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Service-level Differences in Tuition Assistance Use and Outcomes: A Qualitative Analysis

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Abstract

Tuition Assistance (TA) is the primary education benefit that the Department of Defense (DOD) provides to Service members to ease the financial burdens of continuing education while serving in the military. A 2017 CNA study revealed several Service-level differences in Service members' TA use and TA outcomes. In this study, we use qualitative methods to identify possible reasons for these differences. Synthesizing our analysis of existing policy, discussions with subject matter experts (SMEs), and focus groups in all four Services, we find that variation across the Services in TA policy, TA understanding, occupational responsibilities and operational tempo (OPTEMPO), as well as support from senior leaders and immediate supervisors is likely the primary driver of these Service-level differences. We suggest that DOD standardize TA policy, the financial TA benefit, and the content and delivery of TA messaging. We also encourage the Services to ensure TA buy-in from senior leadership and counsel Service members on effective TA use.

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Executive Summary

Background

Tuition Assistance (TA) is the primary education benefit that the Department of Defense (DOD) provides to Service members to ease the financial burdens of continuing education while serving in the military. It also aims to make them more academically ready—i.e., set them up for academic success (via degree attainment and course completion)—both in service and after they transition to civilian life. A 2017 CNA study revealed several Service-level differences in TA use, which ultimately were related to such outcomes as course completion and degree attainment. That analysis revealed, for example, that enlisted Airmen and Sailors are more likely than Soldiers or Marines to use TA and successfully complete their courses. It was unclear, however, what led to such differences. Possible reasons include differences in TA use policy, Service members' abilities to use TA, Service members' educational goals, and Service-level incentives for TA use.

To better understand the driving factors behind Service-level differences in TA use and outcomes, the DOD Voluntary Education Office asked CNA to evaluate Service-level differences in continuing education incentives and motivations, TA access, and TA awareness. The ultimate objective of this effort is to equalize access and awareness across the Services while minimizing the risks of course and degree noncompletion.

Approach

In this study, we took a qualitative approach to answering these questions and focused primarily on enlisted Service members because they make up the majority of the TA-using population. Our approach included a comprehensive policy review, conversations with on-installation education counselors and other relevant subject matter experts (SMEs), and focus groups (FGs) with both officers and enlisted Service members (junior enlisted, TA-using mid-grade enlisted, non-TA-using mid-grade enlisted, and senior enlisted). Synthesizing these inputs allowed us to hypothesize why we observe Service-level differences in both TA use and outcomes (such as course completion and degree attainment) and ultimately to recommend ways to maximize TA use and equalize overall TA success across the Services. This study was originally published in June 2020, and our focus groups and SME discussions were conducted in the summer/fall of 2019. Some of the findings and recommendations discussed in this report

will have been resolved or acted on prior to the publication of this final version, approved for public release. This study and its resulting recommendations should be viewed as representative of the state of Service-level TA differences at the time of the original study's execution.

We caution readers that the generalizability of our findings is questionable. This is not only because we visited only one installation per service, but also because our focus groups were based on a convenience sample, with some demographic groups being over- or under-represented. Without further study, we cannot be certain that our findings regarding any one Service would apply to Service members *throughout* the Service, as opposed to only reflecting experiences of those in our FGs (and on that specific installation). More generalizable findings would require a representative survey. That said, our findings do represent inputs from a diverse group of people, and we are confident in those findings that emerge consistently across the FGs and find them informative as to how TA policies, TA practices, and Service member perceptions about TA differ across Services. Our findings will assist the Department of Defense in identifying particular areas in need of greater focus, thereby informing how to shape future policy with the end-goal of further standardizing the TA learner experience across the Services.

Findings

Our findings reveal that the variation across the Services in TA policy, TA understanding, and occupational responsibilities and operational tempo (OPTEMPO), as well as in support from senior leaders and immediate supervisors, likely is the primary driver of these differences. The most important policy differences are those that limit Service members' TA use, including when they are first able to use TA. Prominent among these are time-in-service restrictions: from September 2013 through April 2019, the Marine Corps *required* Marines to have served two years before using TA, and the Navy *implemented the same restriction* in October 2019. Other important policy differences, as reported by our FG participants,[1] include the following:

- The Army's and Navy's FY funding limits—$4,000 and $3,000 per Service member, respectively—are lower than DOD's $4,500 maximum.
- The Army, Navy, and Air Force all impose annual credit-hour limits. Specifically, the Army limits TA use to 16 semester hours (SHs) per FY, the Navy limits the lifetime number of credits to 120, and the Air Force limits the lifetime number of credits per degree type (124 SHs for a B.A./B.S.; 42 SHs for an M.A./M.S.).

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[1] Not all FG perceptions are codified in policy.

- The Army and Marine Corps require minimum General Technical (GT) scores on the Armed Services Vocational Aptitude Battery (ASVAB) for TA use.[2]

- The Air Force *requires* additional educational attainment and degrees for promotion, whereas it is simply an added advantage for promotion in the other Services.

We also find substantial variation in Service members' understanding of the TA program. The most concerning knowledge gaps were those among mid-grade TA users, whose experience with TA should make them more informed, as well as those among senior enlisted and officers, who advise those in their chains of command. We also find differences in whether Service members were aware of the TA benefit at enlistment and in when and how they first learned about the TA program. With the exception of Airmen, who primarily learn about TA in a training session, most Service members learn about the program from mentors or by word of mouth. They noted that either the TA program (a) was not covered in their Welcome Aboard briefs or installation in-processing or (b) was only briefly mentioned as an available benefit, with little-to-no information provided on what the benefit covers or how to start the process. Given the significant misinformation regarding the TA program, there are risks of further dissemination of incorrect information when program knowledge is being spread via word of mouth or by leaders and mentors without the most up-to-date information.

Differences in TA use across the Services may be significantly influenced not only by leaders' understanding of the TA program but also by their TA "buy-in." That is, leaders' support for and encouragement of TA use are key determinants of Service members' TA use. Although many Service members learn about TA from a supervisor, their experiences vary widely across commands. Some supervisors use their one-on-one counseling sessions as opportunities to encourage TA participation and stress the benefits of continued education to young Service members. In other cases, particularly in the Army and Marine Corps, leaders are less supportive of TA use. Army and Marine Corps SMEs noted that some commanders do not consider the pursuit of civilian education to be mission relevant and therefore do not encourage TA use. Relatedly, when asked about command approval, roughly a third of Army and Marine Corps FG respondents indicated that obtaining command approval was a challenge, whereas no Navy or Air Force mid-grade user participants said that it was an issue.[3]

Finally, occupational requirements—and the resulting OPTEMPO and deployment frequency—significantly influence TA use and help to explain cross-Service differences.

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[2] Though noted by the Army's education counselors, Army representatives reviewing this document stated that in fact there is no longer a minimum GT score requirement for TA use. This suggests a miscommunication, thus creating a de facto GT requirement.

[3] Army representatives who reviewed this document stated that the Army does not require command approval for TA use. That said, one-third of mid-grade Army TA users cited this as a challenge to TA use, suggesting that they are in fact getting command pushback when attempting to use TA.

