

SUSAN M. GATES, FERNANDO ESTEVES, ELIZABETH ROTH, JONAS KEMPF

Implementation of the New Defense Acquisition Workforce Improvement Act Framework

End of Fiscal Year 2022 Update

As required by the Defense Acquisition Workforce Improvement Act (DAWIA) of 1990 (Pub. L. 101-510, 1990), the U.S. Department of Defense (DoD) has been tracking and reporting on the acquisition workforce (AW) since 1992. The AW is responsible for executing and overseeing the acquisition process for the

conceptualization, initiation, design, development, test, contracting, production, deployment, integrated product support, modification, and disposal of weapons and other systems, supplies, or services (including construction) to satisfy DoD needs, intended for use in, or in support of, military missions. (Department of Defense Directive 5135.02, 2020, p. 26)

Military and DoD civilian personnel are identified as part of the AW if the positions they fill are

designated by their organization as acquisition positions. Section 4 of Department of Defense Instruction 5000.66 (2022) describes factors that DoD components should consider in designating positions as part of the AW. DoD components are required by statute to formally designate acquisition-related positions in certain areas as acquisition positions. In other areas, DoD components are advised to code positions as part of the AW if a majority of work associated with the position involves acquisition functions.

In September 2020, the Under Secretary of Defense for Acquisition and Sustainment announced plans

KEY FINDINGS

- As of the end of fiscal year (FY) 2022, most but not all acquisition workforce (AW) positions, and the individuals filling them, had been reclassified into the new Defense Acquisition Workforce Improvement Act (DAWIA) functional areas.
- With the transition to the new DAWIA framework, the U.S. Department of Defense (DoD) repurposed the career-field data field to track functional areas, with some codes continuing, some being dropped, and one code added.
- The DoD civilian AW shrank, while the military AW remained stable. The end-of-FY 2022 civilian AW was smaller than it was at the end of FY 2021 by about 28,000 workers, with declines concentrated in the Army and the Navy.
- AW civilians left DoD at a higher rate than expected, but the AW external loss rate was still below the rate for the non-AW DoD civilian workforce.

Abbreviations

AW	acquisition workforce
DAWIA	Defense Acquisition Workforce Improvement Act
DoD	U.S. Department of Defense
FY	fiscal year
HCI	Office of the Under Secretary of Defense for Acquisition and Sustainment, Office of Human Capital Initiatives
RIM	RAND Inventory Model
YRE	years to retirement eligibility

for DoD to transition to a new talent management framework for the AW. The plans called for the most significant changes to the management and oversight of the AW since the passage of DAWIA, including consolidating the career-field structure into a smaller number of functional areas and “moderniz[ing] the DAWIA certification framework by reducing the amount of required certification training and empowering the employee to select job-centric, specialized training at the point-of-need” (Defense Acquisition University, 2022, p. 4).

In 2006, the RAND Corporation began a collaboration with DoD to develop data-based tools to support analysis of the “organic” defense AW, which includes military and DoD civilian personnel but not contractors. RAND published a series of reports (Gates, Keating, et al., 2008; Gates, Roth, et al., 2013; Gates, Phillips, et al., 2018) that document the construction of the dataset and the analytical methods used to examine the data. In a 2022 RAND report (Gates, Roth, and Kempf, 2022), researchers used data from the end of fiscal year (FY) 2021 to (1) provide an overview of plans for rolling out the new DAWIA framework (referred to at the time as the Back-to-Basics initiative) in February 2022 and (2) characterize the workforce and policy context on the eve of that rollout.

In this report, we use quarterly data on military and civilian members of the AW and the positions they hold through the end of FY 2022 to describe some features of the implementation of the new DAWIA framework and some implications for the workforce and its management. Data sources and

analytical methods are described in Gates, Roth, and Kempf (2022, Chapter 2). Readers are referred to that report for further details.

The New DAWIA Framework

Since its inception, the DAWIA workforce had been organized by career field. The new DAWIA framework consolidated 14 career fields under the legacy system into seven functional areas. In FY 2021, the AW was organized into the following 14 career fields:

- auditing
- business—cost estimating
- business—financial management¹
- contracting
- engineering²
- facilities engineering
- industrial and contract property management
- information technology
- life-cycle logistics
- production, quality, and manufacturing
- program management
- purchasing
- science and technology management
- test and evaluation.

Under the new DAWIA Framework, there are seven functional areas:

- auditing
- business financial management and cost estimating³
- contracting
- engineering and technical management
- life-cycle logistics
- program management
- test and evaluation.

DAWIA requires DoD to code and centrally track the career field or functional area and career level of each AW position and each AW member. As of 2022, DoD only tracks DoD military and civilian workers as members of the AW when they work in (or *encumber*) an AW position.⁴ To support such tracking under the new DAWIA framework, DoD repurposed some of the career field codes for use as functional area codes (contracting, life-cycle logistics, program management, business cost estimating

and financial management, test and evaluation, and auditing). In this report, we describe these career fields or functional areas as *continuing* in order to succinctly refer to the continuity AW members in these fields experienced relative to those in other career fields. It is worth noting that although auditing is a continuing career field, individuals in the auditing career field expected their career field to be dropped from the AW for much of the transition planning period. As part of the transition to the new DAWIA framework, career-field codes for career fields other than those listed above were discontinued, and one new code was created (for the engineering and technical management functional area).

DoD developed transition plans for positions and AW members in most of the career fields that were dropped from the framework and coding structure. Individuals in the engineering; industrial and contract property management; information technology; production, quality, and manufacturing; purchasing; and science and technology management career fields saw their career fields transition to other career fields. Purchasing and industrial and contract property management career fields were mapped into the continuing contracting functional area. Engineering; science and technology management; and production, quality, and manufacturing were mapped into the new engineering and technical management functional area. The information technology career field was mapped into both the program management and the engineering functional areas. DoD did not develop a formal transition plan for the facilities engineering career field.

Each career field or functional area has career levels within it. These career levels characterize the complexity or sophistication of acquisition positions and the certification standards and professional development expectations for the people who fill those positions. The new DAWIA framework streamlined the career-level structure that applies to positions and AW members by reducing the number of levels, which stood at three for all career fields under the legacy system. Under the new framework, contracting has one career level, and other functional areas have two career levels. The contracting functional area refers to its career-level certification requirement as “Professional Certification” (Defense

Acquisition University, undated-b). The career-level structures for the other functional areas include two of the following: *foundational*, *practitioner*, or *advanced*.

The new DAWIA framework changed the criteria for AW members to achieve certification for career levels and lengthened the grace period for achieving certification to three to five years, depending on the functional area and career level. The number of learning hours required for certification was reduced, but AW experience requirements were instituted or increased. Most functional areas dropped degree requirements for certification.⁵ The cost estimating track of the business functional area replaced a B.A. degree requirement with a requirement for an operations research degree or 24 semester hours of operations research or related coursework. The contracting and program management functional areas introduced the requirement for a passing score on an examination for certification.

Although the new DAWIA framework reduced the up-front requirements for career-level certification, it requires AW members to complete continuous learning hours on an annual basis (Defense Acquisition University, undated-a). It introduced a knowledge-area credential structure that could be leveraged by functional areas to support targeted training expectations for specific positions. In our 2022 report (Gates, Roth, and Kempf, 2022), we recommended that the Office of the Under Secretary of Defense for Acquisition and Sustainment, Office of Human Capital Initiatives (HCI) develop data reporting guidance for the career-level data field that would allow for comparisons or aggregation across functional areas and preserve information about certifications attained under the old system. Specifically, we recommended that codes 1, 2, and 3 be reserved for those who achieved level 1, 2, or 3 certifications in the career field under the old system and that new codes be used consistently to reflect contracting professional certification (e.g., code 4), foundational (e.g., code 5), practitioner (e.g., code 6), and advanced (e.g., code 7).

The current guidance, described in Appendix A of the Defense Acquisition University’s “Human Resources Reference Document: Back-to-Basics,” does not achieve that aim (Defense Acquisition

University, 2022).⁶ Career-level codes can mean different things depending on the functional area. For example, code 1 for the contracting functional area signifies “contracting professional,” whereas the same “1” stands for “foundational” in the engineering and technical management and life-cycle logistics functional areas. The current approach makes it difficult for DoD to identify those who attained certification under the old system and aggregate information about a particular career level across functional areas.

We also recommended that HCI revise DAWIA reporting guidance to require systematic reporting of credential requirements and attainment. As of this writing, credential information is not being tracked in the DAWIA data.

In the remainder of this report, we describe how the transition to the new DAWIA framework played out through the end of FY 2022 according to an analysis of workforce data. We discuss the workforce implications and end with some human capital management recommendations for DoD.

The Transition to the New DAWIA Framework Was Largely Complete as of the End of FY 2022

As of the end of FY 2022, most but not all AW positions, and the individuals filling them, had been reclassified into the new DAWIA functional areas. Figures 1 and 2 show the functional area breakdown for the DoD civilian and military AW, respectively, as of the end of FY 2022.

