Military Service Hearing: Creating New Pipelines to Service and Fostering Critical Skills

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Commission:

- The Honorable Mark Gearan, Vice Chair for National and Public Service
- The Honorable Debra Wada, Vice Chair for Military Service
- Mr. Edward Allard, Commissioner
- Mr. Steve Barney, Commissioner
- The Honorable Avril Haines, Commissioner
- Ms. Jeanette James, Commissioner
- Mr. Alan Khazei, Commissioner
- Mr. Tom Kilgannon, Commissioner
- Ms. Shawn Skelly, Commissioner

Panelists:

- Ms. Nicole Camarillo, Executive Director, Talent Acquisition and Management Strategy, U.S. Army Cyber Command
- Dr. David Chu, President, Institute for Defense Analyses
- Dr. Sharon Hamilton, Director of Liaison and Military Operations, Institute for Leadership and Strategic Studies, University of North Georgia (UNG)
- Ms. Kate Kidder, Political Scientist, RAND Corporation
- Mr. Raj Shah, Co-Founder, Arceo.ai

OPENING STATEMENTS

The Honorable Debra Wada

Good morning everyone. Welcome to the 11th hearing of the National Commission on Military National and Public Service. Thank you for all being here today. For those tuning in online via our Facebook, welcome. Today, the commission will meet to discuss military service in America. Our distinguished panel will address the challenges to recruiting and retention, retaining critical skills and talent out of the military's current personnel management system, and discuss options to create new pathways to military service.

For clarification, this morning's hearing is focused on how we can recruit and retain critical skills, as well as create new pathways to military service, and in our afternoon hearing, we will discuss how we can increase awareness of military service.

The Commission defines military service as active service or active status in one of the uniformed services: Army, Navy, Air Force, Marine Corps, Coast Guard, the Commissioned Core of the National Oceanic and Atmospheric Administration, and the Public Health Service. These include active duty military service members and those serving in the reserve components. These hearings are timely as May is military appreciation month, and this weekend, May 18, is Armed Forces Day. The single-day celebration stemmed from the unification of the armed forces under the Department of Defense in 1949. On behalf of the commission, I want to recognize and thank our service members and their families for their sacrifice.

As we shared in our interim report, we learned that many Americans are not eligible to join the military. Under current standards, approximately 71 percent of Americans ages 17 through 24 do not meet the qualifications for military service. That could be for a number of reasons, including medical issues, weight, body art, history of drug use, or criminal records. We learned that many young Americans are unaware of all of the job opportunities, such as technologists, that are available to the military. And we also learned that Americans who were

ineligible for military service are rarely informed about opportunities to serve our country in either national or public service. We know that the military has generally met its recruiting goals over the life of the all-volunteer force. However, incentives, such as signing bonuses, are frequently leveraged to promote accessions in challenging recruiting times when the nation is experiencing a strong economy or low unemployment or in the midst of combat operations. Yet, as future conflicts will likely require critical skillsets and possibility of increased end strength, the sustainability of the all-volunteer force remains a concern. Sustainability relies not only on generating a sufficient number of new accessions every year, but also on recruiting and developing critical skillsets within the military. New pipelines to military service are needed to encourage greater numbers of young Americans or those with critical skills to consider military service, particularly among historically underrepresented populations. The goal of this hearing is to hear from our experts here today on how the military can better access individuals with critical skills to serve and build new pipelines to military service. I hope that our panelist will address these issues as directly as possible in their oral statements and in the responses to commissioners' questions.

So, let me take this moment to welcome our panelists. We have Nicole Camarillo, the executive director for Defense Digital Services; Dr. David Chu, president of the Institute for Defense Analysis; Dr. Sharon Hamilton, director, Liaison and Military Operations of the Institute for Leadership and Strategic Studies at the University of North Georgia, that is a mouthful; Kate Kidder, political science of RAND Corporation; and Raj Shah from Arceo.ai.

Thank you for coming and thank you for joining us today.

So, before we begin, let me make sure -- we have some housekeeping things, make sure we silence any electronic devices. Let me now explain how we will conduct today's hearing. The commissioners have all received your written testimony and we have read it and it will be entered into the official record. We'll ask you summarize the highlights of your testimony in the allotted 5 minutes. Before you, you will see our timing system. When the light turns yellow, you have approximately one-minute remaining, and when it turns red, your time has expired. After

all testimony is completed, we will move into questions from the commissioners. Each commissioner will be given 5 minutes to ask a question and receive a response.

I want to remind commissioners that we will try to hold to the 5-minute rule. Mark was a lot nicer yesterday than, I don't know, if I will be. Depending on time, we will proceed with one and possibly two rounds of questions. Upon completion of Commissioners' questions, we will provide an opportunity to members of the public who are in attendance to offer comments either on the specific topic being addressed today or more generally on the commission's overarching mandate. These comments will be limited to 2 minutes. The light will turn yellow when you have 30 seconds remaining, and the light will turn red when time has expired. So now to the fun stuff. We will now begin our panel's testimony, and I would like to begin with Nicole Camarillo, executive director of the Defense Digital Services.

Ms. Camarillo, you are recognized for 5 minutes.

Ms. Nicole Camarillo

Thank you. Vice Chairwoman Wada and distinguished Members of the Commission, I'm honored to have the opportunity to testify on ways to encourage military service and foster critical skills. As executive director of talent acquisition and management strategy for US Cyber Command, I lead multiple efforts focused on the recruitment and retention of civilian and military technical talent. Today, major conflicts will be decided by our ability to effectively use technology to defend ourselves from cyber-attacks.

I have encountered a substantial number of extraordinarily gifted men and women in uniform you already possess the skillsets required to be successful including mathematicians, software engineers, and data scientists, however, our ability to be swift in this domain is impeded by our tendency to manage these technical experts within a traditional hierarchical military structure.

Eric Schmidt, chairman of the Defense Innovation Board, and former CEO at Google, recently said that the future is going to be about assembling the right experts quickly, getting the ideas quicker than anybody else, and implementing them faster than anyone else because global competition means that timeframe you have is shorter and shorter. This is the approach our adversaries are operating under and it is imperative to our national security and ability to develop lifesaving technologies.

The fundamental challenge we face is creating a working environment where it is possible for the nation's best technical minds to work on the hardest problems we have at the speed of relevancy. My interviews with hundreds of junior military members and civilians highlighted the need for senior technical mentorship, training opportunities that would challenge their current skill level, and access to technical tools that would allow them to do their jobs. Based on these conversations, I have focused on creating an environment that provides these resources by partnering with another audacious effort underway at the Department of Defense called Defense Digital Services. The DDS individuals are recruited from the private sector to come and serve 2-year tours of duty as government civilians.

In addition to improving technology inside the Pentagon, SWAT teams of nerds are deployed globally to combatant command in support of the war fighter and our global defense networks. Army cyber command's collaboration with DDS resulted in the Jyn Program, an effort to provide technical talent in uniform the opportunity to work as they would any start up alongside some of the best engineers in the country. The Jyn Program the placed small focused technical teams of DDS experts and cyber soldiers to rapidly produce cyber capabilities. Highly trained army officers and soldiers work side-by-side with DDS civilians in unclassified collaborative startup like spaces using technology and tools found in the private sector. For instance, project teams are using concepts of continuous software iteration and user centered design which are common in the tech sector but not in the military.

They are also allowed to work out of uniform, which is key to removing rank from the problem-solving process. Once rank is not the focus, greater and more rapid trust among the

group develops, and there is more candid input at critical decision points. Through the Jyn Program, teams have successfully developed capabilities in areas ranging from drone detection technologies to tools for hunting adversaries on networks. There is also a team redesigning training for cyber soldiers to align it with operational requirements and real-world training techniques.

Jyn is now expanding to formally include technical talent from the Navy with plans to continue expanding across the services. Simple notions, like believing one has a purpose, is contributing to a shared mission in a meaningful way and is acknowledged when they do contribute are key to the culture that we must create to retain and recruit top-technical talent. Although the Jyn Program has been a success in terms of the training teams receive and their ability to rapidly develop technology, we have not yet figured out the broader challenge of how to manage these technologists once they go back into their organizations. Unfortunately, they do not always return to commands that embrace the value of their experience from the Jyn Program or their desire to remain technical in a meaningful way. The attitudinal disposition of the direct leadership will ultimately determine whether they believe they have a viable career path as technologists in the military and our ability to retain them. In my experience, this has been one of the influential factors in whether an individual decides to stay in uniform or separate from the military. I would like to close with a comment I overheard from a gifted Lieutenant Colonel in the Air Force who said, "Leaders are always trying to figure out how to keep us. Just create a place where someone like me wants to work, that's it." I believe the Army achieved what that place looks like with Jyn and the roadmap is simple: foster culture appropriate for the type of talent that you want to attract to the mission.

Thank you, and I look forward to your questions.

The Honorable Debra Wada

Thank you, Ms. Camarillo.

Dr. David Chu, you are recognized for five minutes.

Dr. David Chu

Good morning. Madam Vice Chair, Members of the Commission, thank you for the opportunity to appear this morning.

I should emphasize that my views are entirely my own. They do not necessarily reflect those of my current institution or our research sponsors. My perspective on the issue before you can be summed up in the comment the new American ambassador to Saudi Arabia made on the day of his swearing in, which was, "It is a good day when you can get up and serve the United States of America." And there are two premier opportunities, as this commission understands, for that chance. First, of course, is joining the federal civil service. The other is joining the American military. Unfortunately, those opportunities are not necessarily as well understood or, as you said, accessible to American citizens as might be what we would wish.

On the civil service side, hiring is decentralized, making it very hard if you are an American in one region of the country to understand what opportunities there are in a different region of the country. On the military side, while the military remains one of the most respected institutions in the United States, it is often seen by those who advise young people as something someone else should do; not for their child, not for their counselee, not for their student. The remedies I think for this are obvious. First, the civil service side, I would urge the civil service to start taking about national recruiting for civil service positions. We do that for certain parts of the civil service, the Securities and Exchange Commission is an example, for its staff members.

On the military side, I would consider, as the commission staff I believe has raised for a possibility you might endorse, broadening the Armed Services Vocation Aptitude Battery to make it really a career guidance tool, and it will build on what the department has already launched as a career exploration program to be used as something that all students will have to take and understand the opportunities before them. For the military, I think there are two other issues that would help, including recruiting and retention, in the long run. First is working on

national physical fitness. Weight is a real problem, as you indicated, Madam Vice Chair, in your opening remarks. We don't need to be where we are contemporarily as a nation.

Second, I would urge the commission to endorse and urge further expansion of a notion that grew up in the early 2000's for a continuum of service in the military; not that the military is a one-shot deal or something you do for 20 years, but something that you might do for a few years, move back to the civil sector, come back to military service, whether in the reserve component or active duty, as circumstances might suggest. I think that would have appeal to millennials given the sociology of that generation. I think it would help the Department of Defense, because I am convinced that a number of specialized areas, consistent with Nicole's comments a few moments ago, the department doesn't need a pyramid of experience, needs much more experience in the middle years of a career. What is embodied in the old advertisements, you may recall, for the Michelin Man, bigger in the middle, thinner at the bottom, thinner at the top. It would help the reserve components. It would be an obvious way to move people back and forth through the reserves. But one of the ancillary issues that should be considered is what credentials does someone earn during his or her period of military service, and how do those credentials translate back to the civil sector. I think it is a real barrier of movement back and forth that the civil service will not necessarily honor or respect the experience gained in the military, even though it may be the equivalent of what the civilian enterprise would otherwise desire.

Thank you, and I look forward to your questions.

The Honorable Debra Wada

Thank you, Dr. Chu.

Dr. Hamilton.

Dr. Sharon Hamilton

Vice Chairman Wada, Vice Chair Gearan, and Commissioners, thank you for the opportunity to speak today.

So how do we spark the interest of students to see college as a viable option, pursue degrees in critical fields, and consider DOD, military, or civilian service? My comments today focus on developing cyber security and strategic language education and opportunities.

In 2018, the 6 senior military colleges (SMC) developed a plan to be part of the solution to the DOD critical shortfall of skilled cyber professionals. The SMCs are University of North Georgia, Norwich, The Citadel, Texas A&M, Virginia Tech, and Virginia Military Institute. As NSA/DHS Centers of Academic Excellence for Cyber Education, we have already aligned our cyber curriculum and activities with DOD requirements. The consistent and effective SMC focus on leadership and character permeates our values, curriculum, and activities and supports our students' propensity for service. We actively seek to spark in high school and college-age students the desire to serve their nation as leaders. The fiscal year 2019 National Defense Authorization Act authorized the Secretary of Defense to establish cyber institutes. The purpose was to accelerate and focus the development of foundational expertise and critical cyber operational skills for future military and civilian leaders in the Department of Defense. Acting on this authorization, the SMC developed the cyber institute model and recently we submitted defense appropriations requests to support these efforts.

