the manpower and budgetary implications of an AVF, the determinants of labor turnover costs, the estimated quality of recruits, and the economics of officer supply.

Walter Oi also noted that Nixon's public support for ending the draft dated back to the campaign of 1960. In 1963, Tom Curtis, who was the head of the Joint Economic Committee, stated that the draft was inequitable, inefficient, and unnecessary, and persuaded others to join with him in urging the formation of a commission. President Johnson resisted, however, and instead urged Defense Secretary McNamara to establish a Blue Ribbon Commission on Manpower. **Oi** came to work on this effort, and their report was issued in July of 1965, just as Vietnam exploded. Their report was shelved. They estimated a cost of \$4 billion for a force of 2-2 ½ million conscripts, with a confidence interval ranging from \$4 to \$17 billion. They concluded that a conscripted force was unaffordable, but the sentence stating this was removed, and the report was finally released in August, 1966.

Other analysts and commissions also issued reports, but these primarily addressed the question of ways in which the draft could be made more equitable. This was an impossible goal, **Oi** stated, because people are fundamentally different.

In 1968, Nixon announced the necessity for ending conscription. **Oi** did not know the rationale for choosing the Gates Commission members, but the staff was also assembled. They were influenced by a 1967 article written by Ayn Rand stating that the draft negates the right to life, and instead establishes the state's right to part of a life. The fundamental question was what rights the state truly possessed. If there was a threat to the nation, Rand and Milton Friedman believed that volunteerism would provide an adequate response. Fundamentally, conscription is a tax, an argument Friedman advanced in 1963 as he tried to estimate the size of that tax. Clearly the military was not paying a market wage. And, conscription was an especially vile and evil tax not just on youth but because it had a high cost of collection. People expended vast resources to avoid the draft, from getting married to leaving the country.

Oi stated that he did not share **Kassing's** perspective that the AVF might be temporary; instead, he thought that "once we got there we'd stay there." Also, **Oi** noted that those who claim people should be "paid their worth" are wrong, because this concept is essentially merit pay, which raises the question of who determines merit. People should instead be paid the market rate.

The Commission had trouble, **Oi** recalled, with the question of reserve forces. The report contained a chapter on this subject, written primarily by Lt. Col. Herman Boland. **Oi** and Boland proposed increasing the percentage of individual fillers. The British had an "every ready" system in which those leaving the service registered and were on call for 50 Pounds per year. Then the Suez crisis erupted and they tried to call up the Ever Readies, but couldn't because they were afraid it would discourage people from signing up. This issue continues to need more study, because the use of reserves puts a strain on employers, and may constrain using large numbers of reserves during a war. Earlier, many reservists were government employees and it was easier for them to take time off from work; as more reservists have moved to the private sector, this is a growing challenge.

The Gates Commission also underestimated the potential contribution of women to the AVF, because they thought women were too expensive. The military has since realized that the issue of sex should be negated. Finally, the Commission “missed” on anticipating the structure of the organization, how it is set up and what it’s mission is. We haven’t fully worked through the implications of the electronic age, **Oi** concluded, and it is time to do this.

David Kassing discussed his role on the Gates Commission and the work on draft and volunteerism. His contributions were not so much on the economics side, but instead to historical and political studies. He looked at the history of conscription and volunteerism overseas and in the US, and the effect of military service on attitudes and earnings.

There were nine potential objections to the AVF: it would

1. cost too much;
2. not be able to respond to crises;
3. undermine patriotism;
4. threaten civilian control of the military;
5. be disproportionately black;
6. be manned by mercenaries;
7. stimulate foreign adventures;
8. cause a decline in military prestige due to the low quality of volunteers; and
9. be small because the budget would not grow.

Kassing reviewed each of these arguments. The cost and responsiveness concerns have essentially fallen off the table, he contended. For the third issue, the Commission argued that in fact it was conscription that threatened patriotism, although there is a concern now that the decline in the number of veterans (because of the drawdown and an increase in retention) will lessen patriotic sentiments. The counter-argument to the contention that civilian control would be threatened was that other countries have a long history of volunteerism and that civilian control was in fact strongest in those countries. Recent contentions of a civil-military gap have created somewhat of a cottage industry in this area, but they raise important issues that should be looked at critically.

The Commission in fact underestimated the degree to which the force would be made up of blacks, but this is in part due to the fact that there is less discrimination in the military than in the private sector. To better balance this, discrimination should be removed in other professions. It is true, however, that the military remains more attractive to minorities. As to the 7th contention, that the force would be manned by mercenaries, this has not been borne out and the standards have continued to rise. Further, it’s not clear that military members would be any more mercenary than people in other lines of work.

Having a volunteer force has in fact raised the cost (in terms of public opinion) of engaging in “foreign adventures,” although this issue was raised again when Kosovo arose. Quality has not declined, so the predicted decrease in military prestige has also failed to materialize. Finally, the argument that the AVF would be smaller than a conscripted army has been at least partially borne out, but the Commission

admitted up front that once the public recognized the true cost of the force it may shrink. In fact the size of the force has fluctuated over time, reflecting the perceived threat.

In closing, **Kassing** noted that the debate on these issues has been going on for almost three decades, and is likely to continue into the future.

Robert Murray began by recalling the precipitating conditions that, by 1973, made an overhaul of the military inevitable. Public support for the draft had evaporated, and general support for the military as a whole had fallen as well. Morale, discipline, and professionalism in the military were at low points across the board. The U.S. Army in Europe was considered weak and many thought this situation made nuclear war more likely. In retrospect, the Gates Commission's work on the AVF was one of the last century's great debates on national defense

Against this backdrop, **Murray** stated that defense officials realized that an overhaul was essential. They had seen the analysis, but concerns remained about a number of issues.

- Would the American people volunteer in sufficient numbers, and would the military be able to recruit effectively?
- Would the AVF attract high quality people, given the unfavorable attitude of the public toward the military?
- Would the volunteers be representative of the population?
- Would they have enough trained people in the reserve components and individual ready reserves?
- Would they be able to keep experienced people when they were already facing deficiencies?
- Would the AVF be affordable? This question remains, as evidenced by recent efforts to seek more money for procurement.

Despite these fears, the AVF did work out and the early analysts were right. The services were able to do the job recruiting and retaining quality personnel, and they made something of the reserve components. The Army in particular has done well with its use of the reserves, although there is still room for improvement. No subsequent administration has backed away from the AVF, and by any measure it is a success, especially relative to the U.S. Army during the Vietnam era and to the forces of other countries.

Notwithstanding the current success, **Murray** noted that the success of the AVF is never a settled issue. Fundamentally, it is a dynamic problem that requires management and leadership. Managing attrition and recruiting is a terrific problem: the more we let attrit, the more demanding it is to recruit. But this is a management issue, not a flaw of the AVF concept. A related problem is managing rotations and deployments, but that also is not a force structure problem but a management one. Managing incentives is also important, as is managing costs. **Murray** said he hadn't heard either of the current presidential candidates say they would pour a lot more money into defense, so the decisions about how defense resources will be allocated will be difficult and will make a difference.

Christopher Jehn opened by noting that the draft was a peculiar tax, because it was a tax on patriotism. Those who wanted to join, not only the draftees, were taxed by low pay. The Gates Commission members tried to rectify the situation, and were interested in two primary objectives: more fairness and a better force. Both of these were achieved.

However, they also expected a lot more efficiencies. We are still not using our people well (for example, the reserve components), and strides can be made in this area. They thought more of this would happen.

At the time, **Jehn** never thought that the term “All Volunteer Force” would last. It should be dropped, he argued, because it suggests that this is still an experiment. In fact, even 7 years after the AVF was initiated, in 1980, most senior military officers considered it to be an experiment, and one that wasn’t working. This issue was at play during the Reagan campaign. But there is no way that one could draw this conclusion 7-8 years after 1980; it would be impossible to find any senior military leaders who wanted to return to a conscripted force. Fundamentally, **Jehn** concluded, the promise of a more professional military was realized.

LUNCHEON ADDRESS

Edited remarks as delivered by
The Honorable Richard Danzig, Secretary of the Navy
September 28, 2000

Well, first of all thank you for those kind words. The kind words are I think a little bit undercut by the fact that when Bob [Soule] notes that he’s here both for the food and for my speech, I know the reality is when he was offered these two things together, he asked whether it was possible just to get food to go. [Laughter] But that’s a good economist kind of position and I don’t reject it...