There are 6,671 civilians and 194 military members (accounting for 4.7 percent of the civilian AW and 1.3 percent of the military AW, respectively) who are still coded with the old or phased-out career fields (all of the military and most of the civilians in the “other” category in Figures 1 and 2). A quarter-by-quarter analysis reveals that services and agencies tackled this career-field reclassification on different timelines starting in the second quarter of FY 2022 such that, by the end of FY 2022, a small share of positions and AW members were still awaiting reclassification.

FIGURE 1
FY 2022 DoD Civilian AW, by Functional Area

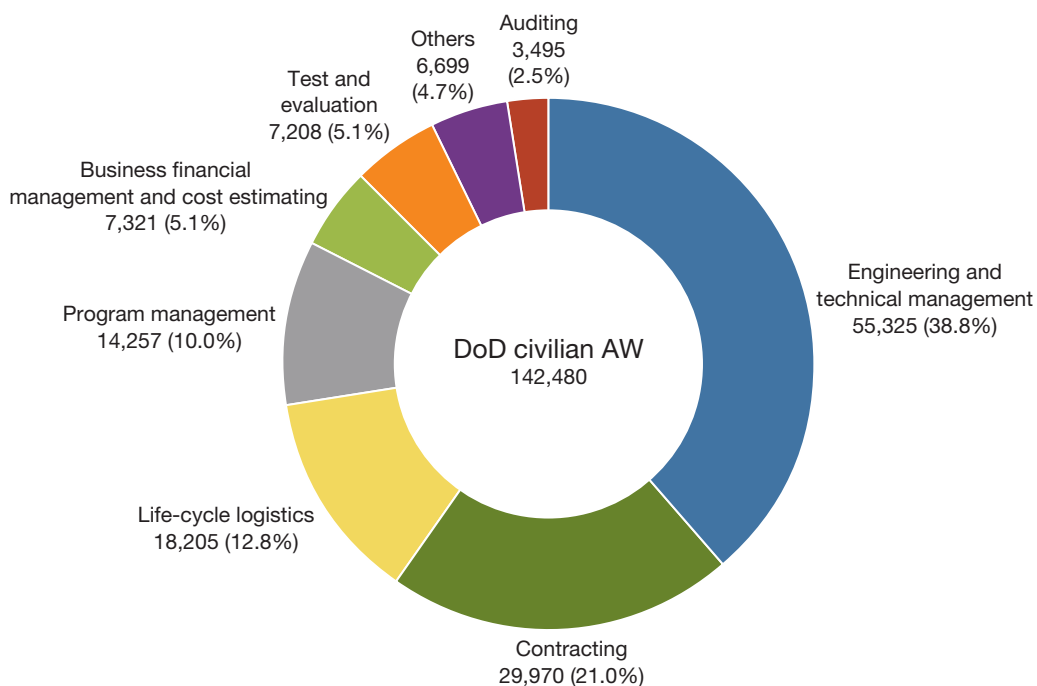
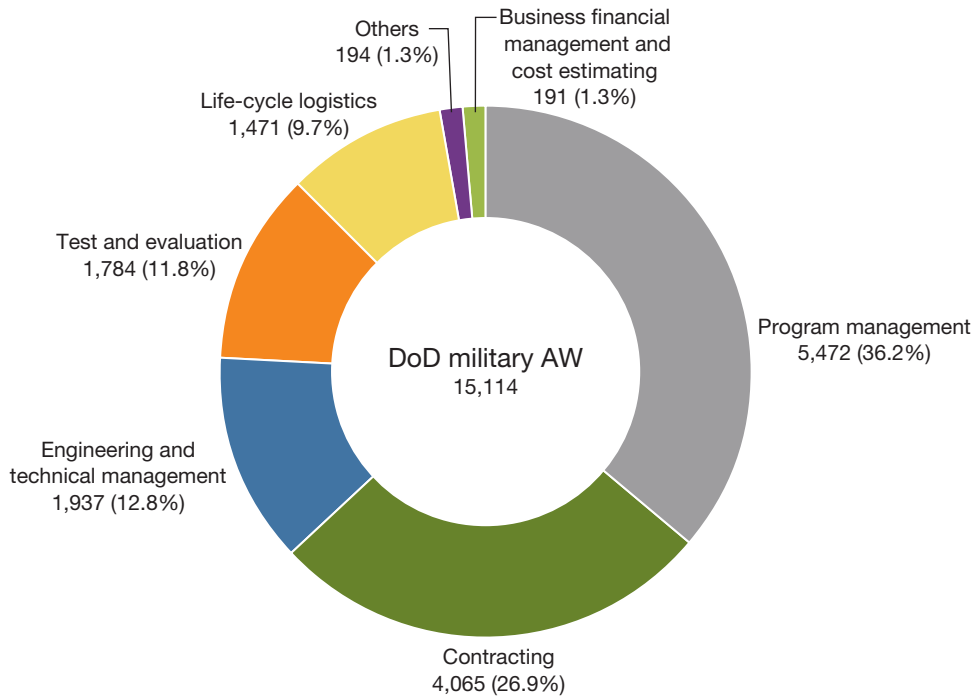


FIGURE 2
 FY 2022 DoD Military AW, by Functional Area



In the following sections of this report, we focus on civilian transitions and civilian workforce gains and losses. Civilians accounted for most of the AW members facing transitions because of differences in the relative size of the military and civilian AWs and the career fields in which members work. At the end of FY 2021, 80 percent of military AW members were in continuing career fields, whereas only 50 percent of civilian AW members were.⁷ Additionally, civilian AW members can choose to end their DoD employment at any time. Military members do not have the same flexibility.

The Transition from Career Fields to Functional Areas Is Largely Complete and Went as Expected

With the transition to the new DAWIA framework, DoD repurposed the career-field data field to track functional areas, with some codes continuing, some being dropped, and one code added. In this section, we describe what the transition looked like for mem-

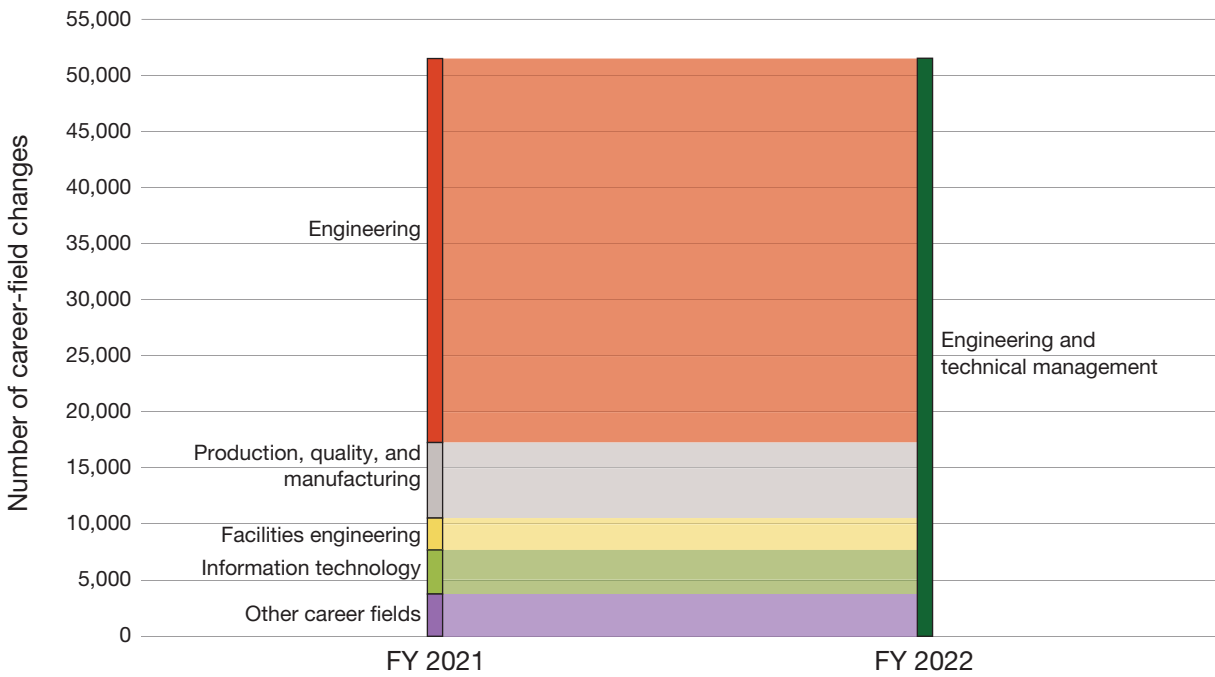
bers of the civilian AW in the data and comment on the progress of the transition. In total, 55,464 civilian AW members remained in the AW but changed their functional area code between the end of FY 2021 and the end of FY 2022.⁸ Table A.1 in the appendix documents the number of transitions for each career field–functional area combination.