Service members noted that those in different occupations have varying amounts of downtime during their workdays, which determines whether they are able to complete any coursework while at work. Service members in different occupations (and Services) also spend varying amounts of time on field exercises, in training, or deployed. Many noted that deployments can be an ideal time to use TA, owing to the absence of family responsibilities, but there are unique challenges, including internet connectivity and communication challenges. In *some* downrange locations, in-person classes are offered, but discussions revealed that this option is not available to all Service members.

Recommendations

Based on these findings, if DOD seeks to maximize Service members' use of TA, we recommend that it take the following actions:

- Standardize TA policy across the Services.
- Provide uniform TA funding across the Services (annual funding limits, per-course maximum costs).
- Standardize the content and delivery of TA messaging, to eliminate misinformation.
- Ensure that the Services present TA information *early* in Service members' careers and reinforce TA messaging *throughout* their military lifecycle.
- Ensure that education counselors are available to all Service members.

We also recommend that the Services maximize TA use in the following ways:

- Work to ensure leadership buy-in across commands, perhaps by implementing standardized leadership training on the benefits—both to the individual Service member and to the command—of increased educational attainment.
- As part of this buy-in, encourage commands to include TA training as part of in-processing, ideally by having education counselors brief the units.
- Provide junior Service members and first-time TA users with guidance on how to effectively juggle TA use with their other responsibilities and how to effectively use TA when deployed.
- Counsel TA users on the trade-offs between online versus brick-and-mortar courses and help to prepare them for online-specific challenges.

If implemented, these recommendations will make both Service members' ability to use TA and their overall TA success rates more similar across the Services. Of course, some Service- and command-level differences will persist because the ability of Service members to successfully use TA will vary by circumstance. These recommendations, however, certainly will decrease the magnitude of current differences.

Contents

Introduction

Tuition Assistance (TA) is the Department of Defense's (DOD's) primary program for providing educational benefits to Service members. With a maximum benefit of $250 per semester credit hour and up to $4,500 in tuition per fiscal year, TA aims to ease the financial burden of continuing an education while serving. Per DOD policy, TA is available for Service members participating in high school completion courses and other approved courses that are part of a preestablished degree program *or* are non-degree-related language courses "integral to the Defense Language Transformation Roadmap" [1]. All undergraduate and graduate courses must be taken at accredited institutions recognized by the US Department of Education [1].

As with other DOD-level policies on specific aspects of the TA program (e.g., eligibility requirements or approved and disapproved TA uses), the Services can impose *more* restrictive guidelines than those prescribed by DOD. Such differences could at least partially explain Service-level differences in members' likelihood to use TA (as well as the frequency and concentration of TA use) found in a 2017 CNA study [2]. These Service-level differences in TA use ultimately were related to outcomes, such as course completion and degree attainment [2].

Specifically, among both enlisted and officers, the Navy and the Air Force were the two Services with the highest percentages of TA-using members. In addition, the Air Force had the most Service members using TA both actively and persistently (as defined by consecutive terms of TA use and the number of courses taken).[4] This likely is at least partially because the Air Force requires an associate degree for promotion above the junior ranks. Sizable differences in TA-related outcomes emerged as well; Airmen and Sailors had the highest course completion rates, and TA-using enlisted Sailors were the most likely to attain a degree of any level using TA. Thus, with a few exceptions (including Army officers being the most likely to attain degrees using TA), Sailors and Airmen emerged as the largest and most successful groups of TA users.

These Service-level differences led to a number of questions regarding underlying causes, including the following:

- Are differences in outcomes due to Service-level policy differences or differences in the Service-level implementation of DOD-level policy?
- Are they due to differences in TA access?

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[4] A more detailed summary of these findings can be found in Appendix A.

- Are they due to differences in TA awareness?
- Are they due to differences in Service-level obstacles to or incentives for TA use (e.g., due to deployment schedules or occupational operational tempo (OPTEMPO))?
- Are they due to differences in Service members' average education levels at accession and, relatedly, their educational goals?

Identifying the source of these Service-level differences in TA use and success is important so that they can be properly addressed. Research shows that off-duty education is important for Service members' quality of life [3-4], promotion opportunities [5], and after-service transitions into the civilian labor market [3, 6-7], but it is not without risks. Specifically, education can be costly for those who ultimately do not attain a degree; such Service members might acquire educational debt but never receive the full benefits of taking on that debt. In addition, variance in college graduates' earnings and debt levels has increased over the past several decades, making college more financially worthwhile for some (those with ultimately higher earnings) but no longer worthwhile for others (those with higher debt) [8].[5]

The DOD Voluntary Education Office asked CNA to evaluate Service-level differences in continuing education incentives or motivations, TA access, and TA awareness, with the ultimate objective of equalizing access and awareness across the Services while minimizing the risks of course and degree noncompletion. In this study, we take a largely qualitative approach to addressing these issues, and we focus on enlisted Service members because they make up the majority of the TA-using population. Our approach includes a comprehensive policy review, conversations with on-installation education counselors and other relevant subject matter experts (SMEs), and focus groups (FGs) with both enlisted Service members and officers. The synthesis of these inputs informs why Service-level differences likely exist in TA use and TA outcomes, such as course completion and degree attainment.

The rest of this report is organized as follows. In the section that follows, we review our qualitative approach and discuss a few methodological caveats regarding the generalizability of our findings. In the next few sections, we review the primary cross-Service differences in *how* Service members use TA (including when in their careers they typically use TA and the educational goals that they tend to pursue), the perceived benefits from TA use, and, ultimately, the challenges that Service members face in using their TA benefits. These differences help to inform why both proclivity to use TA and TA success rates may vary by Service. In the final section, we offer conclusions and recommendations.

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[5] For a more in-depth discussion of the existing literature, see [8].

Approach

This study uses a multipronged qualitative approach, incorporating a policy review, SME discussions, and FGs with active-duty enlisted Service members and officers in all four Services. In compiling information from all these sources, we gained a comprehensive understanding of the possible underlying factors that cause TA use and success rates to vary by Service.[6] Whereas our previous report summarized TA use from FY99 to FY15, this report summarizes the *current* TA environment. It is reasonable to expect that current TA policies, processes, or experiences may differ from those contributing to our previously observed Service-level differences. Here we focus on highlighting current Service-level differences that could contribute to differences in TA use and TA success rates. If DOD seeks to standardize TA opportunities and experiences across the Services, understanding these differences is a necessary first step. In the rest of this section, we provide details on each of our methodological elements.

Policy review

We had two primary objectives in conducting the policy review. First, written DOD-level policies informed our understanding of DOD's intent in providing TA, as well as its expectations regarding Service member and Education Service Officer (ESO) responsibilities, the counseling that should be made available, and other aspects of TA use. We then reviewed Service-level policies to identify areas in which they differ from DOD policies, most often by being more restrictive regarding TA's approved uses or by providing more support for Service members. Second, we highlighted Service-level differences that might affect how Service members understand, access, and use TA. Table 1 lists the policies that were reviewed.