I would like to highlight four of the proposed points. First, fund DOD cyber institutes scholarships with post-graduation DOD work obligations and commitments. The scholarships, linked to DOD post-graduation jobs, will spark the interest of generations Z, those born between 1995 and 2010. These students are focused on reducing their student debt. They seek job stability and are looking for options to serve. The scholarships also provide opportunities to groups underrepresented in career fields in cyber, to include women and minorities.

Second, start the security clearance process upon cyber institute scholarship award. This was a larger pool of students for cleared DOD cyber internships and reduces the amount of post-graduation time students wait for clearances.

Third, provide incentives for students enrolled in strategic, foreign languages. We want them to study cyber security and vice versa. The combination of cyber security education and strategic language knowledge is what we call the golden ticket. This, as a combination of critical skills, prepares students for the complex and challenging DOD environment.

Fourth, supplement university cyber faculty with military officers, active, guard, and reserve and DOD civilians with recent cybersecurity experience to bring relevant skills and knowledge to faculty and students.

I would also like to briefly talk about three UNG programs that serve to spark students' interest in critical skills and military service. Since 2008, UNG has offered the college level summer language institute for Arabic, Chinese, Russian, and Korean. The 6-week intensive residential program focuses on incoming freshman and dual-enrolled high school students. Students learn 1 years' worth of language in 6 weeks and earn 8 academic hours. Also, this summer, the UNG will host its fourth Gen-Cyber Warrior Academy funded by NSA, the National Science Foundation. This fully funded, 9-day residential program prepares high school students for military, federal service, and civilian cybersecurity career paths. Students learn personal organizational and national cybersecurity awareness and earn a certified ethical hacking certificate. We have had over 140 applicants for the 40 positions this summer, and the same could be said for the last 3 years. Priority is given to students who have studied or speak a strategic language. Fifty percent of the attendees are female. Army ROTC cadets serve as tutors and mentors for this program.

Finally, this summer we will host the first Department of Education Upward Bound cyber program for high school students. The students are from low-income families or from families in which neither parent holds a bachelor's degree. Sixty students will participate in a no cost, four-week, two-day per week instruction in Python programming and ethical hacking. With future

funding, we foresee having the capacity to host up to 1000 students. Our goal at UNG is a continuous DOD pipeline and the goal for all the senior military colleges is to provide cyber and foreign-language prepared students, future leaders, and a better education educated workforce. It all starts with a spark.

Thank you.

The Honorable Debra Wada

Thank you, Dr. Hamilton.

Ms. Kidder.

Ms. Kate Kidder

Vice Chairs Wada and Gearan, and Members of the Commission, as the commission considers how to foster critical skills and create new pipelines to military service, it is worth considering how the flexibilities introduced in the National Defense Authorization Act for fiscal year 2019 may assist in reaching the commission's goals. The new authorities enable access to critical skills through three means: attracting and assessing new officers, retaining and promoting highly competitive officers, and extending career links for officers with critical skills. The permissive nature of the new authorities extends well beyond the field of cyber, including such emerging fields as artificial intelligence and machine learning. Additionally, the authorities enable the services to access talent through more traditional career fields, such as Combat Arms or pilots in order to meet requirements. The commission's draft proposals on improving access to critical skills and moving toward a continuum of service may be well served by the new authorities.

The new authorities may also say the commission as it considers how to close the civil military divide. While the NDA flexibilities are not necessarily intended for that purpose, they may offer opportunities to increase the interaction between the services and civilian industry. A

number of the provisions allow for increased access to more seasoned civilian professionals, enabling the Department of Defense and the military services access to new populations with particular skills, talents, and experiences.

Importantly, the structure of the new authorities is permissive and not prescriptive. The authorities devolved a high degree of discretion to service secretaries enabling the services to utilize them as they see fit. In my written statement I outlined seven provisions and examples of how they may work in practice, including the following, first, provisions that allow the services to commission older, more experienced officers by removing age restrictions for initial commissioning at the age of 42 and enhancing the amount of constructive credit available to lateral entrance from the private sector can answer with their level of experience. This means that the service can access highly experienced individuals commissioning them at the rank and level of experience and equivalent to years spent in private industry. For example, an individual with 19 years of private sector experience could commission as a Colonel in the Army under this new authority. Second, provisions allow the services to more adeptly manage high performers to include the ability to temporarily promote qualified officers with critical skills to meet shortages and the ability for services to promote some or all officers based on an order of merit list.

The existing promotion structure is based on cohort and time in service. The order of merit in this would enable services to promote particularly competitive officers ahead of the rest of their cohort in incentivizing performance across a range of critical skillsets. Third, it includes flexibilities to retain more technically oriented officers to remain in junior officer pay grades, even if they are twice passed over for promotion and not promoting on a leadership track. Lastly, the establishment of an alternative promotion authority, this provision enables the service secretaries to define a new competitive category based on critical skill requirements versus promotion timelines that can deviate from the traditional cohort-based framework. The authority provides flexibility to the service secretaries in defining critical skillsets that may benefit from faster, slower, or more flexible promotion timelines. All the authorities outlined here provide service secretaries with a substantial amount of flexibility in assessing, retaining, and promoting officers who meet a critical skill requirement. The authorities themselves are not a panacea.

Civilian leadership must take care in considering service cultures, equities, and practices when considering whether and how the authorities will be implemented. The permissive nature of the new authorities may lead to different outcomes between services as they innovate at different rates and along different paths in order to meet individual service requirements. Moreover, it is necessary to recognize that the services are fundamentally requirements-based organizations. Although the flexibilities in the NDA may increase individual officer satisfaction, meeting requirements remains the ultimate goal of each of the services.

Finally, when assessing the new authorities, there is a temptation to focus specifically on cyber and other technical skillsets. However, the flexibilities are constructed in such a way that service secretaries can meet critical skills and talents and can equally serve emerging fields, such as cyber, and more traditional career fields, such as combat arms and logistics.

In order to ensure successful implementation, I offer these two recommendations. First, there are a range of options for competitively compensating individuals with critical skillsets. It is worth considering which compensation option, whether bonuses or lateral entry, is the most appropriate for an individual in meeting service requirements. Second, the services will be well served by collecting better performance data in order to capture and adequately retain high performers to meet critical skill requirements.

I look forward to your questions.

The Honorable Debra Wada

Thank you, Ms. Kidder.

Mr. Shah.

Mr. Raj Shah

Thank you. Vice Chairs Gearan and Wada, Commissioners, thanks for the opportunity to share my perspectives. I think continuing to retain and attract world-class human capital is the greatest long-term challenge facing our armed forces. And so today, I wish to submit two arguments why believe we need to broaden the pool of talent and five recommendations as to how we might go about doing that.

So, the two arguments for why we need it: the first is there is a need for tech savvy leaders, and I say leaders, not just technologists, but leaders that will help us deter and prevail in conflicts in a rapidly changing technological threat landscape. And the second is that a healthy, stable democracy requires strong relationships and visceral understanding between the public and private realms.

So first, technology is transforming every entity in the world. All organizations are tech organizations, whether they know it or not. Investments in AI, autonomy, connectivity, space -- and those will continue to grow -- have forced companies to foundationally change their workforces, and that's not just in places like Silicon Valley. Goldman Sachs has 36,000 employees. Twenty-five percent of them are software or hardware engineers. DOD is no different. These same technologies will play decisive roles in the battlefield of the future. As to how we upgrade, employ, and operationalize such technologies will require military personnel with deep expertise. And it is uniformed members, both officer and enlisted that we need to combine their "tech-nectivity" with the credibility and authority inherent under Title 10. It can't just be contractors and civilians.

Unfortunately, officer accessions from our leading computer science and engineering programs have dropped precipitously. I will throw out some stats. In 1960, Stanford and MIT each graduated over 100 ROTC members. Today, it is less than a dozen. And while these organizations certainly don't have the monopoly on the best talent, it is concerning when our armed forces are not recruiting from the best universities nationwide. Second, this growing civil

military divide I think has longer implications for our nation's ability to come together, particularly in response to a crisis. If public and private sector leaders have not walked in one another's shoes, how are they going to have the necessary empathy and mutual understanding to address thorny issues such as ethics of AI or actual warfare? Some more stats: in 1980, 64 percent of Congress and 59 percent of Fortune 500 CEOs were military veterans. It is those numbers that have dropped to 19 and 6 percent, respectively. Military service in the US is also becoming a hereditary trait. From the DOD's own reporting in 2013, 80 percent of new recruits have extended family that are veterans and 25 percent have had a parent that has served. Coupled with the fact that now less than 1 percent of the US population currently wears a uniform, we risk the US military service being predominantly borne by a warrior caste. Similar trends in history have not shown to be accretive to democratic stability.

Further isolating this crisis is that most of our military bases in major population centers, like New York, Chicago, Los Angeles, and San Francisco, have all been shuttered. And if these trends go unchecked, I believe our nation will be denied the depth and breadth of military leaders and veterans necessary to maintain long-term security. But fortunately, the DOD and Congress have several tools to make meaningful improvement. And while I do agree that the debate on conscription should be reopened, in the interest of achievability I will focus on five other areas.

One, generate awareness of relationships by reopening bases in underrepresented areas, particularly technology centers like San Francisco and Boston. The human relationships between military families and their civilian neighbors is a powerful way of exposing potential recruits to the military, cut through false narratives, and put a human element to it. Obviously, I am biased, as this is my personal story. I am the first of my family ever to serve in the armed forces, and I grew up in a town with a large Air Force base. And that is not coincidental.

Two, expand ROTC opportunities. Students at our leading engineering colleges have tremendous choices today from going to startups to large companies. Make it easier for them to choose ROTC. One example is that at Stanford, the ROTC students have to travel to Berkeley, which is 1 to 2 hours in traffic, in order to drill.

Three, expand the size of the reserve component, National Guard and Reserves. The flexible career paths offered by the reserve component can be quite attractive to recruits that wish to go back and forth. To maximize this effect, portions of that reserve component would have to return to its historical posture of being a strategic reserve rather than a unit with equal readiness and deployability. And if I think about specific areas: software, cyber, and space are areas where new guardians could be particularly effective.

Fourthly, reinvigorate programs for immigrants with STEM graduate degrees to join military service. There is a long history of that in our nation.

Fifthly and finally, better retain high-performing members of the active-duty. In our booming economy, all of the services are suffering from retention, and that ranges from flexible careers, easier transitions to the guard, and other educational opportunities.

With that, thank you for the time.

The Honorable Debra Wada

Thank you, Mr. Shah.

We will now begin our round of questions by the commissioners, and as the current chair this morning, I get to start. And I don't want to be accused of becoming the mad queen, so I'll put myself on the record for five minutes.

So, Ms. Camarillo, Ms. Kidder, and Mr. Shah, we can have a number of pipelines available to bring in the critical skills, particularly in technology, that we need. Dr. Hamilton has a program, and six military colleges is another avenue to that. But if we don't provide them the onboarding experience, we don't provide them the experience that they are looking for, when they come to a job in the department, particularly in uniform, when you don't treat them the way that they expect to be treated, particularly the way that they are treated in the private sector, how do we retain them? And what is the biggest barrier that you have found in being able to create

the environment that we need to be able to retain these individuals, particularly with these critical skills?

Ms. Nicole Camarillo

I feel like that question is very directed at me. So, I think that the most complex thing to change in an organization is the culture. And when you have an organization of public servants and military members who have grown up in a very specific culture that is pretty static over time, it is difficult to change their perspective in how to manage people in a new and different way. And I find the greatest challenge; we bring people in, but we place them very intentionally with Defense Digital Service. So, they are getting a hybrid of what is like to work inside the Department of Defense, in a huge bureaucracy, with a team that is very much intentionally disruptive. And so, they get to see the push and pull of that change that needs to happen. But we also make sure that the work that they do, and I'm specifically referring to interns that come from schools like Stanford, that the work that they do matters so that they are on the ground, building hardware with military service numbers. They're designing software with military service members who are truly exceptional in their skills. And then, they go back to their schools and they talk about what a transformative experience they had. I actually heard one of our interns from Stanford yesterday disappointed that she is going to Google this summer because the work that she has been doing this quarter has been so impactful and she wants to continue doing more work like that.

So, I think the biggest challenge is that we let them do work that matters. We don't underestimate their ability to do work that matters. I think the traditional thought is that interns don't know anything, and so they are going to come and do some sort of menial task and learn by watching, when in fact, they are quite ready to do meaningful work that is consequential and could possibly save lives. And we have to be willing to give them those opportunities and let them do that.

The Honorable Debra Wada

Thank you. We learned yesterday that a 17-year-old was the biggest bounty hunted for half of the Air Force.

Ms. Kidder, do you have something to contribute?

Ms. Kate Kidder

Yes. So current authorities and DOD policies allow for bonuses and other financial incentives, but of course, the DOD is probably not competing with the private sector as far as compensation is concerned. So, reaching back to what Nicole said, the appeal to this willingness to serve and also to solving the nation's toughest challenges, is probably the best way to bring individuals in.