Most of the 55,464 transitions were into the new engineering and technical management functional area: 51,516 in total. Figure 3 depicts flows into the new engineering and technical management functional area. It shows that most of those transitions came from the engineering career field (34,210). The engineering and technical management functional area also absorbed most of the AW members who had been in the production, quality, and manufacturing; information technology; facilities engineering; and other career fields, accounting for another 16,521 career-field transitions. Transitions from the first three of these career fields were anticipated by the transition plan.

Although transitions into the engineering and technical management functional area dominate the flows, there were transitions into other functional

FIGURE 3

Flows of DoD Civilian AW Members into Engineering and Technical Management Functional Area Between FY 2021 and FY 2022, by End-of-FY 2021 Career Field (N = 51,516)



areas as well: notably, contracting and program management. Figure 4 illustrates the flows for the 3,755 civilian AW members who made a transition from a career field into the contracting, program management, or other functional areas.⁹ Over 1,300 AW members transitioned to program management and contracting each. The contracting functional area absorbed AW members from the legacy purchasing and industrial and contract property management career fields (670 and 315, respectively). The program management functional area absorbed 425 AW members from the information technology career field and 100 or more AW members from each of the following career fields: engineering; life-cycle logistics; business (cost estimating and financial management); facilities engineering; production, quality, and manufacturing; and contracting.

As mentioned earlier, facilities engineering is not part of the new DAWIA framework. Many of the 14,505 civilians who were in that career field at the end of FY 2021 remained employed by DoD as of the end of FY 2022 but left the AW (9,073), and 1,049 left the DoD civilian workforce entirely. Despite the lack

of a formal transition pathway for those who were in the facilities engineering career field, our analysis shows that 3,185 transitioned into new or continuing AW functional areas in FY 2022: most notably, engineering and technical management (2,827), contracting (167), and program management (119). Finally, 1,198 were still coded under the phased-out facilities engineering career field, presumably awaiting reclassification.

The Civilian AW Shrank, While the Military AW Remained Stable

The DoD AW stood at 157,594 members at the end of FY 2022: 142,480 civilians and 15,114 military personnel. The size of the military AW is consistent with prior years (and decades). In contrast, the end-of-FY 2022 civilian AW was smaller than it was at the end of FY 2021 by about 28,000 workers. Figure 5 illustrates the civilian AW count by FY and by component. It shows that the civilian AW declines were concentrated in the Army and the Navy.

FIGURE 4

Flows of DoD Civilian AW Members into Functional Areas Other Than Engineering and Technical Management Between FY 2021 and FY 2022, by End-of-FY 2021 Career Field (N = 3,755)

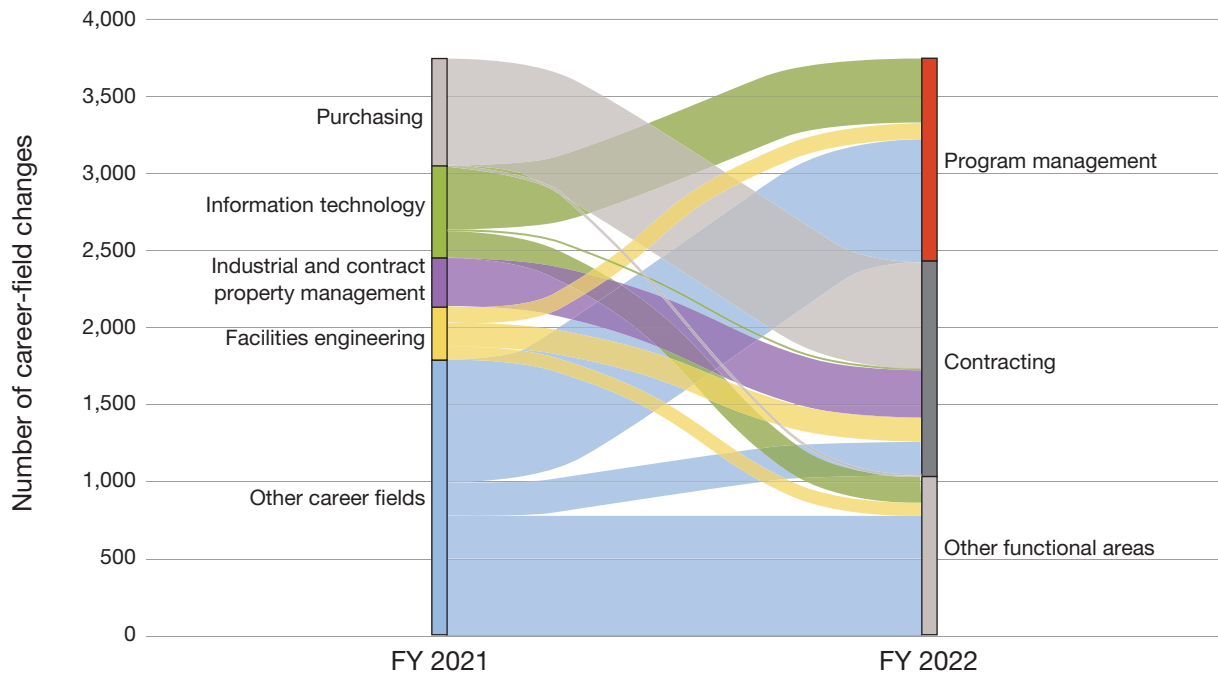
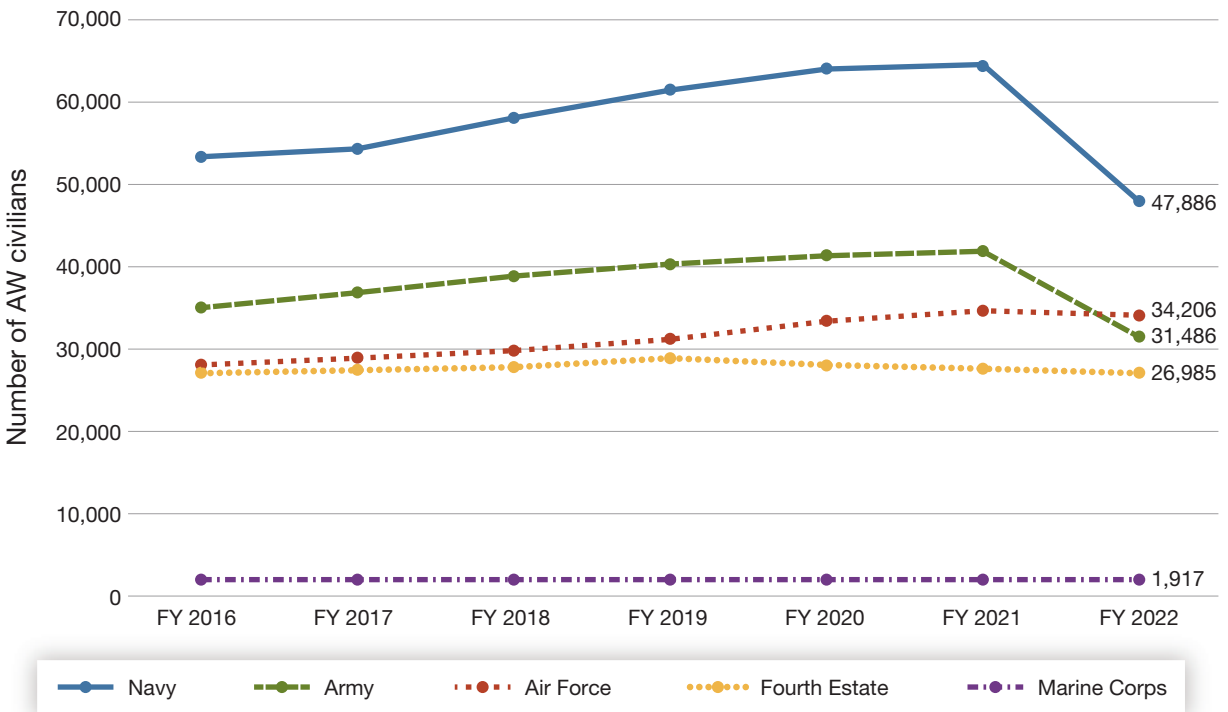


FIGURE 5

DoD Civilian AW, by Component, FYs 2016 to 2022



NOTE: DoD uses the term *Fourth Estate* to refer to components that do not belong to the military departments, such as the Defense Logistics Agency and the Office of the Secretary of Defense.

To appear as a member of the AW in the data files, an individual must encumber a designated DAWIA position. In our ongoing analysis of DAWIA data, we have documented the different ways in which AW members move into and out of the AW and thus contribute to overall workforce gains and losses. For example, people may leave the AW because they separate from DoD employment entirely, because they leave their current position for a new one that is not a DAWIA position, or because their DAWIA position is recoded. The box on the following page describes the lexicon we use to characterize gains and losses.

