



# **Department of Defense Equity Action Plan April 2022**

## Table of Contents

List of Acronyms.....	ii
Executive Summary .....	1
Summary of Accomplishments.....	2
Action One: Procurement and Contracting.....	4
Action Two: Military Installations and Bases .....	8
Action Three: Military Family Equity Advancement .....	11
Action Four: Equitable Artificial Intelligence Research and Development.....	16
Action Five: Underserved Community Investment.....	20

## List of Acronyms

Abbreviation	Description
AI	Artificial Intelligence
CA	Customer Agreement
COE	Center of Excellence
DEI	Diversity, Equity, and Inclusion
DEPSCoR	Defense Establish Program to Stimulate Competitive Research
DIU	Defense Innovation Unit
DoD	Department of Defense
DoDEA	Department of Defense Education Activity
DPC	Defense Pricing and Contracting
EO	Executive Order
FY	Fiscal Year
HBCU	Historically Black College and University
HUBZone	Historically Underutilized Business Zone
IPC	Interagency Policy Committee
JAIC	Joint Artificial Intelligence Center
MCCYN	Military Child Care in Your Neighborhood
ML	Machine Learning
MPP	Mentor Protégé Program
MSEP	Military Spouse Employment Partnership
MSI	Minority Serving Institution
NAEP	National Assessment of Education Progress
NALEMP	Native American Lands Environmental Mitigation Program
NPS	National Park Service
OMB	Office of Management and Budget
OSBP	Office of Small Business Programs
PFAS	Per and Polyfluoroalkyl Substances
POAM	Plan of Action and Milestones
PTAC	Procurement Technical Assistance Center
RAB	Restoration Advisory Boards
RAI	Responsible Artificial Intelligence
RIF	Rapid Innovation Fund
SBIR	Small Business Innovation Research
SDB	Small Disadvantaged Business
SDVOSB	Service-Disabled Veteran Owned Small Business
SECO	Spouse Education and Career Opportunities Program
SMART	Science, Mathematics, and Research for Transformation Scholarship-for-Service Program
STEM	Science, Technology, Engineering, and Mathematics
STTR	Small Business Technology Transfer
S&T	Science and Technology
TTPTTP	Taking the Pentagon to the People
WOSB	Woman-Owned Small Business

## Executive Summary

In January 2021, the Department of Defense (DoD) took steps to immediately implement President Biden's Executive Order (EO) 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, by conducting an equity assessment to identify potential barriers that underserved communities and individuals face regarding Federal programs. The enclosed responds to EO 13985, which requires Federal agencies to produce an equity action plan.

While the Department has historically focused on increasing equity within the DoD community, the collective actions described in this plan represent a shift in the Department's approach and focus to better ensure that we leverage our capabilities to create opportunities for *all* Americans. Within 90 days of the issuance of the plan, the Chief Diversity and Inclusion Officer will send the Deputy Secretary of Defense an implementation plan with clear milestones and completion times for each of the five actions described below.

These actions demonstrate a Department-wide commitment to this approach and establish a holistic strategy for continuing to cultivate enduring and equitable change.

- **Procurement and Contracting:** Close gaps in small business participation, participation by other underserved communities, and improve workforce equity through an ambitious equitable procurement and contracting agenda that includes advancing equity throughout the supply chain, such as advancing opportunities for prime and subcontractors who are members of underserved communities.
- **Military Installations:** Advance equity for communities around military installations and bases, including through the Native American Lands Environmental Mitigation Program, the Defense Environmental Restoration Program, and prioritizing clean-up of Per and Polyfluoroalkyl Substances (PFAS).
- **Military Families:** Advance equity for military families who are members of underserved communities, including through increased investments and expanded programming in DoD Educational Activity (DoDEA) schools, improving economic security and opportunities for military spouses, advancing health equity, and combating economic challenges experienced by military families related to housing and food insecurity.
- **Equitable Artificial Intelligence (AI) Research and Development:** Become a leader on equitable AI research and development through programs such as Artificial Social Intelligence for Successful Teams, Grounded AI Language Acquisition Research, and Guaranteeing AI Robustness Against Deception.
- **Underserved Community Investment:** Invest in under-served communities and expand access to DoD programs and opportunities by increasing investments in Minority Serving Institutions (MSIs) and investments in K-12 and K-20 programs.

## Summary of Accomplishments

In January 2021, President Biden issued EO 13985, *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*, which aims to maximize Federal agencies' approaches to enhancing equity and embedding equity in decision-making processes. To immediately comply with EO 13985, Secretary Austin signed a memorandum on January 29, 2021, rescinding all previous Department-level memoranda implementing EO 13950, *Combating Race and Sex Stereotyping*. In his memorandum, the Secretary pledged his "full support and commitment to a cohesive and ready force that nurtures equal opportunity for all."

Throughout the Department, numerous equity-related efforts have been accomplished which relate to the five actions in this plan. In February 2021, Secretary Austin directed commanding officers and supervisors at all levels to conduct a one-day "stand down" for discussion of the principle that all those who support DoD's mission deserve an environment free of discrimination, hate, and harassment. This included a focus on how extremist activities violate the fundamental principles of the Department. Shortly thereafter, DoD took steps to ensure transgender individuals who wished to serve in the military and could meet the appropriate standards were able to do so openly and free from discrimination. The Department accomplished this by revising multiple policies to bring them into compliance with EO 13985 and EO 14004, *Enabling All Qualified Americans to Serve Their Country in Uniform*.

In October 2021, Secretary Austin issued a memorandum emphasizing the important role of small businesses in the defense industrial base. The memorandum tasked the DoD Office of Small Business Programs (OSBP) with refreshing the DoD Small Business Strategy to maximize small business capabilities through a Department-wide approach. This strategy will better align the Department's efforts with the President's focus on increasing the share of dollars going to small businesses by lowering barriers to entry and increasing competition opportunities for small businesses and traditionally underserved entrepreneurs. OSBP is currently creating an implementation plan to accompany this new strategy to ensure clear adherence and measures of success for increasing the small business footprint in the contracting marketplace.