The Honorable Debra Wada

Mr. Shah.

Mr. Raj Shah

Yeah, and so the culture of the military is going to be different than the civilian world. And it shouldn't be: Do you want to do technology work at Google, or do you want to do technology work in the military? It should be: Do you want the opportunity to lead? Do you want the opportunity to serve in a uniformed status?

So, I think the way that the department is going to attract these folks is, one, to have them aware of what that life is like, and it is not just something that is on TV. It is something that they could do for a period of their lives. Help them understand the type of work they will get to do. What does leading mean? What does having responsibility by age 22 that you wouldn't get from a human capacity in the outside world? So, understanding that, and then tying that to a mission,

right? Why it is mission focused and how can they make a great impact. So, I think that is the first half; how do you get them in. I think the second half is how you keep them -- to stay. High-performing leaders will have an opportunity to go do other stuff. So, one is can they continue to do the mission, right? And not focus on ancillary activities, and there is lots of work being done on that in the Air Force and other places, but I think that is the reason people leave; one. And two, it's just the efficiency of the processes. So, the human capital management system, even the mundane travel system, all the little things that add up that make life just difficult to stay in. You will never win on price. The bonuses are great, and they are important, but they're not good with that. It is all the other pieces that you can't forget. That is my perspective.

The Honorable Debra Wada

Thank you very much. My time is up.

My co-chair?

The Honorable Mark Gearan

Thank you, Vice Chair Wada, and thank you all. What a great start to our hearing. We appreciate your submitted testimony as well as your oral testimony. This is extremely helpful to us.

Dr. Hamilton, perhaps I could start with you to build on your theme and your submitted testimony about the spark that is required. I would be interested in your perspective in how universities and the private sector could be better leveraged in terms of providing the kind of critical skills for the military and the government. How would you help us reflect on that?

Dr. Sharon Hamilton

Thank you for asking. I do believe in a spark. I think all of us have had that time in our careers, in our lives, where we were on one path and something happened. There was opportunity, there was a person who mentioned something to us, there was an experience, and it set us on an entirely different path. My spark was a canoe trip that led to an Army ROTC scholarship, and 27 years later, my life took an entirely different path in the Army than I had thought.

So, the spark for universities starts with what we're doing here. It is an awareness that there are programs out there right now that there is innovative, effective university programs that are producing graduates with critical skills. But they are at scale, and they need to increase their capacity. I speak to the senior military colleges, because that is the environment, I'm in now. We have the unique capacity and capability by Title 10 code that allows us to replicate the experience at a service academy but do it at a university campus. And so, you get the closing of the gap between civilian and military. So, you get two cultures working together, which brings innovation.

I would say the DOD and federal government needs to also develop more scholarships, as I mentioned, in critical skills fields: cyber and foreign language. I also believe aviation is one of those, and we're looking at that at University North Georgia. How do we start, perhaps, an element of the ROTC program focused on aviation? It had been done in the past. That ability went away, and it's probably something we need to look at again. But all of the scholarships, they have a commitment to serve. And again, that is either military service or DOD civilian service. And like Nicole had said, I am also convinced that once graduates have an opportunity to step into an environment, a military family, and see what they can do there that they can do nowhere else, they will stay. And it is a time for them to understand that; that as a culture, it can work for them also. And we see that in our NSA internships a lot, is once they get inside they say, "Okay, perhaps the pay isn't as much as that initial offer I had out here," but the opportunities to do things that could change this nation and our security, they come back and

excitedly share the spark with other students. But again, there are structures and programs in place that need consistent funding. And we build expectations with our summer language institute programs. With some of our summer cyber programs, we build expectations. We get overwhelming amounts of applications, but we can only take a small number. It is really not a large investment to have an exponential number of sparks.

The Honorable Mark Gearan

That is well said.

Mr. Shah, you cited the ROTC numbers from 1980. I think you said Stanford and other places. Do you have any reflection on this question?

Mr. Raj Shah

I think both what Dr. Hamilton and what Nicole said is helpful. It is how to get people exposed to what that mission is, right? So, can you give them a taste in the first 2 years? Either it is a summer internship or something on campus where they can experience, one, the broader mission of what the DOD does, but then the second part of it, which is, hey, this is the personal growth that you would get by being put into high stress environments and what you can grow into as an individual. And I think across those two, you could give folks the exposure they need to then consider, "Hey, I'm going to go to ROTC, and I will do 4 years or maybe I will spend a whole career. But it is something that is important for me to do now," whereas they don't get that message anywhere else. So that would be my thought.

The Honorable Mark Gearan

That is helpful.

Mr. Edward Allard

Thank you all for being here. This has been very informative and very helpful to us. My question is for Secretary Chu, and it is good to see you again, sir.

Recently, the Army has announced they are going to be doing a lot of recruiting efforts in major metropolitan areas, such as Los Angeles, my hometown. What lessons do you think we can learn from that recruitment effort, and what obstacles do you think the recruiters are going to face as they make these efforts?

Dr. David Chu

I think there are two key elements, sir. One is, are the school system leaders willing to endorse these efforts? The bulk of the recruiting problem is not for officers, it is for enlisted personnel. And to be direct about it, particularly in some of the urban areas, the school systems are not terribly supportive of military recruiting in a variety of ways, including declining to offer the ASVAB, for example, is one of several issues out there. The other element that I would urge the Army to come back to, so to speak, is what it's done in the past and still do, to some extent, in the present, and that is get those who graduated from those schools to come back to join the recruiters, to talk about their experiences in the Army and the other military services as the case might be. As I think others in this panel have suggested, they are the best ambassadors for military services if they had a great experience and could really help in that regard. But I think these two elements would be crucial to making it a success out of trying to work in the major urban areas. Can the leadership help change the view of the enterprise about the value of military service, which, at the moment, many school systems -- right here at the District of Columbia, it's an issue to be direct about it, on the value of military service. And can you get those who are currently serving from the same locales to come back and help explain what the benefits might be.

Mr. Edward Allard

Thank you, very much.

Any other panelists have any thoughts about this effort that is being undertaken by the Army and other services in terms of recruitment?

Dr. Sharon Hamilton

I think one of the other efforts, at least from Army senior leaders, is to get out in and engage more. And they are doing that. And they are engaging with the decision makers that Dr. Chu mentioned. Because you can have the peers, but you need to influence the leaders and the people are going to change some of those attitudes. One of the other things I would suggest for the recruiting, yes, we are targeting cities, but again let's look at, and it is been mentioned, let's look at those areas where there are not military bases. Let's look at rural areas. Let's look at areas that are underserved and underrepresented that perhaps are not in the South or the Southeast of the US, where predominantly we are getting over recruits from, both officer and enlisted. And, then again, expand on what opportunities we are providing to them. You know, do we give them a $4,000.00 enlistment bonus or do we give them a $5000.00? Sometimes that is the difference. And again, targeted recruitment, but I think getting out to those underserved areas and making sure that those who are at the recruiting post reflect the demographics, gender, and race and even in some cases religion so that they can go out and actually engage.

Mr. Edward Allard

Okay, thank you very much.

Madam Chair, I yield back.

Mr. Steve Barney

Thank you, Madam Chair. Some have observed that the joint force that our nation so values today would not have been possible if in the Goldwater-Nichols Act of 1986 we had not actually required joint military education and made it prerequisite for officers who wished to serve in flag and general officer ranks to successfully compete the period of joint service and leadership. That is a very prescriptive piece of law that had a very definite effect, and in your very thoughtful testimony, you have pointed out to us that many of the changes that we have seen in the recent Defense Authorization Act in 2019, which we haven't yet had an opportunity to see how the defense department and the services will roll out and uses authorities, our permissive authorities.

Dr. Chu, in your distinguished service as the undersecretary, you may recall the Navy requested authority to create a program to allow some degree of permeability, if you will, in the service with a career period where people could step away from service for a period of time either to raise families or to pursue education and because it was a permissive authority, for many years it was not strongly utilized; though people who did utilize on it reported back very, very significant results. It is a very promising one, the result of which I think by 2016, Congress took away the pilot status and made it an existing authority. So I would like to, with that very long introduction, invite you Ms. Kidder, and also you, Dr. Chu, to help us understand how the use of permissive authorities can either help or can prevent the department from moving towards those kind of important permeability-type aspects that could be very valuable in building the force of the future.

Would you care to start?

Ms. Kate Kidder

I will note two things. First, DOD and the services are currently taking a very thoughtful and measured approach to looking at what these authorities would enable them to do. And the

second component is that these are intended to help the services meet a requirement that they are not currently able to meet. As the services are examining where do we have shortfalls and at what ranks and at what levels, they will be better able to determine how to use these authorities to their benefit. And I think it comes back to a lot of the discussion about talent management tends to revolve around individual satisfaction and the effects on retention. And the services are coming at it from the perspective of how do we meet a requirement. And so, I think framing the current flexibilities in terms of how it helps the services meet a requirement is the way to actually see them implement them to the fullest capability.

Dr. David Chu

Well, I think in the economy structure where you identified a situation where if Congress is working on the supply side, you can do these things. What is missing is the demand side. Does anyone want to do these things? I think that goes to what Ms. Kidder said, what are the requirements? I'm not sure you want the Congress to prescribe the answer, but I do think further encouragement to rethinking the pyramid of experience, which is the current model for all of the services of both officer and enlisted force. You start with a lot of raw talent at the bottom. You chip away at it over the years the retention policies of various kinds and you have very few people at the top, and you have a modest number in the middle. My hypothesis is that in many technical areas you want more people in the middle, people with a certain amount of experience, not necessarily staying for a whole career, which is an advantage by the new retirement system that Congress has adopted. So while I would not necessarily recommend that Congress specify the answer, it might be that the conversation between the Congress and department in each year in the Authorization Act process might focus on this question, why do you like the pyramid as the answer for every skillset in the military? Just common sense suggests that can't really be true. In some skill areas you want people with a more robust experience level, maybe not so many at the bottom, back to Ms. Camarillo's point about the interns really are quite competent. They don't have to all start out at ground zero.

So, I think that conversation might help change the issue. I might add, by the way, I do think the Army is very serious about exploiting these authorities and the further suggestion that I would offer for everyone's consideration is it is inevitable that something will go wrong in using these authorities and my hope would be that we don't revert to the status quo ante when that happens but rather have some degree of forgiveness when those mistakes.

Ms. Nicole Camarillo

I am mindful of the lights going off. I just want to add -- I think it is really important. I actually worked with General Nakasone on the direct commission officer pilot and how we would leverage it to bring in mid to senior-level technical talent, because that is where we were seeing gaps and a need for technical leadership in that private sector, bringing in those best practices. I think that there also needs to be some follow-up that the legislative intent behind these authorities that that's actually how they are getting implemented. So we had an increase to constructive credit to 20 years, and then I heard a proposal that the guidance would be for every 3 years of private-sector experience we would award them 1 year of constructive credit, which would require 60 years of private-sector experience to bring somebody in at the level of Colonel, which is the highest rank that we wanted to be able to offer. And second, there is again the implementation, as Dr. Chu mentioned, can miss the mark, but I think there needs to be more engagement by the people who wrote the legislative language that the people who are then going to implement it truly understand the intent and results that were expected from that, as well.

Mr. Steve Barney

At the risk of incurring the wrath of our Vice Chair, one of the things that was observed yesterday was that with the kind of critical skills that we are talking about with emerging technologies, some of these technologies have not been around long enough to even have people who can demonstrate the kind of years of service that would provide relevant, constructive credit, and I will let it go at that until the next round. Thank you.

Ms. Nicole Camarillo

Precisely.

Dr. David Chu

Despite the red light, if I just could add two thoughts. One is where the Congress may need to help is grade limitations. And those may bind in the middle ranks. I'm not suggesting a top-heavy enterprise, but maybe some latitude there. The second, back to Ms. Camarillo's point about sociology, we have been here before. We did this in the Second World War. Knudsen of General Motors was given a Lieutenant General's commission.

Ms. Jeanette James

Thank you, Madam Chair, and thank you to the panel for sharing your time and your expertise with us today.

At the risk of beating this dead horse, or perhaps the horse isn't dead, we talked this morning about leading the horse to water than having to dunk the head and every once in a while, to get them to taste it. I would like to continue this discussion of some of the constructive credit and some of the authorities that were provided in the NDAA. And, Dr. Chu, you are correct, we have seen this before. From my own experience, the Army Nurse Corps did this when we were desperately seeking individuals to come in that could provide the expertise that we needed. It's done, I don't know if all of the military services do it, but certainly the Army for a while brought in physicians with constructive credit. And, Dr. Chu, you mentioned what can go wrong.