I thought I would do the opposite of my usual reaction to Bernie Rostker’s talks today... [laughter] by building upon it – [laughter] -- and generating for you a suggested fourth phase of the AVF and the thinking about it.

A fourth phase, and I say it’s the opposite of my normal reaction to Bernie’s talk because usually far from adding another phase, my effort after Bernie speaks is to remain unfazed, but that’s a different aspect... [Laughter]

And I thought, given the nature of this group, I might use as a sort of touchstone here an old joke about economists, which some of you may be familiar with, the story of someone who encounters a shepherd on the path and the shepherd has an unusually large flock. The guy bets the shepherd that he will pay \$100 if he can’t guess within three the number of sheep in the flock, and in return if he can guess, he gets to take one of them. And the shepherd says, “Okay, you’re on.” And the guy says, “366.” The

shepherd says, "That's amazing; there are 365 sheep in this flock and you can pick one and take it home with you."

The guy makes his selection, starts to walk away and the shepherd says, "Wait a minute; I have an idea. I'll bet you double or nothing that I can guess what you do by way of employment." The guy says, "Okay." And the shepherd says, "You're an economist; you work for a think tank." The guy says, "That's incredible. That's exactly what I do. How did you know?" And the shepherd says, "I'll explain to you once you put down my dog and give it back to me." [Laughter]

Now, the reason I tell this joke, apart from a rare opportunity to tweak such a large number of people with such impressive credentials, is because I think the tendency in discussions, particularly amongst economists, about the AVF is to think of it in statistical and analytic and counting terms and to think of it as, no surprise, essentially a problem in economics. Bernie rightly describes a phase one that relates to what is the supply curve, a phase two that talks about trying to affect that supply curve and a phase three that is a period of which, from his standpoint, there's a regrettable inattention to these laws of economics and the issues that are correlated with them.

But I think what is particularly appropriate to a conference that is talking about how to get the most out of the AVF is to also think about the cultural aspects of the transition to the AVF and all the other questions that it raises. It seems to me that the most fruitful, if you will, phase four is going to be to press those issues, some of which Bob has referred to in the course of his introduction.

Think of the Department of Defense as an organism. It's a very large and complex organism, one that is extraordinarily multifaceted. It has, I think we've all observed, a thousand legs and a somewhat rudimentary central nervous system. It has difficulties moving. But like all organisms it's an integrated whole; the knee bone is connected to the thighbone and when you change one part of it, other parts of it begin to be strained and also need to change.

Now, look what happened in the context of the all-volunteer force. People said, "We in 1972 are going to make a major change here and we recognize that it has significant implications." But the implications they look at are first-order implications, or in the language of economists, they assign a sort of partial equilibrium analysis of the problems associated with recruitment and maybe to some extent there's some intuition about retention. So the major effects are immediately discernible. Congress will raise the pay of recruits some 65 percent. We will raise the amount of money we put in advertising. In 1972, for example, the Navy spent \$7.1 million on advertising. By the year 2000 we're spending \$71 million on advertising; coincidentally, almost exactly ten times as much.

Everybody understands it's going to cost us more to recruit. It's some \$563 per recruit in 1972 dollars to recruit men and now we're looking at prices that are almost \$9,000 per recruit for the Navy.

And I think everyone sees that there are issues associated with those investments and that in due course there are consequences in terms of things like recruit quality, ASVAB (Armed Services Vocational

Aptitude Battery, a test given to prospective recruits) scores, the evolution of our recruiting in terms of which portions of the population we draw from and the like.

The thing that is so striking to me, and I think so important, is that this is just the beginning of the analysis and, in fact, if you believe the knee bone is connected to the thighbone and that this is an organism, it follows that lots of other parts of the organization need to change as a consequence of the fact that your cost of labor is now dramatically different, and that you are operating on a different premise about how you bring people in. It is no longer the case that labor is in unlimited supply, you can always get more, that people are coming in for two years and then being flushed through the system. It's no longer the case that we're able to conserve resources by throwing more manpower at things; instead, manpower is a costly and precious item.

When you grasp that principle, it seems to me that a lot of things need to be questioned in the organization as a whole. But it's hard to grasp that principle and start doing the questioning. It's a little like AT&T converting from being a monopoly to being a competitor. A lot of things changed in the way it operates, from the color of telephones to the way in which you bundle services to the kinds of attitudes you need about customer service to how you do advertising, et cetera, et cetera. But it takes a generation for that to be absorbed, and even now a generation of employees after AT&T has converted to competition, it's having difficulty shedding old monopolist kinds of characteristics. And I think the same thing is true for DOD.

A lot of this has led to my offering the proposition that we are still infected with the mentality of conscription. This has largely driven my thinking on one of the four major areas I've tried to press as Secretary of the Navy. That is to find the situations in which we're infected with the mentality of conscription and uproot them. What I am finding in the course of this is that the vein we are mining with this proposition is vastly richer than I had previously anticipated.

Ideas are coming in from all kinds of directions. For example, look first at our personnel system. What is the experience of a recruit who comes into Navy boot camp and then, if he's particularly qualified in terms of scores and boot camp performance, goes to A-school and, let's say, gets trained as a radar repairman. Well, first of all, between boot camp and A-school, he spends a certain amount of time -- maybe a week, typically -- waiting for A-school to be formed up. During that time, what does he do? He picks up litter. Then he goes to A-school, gets trained and goes out to a ship. What does he do? He's welcomed with his new specialty. He's got software skills, say, that otherwise weren't available there. We then assign him to spend his first three months painting, chipping paint, cooking.

Now, imagine if you were hired at Microsoft and told, "Congratulations, you are going to write software code for us, and during your first three months we're going to have you cook or chip paint." It's a strange use of manpower in many ways, argued for, in some respects, as a way of acculturating our people. But really, it's a throwback to a time in which we had an unlimited supply of nearly free manpower, and in which we thought that these people were relatively unskilled and, therefore, it was natural that the basic maintenance tasks would get handled in this way.

This applies not merely to our newest recruits, with the kind of training associated with A-school. It applies right on up the ladder. For example, very interestingly to me, when I came in, I began asking people, "How long does it take for us to train our pilots?" Answer: Four years. "How long should it take us?" Answer: About two years. "Why is there this disparity?" The answer is because we have not provided typically enough airplanes for them to train on. We hold people in pools for long periods of time while we await the availability of the machinery.

Well, that makes perfect sense, if people are largely free and machinery is expensive. But if people are expensive, the ratio begins to look different. A number of people over the last several years have been working this problem, and we are bringing our pilot training time down quite dramatically.

Everywhere you look, there are examples of this kind of psychology. Think about the recruiters themselves. The first time I went out to a recruiting station as Secretary of the Navy, I was talking with a recruiter, and he explained to me that there was a regulation that provided that there were .85 telephone lines per recruiter. I, richly educated by my Yale Law School training, my doctorate at Oxford, and the like, said to him, "Could you tell me that again?" What I finally realized was that this is a throwback to the time when telephone lines were expensive and manpower was cheap and we had established a regulation that rationed the telephone lines across the people. It's obviously a bizarre way to run a recruiting command, and we changed it.

But there are more fundamental things -- rules about the use of cell phones, cars, computers -- in which we basically undercapitalized our assets. We treated the labor portion of the equation as though that was what we could be profligate with, and the other parts as less so.

Now, that proposition turns out to apply extraordinarily broadly. Go on board a ship and historically there's less automation used than there is on anybody's everyday yacht. By and large, the way in which we operate at sea skimps on automation and offers a surfeit of manpower. In fact, when you think about it, it's notable, as one captain put it to me, that even in the act of cleaning the ship, a major activity for many Sailors, we typically provide Sailors with less equipment to do the job than the typical housewife has to clean a house.

Why is that? Again, because the implicit assumption of the system is that labor is free and the supplies are expensive; no longer a sound assumption, but one which is so deeply embedded in the way in which we work, that it causes misjudgments and misallocations.

One of the things we've pushed over these last few years has been Smart Ship, as Bob refers to. When I came to the Navy as Secretary, this was largely on the shelf. We now have embedded in our program the conversion of all of our cruisers and most of our destroyers to a higher degree of automation, which will save 44 enlisted people and 4 officers on every cruiser, simply by using some common-sense kinds of automation. We are converting our ships in those kinds of ways.