DoDEA has been a trailblazer in leading diversity, equity, and inclusion (DEI) efforts for DoD-operated primary and secondary schools. For example, DoDEA released a four-year strategic initiative in the areas of recruitment and retention, promotion and development, and teaching and learning; established its Headquarters DEI Team to identify opportunities for improvement, book studies, and sharing best practices; provided professional DEI learning and consultation for leaders; and launched DEI working groups in its eight school districts, three regions, and headquarters.

DoDEA was not the only DoD organization to take steps to foster equity in the education arena. In Fiscal Year (FY) 2021, to build infrastructure and enhance education programs at Historically Black Colleges and Universities (HBCU) and MSI, the HBCU/MSI Program awarded 70 equipment grants totaling \$30.4 million to 32 HBCUs, 37 MSIs, and 1 Tribal College or University. In FY 2021, the Department launched two new Centers of Excellence (COE) in Biotechnology and Materials Science at HBCUs, totaling \$15 million investments.

In May 2021, Deputy Secretary of Defense Hicks issued a memorandum reaffirming the Department's Ethical Principles for AI as being responsible, equitable, traceable, reliable, and governable. The memo further tasks the Joint Artificial Intelligence Center (JAIC) to be DoD's coordinator for development and implementation of the Responsible Artificial Intelligence (RAI) strategy. Similarly, DoD's Defense Innovation Unit (DIU) publicly released voluntary implementation guidance for responsible AI, which provides a practical approach for incorporating DoD's AI Ethics Principles in AI product planning, development, testing, and evaluation.

The Department also took action to address adverse equity-related effects that occur within its military family population due to changing regional and national-level economic factors. The Secretary announced a series of economic and food security initiatives in November 2021, which included temporary increases in Basic Allowance for Housing, and increases in authorizations for Temporary Lodging Expenses. DoD also released a Military Leader's Economic Security Toolkit with specific resources for leaders on how to identify Service members who are struggling to feed themselves and their families, how to engage in difficult conversations to assess food insecurity, and connect Service members to additional resources and support programs. Furthermore, DoD introduced two pilot offerings, FlexJobs and Udemy, to bolster military spouse employment opportunities.

## Action One: Procurement and Contracting

The Department implements programs that are designed to increase participation of small businesses, including small businesses from socio-economic categories and other underserved communities in DoD procurements for delivery of products, services, and technologies that benefit the warfighter. Additionally, the Department emphasizes contracting with entities employing individuals with disabilities under the AbilityOne Program and statutory pilot authorities. The Department also uses its acquisitions to drive equitable employment conditions for industry workforce on military projects. Through its equity efforts, the Department seeks to close participation opportunity gaps for underserved communities through an ambitious, equitable procurement and contracting agenda that includes advancing equity throughout the supply chain. This agenda is anticipated to result in a more competitive and robust defense industrial base delivering combat and support capabilities, with the collateral effect of increasing equity.

### Barrier to Equitable Outcomes

While assessing participation by small businesses (including categories of small businesses) as well as by AbilityOne entities, the Department identified the following barriers:

- DoD-specific procurement and contracting processes and compliance requirements.
- Lack of simplified and clear entry points for small businesses into the defense marketplace.
- Unclear communication of opportunities for small businesses and lack of access to information on requirements for bid.
- Financial instability and other inequitable working conditions for the contractor workforce.

These barriers inhibit the interest and ability of some businesses, particularly small businesses, to pursue DoD procurement opportunities.

### Action Plan to Reduce Barriers

To address these barriers, the Department identified three actions:

***Set, resource, and implement a galvanizing goal around advancing opportunities for prime and subcontractors who are members of underserved communities.***

To drive the increase of small business participation opportunities in DoD acquisitions, including participation by small disadvantaged businesses (SDBs), women-owned small businesses (WOSBs), service-disabled Veteran owned small businesses (SDVOSBs) and businesses located in historically underutilized business (HUB) zones, the Department will capitalize on ongoing strategic planning efforts such as the DoD Small Business Strategy and its implementation plan.

The Department also increased its SDB goal in support of the President's equity agenda, and will fully implement the other management actions called for by Office of Management and Budget (OMB) M-22-03, *Advancing Equity in Federal Procurement*

(December 2, 2021). For example, DoD will utilize disaggregated data on the federal contract spend, including by race and ethnicity, to help understand where disparities exist. Further, DoD will issue guidance to its acquisition workforce emphasizing adjustments to the category management planning and scoring process starting in FY 2022 in alignment with the Administration's recently announced reforms in OMB M-22-03.

The Department will also encourage and resource additional reviews of contracting opportunities, including opportunities below the Simplified Acquisition Threshold, by Small Business Professionals for Section 8(a) SDB set-asides and greater participation by Section 8(a) SDBs. DoD will resource and deploy market intelligence tools to the acquisition workforce, including small business professionals, to improve market research and facilitate identification of capable suppliers for defense contracts from underserved communities. This will support increasing set-aside competitions for small businesses, including socioeconomic categories, thus opening up entry points for these businesses to participate in the defense marketplace.

To improve clarity of small businesses opportunities DoD will continue to develop and update the DoD OSBP website (<https://business.defense.gov>) and the websites of Component OSBPs into one-stop shops for small businesses to access information on small business programs, resources available to small businesses, and toolkits on how to do business with DoD. This will include integration of the work of Procurement Technical Assistance Centers (PTACs), which provide counseling support to small businesses that are looking to compete for DoD contracts or perform on current contracts, with DoD's acquisition workforce for unity of effort. These PTACs help overcome the barriers to small businesses that struggle to meet DoD-specific contracting procurement practices and requirements. The Department intends to create processes that would enable DoD Small Business Professionals to leverage PTACs in conducting targeted market research and assistance efforts to support specific acquisitions. The Department will also create a unified management structure of small business programs to ensure long-term planning that better enables small businesses, to participate in DoD's programs and have a streamlined entry point into the defense marketplace.