Figure 6 depicts total civilian workforce gains and losses, including those we categorize as recodes, by type for FYs 2017–2022.¹⁰ The box on the following page elaborates on the definition of workforce gain and losses. Briefly, DoD civilian AW gains include new hires (e.g., hires from outside DoD, transitions from military to civilian AW) and internal gains from elsewhere within the DoD civilian workforce. Losses are compiled as the sum of separations (e.g., individuals leaving the DoD civilian workforce) and internal losses of workers moving out of the civilian AW but remaining in the DoD workforce.

Compared with prior years, total civilian AW gains were down somewhat (dropping to 12,540 in FY 2022 from 16,075 in FY 2021), but total civilian workforce losses were up substantially (jumping to 40,818 in FY 2022 from 14,079 in FY 2021). Further analysis revealed that most of these civilian workforce losses (22,586 of 40,818) could be classified as recodes that took place mainly in the Army and the Navy. Approximately 30 percent of the civilian AW losses (12,545 of 40,818) were comprised of people who left the DoD civilian workforce entirely, and another 5,687 were comprised of *internal losses*: people who remained in the DoD civilian workforce but moved out of the AW.

Figure 7 presents the total loss rate, breaking out the separations, internal losses, and recodes for the DoD civilian AW.¹¹ All rates were higher in FY 2022 than in prior years, with the total loss rate at 23.9 percent—markedly higher than in prior years. Figure 7 shows that recodes were the main driver of DoD civilian AW losses.

Separation Rates Vary by AW Career Groups

We provide information to DoD on counts of the civilian AW based on years to retirement eligibility (YRE). DoD groups the workforce in terms of the following YRE categories:

- Future Career Group (21 or more YRE)
- Mid-Career Group (11 to 20 YRE)
- Senior Career Group (ten or fewer YRE).

Figure 8 shows counts and percentages for key subgroups of interest within these career groups. Despite the dramatic change in the size of the civilian AW, the distribution across career groups remained remarkably stable relative to recent prior years. The Senior Career Group is the largest of the three, accounting for 44 percent of the AW. Seventeen percent of the workforce is eligible to retire in FY 2023.

Figure 9 shows the civilian AW loss rate by type of loss and by career group for FY 2020 through FY 2022. External losses reflect individuals leaving the DoD civilian workforce entirely (due to retirement, voluntary or involuntary separation, or death), and internal losses are defined in the box on the following page. The figure reveals that the career groups differed in terms of the share of non-recodes that were internal compared with those that were external. Roughly one-third of the losses in the Future Career Group and Senior Career Group were separations, compared with approximately 19 percent of Mid-Career Group losses. Figure 9 illustrates that, across career groups, loss rates spiked in FY 2022, largely (but not entirely) caused by an increase in recode-losses. Each career group saw higher rates of internal losses and separations in FY 2022 compared with the prior two years, with the Mid-Career Group having the lowest separation rate each year and a higher rate of recodes in FY 2022 compared with the Future Career Group. The Future Career Group had the highest rate of internal losses, suggesting that members of this group may have been more likely to look for new positions within DoD during the implementation of the new DAWIA framework. DoD may want to monitor retention patterns for individuals who transitioned out of the AW but remained in DoD, given that prior work has shown lower separation rates for members of the civilian AW.

Characterizing Gains and Losses to the AW

We identify workforce gains and losses by examining the workforce at the end of one fiscal year and again at the end of the next: year t and year $t + 1$. When a worker appears in the workforce in year $t + 1$ but not year t , the worker is a workforce gain between t and $t + 1$. When a worker appears in the workforce in year t but not $t + 1$, the worker is a loss between years t and $t + 1$.

We define four categories based on whether the gain or loss reflects a person who is just moving between the AW and non-AW within their respective DoD workforce—military or civilian. The categories of gains are as follows for the civilian workforce:

- **New hire.** Individuals are new hires in year $t + 1$ if they do not appear in the DoD civilian dataset in year t but do appear in that workforce in year $t + 1$, even if we observe them in the DoD workforce in a period prior to year t .
- **Switch in.** Individuals are switches into the civilian AW in year $t + 1$ if they appear in the DoD civilian (non-AW) workforce in year t and appear in the DoD civilian AW in year $t + 1$.
- **Separation.** Individuals are separations if they appear in the DoD civilian dataset in year t but do not appear in it in year $t + 1$.
- **Switch out.** Individuals are switches out of the AW in year $t + 1$ if they appear in the DoD civilian AW in year t and appear in the DoD civilian non-AW in year $t + 1$.

These definitions are specific to the civilian AW. This means that a person who transfers directly from the military AW into the civilian AW would be counted as a new civilian hire and a military separation.

We further distinguish between two types of switches for the civilian AW:

- **Internal hire or loss.** Individuals are internal hires or losses into or out of the civilian AW in year $t + 1$ if they meet the definition of *switch in* or *switch out* provided above and if one or more of the following trigger variables in an individual's personnel record changed in conjunction with the move between the non-AW and the AW:
 - agency (e.g., military service or “other DoD”)
 - agency sub-element (e.g., major command or organization within a military service or other DoD agency)
 - occupational series
 - pay plan into or out of the Senior Executive Service
 - pay grade within the same pay plan (promotion).*
- **Recode-gain or recode-loss.** Individuals are recode-gains or recode-losses in year $t + 1$ if they meet the definition of *switch in* or *switch out* described previously and if none of the trigger variables in the personnel record mentioned above changed in conjunction with the move between the non-AW and the AW.

SOURCE: Drawn from Gates, Roth, and Kempf, 2022, pp. 12–13, with minor edits.

* If pay grade changes concurrently with pay plan, or if there is a pay plan change that does not involve the Senior Executive Service, we do not consider the change to be substantive. This is because of the frequent changes in pay plan structure that are administrative in nature.