Looking at it closely, we concluded that we could remove 1500 of the 3,000 people in the ship's company of a carrier. That generates enormous manpower savings, and in the end, dollar savings. It

also means we put fewer souls at risk. It connects as well with a different kind of proposition. Why is it that our ships have among the lowest habitability standards in NATO? The answer, I believe, is because though we have spoken the language of people being our most precious assets, we have not lived up to the promise. In fact, our ships were designed on the premise that people were cheap, easily rotating assets who we didn't need to nourish and protect in these kinds of ways.

We've begun pushing education opportunities vastly more fiercely. We set up something called the Navy College Program. Everybody who now goes through Navy training gets college credits for their training by arrangement with the American Council on Education, and people get transcripts when they enter boot camp right away, automatically. We're going to give one and a half million college credits to people who enter boot camp this year over the course of their first terms in the Navy. Why didn't we do this sooner? The answer, in part, is that we're not focused as an institution on trying to educate our manpower and nourish it in those kinds of ways. The personnel system manifests this in a thousand other ways; the detailing system, for example, which treats people as details to be allocated according to our needs, but not in any way according to their own needs or their own desires or our need to retain them.

I could go on with this theme, but I think you see its point. Note the implications as well, though, for the acquisition system. We've talked about recruiting. We've talked about training. We've talked about the circumstances of work on ships. But why is it that we have to do all that painting and chipping again and again? Why is it that an acquisition system that can design for us missiles that can fly a thousand miles and hit a target with a CEP (Circular Error of Probability; a measure of accuracy in hitting a target) of a couple of meters can't design paint that doesn't have to constantly be repainted and rechipped? The answer is: it can -- but nobody had ever asked it to do that, because we never placed a high enough priority on that part of our system.

There lies a world of opportunity here. We know that curved surfaces are easier to maintain than flat surfaces. But we don't design ships to take advantage of that fact. We're trying to put all of this together now on our next generation of ships, DD 21, the ZUMWALT Class ships. What we've found is that we can design a ship with a crew approaching 95 people, whereas previously it had 320 people. That when we can use automation with tremendous effect, we can improve habitability at 95 people, we can move to things like staterooms for enlisted Sailors. When we create this environment, we can generate a more professional force, one with greater seniority, more education, better living conditions, and create a wholly different vision of what it is to be a Sailor in the Navy; and en route, by the way, save 70 percent of the total operating costs associated with each of these ships, which is to say a billion dollars per ship over the course of its service life. These ships will cost us \$750 million each to acquire in 1996 dollars, so that every one generates its own savings sufficient to buy another one when we start to man and operate them this way.

So I come back to my beginning proposition. We have an opportunity to move to a fourth phase here, which really does grasp the opportunity associated with our move to an all-volunteer force and take account of its implications. To do that, we need to move beyond thinking about the AVF as something that changed recruiting and advertising and pay, and recognize that it changed everything -- and that

we've been slow to grasp the implications of changing everything. Those implications carry within them the seeds of enormous opportunity for transformation of the organization. On top of that, it's an opportunity that is consistent with the most basic value that we've been preaching for centuries as a force, which is that people are our most important asset. But we've preached it as ideology without fully taking account of what it really implies in concrete terms.

One of my favorite propositions is a comment made about Bronson Alcott, who was the father of Louisa Mae Alcott, the author of *Little Women*, a text not often cited at IDA, but should be. It was said of Bronson Alcott, who was a poet and philosopher, that he soared into the infinite and fathomed the unfathomable, but never paid cash. [Laughter]

This proposition also might be of interest to economists, not because of the paying cash part, but because of the general idea, which is we need to take broad propositions of ideological character or of general sweeping character and translate them into the particulars of everyday life and figure out how it is that, in fact, if people are our most important asset and as a result of moving to an all-volunteer force, we, in fact, need to do things differently than we had traditionally done them throughout the whole of the organism.

We need to change the way in which we bring people through our processes. We have to change the personnel system. We have to change the training system. We have to change our use of automation. We have to change the way we design ships. We have to change the character of what our research and development establishment is working on. We have to change the way we think about our financing of ownership costs as against acquisition costs and create for ourselves, as a result, really a whole new world.

So I applaud Bernie's backward look at his first three phases. If Bernie should be unemployed, it's great for him to go look at it. But for myself, I'd kind of like to remain employed and do it in terms of pushing this fourth phase, because I think there lies the creation of a better world.

Thank you. (Applause.)

Soule: Richard has graciously agreed to stay for a few minutes for some questions and answers. I might just remark, before we get into that, that Richard's comments were, as we expected, very interesting. And I watched the audience as you were talking, and even in that very dangerous right-after-lunch hour, the only one who fell asleep was the dog in the front row. [Laughter] But he was awake during your joke about the shepherd.

SECRETARY RICHARD DANZIG: I have to tell you that I commented, the other day, when I spoke to the Marine Corps generals, that all forms of mental illness are apparent in the higher ranks of DOD. [Laughter] This was a propos my own schizophrenia about the particular issues I was talking about, but also their paranoia. But I also commented that I note in most audiences I speak to a widespread narcolepsy. [Laughter] So I appreciate what you're saying.

Soule: I also enjoyed your comment about the phone lines for the recruiters. That's actually the way we treat people in OSD as well. And I think the regulation for us is .35 per analyst, but we've found ways to get around that over the years.

SECRETARY RICHARD DANZIG: Actually, our productivity increases to the degree we keep you out of circulation. [Laughter]

Soule: Let me throw the floor open. I think we had a hand.

QUESTION: (Inaudible. Question regards the speed of reform within the Department.)

SECRETARY RICHARD DANZIG: I think it's three things. I think it's, first, that it's very difficult for any of us to change habits. Just think about your everyday habits. If you smoke or eat too much or lose your temper or come late or tend not to be sufficiently polite or whatever it is, and think about how difficult it is for you to change or how difficult it is for you to get other people in your family to change.

If we accept that so readily as a human phenomenon, why do we expect an organization that consists of 372,000 human beings, the uniformed Navy, not to mention the civilians and reservists, why would we expect them to be able to change very easily and very fast? It's just a very tough thing for human beings to do that. We're creatures of the way we were brought up and of habit, and a lot of people have that kind of attitude.

The second factor is one of insight. You may change a lot more rapidly with respect to smoking when you have the benefit of various surgeon's general reports. How do you bring home these points to, for example, the institution of the Navy or the Marine Corps or any other service? I believe that the biblical proposition "The truth shall set you free" is a good one. I do believe, notwithstanding the fact that it's a slow process, that illuminating these points for people is very, very helpful.

The third is the point that you raise, which is one of incentives. How do we structure the organization to incentivize the kind of behavior I just talked about? If, for example, you run a ship and I'm out there preaching "Let people off-duty more often, automate more," but you're at a point where that automation might go awry and your head's on the line, you're going to take a cautious kind of attitude that causes you to over-staff things.

We can change those incentives. For example, one of the things that I've pressed very hard is the use of civilians in place of military. Military are very expensive to recruit. By making them more focused on classically military things, we make of them better Sailors and Marines. I set up a central account that said every military billet that you cash in for civilianization, I will fund off the top and give you back the military billet, so it will not reduce your end strength, whereas up till now the incentive has always been to keep the billets military because people want military members as a sign of power in their end strength, and no Commandant or CNO wants too low a number of uniformed people.

By doing that, we got the commandant of the Marine Corps coming forward this last year saying, "I'd like to transition 1200 of my Marines who are now doing cooking duties into things that are more productive for us." We put 1200 civilians in those jobs -- actually, fewer civilians, because you don't need as many. On the Navy side, I began asking the question: "Why don't we have civilians paint ships, when equipped with better tools and the like, while they're in port? They can do that better than the sailors can."

There was a certain amount of resistance to begin with, but when we funded it off the top, the demonstration was a wild success. We now have painted 35 ships -- more than 10 percent of our fleet -- by civilian paint teams, and that's spreading and is going to be, a well-nigh universal kind of function. So you want funding mechanisms, as your question implies, as incentive mechanisms to try and get the incentives in the right places.