DoD also has several small business and small business-focused programs that support and invest in research, development, and manufacturing capabilities and innovation in key technology sectors having the greatest impact on the American middle class worker. These programs include, for example, the Small Business Innovation Research (SBIR) Program, the Small Business Technology Transfer (STTR) Program, the Mentor-Protégé Program (MPP), the Rapid Innovation Fund (RIF) Program, the Technology Transfer Program, the National Security Innovation Network, the DIU, the National Security Innovation Capital Program, the Manufacturing Technology Program, the Title III of the Defense Production Act Program, the Industrial Base Analysis and Sustainment Program, and the Manufacturing Innovation Institutes. DoD will work across these programs and others such as MPP and SBIR/STTR to ensure that awards and investments are made to small business firms across the underserved communities, including by establishing small business participation or assistance baselines. The Department will also work to stabilize small business programs through



permanent reauthorization (e.g., MPP, SBIR/STTR) and dedicated funding (e.g., MPP, RIF). Finally, in order to effectively implement small business equity efforts, the Department will resource the Offices of Small Business Programs through the President's budget.

In addition to ensuring maximum practicable participation for small businesses in Departmental acquisitions, the Department also seeks to increase participation by AbilityOne entities. The DoD AbilityOne program has pledged to grow the federal-wide AbilityOne program over the next five years from 0.55% to 1.0% of DoD contract spending. This increase will match DoD's mission needs with AbilityOne capabilities to grow employment and career opportunities for Americans with disabilities, including service-disabled veterans who are not small business owners.

***Advance equity through requirements on wage setting and labor practices in the DoD contractor workforce and supply chain.***

DoD is working closely with the Office of Management and Budget (OMB) and other Federal stakeholders to implement EO 14026, which mandates a \$15.00 minimum wage for service contract workers on Federal contracts. DoD is actively participating in policy development to enforce union negotiating rights, use Project Labor Agreements where appropriate on construction contracts, and strengthen apprenticeship programs in critical trades.

DoD also makes targeted workforce investments to ensure our national security needs are met. The Department invests in apprenticeships, community college programs, manufacturing training, trade support, and a variety of other education and training programs that could both close existing gender, racial, and opportunity gaps and strengthen economic security. As the Department invests in the defense innovation and industrial base ecosystems, it will seek to ensure that its investments address existing equity gaps in the defense industrial base.

***Empower small business programs and initiatives to lead policy and management practices across the Department.***

DoD will ensure that leadership of small business programs within the Department is empowered, resourced, and has access to DoD senior leadership to lead policy management practices across the Department. DoD will also continue to implement its mandatory performance element for Senior Executives and General/Flag Officers, where applicable, who oversee acquisitions to support small business goal attainment, outreach, and acquisition planning. DoD will ensure small business professionals are empowered consistent with the Small Business Act and existing DoD policy.

**Tracking Progress**

To determine progress on these actions, the DoD OSBP, in coordination with Component OSBPs, and the Defense Pricing and Contracting (DPC) Office will develop an enterprise-wide plan of action and milestones (POAM) for acquisition that may be released in phases associated with their respective focus areas. The annual DoD small business goals and the biennial implementation plans for the updated DoD Small Business Strategy shall serve as the POAM on small business equity matters. For the AbilityOne Program and contractor workforce equity, the POAMs will be further

established through DPC guidance. The DoD OSBP and DPC will then track the progress of each action and milestone to ensure timely progression. After completing all exploratory actions, the DoD OSBP and DPC will re-assess next steps and update or continue to develop the enterprise-wide acquisition POAMs. Successful completion of each goal and action item will be evaluated by DoD OSBP and DPC via routine equity assessments.

### **Accountability**

To remain accountable to identified overarching goals, the Department will routinely assess DoD acquisition opportunities for small business, AbilityOne, and contractor workforce equity factors. The Department will also conduct a review of the empowerment of DoD and Component OSBPs and of small business professionals across the Military Departments and Defense Agencies. As part of the POAMs, the DoD OSBP and DPC will assume responsibility as primary offices of responsibility for routine acquisition equity assessments within their cognizance. The Department will also continue to reduce barriers to entry, streamline how it communicates information and opportunities to small businesses and simplify entry points into the defense marketplace for small businesses.

## Action Two: Military Installations and Bases

DoD seeks to advance equity and rectify past harms for communities around military installations and bases.

### Barrier to Equitable Outcomes

- DoD operational and training activities during the World War II and Cold War eras resulted in adverse environmental, health, and economic impacts to some communities, including Native American communities. Historically, DoD built some temporary bases and practice bombing ranges on and near Native American lands, Alaska Native Claims Settlement-conveyed properties, ancestral lands, and reserved treaty rights areas. Legacy impacts from operations at these bases and ranges may include hazardous materials, debris, underground fuel storage tanks, lead-based paint, asbestos, munitions/explosives residue, and abandoned or unsafe sites. These impacts can sometimes create a barrier to Indigenous populations remaining on those lands by potentially hindering their development or protection of the land including their development of the land for housing or commercial purposes (e.g., harvesting timber), or protecting the land for subsistence food gathering or cultural practices held in the area. Current training and operational activities, while still significant, are conducted in a manner as to reduce adverse impacts.

More recently, DoD's efforts to expand its footprint on Guam may result in additional stress on the infrastructure of the island and the local population, much of which falls into an underserved community based on race or poverty level. Finally, the construction of a new installation in Guam coupled with the surge in military construction projects at legacy installations has increased the quantity of unearthed artifacts. The only certified repository on Guam is very small and is operated by the National Park Service (NPS) to curate the NPS's *War in the Pacific* collection.