At the risk of being Debbie Downer, sorry, Madam Chair, I would like to talk about some of the consequences and how to mitigate the consequences and I think it is more about mitigating the consequences as opposed to just throwing out the whole idea. And so, it seems that it is very

simple. If you've got a lot of experience, you are 50 years old, and you have a talent that the military needs, you recruit them, you bring them in, you make them a Colonel, an O-6. My concern with that is when you have somebody in a uniform with an eagle on their collar or on their shoulders, there is an expectation of what type of leadership experience, what type of, these days, combat experience, and just overall cultural experience that an individual has before they are able to pin that eagle on. And now, you have somebody with an eagle on their shoulder that came in last month. Whoever is looking at that individual, the eagle doesn't say, "I came in last month." That eagle carries that expectation of somebody that is looking at them that that individual knows what a traditional Colonel knows and has the experiences of the traditional Colonel. So how do you, Dr. Chu, and Ms. Kidder, actually any of the panel, what would you say to the military services and the department of defense when they are thinking about, perhaps, how to institutionalize this to not only mitigate the risks to the individual who is going to come in with that eagle now that has none of that background, and also to the unit into the institution; if you have several of these folks coming in that do not have the cultural sensitivities for the position that they are now being given. Dr. Chu let's start with you.

Dr. David Chu

Thank you, Ms. James. Yes, I think that is a very important issue. Are they going to be effective with that grade? Just pinning it on does not make it effective. And I think there are two elements, one is the obvious point where we talked about what is the onboarding experience, what preparation do we give them? And as you point out, we have done this for decades in professions, the critical areas, the clergy, the lawyers, they each have different onboarding programs. Now the expectations about their carrying that rank are different, I acknowledge that.

Now the second opportunity I think we have, we can have a strong onboarding program to make sure we help those individuals understand what kind of role they are expected to play, the second opportunity out there, back to continuing service, there is a large body of people who served several years at junior ranks in the military and have left for the civil sector and have

succeeded in the civil sector. Could we invite them to come back at an advanced grade? They don't have to come back just where they left off. They can now come back in a more senior position. They will have some of the cultural norms as part of their distinctive talent. I would look to that group as a way to mitigate the risks that you are pointing out. I think it's a very promising possibility.

Ms. Kate Kidder

So, two considerations. One, these new authorities are intended for specifically these critical skills areas. So, it is more likely that the DOD will use these authorities for a more technical staff officer as opposed to this is not intended for an Infantry Combat Colonel to come in as a lateral entrance. And second, thinking through the current authorities and policies that DOD has to competitively compensate, this is the tension between is it worth bringing someone in with a competitive bonus but perhaps at a lower rank because they don't have the experience? Or another option for competitive compensation is to bring them in with more constructive credit, but that rank also comes with more authority and responsibility. So, this is where the service secretaries are really going to have to think through what the appropriate implementation is.

The Honorable Avril Haines

Thank you. Ms. Camarillo, I have three questions. I will just lay them out, and you tackle them as you see fit. The first one is what are sort of the key things that you think we could recommend to make it easier, essentially, for service members to transition between active and reserve components, and then inside and outside of military service to private sector service? So that's one.

The second two questions are really related to the Jyn Program, which I think is remarkable and I think you've got a terrific partnership there, obviously, with the digital service. One is in relation to one of the channels that you identify in your testimony, which is essentially

when these soldiers and officers that have been working alongside the private sector folks that have been brought into the digital service and learning what they have been learning, then go back to their organizations, they don't seem to be getting utilized the way we would like to see them get utilized. What can we do to address that particular challenge?

And then the third one is really just a question of, it struck me in reading about the Jyn Program is that it's focused on the technological expertise and what that can bring to the mission. And you're not necessarily restricting yourself to cyber in the sense that it might involve AI or machine learning, or other things and I want to see if that is in fact accurate in the concept.

Ms. Nicole Camarillo

So, I will start with your first question. I actually crowd-sourced that question with some of the military members that I work with. At the end of the day, I think I would like to start with saying this, I think talking to them about what they are looking for and what they expect of their careers is a piece that is often missing, both in people who are making decisions about how to manage their careers, people who are trying to influence changes often talk to the most senior person and tended to overlook the specific individuals that we're hoping to retain and attract more of. So, in this question, we went back and forth about what are the flexibilities they are looking for. At the end of the day, a lot of these individuals have signed up for a military career and they are committed to military career. Others want to come and serve for a certain number of years and then are ready to move on to the private sector.

I think what is missing right now is on the reserve side, the ones that do leave and still want to be tied to mission, it's not a very clear process for them in terms of can they pick their assignments and where they would like to apply their skills and in what organizations. Because they know where they're going to be most useful. And likewise, organizations who are seeking specific skills from reservists don't have an easy way to identify who those individuals are and where they are so that when they are needed, they can call upon them. So I think a better solution

to trying to recommend policies for more flexibility is to actually provide more guidance and visibility into what the opportunities are once they do separate from service and then helping the people who we'll need their help in the future track them and know when you want to assemble a team, here is my AI person, here is my cloud computing guru. I know several of them to go to Amazon, and they're doing AI for Amazon. I want to be able to call the person back when they are up for the reserve duty. And they want to sign up for that. So, we need to make that easier for them.

In terms of -- part of the question was giving them private-sector experience as part of their military career, I actually have found it more meaningful to have organizations like defense digital service where the private sector comes to us and they come and see what is like to be a public servant and the challenges inherent in that. And, in turn, the military and civil servants get exposure to people from the private sector and how they do things in the private sector. So, we build technical capabilities. So, we don't have product managers and designers and senior-level engineers with private-sector experience in the military already, but we do have the private sector. And when they come work for 2 years that is a significant amount of time for them to bring in best practices and influence the culture and the careers of individuals who want to learn how to do those things.

I find that much more beneficial than sending someone out for a year to Silicon Valley. It's not going to have the same level of impact we are looking for, especially when it comes to, I know you're discussing the military and civilian divide. There needs to be more merger of these two worlds in a very deliberate and intentional fashion, and I see DDS is a perfect example of how we can do that. And we can do that in areas other than technology. In terms of going back to their commands, this is a really huge question for me -- and I just noticed light is red, but I want to make sure to make this point. I think senior leaders get it. I think they want to move in the right direction, especially when it comes to technology and our adversaries and where they are with technology. I think again we are working against the traditional military culture. You have a mid-level of officers who came up a certain way. They have been successful with this path. It's very clear the wickets you have to check off to get to the next rank, they are very clear. If you

start making exceptions for people in critical-skill areas, the picture becomes less clear and you don't have a neat way of saying this person went and built a technology that is going to prevent drones from dropping grenades on the war-fighter's head. We all agree that is important. But how do I give that person credit when filling out an OER for them that they did something substantial for the country and for the military by spending their time on this when it doesn't fit into a typical command assignment. That is educating down the chain of command that we want to use these authorities that we have to leverage the careers of these individuals, perhaps accelerate their promotability based on their contributions. That isn't getting passed down clearly enough. The expectation is not clear enough, and it is so incredibly important. And most often, they just want to know that their contributions matter. Oftentimes they'll work on something and then they won't know what happened to it or if it got used. They will never know. And that is a simple thing, but it is a big deal. I didn't get your last question, and since we're out of time, I'm not sure if you want me to.

Mr. Tom Kilgannon

Thank you all for being here. This is a wonderful conversation. I wanted to address this question to Mr. Shah and invite Dr. Chu and Ms. Camarillo to weigh in as well. As a commission we've gone around and talked to a lot of people and we have noticed a deficiency in civics education across the country and we will likely make some recommendations to, hopefully, improve upon that. And we've also talked the civilian-military divide quite a bit.

So, Mr. Shah, to build on the ideas that you had to try to bridge that gap, here is another idea and I don't know if it has been done in history and perhaps we can look at it but consider this not through the lens of recruiting, but through the lens of trying to bridge this civil and military divide. If we had an academic course in high schools, call it America's Military 101, something pretty basic, that was either available to or required of students in their junior or senior year, which walked them through what the different branches of the military are. What are their different roles and responsibilities? What is the day in the life of a Soldier, Sailor, Airman, or Marine, and what is the relationship between the military and civilian authority? Has that ever

been done before? Would that be helpful? Should we consider something like that? Recognizing what you said earlier, Dr. Chu, about the resistance in schools, let's set that aside for a moment and consider whether this is even something worth taking up.

Mr. Raj Shah

Thanks. I think in general, increased civics education, of which understanding our armed forces is a welcomed thing. I understand that there are schools that don't teach civics anymore, which I think is a bit appalling. So, I think it would be helpful. I guess the question or the struggle I have particularly if you're thinking about military service which is a very different sort of environment, is will the instructors and will the teachers have any real connection to it themselves or will it again look like talking about ancient history where there is no real human interaction. And so, I think it is important, but I don't know if it would be sufficient. I would look to, say, what are others, both the recruiting and retention standpoint, what are other authorities that we could use or initiatives that could be done to solve, I think, the end goal that you highlight? Just a little bit on the last conversation, when we think about the reserve forces and the reserve component there is a unique authority in Title 32-type folks in the Air Guard and how you could involve them in the community and how you could recruit and retain folks. And then again, I think back to what I said earlier of just having a presence, just having a base in Boston or San Francisco would certainly be higher from a cost standpoint, but the I think the future ROI on that over decades would be quite measurable.

Dr. David Chu

I think I would take a slightly different tack and capitalize on the reserve components, because they are across the nation. You don't have to go build bases out there. They are there already, and in the many parts of the country they seen and appreciated as an element of the community. So, I would consider more opportunities for students to visit reserve units and see what they actually do. I think we have to come back to what Dr. Hamilton spoke, what is the

spark? I fear, you know, we can remember high school courses which were tested. I do fear that a course like this would not necessarily go over well, and I do worry a little bit about the competence, as Mr. Shah pointed out, of those who might be teaching it to actually impart the message you wish to convey. So, I think I would let the Soldiers, Sailors, Airmen, Marines, Coast Guard personnel, the Coast Guard is another opportunity out there because they are across all of the coastal areas in the United States with small detachments. Get students to visit these. I was struck the Army is making a practice, I didn't realize it was being done, of bringing high school and middle school students to its summer tattoo ceremony from across the country. I'm not sure who is paying for that, but it is a great step in the right direction. And I think it fulfills what you're pointing to. How can we get people interested in the military issues, national security issues, in a way that is compelling and will lead them to do more?

Ms. Nicole Camarillo

I see the red light. I'm just going to add, hopefully, a very quick comment. So, I have a 16-year-old that is in a STEM program at a public school, and the things that the service members I work with are building are very relevant to the STEM build. So, I think also connecting what the military works on to existing curriculum is a ripe opportunity. We have a team that actually built hardware and software for that counter-drone capability to go and talk to students about how they built those, and they are pretty junior in rank too, so there is less gap in age and commonalities. And then also, I just visited Airmen who built a virtual pilot training. It looks like a game, but it's phenomenal. It uses all kinds of new technology to scan the eye for processing skills and acquiring skills and it simulates what it is like to fly multiple different kinds of aircraft. To go talk to kids about not only building that but then give them the experience of what is like to be a pilot in a real way, I think gives them a better sense of the mission and relatability and that also exposes them to, "Could I be a pilot, or do I want to build the things that help the pilots to their jobs?" So, I think a lot of opportunities, but, again, I think it is on us to go out and pursue them.

Mr. Alan Khazei

Thank you. Thank you all for your service to our country and for the thoughtful conversation we are having this morning. I was really taken and inspired by what you said, Dr. Chu, about it is a good day to wake up and be able to serve America, which each of you do. And in many ways, that is the mission of this commission, to try to give everybody a chance to feel that feeling. So, I want to follow up on something in your testimony that you recently referenced about the ASVAB. And we are looking at some schools won't take the ASVAB because it is just focused on military and really looking at it; adjusting it to be more of a career exploration tool. So, we are the Commission on Military, National, and Public Service. It is the first time really that all three have been brought together. Looking at service to military, civilian national service, like Peace Corps, AmeriCorps, and service in local, state, and federal government. What would it mean, and I just want to build on what you said, if the ASVAB became more of a serve your country, career exploration test or if we said USA service diagnostic, where it was adjusted. We'd keep all the stuff that we need for the military but added questions about capabilities to serve in local, state, and federal government or capabilities to serve in AmeriCorps, the Peace Corps, or some other civilian national service. Would that be a good idea, how can we do that, and what could the impact be? Because I know, I have a 17-year-old; this generation is all about careers and the skills and how do I get a job given the economy that we've had. How could that work?

Dr. David Chu

I think it will be an excellent idea. I think you would want to think about how do you need to expand this so it covers the whole range of possibilities of American society; I think also the private sector. I would not restrict it to national service but see it as a tool that young people would come to expect as a step they would take to think about their future. What are the best choices for me? How do I fit in? It could be coupled with, and that is the other part where the various institutions need to play a role, coupled with useful information on how could you use

the skills you have in our society going forward? So, it is not just taking a test and saying I am good at, let's say, spatial geometry. Okay, what do I do with that next, back to what Ms. Camarillo was pointing to. It could also be used in the civil service in my judgment. Obviously, this is something the various civil services would decide what are the qualification steps. There's no reason you couldn't say that if you scored at least X on this test that you are qualified for certain positions in the state of, fill in in the blank, or federal civil service, et cetera, back to a future in which we're used to giving tests for civil service qualification. So, people knew that, okay, I could do this, back to Ms. Camarillo's point. They are competent, and they are ready to work. We just need to engage them in an effective way. So, I think it would be a terrific step to do. It could build on what the department has already started with its career enhancement program, but I think it would have to be wider than that. You would have to bring the broad range of expertise to bear on what should this test have in it in order to serve as a career guidance tool.