I'll just tell you a little story on the side, a propos the illumination point, the second of these. It's still very difficult for people to connect the dots. For me, the great example of this was when I gave something like this pitch on board a carrier. At the end of my pitch, everybody liked it. Everybody agreed. You know, I'm Secretary of the Navy, so they're all very agreeable. [Laughter]

Afterwards, the CO of the ship walked me back to the cabin, quite luxurious, that had been arranged for me for staying overnight, and he was telling me what a really right perception this was about all this, and so on. Then, saying good night to me, he said that there'd be a petty officer across the hall if I needed anything at all during the night. I said to him, "Is this petty officer normally there, or is he there just for me?" And the CO said, "Yes." [Laughter]

Well, when we got that one disentangled, it turned out that they had quite normally assigned a petty officer to stay up all night on the chance that I would need something in the middle of the night. Well, I pointed out to him that, to my recollection, I haven't needed something from another adult in the night since I was 11 years old, but that if I really did need something, I could use the telephone and wake up the petty officer, so why didn't he send him back to sleep? But it was obvious to me that the commanding officer just didn't see that connection right after I'd done the talk. So I do place a lot of emphasis on the need to push this message again and again and again and get other people to absorb it. I think it's very hard. It takes time.

QUESTION: (Off mike. Question regards the Secretary's progress at eradicating the Navy and Marine Corps of the mentality of conscription.)

SECRETARY RICHARD DANZIG: Well, first, my sense is sure, my progress is very uneven, and there are all kinds of sources of resistance. I'm, in general, quite favorably impressed with how much resonance this has in the Navy. There are a number of admirals and generals who are ahead of me in regard to this, who are just out there pushing the edge of the envelope and basically my role is to support them. I think, for example, of Hank Giffin, who was the commander of naval surface forces for the Atlantic Fleet, or Mike Mullen, who had surface warfare responsibilities within the Navy budgeting

process. These are guys who are not there because I'm persuading them. They're there because they knew this from the beginning.

On the specific issue of the two-year enlistments and the like, basically what I'm trying to press is we have more opportunities at the margin through making use of our existing system and through better retention, and I'm not inclined to move towards shorter terms in this context. It doesn't seem to me to be, when you take account of the training periods and the cost of recruitment and the like, a particularly rich investment.

QUESTION: (Off mike. Question regards recapitalization of the fleet.)

SECRETARY RICHARD DANZIG: You and I can get together on this and squeeze these people between us. But the particular observation that we can't change the capital stock right away, I hear often. I don't entirely agree with it. It is the case that if we build seven ships a year for 10 years, we'd still only build 70 new ships, which is going to be some 20 percent of whatever our Navy might look like in 2010, and therefore 80 percent of it is still basically going to be the same.

But I think this overlooks -- and, to an amazing degree -- and I say this particularly to you, Bob -- I think the present debate about military procurement amazingly overlooks the consequences of Information Age kinds of investments. The real way for us to transform the Navy fleet isn't so much through building new ships, though I'm in favor of that and it gives us a lot of opportunities. It's through changing the character of the ones we have. Our software innovations and our broadband communication capabilities and our use of the automation technologies that exist now let us do that.

We have a phenomenal ability to change the existing institution and are doing it right before our eyes. We just need to grasp that possibility more. Once you start to do that -- I mentioned I had four main themes, and the people theme that we've talked about was the first of them. But the fourth of them, and absolutely fundamental from my end, is take advantage of the Information Age technologies.

Now, what does it mean that I've got broadband communication with a ship? It used to be I manned that ship from the standpoint of having it perform all the functions right on it. I needed dispersing clerks for accounting kinds of functions and so on. I needed a great deal of people. Any kind of medical or training support I needed, had to be on board. But now I've got the ability to rely on communications. So I can change the whole manpower equation right now for a ship that already exists. The institution can move a lot faster to accept the radical implications of these common-sense steps in the here and now. That's another topic.

QUESTION: (Off mike. Question regards requirements and capabilities of ships and submarines.)

SECRETARY RICHARD DANZIG: I think it's a good perception. I think we profited by moving from some of that requirements discussion and encouraging just the kinds of trades you talk about. I tend to talk overwhelmingly in terms of capabilities and the relationship between the performance we

can deliver and the price it costs us, and keep trying to lower our cost of doing business and increase the reward for investments in terms of higher performance. In the end, this makes the Navy attractive.

For example, one of the things we're talking about is the requirement for 68 submarines or 76 submarines or a variety of kinds of numbers like that, depending on different time frames and different consequences. Well, when you think about it, it isn't simply a requirement for a platform. It's a requirement for number of days to use that platform. If, in fact, you can find maintenance techniques or forward-basing techniques that deliver that platform operationally for a higher proportion of its time, then you get high reward from having improved that proportion, and it ought to affect the so-called requirement.

So we're big on trying to find those kinds of investments and opportunities. We have, for example, figured out a way to extend submarine life from 30 to 33 years. That changes our requirement for build rate. We are looking at opportunities for forward-basing submarines in Guam. We figure we can make 3 submarines look like almost 10 submarines, when we move them forward that way. There are 100 examples like that embedded in our system. So for every request for additional funding or statement of additional requirement, I find myself wanting to weight it with some other kinds of changes internal to how we're using our assets and how we improve them.

QUESTION: (Off mike. Question regards retention efforts.)

SECRETARY RICHARD DANZIG: Emphatically, yes. I've spent a lot of time with the Bureau of Personnel people over just these issues. Square one for me has been we put tons of effort into recruitment, as against ounces into retention. Early on I began beating the drum of "Okay, we're spending \$70 million on advertising to recruit people. What are we spending on advertising internally to keep people staying? What do we give their families?"

We've got all this market research information, youth attitude surveys, et cetera, on the recruiting side. What do we know about our retention problems and why we're not keeping people? We are spending extraordinary amounts of money on recruiting. We've got, ballpark, 5,000 recruiters out there in the Navy and a couple of thousand other people supporting them. How many people work on retention? Well, just to give you the last one as an example, the answer came back: four.

There's enormous reward on that side of the equation; the marginal value of those investments is much, much higher. Square one in that regard has been just what you've said. We've set up a retention center within the Navy, and we're working hard on the question of how we change the detail and assignment system so as to make it more, for enlisted people, like we have made it for officers, a development of a career path, a sense of sensitivity to where they want to go and what they want to be assigned to. That's a long process, but we're well on the road towards it.

On the issues of promotion, I'm raising some questions about "Do we want a more senior force in the Navy? Do we want to change our expectations of opportunity for growth? Could we use the warrant

officer positions to achieve a measure of lateral entry in ways we haven't previously achieved?" I think there are a lot of rich issues there.

QUESTION: (Off mike.)

SECRETARY RICHARD DANZIG: It is, of course, a double-edged sword, and we're all aware of it. We're giving people a bridge to the outside. But I think the most basic position we've taken on this, as suggested by the Navy College Program I referred to earlier, the typical recruit in the Navy is going to earn a substantial number of the credits required for an AA degree in the course of his first four years in the Navy, just in the course of his normal training with this American Council on Education accreditation system we've set up.

Our aim is to -- and we've done this -- increase the tuition support so that people can get more credits on their own, beyond what we're providing them. We're directly linking them with a vast array of schools, many of them first-tier kinds of schools. So what we're saying is we believe that by enhancing your credentialing, we are doing good things for you and that our own power to keep you will be strong enough that this is a good investment. As you rightly say, in turn we think it will also have recruitment and retention kind of spin-offs by virtue of its attractiveness.

There are risks in this from the second edge of the sword. But I believe that as we transform the Navy in the general direction I've described, movement towards more professional skills -- we're moving a lot of the distasteful labor aspects of it, not all, but a number of them -- creating more support for Sailors, giving them both tools and civilian complements and the like -- we'll be able to create an institution that can move upstream towards forces that are not as big as now, but are more senior and more experienced and where we have a workforce that is, in effect, more delighted with us.

In the end, we're going to offer some things that no civilian environment can offer -- a sense of mission, a sense of camaraderie, a sense of honor, a sense of being on the cutting edge. For all of the talk about how wonderfully dot-coms empower people, it's very remarkable, the responsibility we give very young people in the Navy, whether it's the average age on the deck of the carrier being 19 handling this incredible ballet of aircraft, or it's the phenomenon of commanding officers in their later 30s having responsibility for 300 lives on a ship and this piece of equipment that can cost a billion dollars that's theirs and no one else's.