### Action and Intended Impact on Barrier

To address the barriers identified above, the Department identified two actions:

***Evaluate which communities may be experiencing negative environmental, health, or economic effects, due to proximity to DoD testing sites, bases, or munitions sites, and invest in mitigating those effects and advancing equitable outcomes for those communities.***

The Department has implemented and will continue to build upon a variety of programs intended to address the impacts of past DoD operational activities and siting of bases and ranges. For example, since 1996, DoD has administered the Native American Lands Environmental Mitigation Program (NALEMP) and invests at least \$12 million per year into NALEMP-funded programs. Funding provided through NALEMP Cooperative Agreements (CAs) enables tribal governments to lead NALEMP projects, incorporate "traditional ecological knowledge" into design for cleanup, and build tribal capacity regarding environmental services and technical remediation skills. In FY 2021, DoD executed a total of 15 NALEMP CAs, 10 of which were with Alaska Native tribes and 5 of which were with Native American tribes in the lower 48 states. By the end of FY

2022, DoD will execute an additional 13 NALEMP CAs: 10 with Alaska Native tribes and 3 with Native American tribes in the lower 48 states.

The Department also has programs that conduct environmental restoration activities (Defense Environmental Restoration Program), clean up contamination from a hazardous substance or pollutant or contaminant (Installation Restoration Program), and address munitions responses sites (Military Munitions Response Program). By the end of FY 2020, DoD, in cooperation with state agencies and the U.S. Environmental Protection Agency, completed cleanup activities at 85% of its cleanup sites – out of a total of 40,037 sites – and is now monitoring the results to ensure these completed cleanups remain protective.

Another of DoD's cleanup priorities is for PFAS releases. DoD is performing an assessment at 700 installations where DoD may have used or potentially released PFAS. As part of the cleanup process, DoD is addressing both drinking water (a short-term action) and groundwater (a long-term action). For this effort, DoD works in collaboration with the Environmental Protection Agency, other Federal agencies, and communities throughout this process.

- In FY 2022, DoD anticipates investing over \$1.4 billion in programs that address legacy impacts from past DoD actions.

***Seek opportunities for significant new investments in underserved communities around military bases and installations.***

The Department is taking steps to invest in the community and upgrade the local infrastructure in Guam. Specifically, DoD has provided approximately \$218 million in appropriated funding for outside-the-fence investments, including a cultural repository (\$12 million), public health lab (\$32 million), upgrades to the Northern Water Waste Treatment Plant (\$139.3 million), Interceptor Sewer Refurbishment (\$30.6 million), Northern Guam Lens Aquifer Monitoring System (\$3.7 million), and surface transportation network improvements (\$246 million).

The Department also invests significantly in managing and restoring habitats and wildlife populations both on our installations and with partners in the surrounding communities. One example is the conservation and recovery of threatened and endangered species, as well as common wildlife such as migratory birds and game species. In addition, numerous installations provide public access to nature and opportunities for hunting, fishing, camping, and other outdoor recreation activities. DoD also partners with conservation organizations to maintain compatible land uses surrounding DoD installations. These partnerships have established public recreation opportunities such as Wildlife Management Areas, public parks, river trail access and other resources available to underserved communities. DoD conservation investments exceed \$400 million per year.

**Tracking Progress**

Due to the nature of the effort, the Department anticipates long-term operation of many of the environmental restoration or cleanup programs, as they are integral to the Department's stewardship of the natural resources entrusted to its care. However,

progress on PFAS clean-up specifically is included in quarterly public meetings and regular updates to the PFAS website: <https://denix.osd.mil/dod-pfas/>.

For the ongoing work in Guam, DoD established specific inter-governmental working groups for each authorized project, consisting of relevant subject matter experts from other Federal Agencies and the Government of Guam. These working groups meet on a recurring basis to monitor project progress and to provide technical assistance as required. Furthermore, DoD actively monitors and manages the grants in Guam that implement these activities to ensure compliance with the grant award terms and conditions.

### **Accountability**

The Department recognizes that it needs to listen to and engage with the impacted communities and strives to openly share information and collect input throughout the cleanup process. One DoD-unique community engagement tool is the use of Restoration Advisory Boards (RAB), which provides communities or individuals affected by DoD cleanup activities with a forum for focused dialogue on the installation's cleanup program. RABs are community-oriented forums that encourage and facilitate communication between citizens and installation decision-makers regarding DoD cleanups. RAB participants may include representatives from the community, installation, State, local or tribal governments, local activities, and federal, State, or local regulatory agencies. Participants review cleanup progress and provide comments and advice to the installation's decision-makers. Because the Department values this tool and its benefits so highly, we provide administrative and financial support for RABs to ensure they are sufficiently resourced to create effective partnerships.

Finally, the Department provides a variety of annual reports to Congress that summarize the Department's restorative, conservation, and clean-up activities.

## **Action Three: Military Family Equity Advancement**

The Department seeks to advance equity for military families who are members of underserved communities. This includes advancing equity in healthcare; driving towards more equitable outcomes for students of color, students with disabilities, and students from other underserved communities in DoD schools; improving economic security and opportunity for military spouses; and combating food insecurity and other economic challenges experienced by military families.

### **Barrier to Equitable Outcomes**

The individuals who choose to serve in our nation's Armed Forces make sacrifices of their time, talents, careers, and, in some instances, their lives, in order to maintain and strengthen the United States military. These sacrifices extend to the spouses and children of Service members who are often uprooted from employment, family, friends, and schools, relocated to new geographic locations every few years, and expected to adapt and maintain resiliency within their families. As of 2020, there were 1.5 million active duty family members. DoD has a responsibility to ensure that these family members, including those who are members of an underserved community, are not inequitably impacted as they support the DoD mission.

Service members and their families are stationed throughout the world, which can result in a lack of access to educational options. Most public schools on military installations in the continental U.S. are operated by the local community's public school district. Public school districts, particularly those in rural or remote locations, may have limited financial resources or capacity to address facility deficiencies or provide special education programs for students with disabilities.

Another barrier experienced by military families is the loss of a steady second income due to the inability of military spouses to maintain consistent employment commensurate with their qualifications. Military spouses face challenges in securing and maintaining meaningful employment due to the demands of the mobile military lifestyle, such as frequent moves and single parenting during deployments of the military member. Additionally, DoD surveys reveal that military spouse moves and lack of access to childcare are contributing factors that reduce the likelihood of military spouse employment. Of the approximately 598,000 active duty military spouses who want to work, the unemployment rate has consistently hovered around 22% (pre-coronavirus pandemic). Spouse unemployment may decrease economic or food security in the family.