FIGURE 6
DoD Civilian AW Gains and Losses, by Type, FYs 2017–2022

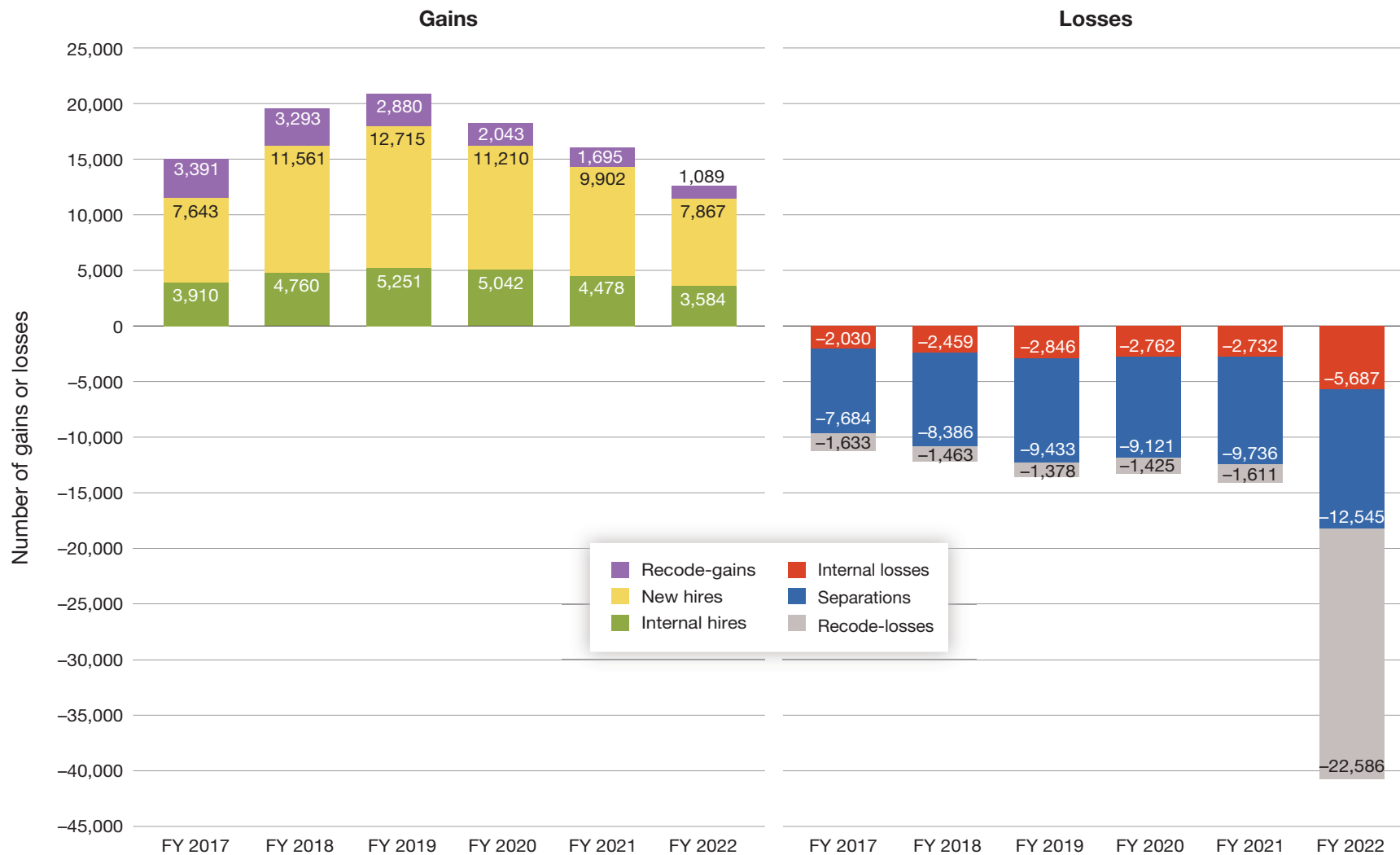


FIGURE 7
DoD Civilian AW Loss Rate, by Type of Loss, FYs 2017–2022

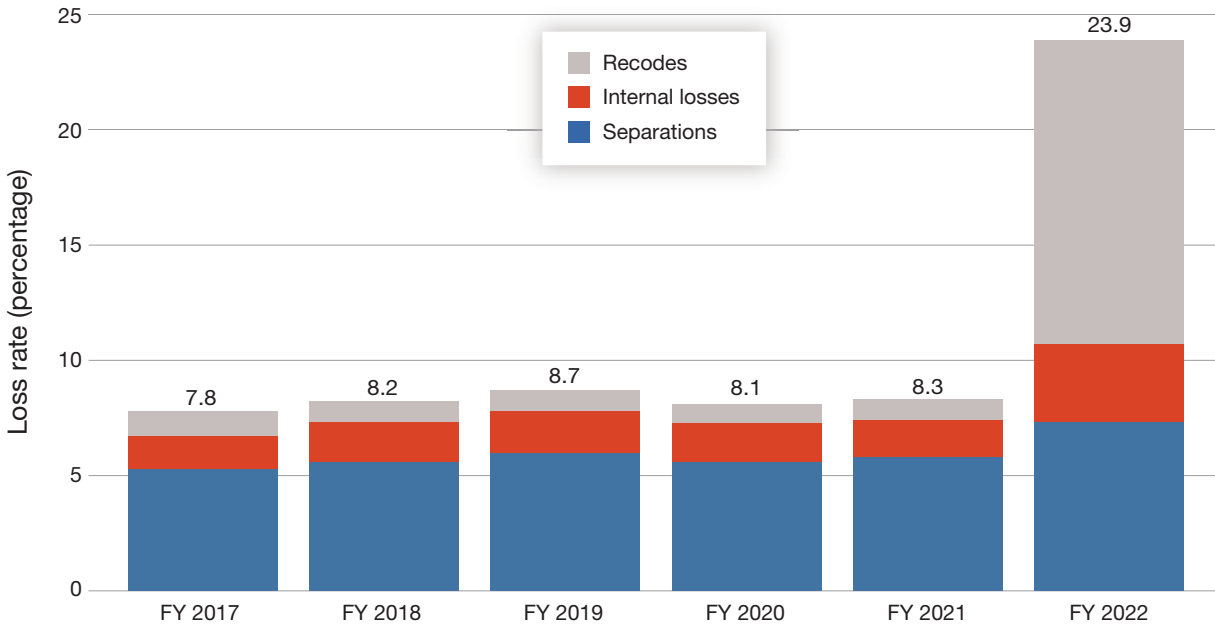


FIGURE 8
DoD Civilian AW, by Years to Retirement Eligibility, FY 2022

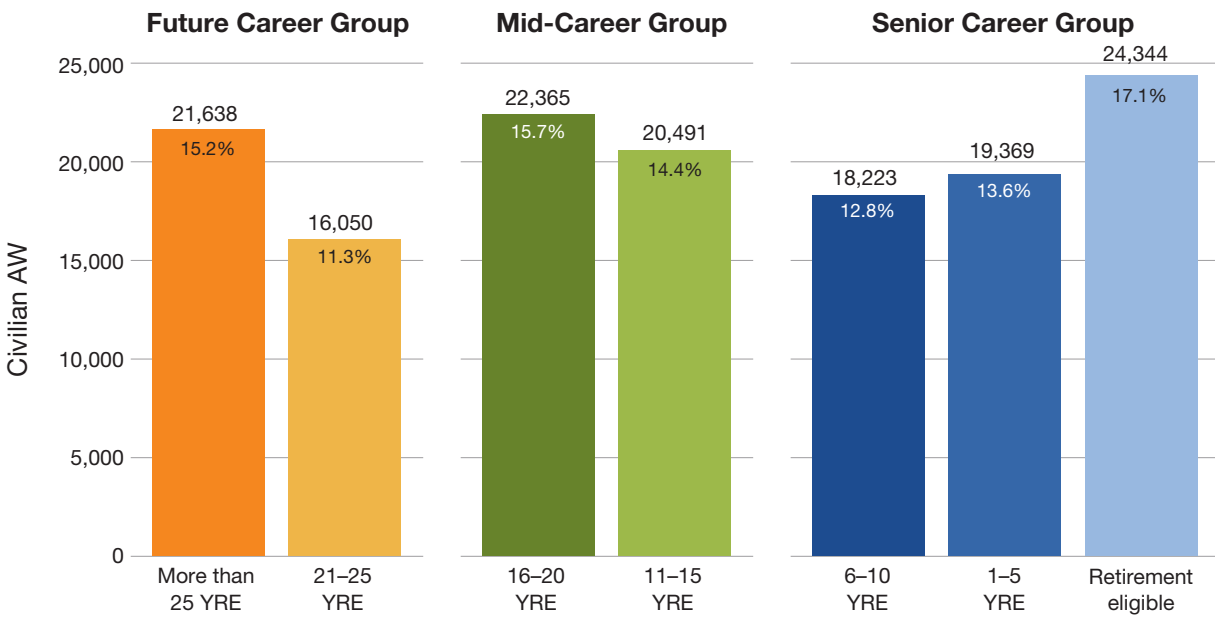
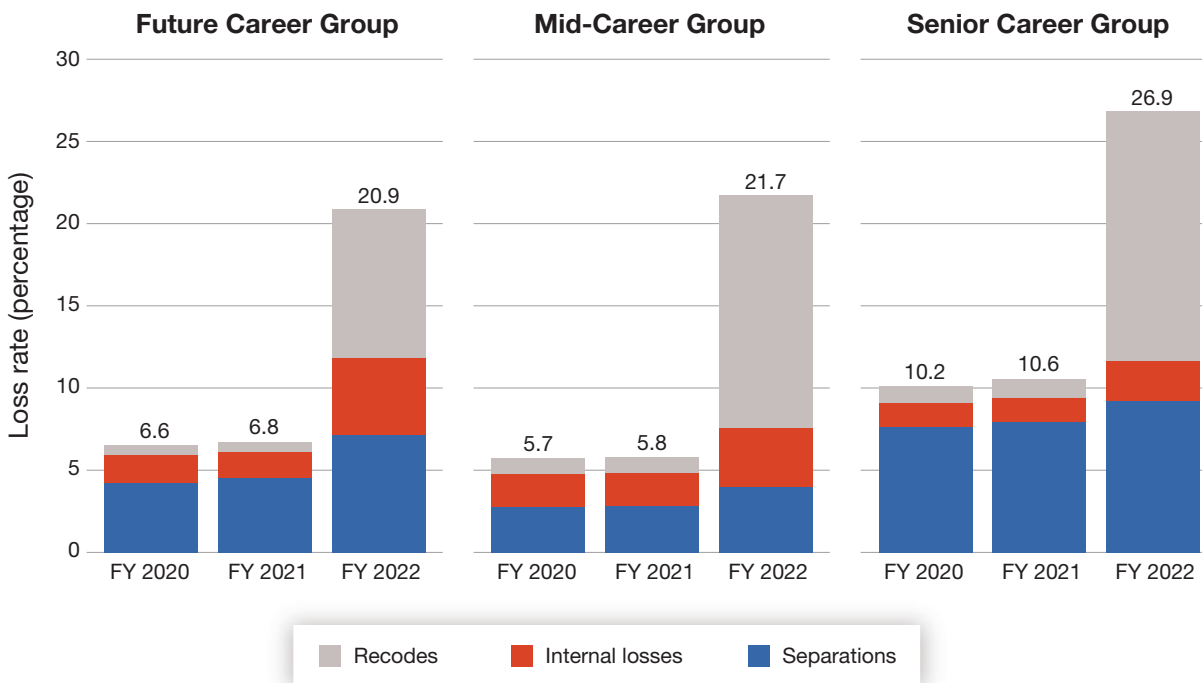


FIGURE 9
DoD Civilian AW Loss Rate, by Career Group, FYs 2020–2022



AW Civilians Left DoD at a Higher Rate Than Expected, but the AW External Loss Rate Was Still Below the Rate for the Non-AW DoD Civilian Workforce

The number of AW losses stemming from separations from DoD was higher in FY 2022 than in recent prior years. We wondered whether the transition to the new DAWIA framework might have driven the higher separation rate. If this were true, we might expect to see bigger increases in separations for the AW compared with the non-AW and more separations in the career fields most affected by the transition. We undertook some exploratory descriptive analysis to find out.