I think, in the end, that camaraderie, that honor, that sense of responsibility, that opportunity to get out in the world, is such a strong draw that if we get the rest of the stuff right, we will be able to hold on to people.

Thank you very much. [Applause]

**PANEL TWO: Changes in Force Composition
September 28, 2000**

Chair: Christopher Jehn
Panelists: Aline Quester, Edwin Dorn, Susan Everingham

Christopher Jehn introduced the panel members.

Susan Everingham offered comments in three areas, drawing research by her colleagues at RAND. The three areas were the current force structure, societal trends, and the implications of these trends.

The size of the military force is determined externally, and over time the enlisted-to-officer ratio has fallen from 9:1 to 5:1. The number of generalists has also decreased substantially in favor of personnel with more technical skills. There is an increase in education among senior enlisted, which has been driven by occupations and technology (not by the All-Volunteer Force, or AVF).

There are four societal trends to note:

1. In 1980 under 50% of American youth went to college. That figure is now 65%. This trend has been encouraged by increasing returns to getting a college education.
2. Women have an increased presence in the labor force. This is true in both the military and civilian sectors. Racial trends in the services have been noted in the conference background papers.
3. The use of technology has grown. This is a permanent change and is significant, as the need for technical skills is increasing.
4. There are real budgetary constraints on military spending. We can't afford everything that we would like, and many of the manpower initiatives have been fiscally motivated.

There are four implications of these trends:

1. The services must recruit from colleges if they want to fill the ranks with high-quality people. But it is not clear which part of the college market (bachelor or associate degree holders, or college dropouts) we should target.
2. There is a convergence of the officer and enlisted ranks. Technical expertise is not appropriately valued in the current career system. We must consider lateral entry to obtain already-trained technicians. A new system of personnel management requires a whole new compensation structure.
3. We have done well at integrating women and minorities, but must continue the effort. Opportunities for women have been opened so that 67-80% of military specialties are now available to women, although some jobs remain restricted. The impact on readiness, cohesion, and morale is not zero, but studies show that any effects are offset by leadership and training. Minorities are underrepresented in Special Operations Forces (SOF) and among officers. SOF is underrepresented apparently because minorities tend to join the military to obtain marketable skills. Promotion and retention rates for minority officers did change, but promotion rates to O-4 are the same for both minority and majority populations.
4. Family, not just the service member, is decisive with respect to retention. Spousal employment is important. PCS moves do have an effect on spouses and therefore on retention. The military needs to address this issue.

Aline Quester noted that we have never really solved the productivity puzzle. We don't know yet how people substitute for each other. Thus, it's very difficult for us to specify the optimal experience mix.

In terms of the population we can draw from in the future, the United States used to have a population pyramid (of age groups, with the largest number at young ages and smaller numbers of elderly). This will soon be a population column. We don't know what will happen with this transition, when 18- to 24-year-olds will represent a smaller proportion of the U.S. population. Diversity is growing, particularly in the 18- to 24-year-old population, so that in 2030 this age group will be half minority. There are other trends that may affect the way we recruit. It used to be that there was an established order to normal lifestyle changes. People graduated from school, got a job, got married, and had children in that order. These events are all happening at different times (mostly later) and sometimes even in a different order than before.

There are currently three different retirement plans for the military depending on when the member joined the service. Those who joined the military 1 August 1986 or later are under the third plan. Under this plan, members choose between the High Three retirement plan or a \$30,000 continuation bonus at 15 years of service and REDUX retirement. This is a difficult choice. CNA has developed a briefing that addresses this issue by thinking of the REDUX option as a loan. Each situation (rank, age, and years of service at retirement) yields an implied interest rate for this "loan."

Edwin Dorn began his comments with the remark that the AVF "working well, and I am not happy about it." He perceives that the success of the AVF has allowed us to avoid issues. The AVF has slowly expanded the role of women and has not drawn attention to the racial composition of the force. In particular, the absence of young white males in the military and the prominence of black women has not been noted. Downsizing issues let us avoid the question of whether or not there are better ways to manage people.

When he was in office (as Under Secretary of Personnel and Readiness) three years ago, he knew that he had been mortgaging the future. DoD at that time shifted funds from modernization into operations and maintenance (O&M) to maintain force size and readiness. But trouble loomed because of a robust labor market and a rising cohort of potential enlistees that were less interested and available to the military. He has been surprised at how easily the services have turned around this problem, and considers it a commendable accomplishment of the current leadership. But we can't go on mortgaging the future, he warned, because the \$30 billion to \$50 billion needed for modernization is not available.

The services have to balance bills for quality-of-life, health care, and promised benefits. The only way to get these funds is to shrink the force. The United States still spends many times more on defense than its allies and adversaries. We need to define the threat and our defense needs in the future. Defense Secretary Les Aspin moved to define the threats and then establish the capabilities required to face them. But there is no end to the threats perceived.

We can't do everything, from contingencies to chemical and biological threats to missile defense. We have to think money first (about \$300 billion) and then figure out how to divide it to get the best result. We should then tell the services what to do in the Defense Planning Guidance. Four short-term items to maintain current capabilities include:

1. Stop unconditional college assistance.
2. Reconsider prohibitions against lateral entry.
3. Reconsider use of categories of people (women).
4. Improve resource allocation.

Dorn concluded by reiterating that the success of the AVF has allowed us to defer addressing these important issues.

PANEL THREE: Changes in the Cost of Labor September 28, 2000

Chair: Cindy Williams

Panelists: Carla Tighe, Don Cymrot, Casey Wardynski, and Jim Hosek

Cindy Williams introduced the session with two comments:

- Over the course of the AVF, the cost of labor has been dramatically affected, and has become much higher;
- It is important to see what has happened, what is happening, and what it means.

Carla Tighe focused on the cost of labor as a signal to decisionmakers, and noted that military labor costs now make up roughly one-third of the overall budget. She noted that one would expect to see changes in the capital/labor ratio, and increases in outsourcing. The patterns should be similar to those in industry (i.e., protecting the core activities of the enterprise but outsourcing peripheral activities). Contractors would be used to handle seasonal and cyclical peaks and valleys, taking advantage of economies of scale.

The AVF appears to provide the incentives for such patterns, but experience with outsourcing over the last 30 years does not seem to bear out the expected outcomes. The A-76 database reveals that very few military positions have been subjected to study for outsourcing. In its first year –1978 – 221 positions were studied. This increased gradually to about 3,000 per year by 1989, but Congress imposed a moratorium in the early 1990s. The moratorium was later lifted, and since 1996 about 1,400-1,500 military billets have been studied each year for possible privatization. While the numbers did grow, the positions included in A-76 studies have represented a very small as a percentage of the total force. This suggests that the signal was present, but weak.

Why? It is possible that the signal was received at the headquarters level, with initiatives imposed from the top down, but not really felt at the field level. Moreover, the signal may be subject to distortion on the way down. Unfortunately, **Tighe** concluded, more work needs to be done to shed further light on these possibilities. In particular, further analysis of financial and budgetary incentives to improving efficiency would be useful.

Don Cymrot spoke of the need to confront the reasons behind the failure to reform the military retirement system. The REDUX reforms collapsed just as they were about to take hold because of a perceived fairness or equity issue, espoused even by those who were not affected by the reform. Top leadership was unwilling to counter the equity arguments, and the analytical community was caught by surprise. The opportunity for reform was lost, although there has been some progress in dealing with cliff vesting through devices such as Thrift Savings Plan (TSP) contributions, etc.

So what needs to happen in compensation? We observe lots of special pays, bonuses, etc. We need to learn the lesson of retirement—that it is difficult to change the system in ways that will raise equity issues.

There is a far larger variance in civilian pay than in military pay. Civilian pay varies by roughly 250 percent across occupations, while military pay, even with SRBs, only varies by about 90 percent. We face a larger pay gap, relative to civilian pay, for new-economy skills than for old-economy skills.

To address the need for greater variance in military pay, **Cymrot** proposed a three-tier pay scale made up of base pay, skill-based pay, and assignment-based pay. (The last could be market-based, e.g., account for locality differences as well as differences in service conditions, such as sea duty.)