Mr. Alan Khazei

Thank you. Any other panelists have a thought on this?

Okay, I'll move on to my next question. So, Mr. Shah, again, thank you. I thought you made very thoughtful recommendations as to how to close the civilian-military divide. I have one more I would like to ask you about. Again, referencing that we are the Commission on Military, National, and Public Service, we recently had a chance to meet with General Stanley McChrystal, who has really taken up the cause of civilian national service, and he recommended to us to really think about military and civilian services as two sides of the same coin. What would you think of another idea as a way to close the civilian-military divide and potentially get more people to think about joining the military if we had a new call to service in this country where we said to young people as they're turning 18, maybe it's even connected to a new test that really looks at career opportunities: We want you to serve your country. You can choose to serve in the Army, AmeriCorps, the Navy, or the Peace Corps. You can choose to serve in local, state, or federal government, but we would like you to think about spending a year or two

actually in service to the country, as a way of both to help our mission but also get more people exposed to military services as well as civilian service given that we are the all-volunteer force, we only have one percent serving the military. But as McChrystal said to us, everybody should serve somehow. What you think about that idea?

Mr. Raj Shah

I think it is a great idea. I think it would be well received. I think there is a lot of interest in places that are traditionally characterized as anti-military, so think Silicon Valley. It is not true. I think there is a wellspring of folks that would love to be part of National Service. But I think we lack the permeability and the flexibility for doing that. And by increasing new on ramps and off ramps, we do that. So, for example, I know we talked about what happens when an active duty folks decide to join the civilian world, and the organization I got the pleasure of running had a reserve unit. I think we had 40 billets. I think we had 120 people that wanted to join. And these are all folks that are working in top-tier tech firms. If we had offered them away to stay in, they would have. I think similarly, if you go to leading graduates that are interested in space or AI and say, look, you will learn about space? Man, we've got this new space force. We have the biggest satellites. We have the most satellites. Come spend 2 years full-time with us, and then you can either stay in the reserves, you go to the guard, you go so something else. But you will get that opportunity, and we'll make it easy for you to join and then you can transition. You could do uniform or not in uniform. So, I think it would be well received. I think how we communicate it and how we actually implement it will be decisive as to whether or not it works.

Ms. Shawn Skelly

Thank you all for being here today. In our panel yesterday afternoon, and generally federal civil service and trying to access skills there, perhaps, the partner panel to this one, the observation was made to us that government has been racing to address the challenges of the past when it needs to be leaping ahead to meet the future. I come from this perspective from unfortunately a decade spent in different perspectives in the service and departmental level in the

fight against IED's, where it was all about fail, fail, fail, and deliver something that is going to make a difference. And from what you have described and from what we have heard, there is a lot of extant tools in toolboxes across the Department of Defense in the military. Yet from what I believe we hear, we are not moving very fast using them all, and I wonder about the risk calculus part of that. People just say leadership can get a lot done if they choose to. I would like to get your perspective on the risk calculus and how leadership can get off the dime of what is done right now and what we don't have to go ask Congress to do anew besides, resources, which is another thing. But I would like to start with Dr. Hamilton since you are in the pipeline side of things. Where can we get past the risk, leadership reticence? Then, Mr. Shah, from your perspective with how other folks deal with risk and move faster than we perhaps we don't do. And then if I could, Dr. Chu, from the senior leadership perspective.

Dr. Sharon Hamilton

Thank you for the question. I think where we start for any of the universities with senior ROTC programs and particularly senior military colleges is, we wrap everything in leadership. And so, every skill they learn is talked about in the concept of how would you use this as a leader. How would you lead other people who have these skills? And so, in the pipeline for any of these skills, we can't segregate and say you are only going to learn cyber, you're only going to learn to be an aviator. We need to build leaders. And so, we need to have leadership courses, and we need to have leadership experiences. And in that way, you're going to reduce that risk once they join the force, because they're not coming in saying teach me, hold my hand, pull me through. They are coming in and having these experiences and this is where we get back to working with industry, with bringing in for internships is give them the opportunity at a very young age to lead, because they want to. They may not know how to, but they want to lead so we need to let them go and then we need to let them fail early, as you talked about, and say, okay, got it, you failed. Great. What did you learn? Get up again, and let's try again. But we need to give them experience. We need to give them leadership courses, and we need to give them opportunities to succeed and fail.

Ms. Shawn Skelly

Why do you think it is that we don't have more programs like the ones that you at North Georgia do?

Dr. Sharon Hamilton

We have a lot of leadership programs out there. But sometimes they get segregated into a separate, you're going to have leadership minor, and it is not tied in with everything else that they do. I think that is just a unique skill and capability we have at senior military colleges. But take it back a step and you've got that with Junior ROTC, and you've got that with similar patrol for high schoolers and middle schoolers. We have got some great ethics, civics programs out there that have been around since 1916 for Junior ROTC or 1942, I think, for civil air patrol. You've got programs out there. Again, it's getting the word out. We've got tens of thousands of young people that take part in these programs and learn to be leaders, so how do we pull them forward and get them into universities with nascent leadership skills and then build on those once we get to the university? But again, you've got some great programs out there for leadership, but it can't be in a pipeline. You've got to wrap everything you do into what is mean for me as a leader?

Mr. Raj Shah

It is very interesting topic, leadership and the intersection of new technologies and what is going on. I would actually say that the DOD has a great leadership program. They know how to build leaders; they do that quite well. That's why I think you see a lot of people that transition both officer and enlisted that do wonderfully in the private sector. I think the question that we are hearing, and debating is how do we build the next generation of leaders in some of these technological areas? We have done in the past as a military with the advent of nuclear power and the nuclear Navy, right? You want the best nuclear engineers in the world, you recruit them out of the Navy. For the longest time if you wanted the best satellite operators, you took them out of

the Air Force. I don't think that is the case today when you think about cyber, when we think about AI, when we think about the next slew of technologies. There will be new ones. And so, it is really a reforming of the view of the DOD of saying we know that the sets of things are going to be really important and we're going to make those hard choices in terms of career fields and investing in people. Cyber is unique. Are we just going to send somebody there for 2 years and then send them back to the infantry? It's as a signal of undervaluing that. So, I think in general the DOD does a great job of leadership, and now it's thinking about how we build that next generation.

Dr. David Chu

As you are hinting, I think, a key issue is what incentives do leaders face? If the incentives are that a mistake would be politically punished, I think there are unfortunately hearings that some of us have participated in, that tends to diminish the willingness to take risk as we all understand. Starting with my view on the program down in front, we would be advantaged if we offered a prize every year for the best idea that did not work out, because most of the system is rewarding for getting your program through; program funding, program success. When you look at the private sector, a major firm that I will leave anonymous for this purpose, management is rewarded for helping the corporation make a good decision, not whether their program survived or not. I think we need more of that spirit in terms of how we think about public administration in the United States. It is necessary to tolerate a certain level of failure, or we will never try something new that might pay off for us.

The Honorable Debra Wada

Hopefully you folks are all doing well on the panel, because it looks like we have some time for our second round, okay? All right. So, I get to come up again. I have been waiting years for this, you know, Dr. Chu.

Given your experience and ability, we have, and this is not new as we have said before today, how do we as a commission develop recommendations, and what recommendations would you give to us, and probably this is for some of the other panelists as well, in how we can break down some of these culture barriers? Because culture doesn't change lives there is a crisis. And we did hear yesterday that we are facing a crisis with our federal employees, but I'm not sure we are seeing that sort of attention being placed on our critical skills in our military side. So how can we avoid the mistakes of the past when trying to move forward to get to where we need to be for the 21st century?

Dr. David Chu

I do think, ironically, history could be your ally because as some of us touched on this morning, we have done things differently in the past and it's worked. In fact, if I may point out that actually commissions can lead. Leonard Wood was looked at as one of the most successful Chiefs of Staff of the Army. He was a doctor, not the usual career path. When you look at the World War II generation of leaders, we often promoted very rapidly those who succeeded, and that was very much general Marshall's standard. He relieved those who could not hack it promptly and was willing to appoint others who showed the promise they might have. So I think using historical examples to point out that we can do things differently and we have done things differently, perhaps very much in the spirit of what you want to recommend as a commission, would be very powerful way to help bridge the culture barrier that Ms. Camarillo pointed out, which is very real. I don't want to minimize it. But the culture has been different past. We have had different promotion rates in the past, for example. We have had different ways of rewarding officers in the past. We could go back and look at some of those and point out where they succeeded, as well as where they didn't work so well. And that's, I think, part of what the commission might be most helpful in its recommendations, point out the risk that is recommendations and what those steps to mitigate those risks that you would recommend be considered.

The Honorable Debra Wada

Any other ideas from the panelists? No?

All right, now I get to ask another one. We talk about the mil-civ divide, we always talk about how we need the military to do more to engage. We also need, sort of, something that sparks an interest from the public in terms of why this is important, why we need to make sure as a country we understand why we have a military, given our history and the need for a better intersection between military and civilian. So, I hope panelists of experts here, looking for ideas, how do we get that spark? Because we have seen the military try and try again over the years to make a difference and it's working. Any ideas?

Dr. David Chu

If I can offer a suggestion, I do think it is not just that we need a military, we need a military of the kind America has built, which is remarkable if you look across countries, the degree to which civilian control is paramount. And I think that fact needs better explication to our citizens. I think some of our citizens are less aware of that reality and that success that would be best. I think emphasizing that this is a different kind of military, I think the corollary point I would make is how powerful the idea of the volunteer force has been. Getting those who want to serve into the ranks has changed the nature of the American military in a very positive way. You could see that. I haven't served in a period of transition in this regard. You could see that in the reactions of senior officers who were very skeptical of the volunteer force in the 1970s and early 1980s, but after they saw what the volunteers could do, very much in the spirit of what Ms. Camarillo testified to about the cyber area, after they saw what they could do and the difference in the quality of their service, they were convinced that this was the right answer. So, I think those two points, that this is a military that is different in terms of its governance for most countries. It's a military that's also different from a number of countries in terms of who serves in that it is built entirely on volunteers and volunteerism.

Ms. Nicole Camarillo

So, I spent a lot of time spent talking to students at universities that the military assumes they will never come and work for us. They have too many opportunities. It is actually not true. So, I don't know that the burden shouldn't still be on us and the military to do a better job communicating the mission and reaching out to individuals. There is no efficient way to do that, and I think that that is part of the issue. You actually need to go engage them in a meaningful and very direct way.

And when we first went out to Stanford and talked to the chair of the computer science department and said, "What can we do to really talk about technical skillsets and how they relate to public service," because we never do that. We never talk about, as a technologist, there are so many opportunities for you to provide a public service. And a couple of things that came out of the conversation where you need to be here. You need to be here all the time, and you need to be reminding people about your mission and what you do and how their skills apply. They need to see people that they can relate to. So even in uniform, they are still at the same general level in their careers. They have just graduated from West Point or any of the other academies, and they need to be very clear about what the opportunities are. And that sounds like an easy enough thing, but when you actually try to make sure that happens, it is incredibly complex. So, I think part of it is also on us, and we mentioned earlier, it's clearly articulated with those opportunities are in a way that is in plain English to people on the other side who don't talk about cyber. They talk about information security, right? We talk about you are going to be working in this very military fashion, but that means nothing. It doesn't translate to I need someone who is a reverse engineer who is competent in dealing with these specific technologies, and here's the opportunity we are offering you. But then on the flipside of that, it has to be what they get to do when they come, and I think that is the harder thing. I don't think it is getting people to come to the mission or get excited about the mission or want to do public service, I think the hard part is providing the meaningful opportunity on the other side in a culture that makes them want to do this. And, I

don't have an easy answer as to how we fix that problem, but I do believe that it is the one that we need to focus on the most to meet these goals.

Mr. Raj Shah

I know your red light is on but give me 2 minutes. I think there is, to what Nicole is saying, there is a range of things the department can do to do this outreach and it has done these things before, but it just is needs to do it smartly and tailor it to the target audience. And that ranges from very simple to more in depth. Very simple kinds of stuff, even Hollywood angle, the movies, an education of what life is like there, more positive stories. Visits, both ways, where people that they consider peers come in and visit this universities, one day field trips to nearby bases. Something that the department used to do a lot of, I don't know if they do it anymore, but I participated in that there is a lot of two-week immersion opportunities. The academies used to offer civil military, come stay here for two days and eat in the mess with everyone else and see how life on the other side is, totally different. But you get that exposure. Come do an internship or a two-week hack-a-thon. Let's find a way to fast-track the clearance and come in and do some hacking or some defensive work at Cyber Command; do a summer internship; do a year. So again, I think there is a sliding scale of specific targeted outreach that the department could do that says, hey, we know we are deficient in this AI stuff, cyber stuff, space, let's go and have a targeted view of who we want and which universities we want them from.