In reviewing these documents, we searched for information related to a predetermined set of subject areas, including the Services' perspectives on the TA program's mission and objectives, the courses and educational purposes for which TA can (and cannot) be used, eligibility requirements, and counseling requirements. We used Service-level policy differences to inform differences (if any) in Service cultures surrounding continuing education—and using TA to

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[6] We cannot extrapolate findings for members of the reserve component because our SME discussions and FGs were restricted to active-duty Service members.

finance it. We then evaluated whether these themes emerged consistently in all Services' policies or only in certain ones. Table 2 presents our themes of interest, by subject area.[7]

Table 1.   TA policies reviewed

Date	Policy number	Policy name or description
United States Code (U.S.C.)		
N/A	10 U.S.C. 2005	Advanced education assistance: active-duty agreement; reimbursement requirements
N/A	10 U.S.C. 2007	Payment of tuition for off-duty training or education
DOD policies		
Apr. 2, 2020	DOD Instruction 1322.25 w/ change 4	Voluntary Education Programs
July 7, 2014	DOD Instruction 1322.25 w/ change 3	Voluntary Education Programs
Mar. 14, 2013	DOD Instruction 1322.19	Voluntary Education Programs in Overseas Areas
Apr. 23, 2007	DOD Directive 1322.08E	Voluntary Education Programs for Military Personnel
Army policies		
June 6, 2018	Army Directive 2018-09	Army Tuition Assistance Policy
Sept. 6, 2009	Army Regulation 621-5	Army Continuing Education System
Navy policies		
May 19, 2019	NAVADMIN 114/19	Tuition Assistance Policy Update
Oct. 18, 2018	SECNAV Inst. 1560.4B	Department of the Navy Voluntary Education Programs
May 21, 2018	NAVADMIN 127/18	Navy Tuition Assistance May 2018 Update
Sept. 30, 2016	NAVADMIN 219/16	Voluntary Education/Navy College Program Transformation
Mar. 4, 2008	OPNAV Inst. 1560.9A	Voluntary Education for Navy Sailors
Marine Corps policies		
Apr. 4, 2019	MARADMIN 218/19	Tuition Assistance Guidelines Update
Mar. 11, 2019	MARADMIN 150/19	Tuition Assistance Guidelines Update
May 7, 2018	MARADMIN 255/18	FY18 Tuition Assistance Guidelines Update
Sept. 1, 2010	MCO 1560.25	Marine Corps Lifelong Learning Program
Air Force policy		
June 5, 2018	AFI36-2649_AFGM2018-01	Air Force Guidance Memorandum (AFGM) to AFI 36-2649, Air Force Voluntary Education Program

Source: CNA.

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[7] We discuss the most relevant policy differences within the corresponding sections of this report. For a more complete review of all TA-related policy, both at the DOD and Service levels, see [9].

Table 2.   Primary TA themes of interest, by predetermined subject areas

TA mission/ objectives	What TA can be used for	What TA cannot be used for	TA eligibility requirements	Counseling requirements
• Educational gains • Military career advancement • Equity in educational opportunities • Financial support • Personal and professional development • Benefits to the Service • Service culture of lifelong learning • Developing leaders • Responsiveness	• Declared educational goal • Limited fees • Non-degree-related language courses • Certificate programs • Approved nonlateral degrees[a] • Coursework within semester-hour/ quarter-hour limits • Off-duty courses • Coursework up to funding caps • Coursework when deployed, under certain conditions	• College preparatory courses • Non-degree-related languages "dominant in the force" • Doctorate courses • Additional courses if have unresolved grades • Repeat courses • More than 2 TA-funded courses per term • Courses for lateral degrees • Failed courses[b]	• Prerequisites • First-time TA user requirements • Initial degree plan • Sufficient time remaining on contract • Active-duty/reserve differences • Good standing/ career progression • Command approval	• Delineated counselor responsibilities • Counselor accessibility • Required counseling intervals/ checkpoints • Well-defined counseling objectives/ purposes

Source: CNA analysis of DOD- and Service-specific policies.

[a] Nonlateral degrees are defined as being at a higher level than any degree a Service member already has attained. For example, a Service member with an associate degree pursuing an additional associate degree would be pursuing a lateral degree. The same Service member pursuing a bachelor's degree would be pursuing a nonlateral degree.

[b] TA funds are recouped when Service members fail courses (i.e., receive a grade of "D" or below for undergraduate courses; receive a grade of "C" or below for graduate courses).

Subject matter expert discussions

We visited one installation per Service to conduct SME discussions and hold focus groups. Throughout this report, we refer to these installations generically as "Army installation," "Navy installation," "Marine Corps installation," and "Air Force installation" in order to protect participants' anonymity. At each installation, we met with the Services' education SMEs, including (in different cases) education counselors or education program directors at each of the four installations we visited.[8] We asked these SMEs for their perspectives on Service members' knowledge of the TA program and available educational benefits. We also discussed how they would characterize "typical" TA users, in terms of (a) their military characteristics and educational goals and (b) when (in their military careers) and how (in terms of TA concentration and online versus brick-and-mortar institutions) they tend to use TA. Other discussion topics included the primary benefits of TA use, how Service members might feel encouraged or incentivized to use TA, and what obstacles or challenges might prevent Service members from using TA. Finally, we asked them to discuss their primary objectives and strategies in providing effective education counseling.[9] Again, our ultimate objective was to identify cross-Service differences—in this case, in SMEs' perspectives and responses—that might help to explain substantial cross-Service differences in both TA use and outcomes, such as course completion and degree attainment.

Focus group discussions

At each of the four installations we visited (one per Service), we conducted focus groups with both enlisted Service members and officers. We separated our groups by paygrade for two reasons. First, our discussion questions varied for each of the FG populations. Second, no Service member should be in the same FG as his or her supervisor.[10]

We conducted separate FGs with junior enlisted, TA-using mid-grade enlisted, non-TA-using mid-grade enlisted, and senior enlisted and officers (together). For all but the senior enlisted

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[8] Because of the Navy's recent elimination of stateside education counselors, the only SMEs available for the discussion at the Navy installation were the two education program directors.

[9] We have incorporated the relevant SME inputs within the corresponding sections of this report. For a more complete review of all SME discussions, see [10].

[10] Service members may hesitate to voice their opinions (especially if they are contradictory) in the presence of their supervisors. Service members also may fear repercussions from statements made in FGs if their direct supervisors are present. Separating FGs by paygrade helps to ensure that all participants feel free to participate honestly and openly, thereby increasing the number of inputs we receive and the accuracy of our findings.

and officers, we aimed to glean information on their overall awareness of the TA program, ways they may have felt encouraged to use TA (or discouraged from using it), their educational goals, and (among those who had used TA) any particular challenges that they faced. We focused on different topics with different populations. In the junior enlisted FGs, for example, we focused primarily on their understanding of the TA program and their in-service educational goals, whereas the senior enlisted and officer FGs were designed to inform how leaders decide whether to approve a TA request and what factors they consider. The separation of TA-using mid-grade enlisted from their non-TA-using counterparts helped to ensure that the nonusers' inputs on their *perceptions* of the TA program (and its associated benefits and challenges) would not be influenced by the users' inputs on their actual experiences. In addition, some questions—such as why they have not used TA—are relevant only to nonusers, and others— such as their experiences with the TA approval process—are relevant only to users.[11]

In addition to guided discussions, we collected information via short surveys administered at the beginning of each FG. This information includes both demographic (gender, race, ethnicity, age, marital status, and number of dependents) and military (paygrade, Service, and occupation) characteristics. These surveys also had questions about prior (or current) TA use, such as the number of TA-funded courses they had taken, school type (private for profit, private not-for-profit, or public), percentage of TA classes passed, and degree discipline.