The purpose of such reforms would be to separate pay from military rank. Lateral entrants could come in at relatively low rank, but with high skill pay. The idea is to allow DoD to compete more effectively for highly valued skills without the supervisory responsibilities implied by bringing people in at high rank.

Casey Wardynski spoke of the implications for family income of the rising trend in military spouses' participation in the labor market, and the compounding difficulties imposed by the Army's location patterns. He suggested that the military compensation system implicitly assumes that military spouses do not work, and pointed out that until the mid-1980s a spouse's volunteer activities could be recorded on an officer's fitness report.

Now, however, upwards of 65 percent of military spouses participate in the labor market. The frequent shifts in location, and poor location of military bases for spousal employment (that is, the Army, Air Force, and Marines have large bases in areas with weak labor markets for spouses seeking jobs) result in a finding of lower wages earned by military spouses than their civilian contemporaries.

In the future, the proportion of married personnel in the force is likely to remain at least at the current level and spousal income is likely to be at least as important to the family as at present. In addition,

given trends in education, levels of spousal education are likely to be even higher than at present. This trend does not bode well for retention unless spousal employment needs are met.

Wardynski suggested that some of the factors that drove the current basing pattern (largely cheap land for training, or dispersed locations for strategic nuclear missile fields and bomber bases) probably will not be as important in the future as they once were. The services need to explore options to decrease the effects of lost spousal income, either by reexamining their basing patterns or, more conservatively, by pursuing compensatory programs. These include preferential hiring of spouses by the military, use of employment subsidies or tax credits for contractors hiring spouses, use of private-public partnerships to create on-base industrial parks akin to the one under development at Fort Leonard Wood, or use of the Internet to expand the scope of labor demand beyond the confines of markets adjacent to military installations.

Jim Hosek's theme was making the most of the AVF, which implies a need for the efficient utilization of manpower—both in operations and in compensating people. The challenges are to attract and keep people and to utilize them effectively.

Military/civilian wage ratios have always been computed for a particular reference group of civilians. That is, wages for officers are compared to wages for college graduates, and enlisted wages to those of high school graduates. There is probably a need for an additional level of sophistication, in order to capture in the comparison those in the civilian labor force with some college, not just a high school diploma. This would take better account of the large increase in post-secondary enrollment and the rising returns to higher education (although these returns have risen and fallen over time).

There is a correlation between education and performance on the AFQT tests: those with four or more years of college score at the 84 level; those with some, at the 65; and those with none, only at the 50 level. Further, college enrollment rates have been rising. The rise in college enrollment rates is reducing the size of the traditional recruiting market, and the correlation between AFQT and educational attainment means that the traditional recruiting market is being disproportionately depleted of high-quality prospects.

Another change is that many people are now pursuing higher education throughout their twenties. The returns to four or more years of college have risen the fastest, which serves as an inducement to persons with some college to complete their college degree. Also, wages have risen faster in information technology (IT) and “knowledge-worker” occupations than in other occupations. Although the increased supply of college graduates may slow down their wage growth in the future, the military cannot necessarily count on this and wait for it to occur.

These trends suggest that we need to worry about organizational issues and career paths. As Secretary Danzig indicated, we are not making efficient use of personnel.

We need to concern ourselves with the number of high quality recruits, and with retaining high-tech workers. The proportion of high-quality recruits has fallen from an all-time high of 72 percent in 1992

to 59 percent in 1999. This is important because high-quality recruits are more proficient in performing their mission-essential tasks, and because the average AFQT score of an enlisted cohort does not increase during its service career. Those in both tails (with the highest and the lowest AFQT scores) leave. Thus, the best predictor of the AFQT scores of a cohort are the entering scores of that cohort.

Retention shortfalls in any occupation can hurt readiness, but shortages in high-tech areas hurt most. For example, the Air Force currently doesn't have enough E-5s and E-6s to train E-3s, so by the time the current E-3s reach E-5 grade, they will not be as well trained as their predecessors.

The compensation structure also may not be cost efficient. The military departments tend to manage to profiles that are the same across two-digit MOSs. But high-quality personnel may have greater and longer proficiency increases. Higher-aptitude personnel learn faster and better. The services may therefore want to lengthen careers in some areas to reduce the number of recruits needed, which would also increase the return on training investments.

The Air Force does have longer careers on average, but treats all careers the same. **Hosek** suggested that they should not be all the same lengths. The balance between youth and vigor and education and training may differ in different areas.

The services also may want to retain the best in each field. Reenlistment bonuses reflect only occupations, not AFQT scores. While promotion practices may help, the services may want to separate pay from rank to develop a system that allows them to keep, but not promote, people out of the jobs they're needed in. This is an open question.

In the mid-'70s, a lot of work was done on the experience mix. We need more work on the relationships between AFQT, experience, education, and productivity. There is lots of ground to cover, which will require more thorough and continuous study.

The private sector has paid a lot of attention to workers, and has changed many practices accordingly. This is less true of the military. Is this all force of habit? Why isn't the senior leadership pushing this? Is an outside force like Secretary Danzig required?

DoD analysts often use static models, when a more dynamic, stochastic approach is needed. There is little information on on-the-job training. DoD in the mid-'70s created the Defense Manpower Data Center to provide data. It is time for a radical look at the data holdings and files made available to researchers, and the integration of the files. Data should be made available in a usable form to all, with better ties between files.

Williams summarized the panelists' comments by noting that DoD faces a very competitive environment, but that there are some options for addressing this. One is to substitute private-sector employees for military personnel—but there are obstacles to that approach. Another is to adopt a more skill-based compensation system, but other concerns, such as equity, could suppress support for such efforts. Comments on the labor consequences of the basing structure are well taken. And, the outside

world focuses more on dollars and cents. A more flexible approach to DoD compensation policy is needed.

BREAKFAST SPEAKER

Patrick O'Leary
Workforce Planning Manager, United Parcel Service
September 29, 2000

Whenever I receive a call to talk to groups about what I do for UPS it still amazes me that people actually want to hear me talk. What is really amazing about this invitation is that someone heard me at the MORS conference last year and recommended me to speak at this conference. After attending the MORS conference I realized there are many, many parallels between whom and how the military recruits and whom and how UPS recruits. We share some of the same challenges and we share the same "battlefield" --- 18- to 21-year-olds.

To give you an idea of the size and scope of the operation that I manage in Louisville, let me review some numbers. I found it interesting that the military "hires" about 167,000 people per year. In 1999, company wide, UPS hired about that exact same number (160,000). Granted, our jobs are mostly part-time, but for comparison purposes, UPS and the military deal with about the same number of people per year.

Last year, the "Draft Terms of Reference" for the MORS conference stated that:

The military services are currently experiencing difficulty recruiting and retaining adequate numbers of quality enlisted people necessary to meet operational requirements. Recent recruiting efforts have not met goals and military personnel are opting to leave the military at rates higher than is required to maintain adequate end strength.

Guess what: UPS has the exact same problem. Last year we were turning over people at a rate that was higher than 50 percent. The average time of service for a new hire was less than six weeks. Like the military, UPS realizes that we must reverse this trend. It not only is costing us a tremendous amount of dollars; it is affecting our ability to serve our customers.

This is not a problem that has "ambushed" UPS. It has hit some of our operations earlier than others, but for the most part, all of our major operations in metropolitan areas are having this challenge.

The staffing challenge did not arrive in Louisville until about six years ago. When UPS opened the national air hub in 1981, we initially had 150 part-time jobs that paid \$8.00 per hour. We had over 5,000 people apply. In 1993 I spent only \$1,000 on advertising. That paid for one display ad in the local Sunday paper. So my advertising cost per hire was about 19 cents. In 1998 I spent close to

\$350,000 on advertising. That paid for newspaper, radio, TV, billboards, etc. So five years later, my advertising cost per hire was about \$48.50.