The Honorable Mark Gearan

Let me continue this and invite any members or panel to this but perhaps we could start with you, Ms. Kidder, as I get my head around the question on bonuses as an incentive. To achieve some of the recruiting and retention skills, how would you suggest we think about that and how are they best utilized and used? And Mr. Shah, I think you said we are never going to win on the financials so we have to put the primacy of our mission where the service to the country, as Dr. Chu said, where do you place bonuses as strategic use for this recruitment and retention for critical skills?

Ms. Kate Kidder

So fundamentally it requires a base of underlying data within the services so they have an understanding of where they have deficiencies or where they are not able to reach their targets and requirements and then targeting those specifically in conjunction with the desire to serve and presenting the issues and topics that individuals will work on as the most compelling problems that the nation is facing today; thinking through the amount of the bonus, as Dr. Hamilton referred to earlier, also calibrating that to the demand signal from civilians as you are looking to recruit them.

Dr. Sharon Hamilton

If I could, one of the other bonuses or one of the other incentives are the Army ROTC scholarships or any service ROTC scholarships. So that is a great deal, except right now the scholarship does not pay the full cost of attending college. It pays tuition and fees, or it pays room and meals, plus books and a monthly stipend. So even getting a full ROTC scholarship doesn't mean students can attend college. So, for a small amount of money, because we've seen that in our university, is you are losing some people who want to serve; some people who have great skills, great academic ability, but they can't stay because of the money. So, if we are going to invest and give a scholarship, then let's give a scholarship. Let's give a full scholarship. I mean, we have got some amazing focus scholarships from NSA, the cyber scholarship program, $25,000 a year. We just had three awarded at University of North Georgia for this next year. And what an amazing program. So, it allows for them to pay everything to focus on a very stringent program and not worry about that money. And oh, by the way, it has got the hook. It has got that commitment that if you've gotten a one-year scholarship, you're going to serve one year in Department of Defense.

The Honorable Mark Gearan

So, Mr. Shah, you are suggesting then from as you compare it to the private sector and the messaging opportunity, what is the message; service to the country, certainly. Is there the level of experience at a younger age that far exceeds what you could ever hope for or imagine in the private sector? What are some of the message incentives that might be assisting in the recruitment?

Mr. Raj Shah

Yeah, I think there is one bucket around the mission. Look at this. It's important for the nation and it's important for people's lives. I think there is a bucket around just getting to do cool things. It's the cool thing bucket, here is some ships and planes and things you can't do anything anywhere else. And then, the personal growth. People are very interested in what am I going to get, how am I going to grow as a leader. And I think again, in the department you will get leadership opportunities that you won't get anywhere else. In my view, leadership can be taught but it can be learned. And that is what the military does really well is give you experiential opportunities to make a bunch of mistakes as a young person before you get a ton of responsibility. I think those messages the department has always had; it's now packaging it and communicating it in a way that is appropriate for this newer generation. I do actually want to answer or follow on the last question on the pay side. I know you brought that up. I don't think that is the primacy leading way for retention. It is important, and I think if you think about this as a war for talent, which it is, if you think about how much investment the department may have done in certain skillsets. You will never be at quality with the private sector, but you certainly could get closer. So, if I think about some cyber security professional; I think about pilots. I think about the nuclear engineers where we have literally spent tens of millions of dollars on training, to then lose them for 10 to 20 percent of their salary, that calculus is tough.

Mr. Edward Allard

Dr. Hamilton, I would like to continue the discussion on ROTC and ask you how you think it might be expanded to include programs like STEM for example.

Dr. Sharon Hamilton

Thank you. First, I would like to say that the mission of senior ROTC programs is to provide military science courses and to prepare cadets to be military officers and leaders. Their job is not to direct cadets into certain fields and disciplines, because our military is like any successful organization. You have got to have backgrounds. You've got to have humanities. You have got to have history majors. You have to have cyber. You have got to have languages. So, to use ROTC to expand STEM positions, I think I would like to reframe your question. How do we increase the on-campus presence of military officers and DOD civilians to interest more students in DOD STEM+L careers?

I will use STEM+L, because that was in the 2018 DOD cyber strategy was STEM+Language. Language is a critical skill for all that it brings in the context, the critical thinking, the understanding of different perspectives. And so how do we get more, again, on campus, not in a nonthreatening way, but it in engaging way. I mean, this is about engaging Generation Z and understanding that we are not talking about millennial's anymore. These are not millennial on steroids. Generation Z has an entirely different motivation-value-belief system based on what formed them in their early years. And what they're looking for, based on research, is there looking for stability. They have a propensity to serve, and they are looking for opportunities. But chances are they haven't had a job in high school. And so, what they're looking for is these experiences.

So, if we can bring these people on campus and get more competition, cyber competitions are a huge way to get people interested; whether it is in high school or whether it is in college. For them to understand that I can study cyber, and I don't need four calculus classes. Heck, I

might have studied cyber they had it back then, if I knew it didn't take four calculus classes. Because that's been a big barrier on the education side. If you are in computer science, you get to this point and you're like, okay, I only have four more calculus classes to go and that drops a lot of people. So, get them into something that is fun, exciting, and there is an actual value-added objective at the end.

When we brought in students who were kind of on the fence of wanting to study cyber security and had them participate in some of these DOD sponsored cyber competitions, most recently in Colorado Springs with the NSA cyber challenge, we had students who were knocking on the door of the director of our cyber institute. We kind of had catastrophic success based on that. We've got more people interested than we've got seats. So, bring them on campus but not just to lecture, because the sage on the stage does not work. They need the person who is going to engage and give them an opportunity, and like you said, do something of value and then show a direct link to this is what you could do in the Army, Navy, Air Force, or Marines with this specific skill.

Mr. Steve Barney

Not long ago, a senior Army leader told me it takes about 7 years to grow a cyber warrior in the enlisted ranks. Maybe that time is coming down, but it points out that the industrial-age approach that our nation and our military has taken to how we train enlisted people in extraordinarily complex technical areas is probably fresh for a review. So, one of the things we are considering is would there be an advantage to our nation and to our military in taking some of the lessons from our senior ROTC programs and extending preservice education programs to people who would seek to come in in the enlisted ranks? I would be interested in your views on that, and I would also be interested in whether industry might have an interest in a role in developing this kind of educational capability that exists outside of the military fence line, where we could bring in young people who have interest in these cutting-edge technologies that have national security implications, train them together, and then, you know, let's compete as a nation for the best and brightest. Dr. Hamilton, with some of the things I saw in your testimony that the

University of North Georgia has done in some of these shorter-term programs that can provide people a meaningful certificate, would you like to take a first crack at that?

Dr. Sharon Hamilton

Sure. If I understand the recommendation, it is that enlisted recruits would receive funding to get professional certifications or degrees before they serve?

Mr. Steve Barney

Yes.

Dr. Sharon Hamilton

I have a challenge with that. My challenge is that this option, those recruits have not yet demonstrated the ability to get through basic and Advanced Individual Training and actually serve in the military, and so it may serve as a disincentive. We may give them the money from the Department of Defense to get these certifications, and then they are not qualified to serve. Because there are very stringent qualifications. Now we could expand that and say, well maybe if it is not military then it is as a DOD civilian or another public service, but then you have different pots of money. So, what we do have is we have already got tuition assistance. So, if they get through basic training and AIT in the Army, they will have a $4000.00 bonus to use for education. So, we've got to get them in and serve first. So, paying for that upfront on the hope that they will get their basic and AIT may not be the effect that we want. But again, what you could use that money for is to host certificate opportunities and tie that to credit or noncredit in high schools, again, just to get them interested and to let them know once again this is linked to something you could really do in the military. And oh, by the way, we can't even show you all of the really cool stuff yet. That is going to be after you come to the door. But at the same time, we better start matching that up with some physical training, some physical fitness training. Cyber,

physical fitness, and language competitions, think that is a new thing. I think there is a way to do incentives, but I don't think giving money before they ever qualified to be a recruit would get us where we want to go.

Dr. David Chu

I think, as Dr. Hamilton hinted, we don't have to pay them. The Marine Corps already does this or at least has done it in the past in the delayed entry program. So, while they are waiting, because not everybody comes in the day that the sign saying they wish to come in, the other services I think partly, this is where the commission could be helpful, are skittish about legal liability and are reluctant to use that period of time. I think we ought to shed that reluctance. I think many of the prospective recruits would be eager for preliminary training. We don't have to compensate them for it in that regard. I also think, you made a broader point, do we have to teach the skills as we now do? And back to the point Ms. Camarillo was making, do we have to assume they have no skills before they come?

Again, in the past, the Army has given advanced enlisted grades to those who come in with a certain skill level. We could go back to that practice, we still do it to a very limited extent, I believe. We could be more aggressive about it. We could also change the way we deliver training. One of the think DARPA paid to do was to develop this notion of what people call a digital tutor. There is some literature on this in the teaching realm. Basically, it is what you might now call artificial intelligence applied to teaching where the computer program helps decide what you need to learn next and has more of a tutor relationship with you. It demonstrates much faster mastery of skill and a much higher mastery of skill. So, I think there is room to change what we do before you actually raise your right hand and room to change how we teach once you raise your right hand.

Mr. Steve Barney

Thank you. My time has expired. I encourage any of my other fellow commissioners if they would like to continue that.

Ms. Nicole Camarillo

Can I just add one thing to just be illustrative here? This is a really good question, and I think the fundamental definition of what it takes to be a cyber warrior also needs to be more closely examined. There are different roles, and we still take a very static approach to how we train technologists in the military. It is a linear curriculum, and we are working on pilot programs that allow people who do come in with existing experience to advance at the appropriate rate. The flight simulator that I discussed earlier is actually using technology to read biometrics to determine if a person who is training to be a pilot has already achieved the skill that they would in a real flight, and it accelerates their training. So, I think the more important thing is not to start training them sooner but redefining what those requirements are based in a way that is fluid and can respond to operational requirements and isn't just a static list of things that we believe the people need to learn.

Ms. Jeanette James

I would like to talk about sparks. Your testimony, your written testimony had a lot of sparks in it. So far this morning we have talked a lot about people in Silicon Valley, people at universities, University of North Georgia, Stanford; my question is how do you spark the interest in people that aren't there, aren't in those places, aren't in the places that you naturally think to go? As the commission traveled around the country of the last year or so, we have been in communities where there is no interest in the military, and the military is not a desirable path. There is mistrust and fear in those communities. But there may be people who graduate from high school, young people, they may be working in a burger joint or someplace, but at night they are really good at hacking; working on computers. They are really good. And it is something

they have developed on their own. What is the spark to get them interested? So, the military, all military services, have marketing and advertising campaigns and the funding for that, unfortunately, varies drastically from year to year depending on how well they did last year with the recruiting and so there isn't consistency. They are not looking out necessarily that far forward to try and to figure out what they need.

But just thinking about the overall, not the targeted where you've got the language institutes or the spark talk programs, or something where somebody has to get there and do something. How do you spark the interest in those communities and with those young individuals who have no connection, who don't get it in school, who aren't working in anything remotely related, but they have got a talent? How do you get them?

Ms. Nicole Camarillo

If I could, at the Department of Defense, actually, the director of defense digital service sitting behind me, he started a bug bounty program at DOD. It was the first bug bounty program in federal government.

Ms. Jeanette James

Say that again?

Ms. Nicole Camarillo

Bug bounty program, it is finding vulnerabilities on networks. It is hacking, basically. And before this program, it was illegal for you to report vulnerabilities because hacking was considered an illegal activity. So, you couldn't even offer the information to be helpful and to let them know that they have a vulnerability on one of their networks. That is crowdsourcing which allows you to reach these vast networks of individuals who are technical, who hack at night. It is a bug bounty program because you find bugs in systems and you get a bounty for the ones that you find. Depending on how severe the vulnerability is, you make more money. So, Vice

Chairman Wada mentioned a 17-year-old, Jack Cable. He has become a poster child for us because at 17, and now 18 and he's at Stanford, but that happened after we met him; he was participating in these bug bounty programs. We got a chance to take senior leaders to go and talk to the hackers who participated at a roundtable so they can understand how these individuals think and what they're interested in. And one of the Colonel's asked him why do you do this? And he sat there for second and he said, actually I guess I just want to help my country. And so that is a very real way to reach far and wide the people who just do this because they love it and they are good at it and they're very interested. And it is a real application of their skillsets, and then they also get rewarded for it in exchange, which I think is a big deal. And it also gets to the risk aversion on the government side. They are getting acknowledged for taking risks and hosting these bug bounty programs and inviting the community far and wide to participate and help in that effort.