Table 3 shows the number of participants, by population and Service. In total, we spoke with 299 Service members, primarily junior and mid-grade enlisted members. Fewer senior enlisted and officers participated, likely because of their lesser availability due to leadership responsibilities and the smaller number of senior Service members at each installation. Because we do not have information on the number of Service members, per population, solicited at each installation, we are not able to report a participation rate.

Table 3.   Number of FG participants, by Service and paygrade

	E-1–E-3	E-4–E-7 TA users	E-4–E-7 TA nonusers	E-8–E-9	O-1–O-5	Total
Air Force	18	37	16	13	12	96
Army	17	31	15	15	0	78
Marine Corps	31	18	28	6	4	87
Navy	1	22	7	3	5	38
Total	67	108	66	37	21	299

Source: CNA.

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[11] Although we split the mid-grade enlisted FGs by TA use, we did not do so for the junior enlisted or for leadership (senior enlisted/officer) FGs. This is both because we expected there would be insufficient junior enlisted and leadership FG participants to warrant this separation (as there were) and because mid-grade enlisted make up the majority of the TA-using population.

As the table reveals, the Air Force had the largest turnout (96 total participants) and the Navy had the lowest turnout (38 total participants). Overall, E-4–E-7 Service members were the most represented population in all four Services, likely influenced by our FG design of splitting this population into TA users and nonusers and asking the installations to solicit equal numbers of participants for each population. Within E-4–E-7 participants, TA users were the most represented population in the Air Force, Army, and Navy (each of these Services provided at least twice as many E-4–E-7 TA users as E-4–E-7 nonusers), whereas the majority of the Marine Corps' E-4–E-7 participants had never used TA.[12]

Junior enlisted Service members were fairly well represented in the Air Force, Army, and Marine Corps FGs. Regrettably, only one E-1–E-3 Sailor attended the Navy FGs. As a result, we do not report on the experiences of junior Sailors because our single respondent does not adequately represent the junior enlisted Navy force, and it is important that no FG inputs be traceable to individual respondents.

Similarly, though more than 20 senior enlisted and officers from the Air Force participated in FGs, we had sparse participation from these populations in the other Services. No Army officers and fewer than 5 Marine Corps officers and Navy senior enlisted participated. Since the officer and senior enlisted populations generally are smaller than the junior and mid-grade enlisted populations in these (and all) Services, caution should be taken in generalizing the perspectives of these small groups to those of all Sailors and Marines in the senior enlisted or officer ranks.

Note that, because our findings are informed by qualitative analysis, they are meant to highlight trends and *suggest* possible explanations for Service-level variation. The generalizability of our findings is questionable, both because we visited only one installation per Service and because our FG participants were a convenience sample (i.e., those who attended did not have conflicting obligations at our scheduled times) and may not be representative of Service members overall. However, we do find that our participants' demographic characteristics often align with those of the general population. For example, with the exception of the Navy, Service members in the E1-E3 and E4-E7 paygrades are well represented in our sample, and generally reflective of the their Services' general population. In addition, the race, ethnicity, and marital status of our FG participants closely mirrors the characteristics of Service members overall.

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[12] Concerns were raised as to whether Marines were primarily concentrated in only one or two occupations and, if so, whether that might explain this finding. The Marines in our FGs, however, had varied occupations; those most represented were Service and Supply Handlers, Communications and Intelligence, Functional Support/ Administration, and Other Technical and Allied Specialists. Our participants also came from varied occupations in the other Services. The occupations most represented in the other Services were Infantry/Gun Crews/Seamen, and Service and Supply Handlers in the Army; Health Care Specialists, Functional Support/Administration, and Communications and Intelligence in the Air Force; and Communications and Intelligence, Craftsworkers, and Electrical/Mechanical Equipment repairers in the Navy.

However, we have identified a few ways in which our FG populations are not representative of the larger Service populations. In particular, we find that our FG participants are *over*representative of women in the Navy, Marine Corps, and Air Force; *under*representative of officers and *over*representative of senior enlisted across DOD; and *under*representative of younger, junior enlisted in the Navy. A more detailed description of our FG participants' characteristics—including how they differ from the general population—can be found in Appendix B.

To the extent that TA use or TA experiences vary by gender, paygrade, or years of service, our FG participants' responses may differ from those that would have been provided by a larger and more representative subset of Service members. More generalizable findings would require a representative survey. That said, our findings do represent inputs from a diverse group of people. Therefore, we are confident in any themes or findings that emerge consistently across the FGs and find them generally informative as to how TA policies, TA practices, and Service member perceptions about TA differ across Services. However, readers should keep in mind that, without further study, we cannot be certain that our findings regarding any one Service would apply to Service members *throughout* the Service, as opposed to only reflecting experiences of those in our FGs (and on that specific installation).

TA Use

As we noted earlier, this report primarily was motivated by a prior CNA report on TA use across DOD [2], which found significant disparities in use across the four Services. In particular, the percentage of Service members who ever used TA was highest in the Air Force and lowest in the Marine Corps.[13] The difference between these two Services was 10 percentage points or more. In this section, we describe TA use across Services and paygrades in our FG sample. We also discuss some policy differences across the Services, as well as senior leaders' and SMEs' perceptions about TA in the different Services.

TA use among FG participants

We begin by describing FG participants' TA use, collected from their intake forms completed prior to FG discussions. While these responses do not come from representative samples of all Service members from each Service and, therefore, should not be interpreted as actual TA use rates, they provide a useful comparison point to our previous work. As noted earlier, we previously found that Sailors and Airmen were, on average, more likely than their Army or Marine Corps counterparts to use TA, complete their TA-funded courses, and ultimately attain degrees. Thus, if we were to find that Airmen in our sample are the least likely to use TA, we might be concerned that the experiences of those in our FGs do not reflect those of the typical Airman. Table 4 shows the percentage of participants who have ever used TA, by Service and paygrade.

Table 4.   Percentage of FG participants who have used TA

Paygrade	Army	Navy	Marine Corps	Air Force
E-1–E-3	17.6%	N/A	12.9%	22.2%
E-4–E-7	67.4%	75.9%	39.1%	69.8%
E-8–E-9	93.3%	N/A	66.7%	100%
O-1–O-5	N/A	100%	N/A	83.3%

Source: CNA analysis of intake form data.
Note: N/A means that the subgroup had insufficient observations (<5) to calculate a percentage.