What happened? A number of things --- economic development, low employment, and changing demographics. Since 1981 the Metropolitan Statistical Area (MSA) of Louisville has only grown 40,000 people. The largest county, Jefferson, which is the county in which the air hub is located, lost 9,000 people. The work force population (ages 15-74) is projected by the Census Bureau to grow nationally by 28.4 percent between 1980 and 2010. In comparison, Kentucky will only grow by 7.6 percent. Additionally, the growth will be in the mature work force, ages 35 to 64, with a decline in our younger work force (ages 15 to 34). The reason I lose sleep over those statistics is because 75 percent of the people UPS interviewed at the Employment Center last year were between the ages of 18 and 34. There is another reason for my lack of sleep. We expect our operation in Louisville to grow to at least 20,000+ people over the next three to five years. We currently have 18,000 employees in the Louisville area; about 60 percent are part time.

Some additional numbers:

- In 1970, 47 percent of Kentucky's population was under 25 years old. By 1990, that figure had dropped to 37 percent. Projections for 2010 suggest the number will drop to 32 percent.
- The population growth in the entire state of Kentucky between 1980 and 1990 was only 26,114. That is less than one percent growth.
- The state ranks 49th in the nation in fertility, and our birth numbers continue to fall. (West Virginia is 50th)
- Between the years 1970 and 1990 the number of people between the ages of 15 and 24 in Jefferson County fell by 28,036. That is a decrease of 23.5 percent. The number is projected to decline an additional 6.1 percent by the year 2010.
- Only eight of Kentucky's 120 counties experienced growth in their population aged 0-17 during the 1980s.

This is not good news to a company, like UPS, that relies heavily on a large part time workforce that is mostly made up of people 18- to 24-years-old. Last year, we hired about 6,500 people for our airport operation. So here is what I am up against in Louisville. I have to hire for one of the largest UPS operations. I am recruiting from an area that is losing population. The unemployment rate is less than 3 percent. We have more jobs than people. (You could make a lot of money in Louisville selling "Now Hiring" signs *if* you could find someone to make them and sell them.) We are turning over people at a rate of almost 50 percent and they are leaving after only six weeks.

And my job is in the middle of the night --- hot in the summer, cold in the winter --- and it is a very production-oriented environment. You have to hustle to keep up. The other thing about Louisville that

makes my job more interesting is the fact that *if* we can't pull the airplanes out of Louisville on time it could affect EVERY UPS delivery driver in the *world* --- no pressure there!

One more thing that I lay awake nights about.... In March of 1998, UPS announced the largest expansion in the company's history. It will cost over one billion dollars and create 6,000 new jobs. It will take an existing building that is already over a million square feet under one roof and make it a building that will be over three million square feet under one roof. Guess where that expansion is happening --- Louisville. What we have is a multifaceted problem that will need a multifaceted solution. There is not one "golden bullet" out there that will fix the entire problem.

When we made the announcement about our expansion I was interviewed by the media. One of the questions I was asked was, Where are you going to find all those people? My reply was, "The days of hiring 100 people from one source are gone. We now must hire 20 people from 5 different sources *but* we must be prepared to deal with the challenges those folks bring to the table." Deaf, mature, "moonlighters," flexible schedules, etc. The days of "Go ahead and let them quit --- we can make more!" are also gone.

The days of one approach to recruiting are gone. I feel that it is not about recruiting anymore --- it is about marketing. I try to explain to my internal customers that the current recruiting and employment process is more like a manufacturing and marketing process. They are producing the product that I must sell -- a job. Any attribute they can add to that "product" or job makes it easier to market. It is difficult to sell a "product" that nobody wants because they can get a better "product" at another company.

It is equally important to point out to the folks in the "manufacturing" side of the business if they produce a product with defects it just makes the marketing that much tougher. So what the hell am I talking about? Our job must be an "irresistible offer" --- we must beat everyone else's deal or product. It is not just about pay and benefits, it is also about treatment and working conditions; it is about quality-of-life issues, it is about making quitting *not an option* --- because if they quit there are stiff consequences.

We all have heard the saying "If you build it they will come." Well, that might be true --- they might come but if the place does not meet their needs, they will not stay. We must be able to produce a product they *cannot* get anywhere else. We must "one up" every company in Louisville. It is a "dog eat dog" world out there, and we must have the biggest dog. Can you believe that an HR guy is sounding like this? My Marine training has served me well!

When I sit in monthly review meetings with my internal customers, these are the kinds of things I hear:

"Do we need to advertise more?"

"What about billboards?"

"Do you spend enough time on campus?"

"Have you ever thought of recruiting at the high schools?"

"I never hear our commercials on the radio."

I once had a rather spirited conversation with the VP of HR. She stopped me in the hall and told me that the operations folks are really concerned about my department's ability to staff the air operation. In my opinion, they were trying to lay the blame at my feet. My reply was along the lines of "We are not the problem. We are certainly part of the solution, but we are not the problem."

We do not have an employment problem in Louisville, we have a retention problem. There are many times when I am down at the airport department that managers will stop me and say "I am 20 people down. When can I get their replacements?" I so badly want to say, "What happened to the 120 I hired for you last month?" But being the good former Marine that I am, I just salute smartly and charge up the hill.

Hiring for my operation is like shoveling water with a pitchfork --- you just can't get ahead. So what have we done? We have come up with an "irresistible offer." We call it our "UPS Delivers Education" program. It has two major components. The first is Metropolitan College, which is a joint venture among the University of Louisville, Jefferson Community College, Jefferson Technical College, and UPS. It provides students with a tuition-free post-secondary education and a good-paying part-time job with benefits. Classes are held at times that accommodate students' work schedules. It was part of an incentive package that was given to UPS by the state of Kentucky so we would expand our operation in Louisville. In a nutshell, if a person works for UPS in Louisville, Kentucky on our midnight operation and attends the University of Louisville, Jefferson Community College, or Jefferson Technical College (note there is a four-year, two-year, and tech school to choose from), we will pay:

- 100 percent of their tuition;
- Up to \$65 for each book;
- \$1,200 per year for campus housing;
- \$2,900 in bonuses paid out over 12 months; and
- A credit line of \$2,000 a year for four years, with deferred repayment.

They start at \$8.50 per hour and will work about 18-20 hours per week --- that is about \$8,000 per year in income. So, that is an "irresistible offer." But wait, there is more. There are more than three colleges in Louisville, Kentucky. If they do not attend one of those three schools in the Metro College program, we still have some educational assistance available. We call it our "Earn and Learn" program. If you attend either a two-year or four-year approved post-secondary institution, we will pay:

- \$1,500 per semester for books and tuition (with a \$3,000 per year limit);
- Just like Metro College, loans of up to \$2,000 a year for four years (with eventual repayment); and
- The \$2,900 bonus.

That program is available in 33 sites around the country, mostly metro areas like Chicago, Dallas, Columbus, Atlanta, and Nashville.

Why did we do it? We had to --- we were getting our butts kicked to the curb.

I want to strongly emphasize that this program is both a recruiting tool and a retention tool. It is very much “an irresistible offer” for any college student. Just think about it --- attend a decent school and graduate with ZERO student loans. How can you turn that down?

A few other points . . .

We do a lot of recruiting at high schools. We do so much that we are on first-name bases with the cafeteria ladies. We also do a tremendous amount of recruiting on college campuses. If they awarded degrees based on the number of visits on campus I would have a Ph.D. We attend every public function that we can, events like church picnics, street festivals, concerts, flea markets. I would come to your house for a barbecue to recruit if you would invite me!

But some of those events are not always about recruiting --- they are about image. We help freshmen move in to their dorms, and we co-host an ice cream social with the university president. We need to make sure people perceive UPS as a great place to work, a place that they would let their kids work.

We also realize we have two targeted segments:

- The applicant, which is that 18- to 24-year-old person that wants to attend college.
- The “Influencer” --- parents, coaches, and counselors.

Another word of caution: one thing I worried about when we arrived at our “irresistible offer” is that my operations folks would “take their eye off the ball.” What I mean is --- there is not *one* solution out there. We must continue with *all other* retention efforts.

I told you there were parallels between UPS and the military. When I go to job fairs I hate being near the military recruiter’s booth. I always feel like he is looking at me and saying, “If I grab him from behind and stick a knife up in his ribs”

Is Metro College working? Yes.