Another barrier which may be experienced by military families who frequently change geographic locations and are members of underserved communities is equitable access to health care.

### **Action and Intended Impact on Barrier**

To address the barriers identified above, the Department identified four actions:

***Drive towards more equitable outcomes for students of color, students with disabilities, and other underserved students in DoD schools.***

To address inequities in schools operated by local public school districts, DoD may make grants, enter cooperative agreements, or expend other Federal resources to construct, renovate, repair, or expand elementary and secondary public schools on military installations in order to address capacity or facility condition deficiencies. Funding is provided based on the rank of the school's listing on the Public Schools on Military Installations Priority List.

The Department is also working to ensure equitable access to challenging courses for students who attend educational programs administered by DoD. DoDEA is a leader in achievement for underrepresented students, with African-American/Black and Hispanic/Latinx DoDEA students receiving among the highest assessment scores in the nation, outperforming their peers in 96% of states in 4<sup>th</sup> grade and 8<sup>th</sup> grade math, and 98% of states in reading on the most recent National Assessment of Education Progress (NAEP). Similar performance trends exist on the NAEP among students with disabilities, with DoDEA students with disabilities outperforming their peers in all other states in 8<sup>th</sup> grade reading. DoDEA also focuses on equitable access to AP courses, and is increasing in both participation and performance, particularly across racial minorities. For example, DoDEA offers open access to AP courses and utilizes the College Board's "AP potential tool" to identify students who have the achievement record to succeed in AP courses but may not have enrolled in these courses.

Furthermore, DoDEA is implementing innovative special education programs to provide more inclusive educational experiences. These programs include Robot-Assisted Instruction to enhance instruction for students with autism, Alternate Content Standards so that students with cognitive disabilities can access the College and Career Ready Standards, and customized professional development for special education teachers.

Finally, DoDEA organized a division that focuses solely on advancing diversity, equity, and inclusion. This division will examine, identify, and eliminate inequities, barriers, and gaps in DEI in all aspects, including recruitment, teaching and learning, and creating a staff and student climate that is growth-producing. Additionally, they are embedding culturally responsive teaching strategies in the professional learning for educators to meet the individual needs of all students.

### ***Improve economic security and opportunity for military spouses.***

To implement this action, DoD is pursuing three lines of effort: spouse employment, childcare, and in-home fee assistance. For spouse employment, DoD has multiple programs aimed to address this issue. One such program, the Spouse Education and Career Opportunities (SECO) program provides information, tools, and resources designed to assist military spouses in achieving their educational and employment goals. In addition, the Military Spouse Employment Partnership (MSEP), an initiative under the SECO program, is comprised of more than 540 employer partners that have committed to recruiting, hiring, promoting, and retaining military spouses. DoD will continue to build on those partnerships to provide spouses with rewarding job opportunities. In December 2021, SECO, in partnership with MSEP partner, Instant Teams, is piloting a workforce development program that will provide spouses the opportunity for post-training job placement with a MSEP employer. Furthermore, SECO is also working to provide resources and opportunities to support entrepreneurship that

will allow for greater flexibility to build a career that meets the needs of a military spouse.

To address the barrier presented by lack of childcare, DoD is not only looking to expand on-base options for child development centers, but is also expanding the Military Child Care in Your Neighborhood (MCCYN)-PLUS initiative. Because safety is a preeminent priority, DoD requires off-post childcare providers to meet various requirements. For example, Service members may only enroll and use fee assistance for off-post childcare programs that are nationally accredited. Despite fee assistance to obtain childcare in the civilian community, some military families are unable to locate approved childcare providers. In order to address this problem, the Department launched the MCCYN-PLUS program in Maryland and Virginia in 2019. While still maintaining high standards, this program allows the Service members to use childcare providers enrolled in a state's Child Care Quality Rating and Improvement System, rather than national accreditation which can be cumbersome and expensive. Building on the success in Maryland and Virginia, the Department expanded MCCYN-PLUS to Nevada in September 2021 and projects expansion to California and Washington in early 2022. DoD is considering expanding the program to Colorado, North Carolina, Florida, and Texas because these areas have large populations of military families.

#### ***End food insecurity among military families.***

The Department is taking immediate steps to address food insecurity, beginning with developing a strategy and implementation roadmap on strengthening food security across the Force, which will include lines of effort to better understand the causes of food insecurity, address causes such as spouse unemployment and financial decision-making, and explore resources to enhance access to healthy food choices. Additionally, DoD is actively participating in the Joining Forces Interagency Policy Committee (IPC) addressing food insecurity in the military. The IPC effort will identify areas of collaboration between agencies that will ultimately result in a report outlining plans for future research.

The Department also recognizes that a military family's economic status is closely linked to the Service member's grade and position in the military. Accordingly, DoD is implementing a range of initiatives to ensure equity for minority Service members at critical career touchpoints, to include recruiting and accessions, progression and promotion, and at the senior leader level.

#### ***Advance health equity in the Military Health System and benefits systems.***

In some instances, when determined to be medically necessary, DoD provides limited infertility diagnosis and treatment for eligible beneficiaries in accordance with applicable laws and regulations. Additionally, adoption is supported by DoD through its leave programs. For Service members who are not looking to start or expand their family, TRICARE also covers certain contraception devices and medications such as intra-uterine devices, birth control pills, and morning-after pills ("Plan B").

Importantly, TRICARE Prime Access to Care standards are established for all beneficiaries enrolled in TRICARE Prime, regardless of race or gender. Moreover, DoD's Uniformed Services University of the Health Sciences published two studies



which found that universal access to health care alleviates disparities for African-American patients and mitigated higher rates of Potentially Avoidable Maternal Complications among minority women. DoD is pleased it offers universal health coverage to covered beneficiaries.

Finally, DoD policy prohibits discrimination on the basis of gender identity or identification as transgender, provides a means by which individuals who meet applicable standards may access into the military in their self-identified gender, provides a means by which transitioning Service members may obtain gender-affirming medical treatment and recognition of their self-identified gender, and seeks to protect the privacy of all Service members. The Department is taking steps to fully implement this policy.