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[13] We remind the reader that the particularly high TA use in the Air Force is likely influenced by the requirement of an associate degree for promotion.

The relative proportions of TA use across Services shown in Table 4 align with those found in our previous work. Marines in our sample use TA at a lower rate than participants from the other Services. Conversely, TA use across paygrades in our sample was highest among Airmen and Sailors. The relative rankings in TA use align with those in our previous study [2].

SME discussions also indicated less consistent TA use in the Marine Corps than in the other Services. Education counselors noted that Marines use TA sporadically, as their personal and professional commitments allow, and often do not make steady educational progress. Marines often start using TA shortly after accessing, but various responsibilities (e.g., adapting to military life, becoming proficient in their occupations, and starting families) cause Marines to "pause" pursuit of their educational goals. They note that Marines then tend to reengage closer to the ends of their careers.

All other SMEs indicated that Service members largely use TA continuously. Navy and Air Force SMEs noted that TA users' course loads might alternate between one and two classes, depending on whether they are deployed and their other commitments, but they do tend to take at least one class per term. Finally, Army counselors noted that TA-using Soldiers in paygrades E-3 through E-7 tend to progress continuously. Since these Soldiers represent 84.5 percent of the Army's TA users, we can conclude that most Army TA users are taking courses continuously.

One potential explanation for the relatively low rates of TA use among Marines might be that the Marine Corps is composed primarily of first-term Marines, who have a lower average length of service and thus have fewer opportunities to take advantage of TA. Another potential explanation might be that the Marine Corps installation is known for having a particularly high operational tempo; therefore, Marines' assignments at this location are less conducive to TA use. As we see in Table 4, however, Marines in our FGs have the lowest utilization of TA across all paygrades, including E-8 and E-9. Though the percentage of Marines who have ever used TA increases across paygrades, the overall percentage does not catch up with that from the other Services. This suggests that lower TA use in the Marine Corps may be driven by factors other than lower average time in service.

Because the Marine Corps typically accesses Service members with less education than other Services, we may be concerned that lower TA use rates among Marines simply reflect less familiarity with formal education. We find, however, that this likely is not the case. Figure 1 breaks down TA use by participants' educational level at accession. That is, it shows the percentage of Service members who used TA, within a "Service-education" group. Regardless of initial education, Marines are the least likely of FG participants to use TA. The Marine Corps' relatively low use of TA is, therefore, likely not due to its relatively low percentage of accessions with more than a high school degree.

Figure 1 also shows that, among Army, Navy, and Air Force FG participants, the majority who entered with an HSD/GED (i.e., high school degree or equivalent) or a college degree used TA. However, FG participants from these Services who entered with some college credits were the least likely to use TA. The relative dip in TA use among those with some college in these three Services may suggest that many Service members mainly pursue associate degrees since our "some college" sample includes those who have any number of college credits but have not attained bachelor's degrees; those with associate degrees will be part of this some-college population. Alternatively, it may suggest that those who enter with some college enlisted because they started college and decided that they would rather join the military than continue their secondary education. This could make them unlikely to use TA in service. Of course, we do not have sufficient data to determine the underlying cause for the lower TA use among those accessing with "some college." Not surprisingly, these FG responses also indicate that most Service members in the Army, Navy, and Air Force who joined with college degrees (predominantly officers) used TA in pursuit of an advanced degree (not shown).

Figure 1. Percentage of FG respondents who used TA, by Service and education at accession
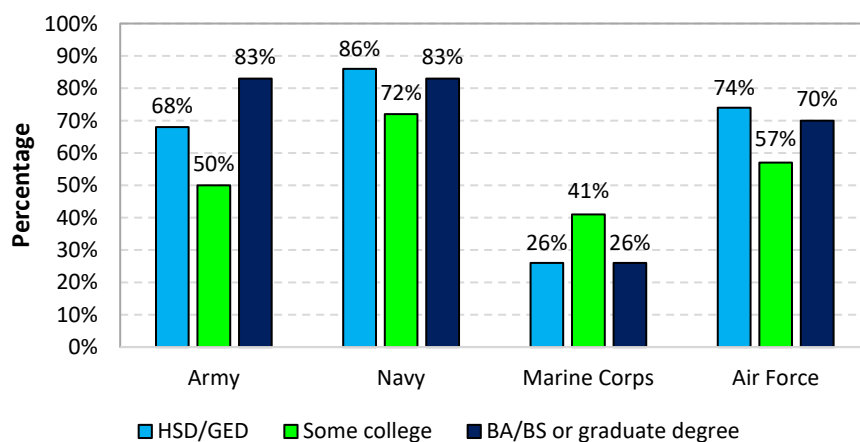
Source: CNA analysis of intake form data.

Educational goals and fields of study

DOD policy requires TA users to have a degree plan on file with the education office before a TA request is approved. This degree plan includes the Service member's field of study and the university that he or she will attend. We asked participants to describe their educational goals, including their field of study and level of degree. While TA nonusers do not have an official

degree plan filed with their education office, many indicated having educational goals in specific fields of study.

Nearly all junior enlisted and mid-grade TA nonusers from all Services said that they had education goals. Those from the Marine Corps, however, were the least likely to provide specifics, such as level of degree or field of study. Of interest, Marine Corps counselors discussed a disconnect between Marines' educational goals and the program types that TA will cover, which could explain the lack of concrete goals mentioned in the FGs. They noted that not all Marines are degree driven, and they have seen an increasing demand for certifications, which TA will not fund. As an example, they highlighted that certification as a welder or emergency medical technician can lead to high-paying civilian jobs, setting Marines up for post-transition success. This policy seems counterintuitive—especially when national higher education trends are shifting away from traditional degree paths and toward specific skills training and certifications [11]. SMEs suggested that many Marines' interest levels dwindle once they learn that TA will not fund certifications and that "TA needs to evolve with the population." They noted that the TA program at present excludes those Service members interested in pursuing occupations requiring certifications (e.g., information technology, program management, and many blue-collar occupations) from beginning their educational trajectory while in service. In fact, the TA program does fund certification programs (such as welding and IT programs) that are offered for college credit. This apparent contradiction between policy and counselor input suggests that either the counselors with whom we spoke were unaware of this policy or they believe that Marines are more interested in working toward certifications that are not offered for college credit.

DOD policy does not restrict the fields of study that a Service member can pursue, as long as the school is accredited. Figure 2 shows the wide array of FG members' disciplines. Despite being given a list of 13 different disciplines from which to choose, the most common response to degree discipline was "Other." The next three most common responses were Business/Finance (23 percent), Social Sciences (15 percent), and Technology (11 percent). The remaining 26 percent of responses indicated a variety of other disciplines, such as Engineering, Health, Arts, Physical Sciences, Education, and Biology.