First, we compared the DoD civilian AW separation rate with the non-AW DoD civilian separation rate. As has been consistently documented in RAND reports, the AW tends to have lower separation rates than the non-AW (see Gates, Phillips, et al., 2018, p. 37). That remained true in FY 2022, despite the increase in the AW separation rate. Figure 10 displays the separation rate for the DoD civilian AW and

non-AW DoD civilian workforce for FYs 2018–2022. The separation rate for the civilian AW in FY 2022 was 7.3 percent, well above the recent rates of 5.6 percent to 6.0 percent. But the separation rate for non-AW DoD civilians was 11.3 percent—an increase of nearly two percentage points over the prior year. This suggests that the “high” separation rate observed with the civilian AW may have been driven by broader national or DoD-wide trends.

To explore whether the separation rate in the career fields most affected by the transition was higher or lower than expected separation rates, we leveraged the RAND Inventory Model (RIM), using the FY 2021 RIM to estimate the number of expected workforce separations based on information about the end-of-FY 2021 workforce’s YRE and historical average loss rates.¹² In Figure 11, we compare the projected separations for FY 2022 from the FY 2021 RIM with the actual FY 2022 separations, by career field. The figure shows that all career fields had higher separations than were projected, which is not surprising, given that the FY 2022 separation rate was higher than in recent prior years.

FIGURE 10
DoD Civilian Separation Rate, FYs 2018–2022

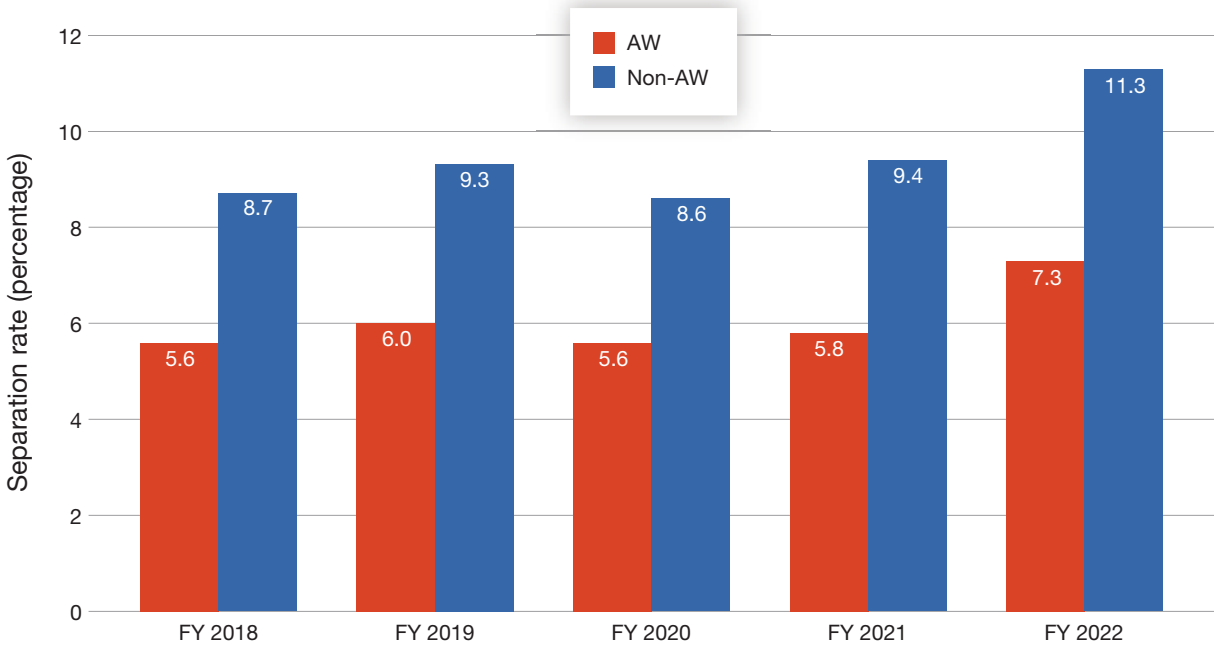


Table 1 presents information on the projected separations, actual separations, and excess separation rate, by career field. We defined *excess separation rate* as the difference between the projected separations and the actual separations, divided by the projected separations. This metric allows us to account for career-field size; we would naturally expect that larger career fields would have more separations in raw terms. This calculation revealed that the auditing, science and technology management, engineering, and purchasing career fields (as indicated by the shaded rows) had much higher rates of *excess separations*. Industrial and contract property management; information technology; contracting; production, quality, and manufacturing; and test and evaluation were in the middle of the pack: 26 percent, 29 percent, 30 percent, 32 percent, and 32 percent, respectively. Facilities engineering, life-cycle logistics, program management, and business (cost estimating and financial management) were on the lower end (23 percent, 20 percent, 20 percent, and 16 percent, respectively). Life-cycle logistics, program management, and business (cost estimating and financial management) were continuing career fields.

Although the overall AW separation rate remains lower than the rate for the civilian DoD non-AW, this analysis raises concerns that the transition to the new DAWIA framework may have driven more external losses than would have been experienced by the AW absent the transition. Notably, the career fields with the highest excess separation rates were those that either experienced (engineering, purchasing, and science and technology management) or were threatened with (auditing) substantial change or elimination from the AW. The contracting career field, which had a moderate level of excess separations, experienced fairly significant changes to its career-level structure, with three levels being collapsed into one. On the other hand, one career field that was discontinued and provided no transition plan (facilities engineering) had low rates of excess separations. DoD may be able to leverage other data sources to better understand whether the excess losses we identified are related to changes in job satisfaction among AW members in the past year. For example, the annual Federal Employee Viewpoint Survey (FEVS) asks employees about satisfaction with their job, supervisor, organization, work unit, development