### **Tracking Progress**

In the short term, schools on military installations will be renovated or constructed to ensure an equitable, safe, and healthy learning environment for the children of military families. Congress has appropriated over \$2 billion for the Public Schools on Military Installations Program. Investments to date have resulted in replacement, expansion, or renovation of 18 schools, with 12 schools under construction (many nearing completion), and another 16 in various stages of proposal/design development. These projects are planned to benefit over 26,000 students annually, with over 70% of those being DoD-connected. The goal of this program is to reinforce with military families that children who attend these schools are learning in a safe and healthy environment.

To track progress in curriculum-related equity actions, DoDEA will use DEI working group feedback, professional learning evaluations, student achievement data, and AP class enrollment. Long-term success will be demonstrated by:

- Increased use of culturally responsive teaching strategies to meet the needs of all students.
- Increased use of inclusive instructional practices such as co-teaching to provide more access to challenging courses for students with disabilities.
- Increased student achievement on assessments by special populations of students (e.g., students of color, special needs students, gender)
- Established DEI working groups throughout DoDEA by June 2022.
- Inclusion of DEI as a priority in the Director's FY22 focus.

To track the progress of improving economic security, the SECO program, will monitor and report pilot program promotion and uptake to Department leaders, and determine whether to extend the pilot to additional MSEP employer partners. Moreover, DoD will continue to monitor the expansion and effectiveness of childcare programs and opportunities via the Deputy's Workforce Council. Near-term success will be measured by military spouses participating in the workforce development pilot, taking advantage of expanded job opportunities in MSEP, and military families enrolling in expanded childcare opportunities. In the long-term, DoD aims to reduce the unemployment rate for military spouses.

DoD is developing an implementation roadmap to address the issue of food insecurity. This implementation roadmap will include milestones and will include a briefing to the Deputy Secretary through the Deputy's Workforce Council. Additionally, the Joining Forces Initiative will track the progress of the IPC on Food Insecurity. Near-term success will be measured by military leaders understanding the challenges and degrees of food insecurity and providing Service members and families with tools and resources to address food insecurity. In the long-term, DoD strives to reduce reports of food insecurity within the Department.

In the health care realm, DoD will use industry-standard quality control processes to gauge the ease, access, and satisfaction related to the health care services.

### **Accountability**

First and foremost, DoD is accountable to the military families who participate in these services. Accordingly, DoD will work with the local public school districts to survey military families about their satisfaction with the renovated or newly built schools. Within DoDEA, the Director will communicate his focus as part of DoDEA's strategic plan, *The Blueprint for Continuous Improvement*, in January 2022, which will include an emphasis on diversity, equity, and inclusion for the students, families, and employees. This initial introduction will be followed up with in-progress reviews at leadership meetings in February 2022 and June 2022, as well as routine monthly meetings. Finally, DoDEA has developed a communication plan that includes a website to provide ongoing updates to its external stakeholders, and DEI-related articles for the DoDEA workforce.

The White House has been involved in efforts involving economic security, with both the Joining Forces initiative, which identifies spouse employment as an area of focus, and the IPC on food insecurity. Accordingly, the IPC similarly will be updated via briefings and reports as to the Department's progress on these efforts. Furthermore, spouse employment, childcare availability, and food insecurity are frequently topics of interest with both Congress and the media. As such, the Department will respond to related queries in the near- and long-term.

The Military Health System will communicate progress through routine channels to its beneficiaries and other key stakeholders. Regarding the updated policies providing protection to transgender Service members, internal accountability on key issues focused on readiness, equity, evolving medical science, and organizational culture are reviewed by the Accession Medical Standards Working Group and Transgender Care Integrated Product Team. The recommendations of the work groups are accountable to the Medical and Personnel Executive Steering Committee and Deputy's Workforce Council.

## Action Four: Equitable Artificial Intelligence Research and Development

The Department is dedicated to the safe and ethical use of AI technology and will continue to advance best practices for developing, testing, and deploying AI responsibly and equitably.

### Barrier to Equitable Outcomes

As the Department progresses in its efforts to develop and integrate AI into decision-making processes that impact DoD services and programs provided to the American people, DoD seeks to incorporate equity in its ethical AI development practices. AI has demonstrated remarkable benefits in helping to improve organizational efficiency. However, modern applications of technology like machine learning (ML) can raise ethical concerns due to the scope, scale, and speed at which they operate, potentially learning and magnifying existing inequities that influenced historical data. Examples of these issues have been reported in non-DoD systems, such as initial AI face recognition algorithms having difficulty recognizing darker skinned individuals, and initial AI resume screening algorithms learning and magnifying the biases of human screeners.

Ethical and equitable AI begins with good data. Poor and incomplete training data are the single largest known contributors to AI bias. Modernizing the Department through digitization and data collection are key first steps to controlling for the potential algorithmic bias we know can express in smart systems. Therefore, as the Department pushes forward on data collection and curation projects through its components, the Department is simultaneously implementing these ethical principles in its AI programs.

### Action and Intended Impact on Barrier

The DoD is working to implement AI into its day to day business and warfighting operations. The Department's emphasis and commitment to ethical AI includes the following five principles:

1. **Responsible.** DoD personnel will exercise appropriate levels of judgment and care, while remaining responsible for the development, deployment, and use of AI capabilities.
2. **Equitable.** The Department will take deliberate steps to minimize unintended bias in AI capabilities.
3. **Traceable.** The Department's AI capabilities will be developed and deployed such that relevant personnel possess an appropriate understanding of the technology, development processes, and operational methods applicable to AI capabilities, including with transparent and auditable methodologies, data sources, and design procedure and documentation.
4. **Reliable.** The Department's AI capabilities will have explicit, well-defined uses, and the safety, security, and effectiveness of such capabilities will be subject to testing and assurance within those defined uses across their entire life-cycles.
5. **Governable.** The Department will design and engineer AI capabilities to fulfill their intended functions while possessing the ability to detect and avoid

unintended consequences, and the ability to disengage or deactivate deployed systems that demonstrate unintended behavior.