Army and Marine Corps SMEs also discussed whether TA users tend to pursue degrees in particular disciplines. Army counselors noted that many Soldiers pursue criminal justice or management degrees but that others, particularly those in combat arms, are more interested in trade schools than in four-year colleges. According to Marine Corps SMEs, many Marines' initial education plans have a criminal justice or law enforcement degree as their ultimate objective, though the counselors opined that these are preliminary decisions, often based on the degree that is easiest to attain and has the most direct link to military service. However, the counselors with whom we spoke noted that, in one-on-one counseling sessions, counselors often shift Marines' goals to align with degrees that will offer them more civilian opportunities,

partially by advising them on how to maximize the transferable credits that they can accrue for their military service. Marine Corps SMEs reported that TA-using Marines ultimately pursue a variety of fields of study, including teaching, psychology, engineering, nursing, exercise science, physical therapy, and business.

Figure 2.   Degree discipline of TA users from FGs
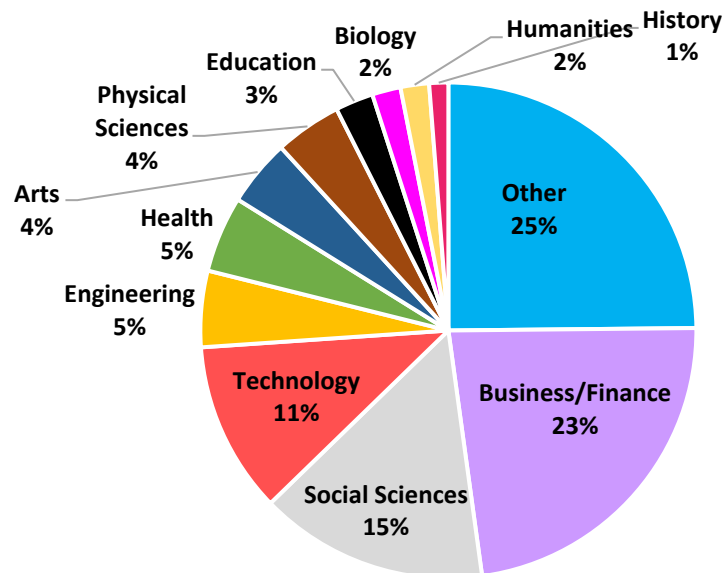
Source: CNA analysis of intake form data.

Education counselors

As part of the TA program, DOD requires that the Services provide education counseling to TA users; however, DOD provides little prescription about what specific services counselors should provide or how often they should interact with TA users. This leaves a lot of discretion to the Services and, in turn, has allowed for explicit differences in counseling policy. Our policy review found that counseling requirements are much more prescriptive in the Navy and Air Force than in the other Services [12-15]. Air Force and Navy policy documents mention counselors' responsibility for getting struggling TA users "back on track."[14] Similarly, Air Force and Army policy documents include language about ensuring TA users' progression toward

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[14] The Navy's policy prescriptions, however, stand in stark contrast to its recent elimination of education counselor positions.

their academic goals [15-16]. In contrast, the Marine Corps does not stipulate *any* specific objectives for education counselors.

Given the policy differences across Services, we asked FGs containing TA users about their access to and experiences with education counselors. Figure 3 shows awareness of education counselors among junior and mid-grade TA-using FG participants for the Army, Air Force, and Marine Corps.[15] Awareness is relatively high across these subpopulations; in all but one Service-by-paygrade subgroup, 75 to 100 percent of FG TA users were aware of their access to education counselors. However, there appears to be a disparity between junior and mid-grade Marines' awareness of education counselors. While every mid-grade TA user from the Marine Corps FGs indicated that education counselors were made available to them, only half of TA-using junior Marines said that they were aware of this. In contrast, around 80 percent of TA users from the Army and Air Force indicated that education counselors were made available to them, regardless of paygrade. These results may suggest room for improvement in junior Marines' awareness of education counselors.

Figure 3.   Awareness of education counselors for junior and mid-grade FG TA users
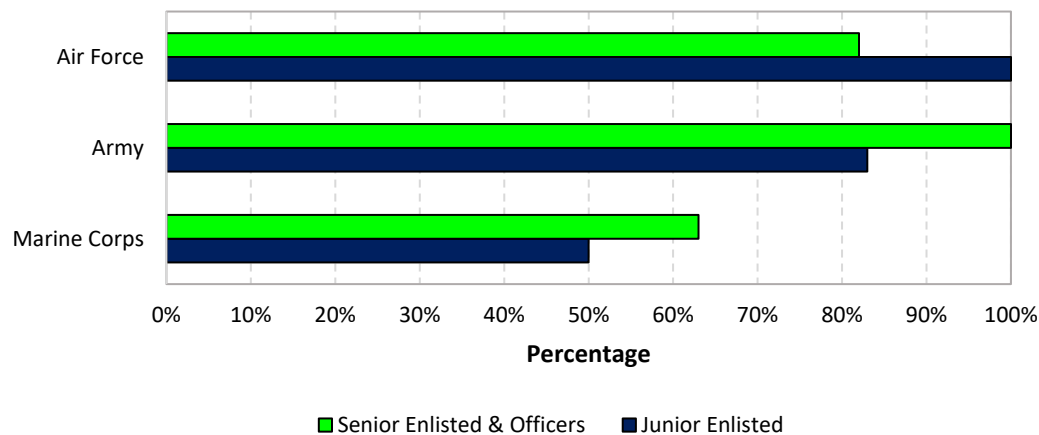
Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size. Since the purpose of this figure is to compare the junior enlisted to mid-grade TA users, we exclude the Navy entirely.

Disparities in awareness to education counselors may contribute to differences in both TA use and course completion. All Service SMEs stressed the importance of educational counseling,

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[15] We omit the Navy due to an insufficient number of junior enlisted respondents.

describing a number of ways in which counselors contribute to Service members' success in continuing education. Army SMEs, for example, noted the importance of consistent and regular counselor contact because their primary role is to provide a safe space where Service members can ask questions without fear of retribution or command responses to their questions or requests. They also emphasized that education counselors can keep Soldiers motivated to continue their educational pursuits through adversity, which makes it important to maintain counselor-Soldier contact even after Soldiers are enrolled in classes and have learned how to administratively navigate the TA system. Similarly, Marine Corps counselors contended that their advice is instrumental in minimizing TA course failures (and subsequent repayment). Air Force counselors noted the importance of getting Airmen started on their educational paths, such as navigating the administrative processes, but also determining their interests and strengths, leading to the development of a degree plan. Still, Army and Navy SMEs noted a recent decline in the use of counseling services because of decreased requirements for counselors to approve TA in the Army's and the Navy's move to a virtual counseling environment.

To understand how SMEs' perceptions compare to Service members' experiences, we asked FG participants to describe the role of education counselors and whether they found the counselors helpful. Service members who had used education counselors responded positively. The most frequent response among junior and mid-grade Service members was that counselors mostly helped with degree plan formulation and administrative issues, Examples of such administrative issues included filling out TA application paperwork and helping to process degree plan changes. Mid-grade Soldiers also frequently reported that education counselors helped them to create a degree plan, while the majority of Marines said that counselors helped them to navigate the education system to help achieve their goals. Although these particular statements are consistent with SMEs' claims that counselors determine Service members' strengths and lead them in developing degree plans, Service members' overarching statements that counselors' primary roles are administrative suggest that there may be room for improvement in communicating the types of guidance and mentorship these counselors can provide. Their true strategic value needs to be emphasized, not only to the Service members, but also to the counselors. Along these lines, the only group with a potentially negative perception of counselors was junior Soldiers; more than half of these participants said that they were unclear on what counselors do or what role they fill. These findings suggest that education counseling could become more effective via the establishment of a feedback mechanism—namely, a survey or some forum for Service members to provide feedback on their interactions with education counselors.