FIGURE 11

Projected vs. Actual Separations in FY 2022, by FY 2021 Career Field

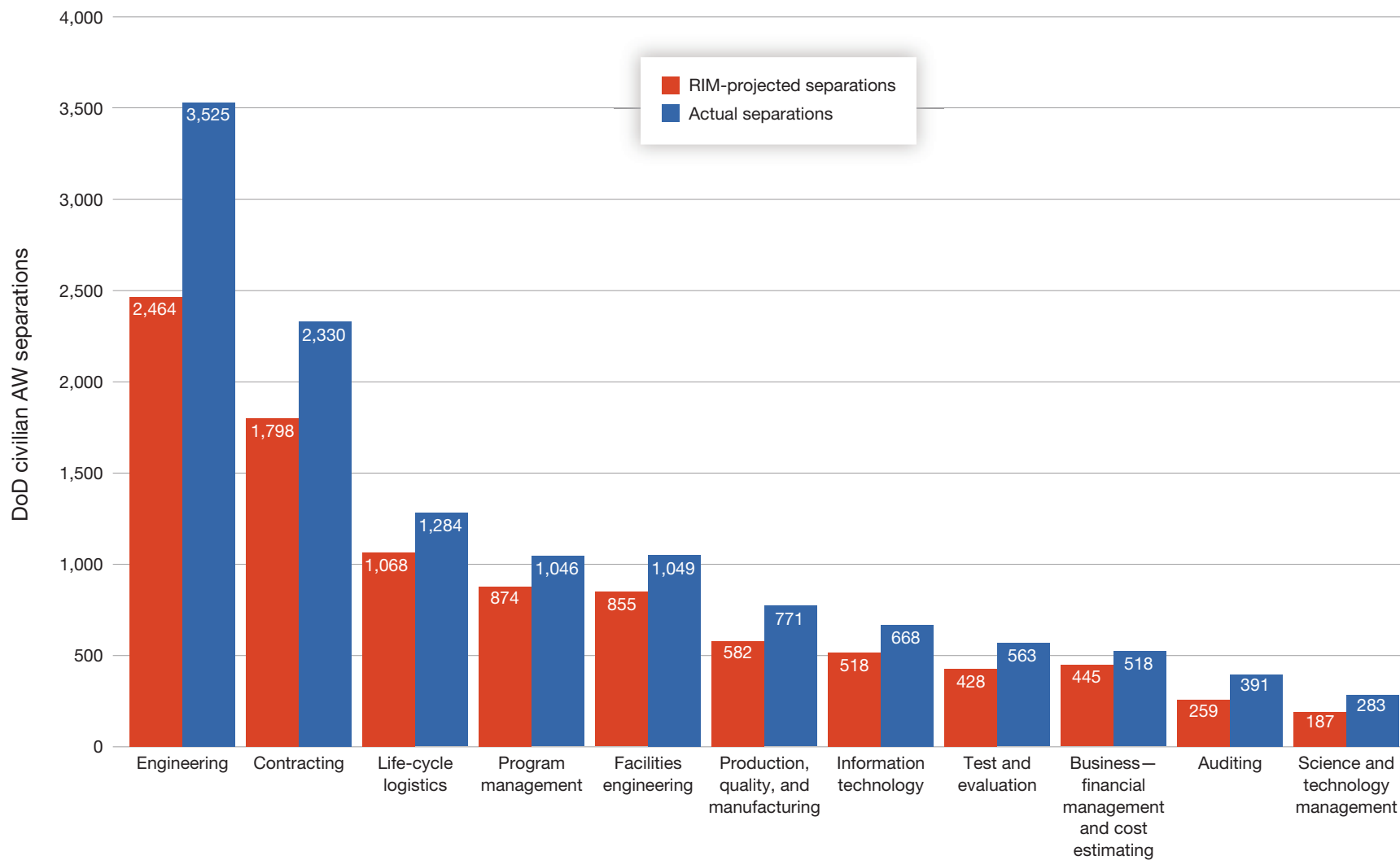


TABLE 1
Excess Separations in FY 2022, by FY 2021 Career Field

Career Field	RIM-Projected Separations	Actual Separations	Excess Separations	Excess Separations as a Percentage of Projected	Continuing Career Field?
Auditing	259	391	132	51%	Yes
Business (cost estimating and financial management)	445	518	73	16%	Yes
Contracting	1,798	2,330	532	30%	Yes
Engineering	2,464	3,525	1,061	43%	No
Facilities engineering	855	1,049	194	23%	No
Industrial and contract property management	31	39	8	26%	No
Information technology	518	668	150	29%	No
Life-cycle logistics	1,068	1,284	216	20%	Yes
Production, quality, and manufacturing	582	771	189	32%	No
Program management	874	1,046	172	20%	Yes
Purchasing	98	137	39	40%	No
Science and technology management	187	283	96	51%	No
Test and evaluation	428	563	135	32%	Yes

NOTE: Shaded rows indicate the career fields with the highest rates of excess separations.

opportunities, communication from organizational leadership, and sense of accomplishment (among other topics) and may be a useful source of information on workforce satisfaction.¹³

Conclusions and Recommendations

Implementation of the new DAWIA framework is largely complete, but DoD still has some work to do. The large number of recodes out of the AW in the Army and Navy suggests that those components took the opportunity provided by the rollout of the new DAWIA framework to reassess whether positions should continue to be coded as AW positions. Other components may have done such reassessment as well, but it did not result in significant recoding if so.

In our 2022 report (Gates, Roth, and Kempf, 2022), we recommended that DoD develop guidance related to coding certification requirements for DAWIA positions and certification attainment of AW members, and we reiterate that recommenda-

tion here. We argued that a new coding system that retains grandfathered information and distinguishes that information from new certification codes would enable a more robust analysis of certification-level attainment of the AW. DoD has not acted on that recommendation, limiting DoD's capacity to identify those who attained certification under the old versus the new requirements.

Our analysis of workforce retention suggests that although DoD civilian AW losses increased, a large share of those workers remained in DoD. And although DoD civilian AW external loss rates were higher in FY 2022 than in recent prior years, that was true for the non-AW DoD civilian workforce as well. Although the FY 2022 data do not provide definitive evidence that the transition to the new DAWIA framework drove workers out of the workforce, our analysis of excess separations by career field raises some concerns in that regard. Those with the weakest workforce attachment to DoD—workers who have reached retirement eligibility and those in the Future Career Group—appear to have been less likely

to remain in DoD after being recoded out of an AW position, compared with the Mid-Career Group.

Considering these conclusions, we offer the following recommendations to HCI:

1. Develop guidance related to coding certification requirements for DAWIA positions and certification attainment of AW members, and revise DAWIA reporting systems and guidance to require tracking information about knowledge-area credentials.
2. Continue to monitor loss rates and investigate workforce satisfaction for the following key groups to identify signs of workforce stress due to the transition to the new DAWIA framework: retirement-eligible workers, members of the Future Career Group, and civilians who transitioned out of the AW but remain in DoD.
3. Continue to monitor separation by career field to better understand the workforce implications of the transition to the new DAWIA framework.

Appendix

This appendix provides the data underlying Figures 3 and 4 that illustrate the transitions between career fields and functional areas during FY 2022 for those who experienced a transition. Transition counts are presented in Table A.1. The rows of the table provide counts for end-of-FY 2021 career fields. The numbers in the “FY 2021 Career Field Count” column (gray shading) indicate the total number of people in that career field who made any transition between the end of FY 2021 and the end of FY 2022. Subsequent columns provide counts of the functional areas to which those who experienced a transition moved. The intersection of a row and column contains the total number of AW members who transitioned from the career field associated with that row to the functional area associated with that row during FY 2022. Green shading designates the career field to functional area transitions that DoD formally outlined in its implementation materials.

TABLE A.1

DoD Civilian AW Transitions Between FY 2021 Career Field and FY 2022 Functional Area

	FY 2021 Career Field Count (rows)	Auditing	Business (Cost Estimating and Financial Management)	Contracting	Engineering and Technical Management	Life-Cycle Logistics	Program Management	Test and Evaluation	Legacy or Unknown
FY 2022 Functional Area Count (columns)	55,464	—	224	1,387	51,516	285	1,326	527	193
Auditing	51	N/A	—	47	0	0	0	—	0
Business (cost estimating and financial management)	191	0	N/A	23	42	11	104	—	—
Contracting	178	—	14	N/A	30	20	100	0	—
Engineering	34,795	0	24	17	34,210	28	202	279	35
Facilities engineering	3,185	0	55	167	2,827	—	119	—	—
Industrial and contract property management	336	0	0	315	17	0	—	0	—
Information technology	4,458	0	—	12	3,842	18	425	133	20
Life-cycle logistics	370	0	14	24	124	N/A	191	—	10
Production, quality, and manufacturing	7,170	—	27	54	6,825	89	119	42	13
Program management	556	0	72	52	275	88	N/A	46	23
Purchasing	706	0	—	670	—	26	0	—	0
Science and technology management	3,091	0	0	—	3,027	—	25	—	28
Test and evaluation	363	0	—	0	289	0	33	N/A	39
Unknown	14	0	—	—	—	0	—	0	0

NOTE: N/A = not applicable. Table excludes AW members who were in a continuing career field at the end of FY 2021 and remained in that functional area. “—” indicates suppressed nonzero counts of fewer than ten AW members. Green shading indicates career field to functional area transitions that were explicitly anticipated in the transition to the new DAWIA framework.

Notes

¹ The two business career fields were sometimes combined into one field: *business—cost estimating and financial management*. In reports for DoD, RAND researchers provided both separate and combined analyses for these fields. Past RAND reports combined the two career fields when providing a descriptive overview of the AW. This report breaks out the two fields to better align with analyses produced by DoD.

² The engineering career field was previously known as *systems planning, research, development, and engineering* (SPRDE) and split into two separate career fields: *SPRDE—systems engineering* and *SPRDE—program systems engineer*. As of FY 2014, the *SPRDE—program systems engineer* field was eliminated, and members of both career fields transitioned to a general “engineering” field (see Under Secretary of Defense for Acquisition, Technology, and Logistics, 2013).

³ Under the new DAWIA framework, cost estimating and financial management are considered one career field. However, there are different requirements for financial management and cost estimating, and positions and people in the two areas are associated with different functional area codes.

⁴ Prior to 2022, the DAWIA person file tracked information on Defense Acquisition Corps members regardless of whether they encumbered an AW position at a given point in time. The 2022 update to Department of Defense Instruction 5000.66 terminated the Defense Acquisition Corps. Although the DAWIA file only captures workers currently in the AW, we know that individuals move into and out of the AW while remaining employed by DoD—on both the military and the civilian side. RAND’s integrated longitudinal data supports analysis of such AW “alumni.” See Gates, Roth, et al. (2013) for a discussion of this issue.

⁵ U.S. Code, Title 10, Section 1724 requires that individuals holding civilian positions classified in the 1102 federal occupation series or similar military positions have baccalaureate degrees. Therefore, most members of the contracting career field face a degree requirement but not because of the DAWIA framework.

⁶ DoD added a new code (4) to the certification level data field in the acquisition position and person files. This code is used to designate advanced certification in the business (financial management) and program management functional areas. Advanced certification in the auditing, business financial management and cost estimating, and life-cycle logistics functional areas are associated with code 3. Code 1 is used for the foundational certification across all career fields that have such a certification, as well as the contracting professional certification. Code 2 is used for the professional certification for all other career fields that have professional certification.

⁷ See Gates, Roth, and Kempf (2022, pp. 23–24) for more information on pre-transition career-field distribution patterns.

⁸ This total includes individuals whose career-field code changed concurrent with a change in their position. Historically, roughly 2,000 to 3,000 AW members change career field each year, presumably for professional growth or career opportunities. Many of those transitions involved the program management career field.

⁹ The “other” functional area category includes auditing, business (cost estimating and financial management), life-cycle logistics, and test and evaluation.

¹⁰ As described in Gates, Roth, and Kempf (2022), “recodes” are losses from the AW that seem to be due to an administrative decision to no longer consider a particular position a DAWIA position. We draw this inference because the individuals appeared to remain in the same job (same organization, occupation, and grade level) but were no longer filling positions designed as part of the AW.