AI need not be a threat to equity; it can also be an ally. AI can help the Department map innovative new pathways toward greater equity in hiring, promotion, retention, and workforce management. Well-designed and continuously tested systems will also ensure that when we must use the tools of lethality, that we do so in keeping with our national values. Additionally, the DoD is among the largest data holders in the world, to include health and medical data like that of the Joint Pathology Center that holds the world's largest tissue archive. This type of comprehensive data resource, combined with carefully constructed AI, could be harnessed for next generation cancer and other research with direct benefits to military readiness, as well as for the national and global medical research population. Indeed, this data is extremely valuable as the U.S. military is one of the country's most diverse institutions.

To address the barriers identified above, the Department identified the following action:

***Create a DoD-wide responsible AI development framework to ensure ethical (to include equitable) AI in business as well as battlefield operations.***

Over the past decade, the Department has been leaning forward to ensure the responsible development, deployment, and use of AI within its operations. In October 2019, the Defense Innovation Board released a report titled *AI Principles: Recommendations on the Ethical Use of Artificial Intelligence by the Department of Defense*. In February 2020, following the recommendations from the Defense Innovation Board, the Secretary of Defense adopted the five ethical principles for use of AI. The second of these principles, "equitable," ensures that any AI deployed by the DoD will minimize potential biases. The Department is working to create implementation plans for these principles.

In May 2021, the Deputy Secretary of Defense issued a memorandum titled *Implementing Responsible Artificial Intelligence in the Department of Defense*. This memorandum established tenets for RAI: RAI Governance, Warfighter Trust, AI Product and Acquisition Lifecycle, Requirements Validation, Responsible AI Ecosystem, and AI Workforce. The JAIC was tasked to be the Department's coordinator for development and implementation of the RAI Strategy. Furthermore, in November 2021, the DIU publicly released voluntary implementation guidance for responsible AI (<https://www.diu.mil/responsible-ai-guidelines>). This guidance provides practical direction for how to include the DoD's AI Ethics Principles, including equity, in AI product planning, development, testing, and evaluation. Finally, the Test Resource Management Center, working in collaboration with the JAIC, is creating a framework that provides comprehensive, continuously updated, risk assessments to critical decision makers across the DoD on the end-to-end weapon system life cycle. This holistic approach encapsulates the DoD's AI Ethical Principles and the Responsible AI tenets.

Looking further into the future, the DoD is currently funding AI research on ethical AI. A few examples of DoD research programs in this area are:

- The Office of the Under Secretary of Defense for Research and Engineering is sponsoring a current topic in DoD’s social science basic research program, Minerva, on the “Social and Cultural Implications of Artificial Intelligence,” which seeks to understand the process by which social and cultural practices influence algorithmic and technology development. This is aimed at better understanding where biases exist within systems and how they may affect people differently across various cultural contexts.
- U.S. Army Development Command is expanding the study of moral dilemmas to consider the risk profile of the situation and expand the space of acceptable solutions for these dilemmas. In so doing, researchers are contributing to the development of autonomous technology that abides by acceptable moral norms.
- The Naval Research Laboratory is exploring ways to build human-like capacities for control, including self-control, into a computational cognitive architecture with direct application to the concepts of “agency” and “responsibility” implied by both every day and legal usage of those terms.
- The Air Force Research Laboratory Autonomy Capability Team 3 is working closely with community leaders in Cincinnati, Ohio, to develop agent-based modeling and machine learning to reduce violence and improve quality of life in minority neighborhoods.
- The Defense Advanced Research Projects Agency’s Explainable AI program aims to create a suite of ML techniques that give ML systems the capability to explain their rationale for actions and decisions, to characterize their strengths and weaknesses, and to convey an understanding of how they might behave/perform in future missions or scenarios.

Finally, a more diverse AI workforce will likely increase our ability to anticipate potential inequities (or recognize any that begin to emerge) and proactively mitigate them. DoD’s partnerships with HBCUs/MSIs aim to overcome barriers in by fostering minority entry into the AI Science, Technology, Engineering and Mathematics (STEM) workforce. Furthermore, DoD will continue to make investments in HBCUs/MSIs through its COEs and grants. The Department will continue to monitor the AI COE outputs and funding. A more thorough discussion on the impact of these HBCU/MSI engagements is provided in Action Five.

### **Tracking Progress**

The Department’s goal is to develop a DoD-wide responsible AI development framework to ensure ethical (to include equitable) AI in operations. DIU has drafted a best-practice document for developing responsible AI that conforms to DoD’s AI Ethics Principles and the Responsible AI tenets. Every year, this document will be reviewed and updated by the AI DoD science and technology community to assure that these guidelines reflect current best practices. The newly established Chief Digital Artificial Intelligence Office, which is responsible for the adoption of AI and its ethics and equity principles in operations, will create a process for ensuring the implementation of these best practices across the Department in its adoption of AI into operations.

## **Accountability**

The Department will release its implementation plans and guidance publicly at academic and international forums as well as industrial AI conferences to solicit feedback and ensure that DoD S&T plans and guidance reflect best practices.

## **Action Five: Underserved Community Investment**

The Department seeks to invest in under-served communities and expand access to DoD programs and opportunities. This includes advancing equity in K-12, college, and university settings through DoD programs, partnerships, and federal grant opportunities. This also capitalizes on military training initiatives that impact underserved communities.

### **Barrier to Equitable Outcomes**

During its equity assessment, the Department explored a variety of programs to find barriers to participation that members of underserved communities may encounter preventing or limiting their ability to participate in DoD programs. In particular, DoD is interested in fostering growth in STEM fields. DoD identified the following barriers:

- The lack of resources available to HBCUs/MSIs limits expanding infrastructure and research capacity.
- Resource and funding constraints limit the extent to which DoD programs engage with MSIs. The Department will review these requirements during its annual program and budget review to ensure appropriate resources are provided for MSI initiatives that align with Department strategic priorities.
- Despite upward trends, few DoD senior leadership roles are occupied by leaders from MSIs. Currently, DoD senior leadership does not represent the racial and ethnic makeup of the population the Department serves.