Summary

Overall, we find TA use among our sample to be lowest in the Marine Corps and highest in the Navy and Air Force. These relative rankings persist even when we look within paygrade or by initial education level, suggesting that differences in TA use across Services are not likely driven by differences in education background or typical length of service. It may be that differences in benefits, awareness, or challenges contribute to differences in TA use across the Services. We explore each of these topics in subsequent sections.

Service members who pursue continuing education with TA do so in a wide variety of disciplines. This reflects both the flexibility inherent in DOD policy and Service members' varied educational goals. Though education counselors often help Service members to overcome administrative obstacles that stand in the way of these goals, awareness of and access to these counseling services seems to be unequal across subgroups in our FG sample. Establishing parity in Service members' access to these services will help to ensure that administrative obstacles do not drive any TA-use differences across the Services. Otherwise, there is risk that the current variation in TA program access (and therefore use) across Services will persist.

Benefits of TA Use and Educational Goals

To better understand what drives Service members' TA use, we asked FG participants about the benefits of using TA to pursue continued education while in service. When considering TA use, Service members weigh potential in-service and post-service benefits. How these benefits compare across Services could drive differences in TA use. If, for example, members of one Service have clearer in-service incentives to pursue continuing education, they may be more likely to consistently use TA. In this section, we discuss the benefits most commonly cited by Service members from each Service and paygrade and the role of supervisors' encouragement in shaping Service members' perceptions of TA's benefits.
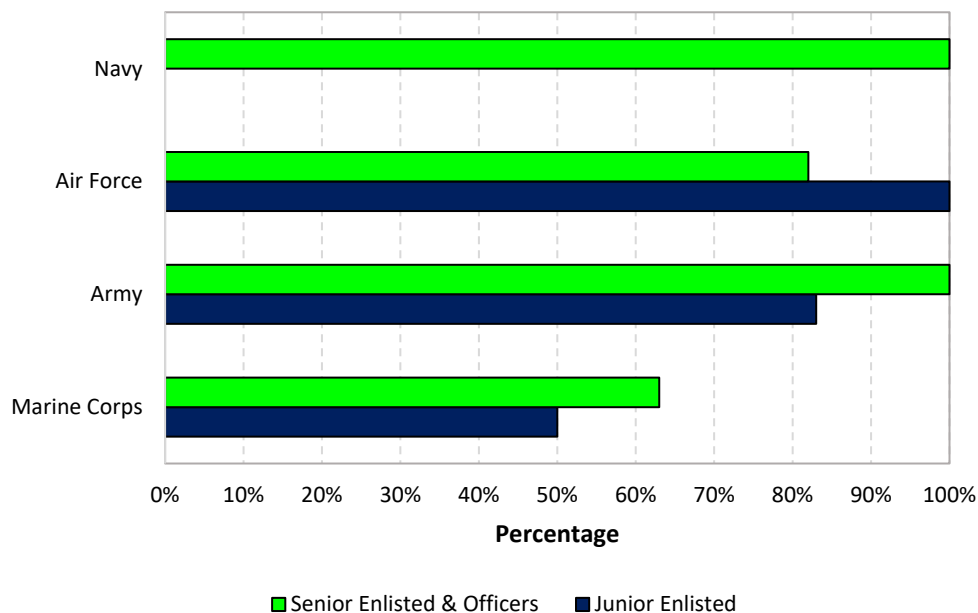
In-service benefits

While most FG respondents in every subgroup said that in-service benefits exist, we found some important differences across the Services in the types of benefits perceived. Figure 4 shows the percentage of FG respondents who believed that there are in-service benefits to use of TA.[16] Marines were the least likely to indicate any in-service benefits, particularly at the junior and senior levels. Of all senior enlisted and officer FG respondents, Marines were the least likely to indicate that TA use has in-service benefits, followed by senior Air Force respondents and, ultimately, senior Army and Navy respondents, who *all* noted in-service benefits.[17] Responses from junior enlisted Service members show a similar disparity. Notably, more junior Soldiers and junior Airmen, compared with their Marine Corps counterparts, said that TA use has in-service benefits. Conversely, mid-grade TA users tend to have similar perspectives; in all Services, the vast majority believes that TA provides in-service benefits. However, this is not surprising since this population has elected to use TA.

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[16] This is the percentage believing that there are in-service benefits *regardless* of TA use since the junior enlisted and senior enlisted and officer FGs were not split by TA use.

[17] Throughout this document, in the interest of brevity, we sometimes shorten the term *senior enlisted and officer* to *senior* or *leadership*. We use these long and short terms interchangeably.

Figure 4.   Percentage of FG respondents who believe that there are in-service benefits to TA use

Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

Respondents who mentioned in-service benefits frequently pointed to TA use helping with promotion and career progression.[18] In all Services, most senior enlisted and officer respondents indicated in-service benefits of TA in promotions. Junior and mid-grade Marines, however, are less likely than their peers in other Services to see TA as beneficial to promotions. Specifically, promotion benefits were voiced by all junior Air Force respondents and most junior Army respondents; less than half of similarly ranked Marine Corps FG respondents expressed the same sentiment. Among mid-grade TA users, Marines also were the least likely to say that TA helps with promotion. That Marines are less likely to view TA use as important in promotion decisions may significantly affect their likelihood of using TA. If it does not assist their career progress in the near term, Marines will not be as motivated to pursue TA as their peers in the other Services.

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[18] Though at times Service members talked about evaluations as separate from promotion decisions, we focus here on discussions about promotion because they closely mirror those about evaluations and reflect the same types of incentive structures.

Disparities in how Service members perceive TA's promotion impact seem to reflect what they have been told by their supervisors. Nearly every Navy and Air Force respondent, as well as all nonjunior Soldiers, indicated that a supervisor had suggested or encouraged TA use. Rates were high, though, for all groups. Marines in every paygrade, however, were the least likely to say that the supervisor who suggested TA use also told them it would be useful for promotions. Given the role that supervisors play in the evaluation process, their communication of TA's promotion benefits likely is a strong and influential signal to Service members. If Marines are the least likely to experience this type of encouragement, it is likely that they will be less incentivized to pursue continuing education.

Conversations with SMEs largely support the FG participants' sentiments. According to SMEs in the Army, Navy, and Marine Corps, Service members accrue promotion points for civilian education, but continuing education is not an explicit promotion requirement. Only Air Force SMEs noted an explicit educational *requirement*, which was that junior Airmen must attain associate degrees to promote above the junior ranks. In addition, officers must attain master's degrees to promote to O-5. According to Air Force SMEs, much of the degree attainment among Airmen is motivated by these requirements, including TA-funded degrees and associate degrees from the Community College of the Air Force. Similarly, Army counselors stated that TA use often is motivated by promotion potential, noting that many Soldiers pursue general education (Gen Ed) associate degrees simply for promotion points.