Dr. Sharon Hamilton

So, I think those competitions are very important and having open competitions and getting out to some of the rural areas. Because I am in a rural area, we serve a rural region, as do several of the senior military colleges. Get out there with summer camps; fully funded summer camps. One, parents are always looking for something for the kids to do, but something for them that interests them. And so, we are looking at doing an intelligence camp because that is another critical skill that we need to fill our intelligence community and it won't be spy camp. It might not be called that. But we will do something fun and we'll do something engaging and it is helping them just recognize that the things they are interested in are actually job options. Because sometimes the problem is too much information right now. And so, we need to focus them, and the way to focus them is in a competition, in a summer camp, or leveraging things that are already there. And so, you know, expanding Junior ROTC. The Army is in 1700 different schools or institutions for Junior ROTC but expand that out. There are lots of schools that don't even have that; so, in those communities. And again, this is a civics program. This is a leadership program. They are actually not there to push people toward the military, but they're a presence and a role model that interest someone in being in the military, the same with Civil Air Patrol. It

gives them critical skills. In Civil Air Patrol, they take orientation flights. They actually get to go up in an airplane, a small airplane, and get their hands on the controls. That might be that spark that says, wow, I can do Civil Air Patrol. They will pay for my ground school. I can get my pilot's license, and I'm all around these Air Force people. Maybe that is something I want to do. So, I think it is experiential, particularly for this generation. It is not lecturing; it is not more social media. It is experiences and rewards.

Mr. Raj Shah

Can I add one thing? So I guess one recommendation that I have for the commission that you could do is, you're right, all the services have a marketing budget and an interesting recommendation could be to have a measure of an ROI of that budget where you could suggest certain goals. The goal could be recruitment in areas they haven't today. It could be diversity. It could be a whole range of things. But they have budgets. And I don't have hard data, but my sense is there are a lot of investments in areas that would pick people from the Southeast and the southern states versus maybe investments in marketing in East ports or other things. There is a whole range of stuff. They can figure it out. But what you measure is what you will get.

The Honorable Avril Haines

So, Mr. Shah, I think one thing I just want to focus in on with you is this question of whether or not there are technology talent markets essentially that are really just areas where you don't think we can actually do military recruiting. And I think you said something earlier on that and I intuitively also believe, which is that frankly, first of all it's not pay, and secondly, there are actually a lot of folks out there who would be interested in serving the country and doing something that they feel matters, all of those things, but sort of the small barriers that we set up end up being some of those significant issues. Moreover, some of the suggestions you have given us in your testimony are things like, creating awareness by having a base in your area, getting to know people that are actually doing service, learning what the options are, those sorts of things. But are there either areas where you say this is a technology talent marketplace that we really

tried to get into that we just found was inaccessible for a variety reasons or are there areas where you really think we haven't gotten into it but there is real potential there and we should be focused on it?

Mr. Raj Shah

It is very good question. I am the optimist, and I would like to think there is no area you can't. Some will certainly harder, the dynamics of the markets are just harder. So, if you take out some of the physical fitness requirements and drug use requirements, there may be pools of talent there. But I think if you even think of really high and areas that one would think it is going to be really hard to recruit people out of AI or autonomy because the large tech companies are going to give them such incredible compensation packages, I still think even there if you brought someone in and said, hey, if you want to be the leading edge of this particular technology and you will have authorities and things to do that you just can't anywhere is the world, you will get them. If I think about even what the cyber community in and NSA has done historically, high-end mathematicians and cryptologists that could certainly get much higher paying jobs anywhere else in the world. But if you want to be at the leading edge of that, you need to come here. So, if we can show to these recruits that AI is not just a bumper sticker in the department, but we are really going to take it vantage of this vast data we have you will be the front edge of that, then I think we can. But it is credibly showing that you will get to do something that you just can't do anywhere else. If someone has interest in being the most enduring athlete in the world, you are going to go join the SEALs because you're going to get to do things and get pushed like you can't get anywhere else. If you want to fly, you go to Air Force. Can we have the same opportunities in these emergent technology areas?

The Honorable Avril Haines

With my remaining time I'm just going to come back to the third question that I asked before. But let me just give you some context. You could make the argument that the Jyn Program is related to cyber because you're at US Cyber Command. Anything that is technology-

related is there. I think one of the questions I was just asking myself in learning about the program is, is that a program that can be replicated in other spaces? It seems to me it could really be useful, that sort of joining and partnering between soldiers and folks were coming in from the outside, et cetera. For technologies that are not, per se, cyber is really what I'm getting at.

Ms. Nicole Camarillo

That is absolutely right. The whole intent behind the Jyn Program was to create a roadmap where we could provide demonstrable success with a specific methodology. So intentionally removing these individuals from their respective commands and clustering them on a team with experts and giving them a specific mission priority and three months to come up with a viable prototype. And could they be successful given the right resources, both human and financial, and the ability to just put their heads down and work and go at this problem. And it worked. And as I have been doing this work, I have linguists, going back to languages, come up to me all the time and the same thing on how their careers are managed. They have these very specific skillsets that are unique and tied to specific regions. We need them, but we don't have a clear way to manage their careers in a meaningful way where they are able to be expert linguists and let that be their primary focus and we support their careers and their promotability based on their very specialized skillset. So, I think there are certainly applicability to any specialized skillset and the approach that we have taken is creating a culture and a space for them to thrive in their particular area and providing them the right mentorship and support to be able to do that.

Mr. Tom Kilgannon

Thank you. Ms. Camarillo, I want to have a question for you, a few questions. First, we are hearing that we are in need of a lot of cyber warriors and people in this space. Can you help us quantify how many we are talking about? Are we talking about dozens, hundreds, thousands? How many people are we looking to bring in with these kinds of skills?

Ms. Nicole Camarillo

So unfortunately, I cannot give you specific numbers and I think that is part of the challenge, especially in the military, is we have created a specific number of billets for cyber and that is not where the need is. I think the need is having the expertise itself. So, you may just need one or two experts in AI to solve a specific problem or 2 to 3 data scientists that are available to work on problems where their skillsets are required. That is the fundamental challenge is I believe we have the skillsets and enough people with them, we just don't know where they are in the organization because it is so vast. And we don't have an easy way to call on them when we need them. And so, it is very much word-of-mouth right now. They all know who each other is. If they are excellent, they are a very connected community but if they find one of them, that person will get called on over, and over, and over again and we don't start looking far and wide. Sometimes there are in a completely different career field. Maybe they wanted to branch cyber, but they didn't, for whatever reason. But that is really the evening hackers and weekend hackers. So, I don't think there is a number that we have to identify. We need to make sure we have people in the specific technical areas, period, and then work from there.

Mr. Tom Kilgannon

And then when we make recommendations in our final report about, we need more cyber warriors and we need the space filled, we are going to have to go out and talk to members of Congress about why, the public about why. In your testimony there were a few references that struck me, and this is a messaging question. You talked about, we try to manage within a structure that talks about aircraft carriers, ships, tanks, and people, the number of them. That is an easy concept for the average person to wrap their heads around. And then another part you said if we don't have the talent pool, will not be able to stand up to our adversaries in this domain. So, my question is, why? What is the parable, the narrative that we can explain to the average person as to why this is important to them, why should they write their congressman about it?

Ms. Nicole Camarillo

So, the extreme example is our primary adversaries are in countries where they can force their best and brightest technical minds to serve their country and work on these technical problems. We are relying on individuals to feel called to service and to show up and do that and the military civilian divide discussion oftentimes they will say there is a small local minority, but most do want to be part of this mission and help. The problem is at the end of the day if someone like Google pulls out of the Maven Project, Google is not participating in that problem-set and none of the people in that organization are going to do it either. There isn't a clear place for them to work on issues of national security in Silicon Valley at all. And so, I think that the urgency comes from we have to keep up. We have to keep pace with countries like Russia and China who have put everything behind prioritizing their technical individuals and creating more of them. The call to service is really there are fundamental technical services that are just not inherent in federal government because they are not traditional skills that we have had to, in the past at all, because government is where you came if you are very gifted technically to work on these national security issues. Now we have gone to Silicon Valley to try to mine that talent. So, I think that the most important thing to communicate is that people with technical skills are so needed in a national security I don't think we message that ever to them. I have never seen that be the case where you're a technologist, you know how to build things, we need you, and here's why. I think if we took advantage of that messaging, we would see a pretty significant response.

Mr. Alan Khazei

I would like to continue on that stream of thought you were just sharing, Ms. Camarillo. You mentioned on the civilian-military divide it has actually been more useful to have people from the private sector come than send people from the Defense Department or the military out. So, what would you think about this idea? Take a page out of the civilian national service playbook but apply it to this. When Wendy Kopp started Teach for America almost 30 years ago, height of the Me Generation, she said, well, let's appeal to the best and brightest to spend two

years in teaching. People thought it wouldn't. It has turned out to be phenomenally successful, and it is also turned out that now 60 percent actually end up continuing in teaching, and almost all of them wind up in the education field somewhere. What if we created a service corps around tech or cyber and went to the best and brightest at Stanford, and all of these places you're trying to recruit, and you mentioned it is hard to recruit and compete, and said, "We need you. Serve your country?" You know, the world has changed. The nature of defense has changed. Come and spend a year or two in this special, really highly needed, in some ways elite, service corps serving your country." Now I understand that TFA has gotten so successful that private sector companies will defer. So, you get a job at Google, but if you get in TFA, they say go to TFA, your job is here, for example. And a bunch of companies now do that. What you think about trying to do something like that?

Ms. Nicole Camarillo

I think that is an excellent idea, and I have compared it. I am a lawyer by training, and more and more law firms started jumping on this pro bono effort to keep their employees engaged and to let them prioritize doing some public service with their skills and still be a regular employee. But I think even this, having that be an expectation, I know Marc Benioff has done that at Salesforce, where he requires his employees to log a specific number of hours of public service. The fact that they are held accountable for it is incredibly noteworthy. And I think we need to do more of that. We need to get these companies to, if they're not going to support projects as an entity, to provide the opportunities for their employees to come and participate in a corps like you're discussing. Obviously, there is inherent challenges in bringing people in from the private sector, working for the federal government and keeping them on their salary. So can do it that way at the moment, but I think if we did have this elite corps, I think that is incredibly important point that is elite. That there are not a lot of people who can do what these people do. You don't create engineers. They are born this way. This is how their minds work. And I think whatever opportunity we can create that is a national call to service and if we give them the ability to do that in a meaningful way would be incredible.

Mr. Alan Khazei

There is also FEMA who has done this; the FEMA Corps. So, a federal agency who partnered with the Corporation for National Service as a way to get younger people, more diverse folks, into disaster relief, and now it has become a pipeline where a number of them, after their year or two of service continue on. So, I think that could be very useful.

The other question I wanted to pull out, and you sort of referenced this, yesterday we heard from the panel on public service that we previously thought of service and federal government as a 20-year thing and the military also. Benefits have changed so people can vest sooner. We had one panelist who runs the digital service talk about, well maybe we should think of it more as a one, two, five-year thing. People come in. They serve for a while, and they go back. Maybe they go to the private sector and then they come back. What about that? Is there a way to sort of, if people want to stay for 20 years, yes, but is there a way to open up federal service so that is not, you've got to come for 20 years. You can come and do a stint, serve your country, and then get back to other sectors. Any thoughts on that? How can that work?

Mr. Raj Shah

I think there is a lot of interest in that, and there's a lot of people that already do that. I think there is probably some simple barriers that could be removed to make it easier, especially if you're thinking about it in a national security context. Okay, simple barriers, I say simple, but straightforward barriers are ethical ones. Can you leave and come back and not have to divest everything each way? That makes it too expensive for some folks to do it. Will the department hold clearances? We know you're going to go away for three years, but then you're going to come back. We have spent this money do your clearance; can we hold it? Right now, that is not the case. It goes away and you restart the process. And then I think there is some points to the earlier comments here around is it easier to get into the reserves? Can you go inactive for a while and then get recruited back and not lose your time in grade? What are creative ways to enable

people that want to serve to serve? Because again, I think there is a big wellspring of folks like that.

Dr. David Chu

I think for the military there is a messaging issue here, because that is the current reality. Most military personnel do not serve 20 years. The enlisted force, 10 percent or less that starts out gets to 20 years. For officers, it's more like one third. So, the typical experience is that you leave. What is missing is you don't have a way to come back, and that is the part that I think needs work. And that is the whole idea behind this continuing service notion that's been going the last 15 years or so. More could be done to make it a reality and less of a theoretical proposition.

Ms. Nicole Camarillo

I will just add quickly. I think we need, to that point, there is more discussion now among senior military leaders acknowledging we may only have these individuals for 5 years and we need to be okay with that and maximize the skillsets that they bring to the service while they are here. I think if they had a more positive experience where they felt like they gave it all they had for those 5 years. They would come back more readily and also encourage others to serve once to go into the private sector.