### **Action and Intended Impact on Barrier**

To address the barriers identified above, the Department will implement the following two actions:

#### ***Coordinate expanding investments in Minority Serving Institutions (MSI) across the country.***

Though DoD helps to increase the research and educational capacity of HBCUs/MSIs and fosters workforce diversity and entry of underrepresented minorities into STEM disciplines, the program is limited by HBCUs'/MSIs' ability to withstand expansion of their research capacity. Accordingly, the Department will focus on refining and expanding its programs that work specifically with MSIs. The HBCU/MSI Program will continue to invest in MSIs by funding research, enhancing infrastructure, and promoting workforce development. This includes the Department's efforts to promote MSI involvement in DoD research activities and to build the STEM pipeline. One of these efforts is the establishment of COEs in DoD's priority areas, including AI and ML. The AI/ML COE addresses current and future research and engineering challenges for safe, robust, and trustworthy AI that support DoD's modernization applications. DoD seeks to engage MSIs in the AI/ML COE. To do this, DoD will include MSIs in the founding and membership of COEs. Furthermore, the Department will pursue awarding research grants to MSIs with the intent to advance capabilities and contributions to the workforce.

Recently, the Science, Mathematics, and Research for Transformation Scholarship-for-Service (SMART) program created a strategy to increase diversity within the SMART program and the DoD civilian employee pipeline. This strategy includes activities and

approaches to attract students from MSIs to the program. The strategy also includes educating participating DoD sponsoring facilities on the technical strengths of MSIs and the benefits of collaboration with them.

SMART continues to implement a broad range of diversity and inclusion efforts targeting underrepresented/underserved groups through university visits, marketing, social media, and informational webinars. The SMART Program office has sponsored 40-50 university visits (now virtual information sessions) and two webinars, and is continuing to plan for additional events in FY 2022. Moreover, in FYs 2022 and 2023, SMART plans to establish enduring partnerships with HBCU/MSIs through their administration, faculty, and staff; create opportunities with COEs to increase awareness and participation in SMART; and to build consortium and/or affinity group partnerships.

The Department seeks to develop research capacity in states and at institutions that have traditionally received less research funding from the Department with its Defense Establish Program to Stimulate Competitive Research (DEPSCoR). DEPSCoR performs outreach to underserved communities that includes bringing DoD program managers on regional site visits. This provides researchers an opportunity to meet with DoD leaders and understand the areas in which the Department's research is currently focused. DEPSCoR also pairs researchers in underserved states and institutions, including MSIs, with researchers who are experienced in working with the Department, thus enabling novice researchers to be mentored by DoD researchers.

DoD is also developing strategies for future Taking the Pentagon to the People (TTPTTP) events. These strategies focus on strengthening the sustainable impact of America's institutions by supporting underserved institutions and communities and ensuring MSI participation in COEs. To accomplish these goals, TTPTTP will continue:

- Refining strategic outreach and collaborative partnerships with affinity groups and organizations that aim to expand access of underserved communities, improve racial equity in the U.S., and bolster the ranks and presence of minorities working in DoD.
- Facilitating events between key DoD and MSI senior leaders through Presidential Roundtables. This allows DoD and MSI senior leaders to engage in meaningful dialogue on ways to enhance the infrastructure and build capacity for underserved communities.
- Aligning DoD senior leaders with functional efforts to advance equity outcomes and increase MSI access to DoD internships, contracts, grants, scholarships, surplus equipment, and research and development opportunities enterprise-wide. This includes sharing best practices, aligning the mission and vision of their organizations, and leading initiatives that intentionally target eligible MSIs and underserved communities.

### ***Assess and increase investments in workforce readiness in K-12 settings.***

The Department will develop a strategy for increasing K-12 workforce readiness consistent with the Federal STEM Strategy, the DoD STEM Strategic Plan, and DoD policy. Furthermore, the Department will leverage SMART in developing a comprehensive approach to growing a diverse STEM talent pool through a continuum of educational opportunities across the K-20 continuum. Currently, DoD engages in a



variety of STEM educational and work-experiential activities to include summer STEM camps, project/research-based competitions, fellowships, internships/apprenticeships, teacher professional development, and curriculum development at pre-college and postsecondary levels.

In addition to leveraging strategic plans for K-12 and K-20 programs, the Department will engage its partners from academia, industry, not-for-profit sector, and other Federal agencies to broaden its reach to underserved and underrepresented populations, including military-connected students, Veterans, and military spouses. Such actions will allow the Department to develop a holistic understanding of how its programs and initiatives impact workforce readiness within a K-20 setting.

The Minerva Research Initiative is one example of the extended scope of K-20 workforce readiness. The Minerva Research Initiative supports social science research aimed at improving the Department's basic understanding of security. Through this program, DoD expands its comprehension of the social, cultural, behavioral, and political forces that shape regions of the world. In terms of K-20 education, the Minerva Research Initiative sponsors a program called "Science of Science," which in part examines the access to and career trajectories of women in science. DoD seeks to utilize programs like this to help explore where underrepresented groups encounter obstacles in STEM careers so that policymakers develop policies that give more equitable opportunities for all researchers.

### **Tracking Progress**

The HBCU/MSI Program will track AI/ML project success by measuring research advancements conducted at the AI COE and the pending contributions to the STEM workforce. Progress will also be measured by the increase of involvement of underserved and underrepresented communities and military-connected students. Success and best practices will be shared through DoD member participation in the Joint Artificial Intelligence Center Workforce Working Group.

### **Accountability**

All of the K-12 STEM programs use demographic metrics to some extent to understand impacts. The SMART program measures the percentage increase of HBCU/MSIs, veterans and female scholars as semi-finalists and finalists.

Additionally, the Department will establish annual metrics to track and assess success and trends in diversity programs. The Department will also support the Services' strategies to recruit diverse officer candidates. DoD continues to allocate a significant amount of resources toward recruiting, to include a focus toward minority and underserved populations.