- 2,100 people this semester -- double the number in 1999
- Turnover rate of 10-15 percent instead of 35-45 percent
- Interest is high --- people are calling us

A few parting comments if time permits: part of my preparation for the conference was to go onto the Internet and do a little research. I found some interesting stuff. I caught myself nodding my head when I read the phrase, “We have a GI Bill without the GI.” It, of course, referred to the fact that there is so much financial aid and grant money available. At the MORS conference if I heard it once I heard it a dozen times, “The Duty, Honor, and Country approach doesn’t work anymore.” I unfortunately agree with that --- it is a shame. I read a lot of articles that keep referring to the YATS study. It shows that a lot of our youth consider the military the last stop on the career train. Anytime I am in a school, I tell

kids my story. When I came home from the MORS conference, I set a goal to do what I could to help my military recruiting partners. We are looking into a way that we could take our UPS college money and couple it up with the GI Bill money to see if we could make an irresistible offer for a recently released Marine, sailor, soldier, or airman.

PANEL FOUR: New Directions for the Future
September 29, 2000

Chair: David Chu

Panelists: James Wilson, Deborah Clay-Mendez, Peggy Golfin, and Neil Singer

David Chu introduced the panel members.

James Wilson's remarks addressed improving the efficient use of manpower. He stated that it is widely believed that military manpower is not properly economized in the Department of Defense. Some believe this to be a legacy of the draft, when manpower (especially in low pay grades) was treated as free. In trying to improve the efficiency of manpower use in DoD, the first question is whose behavior needs to be changed. The appropriate organizational level to focus on depends on three factors: having decision-making authority to alter manpower allocations, having enough knowledge of the production process to make intelligent trade-offs between manpower and other resources, and having the incentive to seek greater efficiencies. These conditions are not well satisfied at any organizational level of the Defense Department today.

One must also consider how decisions about changes in manpower use could be incorporated into the programming, budgeting, and personnel management processes. Those organizations with the most knowledge about potential improvements usually have limited participation in these processes and almost no incentive to make efficient trade-offs. Alternatively, those with the most opportunity and authority to make changes do not have adequate knowledge of the inner workings of lower-level organizations, where labor economies may be improved. Typically, the personnel management system requires a long lead-time to respond to significant changes in the overall demand for people, but those with the most knowledge of how these changes could be made generally have short tenures. Why make the effort to economize if savings accrue after you have moved elsewhere? Why economize if the budget of your organization is reduced by the amount of the savings?

To make economically sound choices, decisionmakers must know an appropriate price for personnel. At lower levels of the decision process, the cost of manpower is not even an apparent factor in staffing decisions. At higher levels, generally only the direct costs are considered. There are many indirect costs of personnel (e.g., training and base support costs) that are not typically attributed to manpower. Even faced with the right costs, the personal and narrow institutional interests of the decisionmakers may not coincide with the interests of the military service.

For a manpower allocation mechanism to enhance the efficiency with which DoD uses military personnel:

- Incentives need to reside where there is authority and knowledge.
- Incentives need to apply to a point in the decisionmaking process where they can be implemented.
- Incentives need to be structured to be real to decisionmakers.

Deborah Clay-Mendez spoke about why the future AVF might not lead to more efficient compensation and personnel management systems. She observed that, although the AVF has led to radical changes in recruiting and in the first-term career mix, the basic structure of the military personnel system --- with limited opportunities for lateral entry, limited occupational pay differentials, and 20 year retirement --- predates the AVF.

Current stresses might not be enough to force the military compensation and personnel systems in new directions. Some of the most immediate stresses might be resolved over the next decade as the size of the youth population increases by 20 percent and if unemployment rates return to historical levels. Moreover, there are several reasons why concerns about efficiency are unlikely to shape the AVF in the near future. One is the high ratio of retirees to active-duty personnel. Since 1973, the number of active-duty members per military annuitant has fallen from 2.4 to 0.7, making it politically difficult to reduce benefits that are attractive to retirees in the name of greater efficiency. Another reason is the lack of a pressing military threat, which makes it easier to tolerate inefficiency. Finally, there are all the perennial obstacles to changing the military's complex personnel systems, including the unwillingness of civilian leaders to impose change over the objections of military leaders and the unwillingness of some military leaders to give up familiar traditions.

Suppose that future stresses --- whatever they turn out to be --- don't drive the AVF in new directions but just make it less efficient. In that case, DoD might, as it has in the past, mitigate the impact of that inefficiency by substituting capital, civilians, and reservists for active-duty manpower while increasing capability.

Estimates of the DoD capital stock suggest that it has doubled relative to the size of the active-duty force since the 1970s. That trend is likely to continue as the role of new technologies (such as robotics and sensors) grows and as the United States seeks to enhance its ability to act in situations where the national interest might not justify a large loss of life. DoD has also shown that it can substitute contractors for active-duty manpower. Although the ratio of DoD civilians to active-duty personnel is the same today as in 1973, expenditures on purchased services have increased from one-fifth of military personnel costs to one-half. The opportunities for substituting reserve for active-duty manpower might appear more limited today than they were during the Cold War. Yet DoD might still take advantage of the fact that the current compensation and personnel management systems for reservists offer some of the features --- including geographic stability, integration with the civilian community, and careers that

extend past 20 years --- that a radically changed active-duty system might. One approach would be for reserve units to perform full-time work for the active force either as employees of contractors or as DoD civilians, converting to military status only if required to deploy.

DoD's ability to substitute other inputs for active-duty military protects the department from some of the costs that inefficiency in the active-duty compensation and personnel systems might otherwise impose. Yet it also reduces the pressure for change in those systems.

Peggy Golfin addressed new markets for recruiting quality personnel. She noted that the cost per recruit has doubled since 1993 and productivity per recruiter has fallen by 50 percent since 1989. And, since 1980 the fraction of high school diploma graduates attending college rose from 50 to 66 percent. Based on survey results, the largest untapped pool of potential enlistees are high school graduates who are college bound and have a moderate propensity to join the military. These people are most interested in three potential inducements: reductions in the length of the service obligation; educational benefits, like the Navy College Fund; and the opportunity to get college credit for Navy training. Many young people believe that college and military service are mutually exclusive. More opportunities to earn a college degree while on active duty, however, may attract some of the 66 percent of high school graduates who are college bound.

The Navy has set up a pilot program, called IT University, that lets sailors attend community college on base and qualify for an associate degree while learning skills relevant to their Navy job. The same approach could work for electronics repair personnel, linguists, and personnel in medical specialties.

Another promising program involves linking the Navy to the federally funded "tech prep" program. This integrates high school tech prep courses with general studies courses taken at community colleges and Navy technical training to produce highly trained sailors with associate degrees. The Navy is also pursuing a loan/scholarship program in which new recruits are given college loans that are forgiven if service obligations are fulfilled. Such initiatives are important to ensuring that the military continues to draw a sufficient number of volunteers into the force.

Neil Singer offered his thoughts on the implications of "Generation Next." **Singer** recently served on a Navy personnel task force that decided to look a generation out, at the world of 2020. From that look came a number of propositions that have relevance for today's volunteer force.

First, the military workplace is changing. Historically, military service has been essentially a blue-collar activity, but the skill mix needed by the services is shifting toward the high-tech end. The traditional service approach to manpower, of bringing in high-school graduates and training them in first basic and then more advanced skills, is fast becoming inconsistent with the types of personnel the services need.

Second, traditional labor pools are drying up. The smart high-school graduates the services covet, and compete for, are increasingly opting for college.

Third, civilian competition is becoming more challenging. The alternative to joining the service these days isn't flipping burgers at McDonald's, it's taking a two-year course in networked systems and going to Oracle.

Fourth, today's young people --- and even more, tomorrow's --- are not like their elders. They have far less tolerance for apprenticeship and busywork than was true of past generations. If you don't give them useful work, they'll be gone, and it doesn't matter if they stand to forfeit 50 percent of basic pay at retirement instead of 40 percent.

Finally, it is becoming harder and harder to keep up with the rate of change. Employers are responding to changing market conditions by constantly revising pay offers and working conditions, and they are only going to become better at it with practice and more information. In contrast, DoD is afflicted with pay and personnel systems that have all the adaptability of the dinosaurs. It is ludicrous to imagine in today's world, let alone tomorrow's, that the services will be able to survive with "one-size-fits-all" compensation systems and promotion practices.

Taken together, **Singer** concluded, these propositions say that it's time for the two words most dreaded by economists: "paradigm shift." We should be giving the commands a lot more latitude to respond to market conditions than they have today, or have had in the past. We need to begin preparing now for the very different world that lies ahead.