Ms. Shawn Skelly

This might be a little trite, but we have covered a lot of ground in a remarkably small about of time despite how much I think I've seen the red light. We've really kept it moving. From my perspective, we have kind of exhausted our question bank up here, the preplanned ones. What I would like to ask of you each, briefly, is if you've got one shot with us or on this topic that brought us here together today, whether it be a take away that we cannot miss, a factor that needs to be addressed, or a specific initiative that needs to be highlighted and raised up with

regard to addressing the pipeline for critical skills in the military. And I would like to start with you, Mr. Shah. Apologies for putting you on the spot without a lot of time.

Mr. Raj Shah

You think you would give me a few minutes think about this. I guess the broader component that I would say, rather than any specific recommendations, because we've had lots of those and in our testimony we have a lot of those, is to really embrace the fact that this is a war for talent and that the department at the end of the day is trying to acquire something, which is talent, and so to think about what is their strategic plan to go and get this? What is our 5-year plan? What are all of the ranges of options from mission reform, permeability reform, how we even communicate what does it mean to be mission driven? How are you being part of something bigger than yourself? That is a big attractant for folks. So, I think the biggest thing for me is really acceptance that this is a war for talent and that the consequences of not getting it right, because we know the battlefield of the future is going to change. It is not a bunch of aircraft carriers and fighter jets. It is going to be something different. And this will be an existential threat if we don't get it right. What is our 5-year plan, and how are we going to measure it?

Ms. Kate Kidder

I would say that culture really matters, and service culture matters very much. And a lot of times it is seen as a brake on the use of new incentives or flexibilities but in fact you can use that to your advantage as you are investing in National Service. The services really do offer a different experience than individuals are going to receive in the private sector, and there is a way to leverage that message as a way to recruit and retain individuals.

Dr. Sharon Hamilton

I would say, first of all, don't limit your search for elite talent to elite schools. I've heard a lot of discussion on Stanford and there are some amazing universities out there that are small and midsize that have elite programs and may have more of a propensity to serve. And so, you might want to start with the softer target and somewhere that you might have more potential to recruit. And you can find those schools through these competitions. So, look at who is at the top of the 377 schools in the NSA cyber challenge. Okay, we were number three. But, you know, look at the small and middle schools and go, wow, didn't know they had something there and start targeting them. Don't necessarily look just at the schools that are considered elite. The other thing I would say is don't start from scratch. Great programs are out there, and again there is actually language in the NDAA from 2019 for those DOD Cyber Institutes. There is language that authorizes the SECDEF to do this. There is a plan. Let's move forward. Let's try it and let's not be afraid to fail. Try it, put a little bit of money towards it, see what works, and get it out to the other schools. This can be a dedicated pipeline.

Dr. David Chu

I come back to this idea of continuing service as a central concept. It is not a matter of serving once and that is it. And likewise, does not to be career. In fact, we ought to be celebrating people who move back and forth over time which raises all sorts of issues, as Mr. Shah said, about conflict of interest, which I think we can solve if we are willing to.

Ms. Nicole Camarillo

I have a finite amount of time which I have spent at Stanford, but I absolutely agree with your point that it is more finding the people with the aptitude to be excellent in this area. That is a more difficult challenge. My point is that we don't assume that individuals from certain institutions are not interested in this mission. I absolutely agree that this should be something that is a national call to service. I think that is what we are missing. I think we need to be very

intentional about asking people to come and serve in whatever capacity is meaningful to them, whether it is in uniform or out of uniform. And I agree with Dr. Hamilton, we don't need a perfect plan. We always strive to figure everything out before we execute. The teams I built at Jyn were so scrappy, and we just wanted to prove a point. And I think any effort in this direction where you are trying to get the big things right like culture and quality of opportunity, and the messaging right, is going to be a step in the right direction.

PUBLIC COMMENT

The Honorable Debra Wada

For a second there I thought I was going to be able to take Commissioners Skelly's time, but I guess not. I thought you were going to give it back. Well, we are coming to end our hearing and I greatly appreciate Ms. Camarillo, Dr. Chu, Dr. Hamilton, Ms. Kidder, and Mr. Shah. Thank you very much for being here. I think we had a great conversation and we really appreciate your expertise as we move forward. So, on that note, you can leave the panel right now because we are going to go to our public comments. You're welcome to stay and continue to listen. We will have our second panel later this afternoon, thank you again for coming.

The commission is committed to transparency and openness with the public. In keeping with these principles, the commission intends to provide the public with an opportunity to deliver public comments during our hearings. As a reminder, in order to provide the greatest opportunity for as many participants to offer a comment as would like, public comment is limited to two minutes per person. As noted on our website sign up for public comments took place between the opening of registration and the start of this hearing. When you signed up you received a numbered ticket to ensure fairness, tickets were randomly drawn. We will call it five ticket numbers at a time and ask that when your number is called please come forward, make a line behind the mic, and provide your comment. If time does not permit you to offer your oral comment, we encourage you to submit your written comments to our website at www.inspire2serve.gov.

Additionally, if you have any written statements that you would like to submit for the record, please provide them to staff at the registration desk. I would like the following ticketed individuals to come forward: 080, 083, 081, 082 please come up to the mic.

Ticket Number #80

[Not present]

Ticket Number #81

Commission members and staff, I am Dean Hesk, Colonel (Retired), United States Air Force and I'm recommending the SOS initiative as a part or solution to create new pipelines to service. We support the premise that universal National Service is required, and we hope you would recommend in your report a path to implement a national service program. As a General Borland, our chairman, testified to you we would expand the opportunities to all Americans for military service if they don't participate in a national service program. Our program would add a military experience in not combatant roles for ages 18 to 25 in a small unit of young people whose physical and mental requirements would be based on their ability to take care of themselves. We do not recommend changing the all-volunteer force. This new pipeline would expose a large segment of our population to military training and opportunities to serve. It would motivate those with critical skills to volunteer for the all-volunteer force to complete a service requirement. It falls on the commission to be courageous and advocate the inclusion of such a mechanism in their final report. National polling is most favorable. It takes effort and sacrifice for the country to endure and to prosper. We cannot just cling to the efforts of a few but must seek societal investment in an America promise. Thank you for the opportunity.

Ticket Number #83

I am Major General Dennis Laich, United States Army (Retired). I am the chair of the All-Volunteer Force Forum and I want to first address Commissioner James' insightful question about bridging this cultural gap with O-6's coming in at the rank into our Army, Navy, Air Force, Marines, I think there is a cultural gap but I think we need to be careful in going both ways. The military needs to make some adjustments, but we also need to be honest with these people coming in. If we oversell the thing and I've seen this in my experience with docs and lawyers, we do this already. Do you have to meet the military requirements for haircut? Yes. Can I have a beard? No. Do I have to meet the weight control standards? Yes. Do I have to pass the PT test? Yes.

If we are honest with them upfront it helps bridge that cultural gap, but we cannot expect the military to make all of the concessions. The second point I have is to Vice Chair Wada's question about the civil military gap and the efforts of the military to close it, and how does the civilian side of that gap close the gap. I would suggest to the commission, as I have before, that the easiest way to close that gap is to go back to a conscription, a fair, lottery-based system, men and women, no exceptions, no deferments. Because, as it stands today, 99 percent of the American public has no skin in the game. Thank you.

Ticket Number #82

My name is Li-Yon. I have a PhD in economics. I am a reformer, advocate, activist. I have been on a TV program producer and speaker like C-H-I-D-I-D-I-N Times, Freedom Times series, almost 100 episodes each, one hour per episode. I have been a candidate for public office since 1994 for federal, several runs for US Senate, several times for Congress, Maryland State Comptroller, and State Senate, and local city mayor. I have been in public hearings everywhere from local to federal and law enforcement too. I am thinking that from my experience and my observation, civil rights practically is totally ignored from local, to federal, to global systems are really rigged. Elections are rigged. So, the most serious problem is what I call we have to

eliminate, including prosecution of those, what I call robberies. We put all this work together and what happens when included together is official misconduct government gang murder fraud crime injustice network. And this network is penetrating every segment of our life and spending with coercion, victimization, probation, discrimination, intimidation, humiliation, unjust practice and manipulation, influence, unjust influence, destruction, bad and unjust legislation bills, hidden agenda, false and misleading excuse, diverse results, and now most seriously, public-private partnership including economic development, housing, school, transportation amendment, property in central. And I would like – time is up. I would like to submit to the website and be careful to read every word. Every word, behind it is serious stories. I want to mention following this is power to the people. Everything I tell you, what is wrong with my veterans, so they don't have optimistics. So please read it carefully because I submit it before, and we don't resolve the problems.

The Honorable Debra Wada

We've gone through all the tickets we had for public comment, but we have a few minutes remaining. At this time if you are unable -- are you 82?

Ticket Number #79

Thank you, I am Peter Jesella. I am a Vietnam era veteran. Yesterday I referenced 1979 26th Congress HR 2206 which is a bill to change the selective service into a national youth service program and I focused on one of the key components of moving registration to the 17th birthday for mail consideration of patriotic service in its many different forms and missions. This one-year conversation in every ZIP Code, mainly high school, would force opposition to this new law to target not only the federal government but also high schools and local education districts in their opposition to such a consideration in becoming a law. So, it would spread the bad guy or the bogeyman aspect across the whole country to every school district in the nation. This one-year civic education talking on service would be the most cost-effective new pipeline to service fostering critical skills in helping to bridge the military civilian divide. To this on-ramp

highway of civic education toward off-ramps of service for all kinds and choices. Registration at 17th birthday would be the federal law. However, any 10 to 16-year-old person could proactively explore these websites and discover all of the different options available to them in the future. This bill also proposed to include women in this one-year discussion between 17 and 18 birthdays on the values of civic society through service. When in December 2015 some media talked about young women becoming part of the registration program I wrote a short essay in reply to these remarks more focused on the 17 through 18th issue but also said on pros and cons require women to register, quote, what role each individual woman plays in the military I hope is a transaction between each individual woman's goals and the needs of a professional military. Moving to April 27, 2016, the House Committee on Armed Services marked up the 2017 defense bill. Chairman Thornberry allowed Congressman Hunter to present his amendment, Draft Americans Daughter Act of 2016 to a recorded vote expecting it would fail but it passed 32-30 on a bipartisan vote.

The Honorable Debra Wada

Sir, your time is up. We would be happy to take your written statement for the record. I appreciate it.

Did we miss any other individuals in the room that had a ticket that I am not aware of?

Do you have one? Do you have a comment you would like to make? Come on up to the mic, thank you.

Public Speaker #1

Good morning, Members of the Commission. My name is Camellia Williams and I am a former Army veteran of 14 years and I sat there, and I heard some very interesting points that were made and so forth. And I would just like to add that, yes, we do need to be honest with the members of the service, the younger generation that we are trying to bring in because I find that related to them, they love honesty and they love our transparency. We have to be transparent

with them. It can be a matter where we offer something and then, well no there is a hidden agenda. They look at all this. They see all of this. Also, in terms of humanitarian, all of them like humanitarian effort type of things. If you can show them how their cyber training can parlay into a humanitarian effort that works with them. They understand that. They can relate to it. They observe us. Also, let's not forget that we have the homeless veteran population out there and they are also looking at, well if we go in, are we going to come home, and I end up like this. But just consider that as well. We have to be mindful of our delivery to them in terms of what we expect and so forth. Have more persons like themselves, to us, to them, they say we are old. We are the older generation and we are full of rules and so forth and they don't want to hear that. So, we can show that more people like themselves, commonalities as was spoken earlier, which will perhaps help a lot. Also, it isn't about us, but it is always about we; we, collectively. No matter who we are, no matter what we do, it is about us. It's not about us. So, if we can come to them on a personable level that works. I've been out there with them and that works.

Public Speaker #2

My name is Margaret Cope. I am an independent consultant and I work on national service. I am also retired Air Force. One of the best programs that we had in the active duty and reserve Air Force is we would bring community leaders out to the base and go on flights with us. And that was a real incentive to eliminate the civil military divide. Also with the reserve wing they also brought their employers out and so they could see what they do with the mission and that enabled us to have a really good relationship with the employers so that when they were deployed, oftentimes the companies would provide additional benefits in addition to what they required to do. In the Seattle area we brought out individuals like the CEO of Boeing and Microsoft and it was really very beneficial for everybody and so they got involved in national level organizations as well. Additionally, one other area maybe you should focus on what you're talking about the young people and civics engagement are the high school counselors. We brought those out as well and many of those had never been exposed to the military and they

didn't realize that many of their students would be interested in the military and the opportunities available to them for both men and women. So that is it.

The Honorable Debra Wada

Last opportunity for those who want to make a comment that have not made a comment previously. All right, on that note I appreciate everybody's attendance today thank you very much for our panelist to have left. I want to thank everybody and only with your help in the input the commission will achieve its vision, every American be inspired and eager to serve.

There being no further business before the commission, this hearing is adjourned.

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