¹¹ The DoD civilian AW total loss rate is calculated as the sum of separations, internal losses, and recodes in year t divided by the total DoD civilian AW in year $t - 1$. The internal loss and separation rate is calculated as the sum of separations and substantive switches out in year t divided by the total DoD civilian AW in year $t - 1$. The external loss rate is calculated as separations in year t divided by the total DoD civilian AW in year $t - 1$. The rates are presented as percentages.

¹² For more information on the RIM, see Gates, Roth, and Kempf (2022, pp. 15–16) and Gates, Phillips, et al. (2018, Appendix A).

¹³ The U.S. Office of Personnel Management administers FEVS annually to employees of executive branch agencies. The survey collects information on the work experience and work-related satisfaction of individuals. The office publishes high-level results by federal agency and makes disaggregated data available to agencies for their own uses (U.S. Office of Personnel Management, undated).

References

Defense Acquisition University, “Defense Acquisition Workforce Continuous Learning Program Policy & Guidance,” webpage, undated-a. As of December 8, 2023: <https://www.dau.edu/index.php/continuous-learning-center/policy-and-guidance>

Defense Acquisition University, “DoD Acquisition Certification Facts and ‘Not So Frequent’ Questions,” webpage, undated-b. As of July 26, 2022: https://icatalog.dau.edu/onlinecatalog/faq_catalog.aspx

Defense Acquisition University, “Human Resources Reference Document: Back-to-Basics,” version 2.0, March 2022.

Department of Defense Directive 5135.02, *Under Secretary of Defense for Acquisition and Sustainment (USD(A&S))*, U.S. Department of Defense, July 15, 2020.

Department of Defense Instruction 5000.66, *Defense Acquisition Workforce Education, Training, Experience, and Career Development Program*, U.S. Department of Defense, July 27, 2017, change 3, March 25, 2022.

Gates, Susan M., Edward G. Keating, Adria D. Jewell, Lindsay Daugherty, Bryan Tysinger, Albert A. Robbert, and Ralph Masi, *The Defense Acquisition Workforce: An Analysis of Personnel Trends Relevant to Policy, 1993–2006*, RAND Corporation, TR-572-OSD, 2008. As of November 11, 2008: http://www.rand.org/pubs/technical_reports/TR572.html

Gates, Susan M., Brian Phillips, Michael H. Powell, Elizabeth Roth, and Joyce S. Marks, *Analyses of the Department of Defense Acquisition Workforce: Update to Methods and Results Through FY 2017*, RAND Corporation, RR-2492-OSD, 2018. As of July 13, 2022: https://www.rand.org/pubs/research_reports/RR2492.html

Gates, Susan M., Elizabeth Roth, and Jonas Kempf, *Department of Defense Acquisition Workforce Analyses: Update Through Fiscal Year 2021*, RAND Corporation, RR-A758-2, 2022. As of July 13, 2022: https://www.rand.org/pubs/research_reports/RRA758-2.html

Gates, Susan M., Elizabeth Roth, Sinduja Srinivasan, and Lindsay Daugherty, *Analyses of the Department of Defense Acquisition Workforce: Update to Methods and Results Through FY 2011*, RAND Corporation, RR-110-OSD, 2013. As of August 14, 2018: https://www.rand.org/pubs/research_reports/RR110.html

Public Law 101-510, National Defense Authorization Act for Fiscal Year 1991, November 5, 1990.

Under Secretary of Defense for Acquisition, Technology, and Logistics, *Sunsetting of the Systems Planning, Research, Development, and Engineering: Program Systems Engineer Acquisition Workforce Career Path and the Renaming of the Systems Planning, Research, Development and Engineering Acquisition Workforce Career Field*, U.S. Department of Defense, September 16, 2013.

U.S. Code, Title 10, Armed Forces; Subtitle A, General Military Law; Part II, Personnel; Chapter 87, Defense Acquisition Workforce; Subchapter II, Acquisition Positions and Acquisition Workforce Career Fields; Section 1724, Contracting Positions: Qualification Requirements.

U.S. Office of Personnel Management, “Federal Employee Viewpoint Survey: About,” webpage, undated. As of August 15, 2023: <https://www.opm.gov/fevs/about/>

Acknowledgments

We are indebted to Garry Shafovaloff of the Office of the Under Secretary of Defense for Acquisition and Sustainment (USD[A&S]) for his ongoing support of and input into this work over the years. We have benefited from comments from and interactions with several key members of the USD(A&S) Office of Human Capital Initiatives team, including Julie Mattocks, Robert Briede, Scott Bauer, Steve Lewiski, and Chuck Cameron. We are grateful to the file managers at the Defense Manpower Data Center (DMDC), especially Scott Seggerman and Portia Sullivan, who have provided us with data over the years and answered our many questions about the data files. We are also grateful to Stephanie Williamson of RAND for assisting with our ongoing data acquisition from DMDC.

We thank Shirley Ross and Susan Sohler Everingham of RAND for their thoughtful reviews and suggestions, which greatly strengthened the report. We also thank Kim Schwartz for her assistance in formatting and compiling the report.

The authors alone are responsible for any remaining errors in the report.

About This Report

In fiscal year (FY) 2022, the U.S. Department of Defense (DoD) implemented a new framework for managing the defense acquisition workforce (AW), which included over 180,000 military and civilian personnel as of the end of FY 2021. This workforce, which is responsible for providing a wide range of acquisition, technology, and logistics support for products and services to U.S. warfighters and support elements, has been the focus of policymaker attention for decades. In 1990, the Defense Acquisition Workforce Improvement Act (DAWIA) established requirements for DoD's management of the AW. The new DAWIA framework implemented in FY 2022 involved the most substantial changes to the AW management system since the passage of the law.

The Under Secretary of Defense for Acquisition and Sustainment (USD[A&S]) is responsible for DoD-wide strategic human capital management for the AW. USD(A&S)'s Office of Human Capital Initiatives supports DoD human capital strategies and has directed the deployment of a comprehensive workforce analysis capability to facilitate enterprise-wide and component assessments of the AW. RAND Corporation researchers aid in this effort by providing ongoing updates on workforce gains and losses, as well as targeted analyses of specific topics of interest.

In this report, we use DoD-wide data from the end of FY 2022 to provide an overview of how the transition to the new DAWIA framework has gone. We leverage ongoing workforce analysis focused on the AW described in a series of RAND reports: Gates, Keating, et al., 2008; Gates, Roth, et al., 2013; Gates, Phillips, et al., 2018; and Gates, Roth, and Kempf, 2022. Readers are referred to earlier reports for more detail on the underlying methodology of the workforce analysis. Text from these prior reports is repurposed in this update, notably in the introduction and in the section on the new DAWIA framework, in which we describe DAWIA's origins, requirements, and the underlying data and methodology of the workforce analysis.

This report will be of interest to officials in DoD and elsewhere who are responsible for AW planning, management, and oversight. The research reported here was completed in August 2023 and underwent security review with the sponsor and the Defense Office of Prepublication and Security Review before public release.

RAND National Security Research Division

This research was sponsored by USD(A&S) and conducted within the Personnel, Readiness, and Health Program of the RAND National Security Research Division (NSRD), which operates the National Defense Research Institute (NDRI), a federally funded research and development center sponsored by the Office of the Secretary of Defense, the Joint Staff, the Unified Combatant Commands, the Navy, the Marine Corps, the defense agencies, and the defense intelligence enterprise.

For more information on the RAND Personnel, Readiness, and Health Program, see www.rand.org/nsrd/prh or contact the director (contact information is provided on the webpage).



The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.

Research Integrity

Our mission to help improve policy and decisionmaking through research and analysis is enabled through our core values of quality and objectivity and our unwavering commitment to the highest level of integrity and ethical behavior. To help ensure our research and analysis are rigorous, objective, and nonpartisan, we subject our research publications to a robust and exacting quality-assurance process; avoid both the appearance and reality of financial and other conflicts of interest through staff training, project screening, and a policy of mandatory disclosure; and pursue transparency in our research engagements through our commitment to the open publication of our research findings and recommendations, disclosure of the source of funding of published research, and policies to ensure intellectual independence. For more information, visit www.rand.org/about/research-integrity.

RAND's publications do not necessarily reflect the opinions of its research clients and sponsors. **RAND**® is a registered trademark.

Limited Print and Electronic Distribution Rights

This publication and trademark(s) contained herein are protected by law. This representation of RAND intellectual property is provided for noncommercial use only. Unauthorized posting of this publication online is prohibited; linking directly to its webpage on rand.org is encouraged. Permission is required from RAND to reproduce, or reuse in another form, any of its research products for commercial purposes. For information on reprint and reuse permissions, please visit www.rand.org/pubs/permissions.

For more information on this publication, visit www.rand.org/t/RR-A758-3.

© 2024 RAND Corporation

www.rand.org