While the Air Force may place the largest emphasis on TA use for promotions, our policy review found no emphasis on this relationship in official Marine Corps documents. The Marine Corps is the only Service whose policies do not reference the military career advancement that often results from Service members' TA use in other Services. In addition, Marine Corps policy documents do not state that TA is important in developing responsive and effective leaders— a theme present in the other Services' policy documents. These policy differences likely contribute to differences in FG participants' perceptions about the importance of TA in promotion.

In addition to promotion benefits, we asked Service members whether they believed that continuing education would make them better at their occupations, regardless of any promotion or evaluation benefits. FG participants in all Services and paygrades consistently indicated that TA use does not help with occupational job proficiency.[19] Figure 5 shows the percentage of FG respondents in each group that reported TA use as improving occupational proficiency. In all groups, very few respondents said that TA use helped in their occupations.

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[19] Upon reviewing this document, Army representatives noted that, unlike the other Services, it does not combine professional military education (PME) with off-duty post-secondary education. They suspect that, for the Army, this is the reason that FG participants did not feel that continued education would improve their occupational proficiency.

We expect that Service members' opinions on this issue will vary by occupation. Those in infantry, for example, might be less likely to expect TA use to increase their occupational proficiency than those in a more technological field, such as communications or intelligence. Based on these relatively low percentages, however, we conclude that, overall, Service-level differences in TA use are not driven by differences in the relevance of continuing education to Service members' occupations. It is worth noting that TA policy does not require TA-funded courses to align with military occupation. Given the various fields of study shown in the previous section, it is likely that many TA users take courses unrelated to their occupations.

Figure 5. Percentage of FG respondents who feel that continued education will help with occupational proficiency
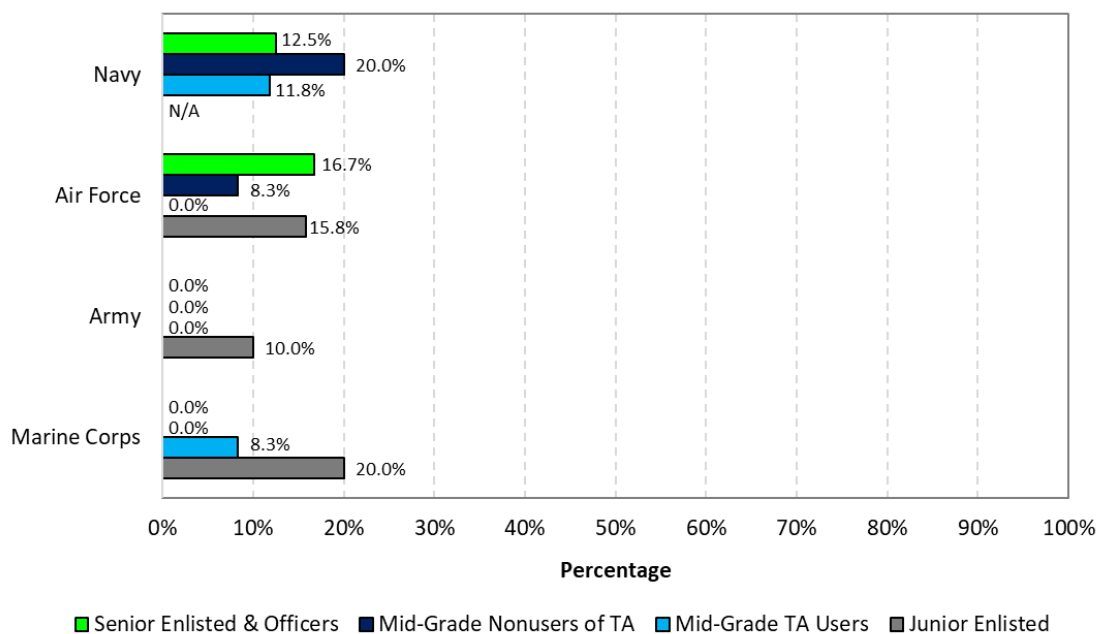
Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

Finally, some FG participants noted the ability to commission as a potential benefit of TA use. Across paygrades, Navy respondents were the most likely to mention this benefit, especially among senior enlisted and officers. This finding was supported by Navy SMEs, who noted that a number of TA users plan to commission. This relatively higher focus on commissioning in the Navy may increase Navy TA use relative to the other Services. Still, senior Sailors were the only subgroup in which the majority of respondents mentioned this benefit. In comparison to the

number of Service members who discussed promotion benefits, it appears that commissioning likely is less of a motivating factor than promotion for TA use.

Post-service benefits

Service members also discussed potential TA benefits for life after military service. There is no widespread consensus that these benefits exist; in 8 out of 15 subgroups, less than half of respondents indicated that education attained from TA use would help in life after the military. However, this percentage varies noticeably by Service and paygrade. Of all the subgroups, senior enlisted and officers from the Navy were the most likely to state that TA helps with the transition. Conversely, mid-grade Marines had the lowest response rate; both mid-grade users and nonusers in the Marine Corps were less likely than their other-Service counterparts to say that education from TA use would help with transition. Benefits cited by respondents across the Services included better employment opportunities after transition, making progress toward vocational certifications, and accruing credits toward degrees that they will finish after separating. While mid-grade Marines saw the least benefit of TA use to civilian transition, less than half of Army respondents in all paygrade groups indicated that education from TA would help in post-service civilian life. Together, these responses suggest that Soldiers and Marines are the least likely to believe that there are post-service benefits to TA use.

These differences were not reflected in SMEs' perceptions. Though we did not explicitly ask SMEs about post-service benefits, all except the Navy SMEs mentioned—unprompted—these transition benefits from TA use, though we suspect that the Navy SMEs likely would agree that TA use better prepares Sailors for life after military service. Marine Corps SMEs specifically noted that leaving service with a degree significantly increases civilian career opportunities and that, even if unable to complete a degree using TA, having accrued some college credits still will make Marines more competitive in the civilian economy. In addition, both Marine Corps and Air Force SMEs stressed the benefit of using TA to shorten any post-service time to degree, enabling Service members to more quickly reach their educational goals and qualify for their desired civilian occupations. Despite these perceived post-service benefits expressed by SMEs, our policy review found no mention of the importance of TA to the military-to-civilian transition in the Services' policy documents.

Finally, few respondents indicated the ability to pass along GI Bill benefits to dependents or to get a "free" education as benefits of TA use, stressing that attaining education through TA kept them from accumulating student debt. Still, in nearly every Service-paygrade subgroup, the number of respondents that indicated free education or the ability to pass on the GI Bill benefit to a dependent as a post-service benefit was lower than the number that mentioned transition as a benefit. While this benefit is important to some, it does not appear to drive differences in TA use across Services among our FG participants.

Summary

While FG discussions suggest slight differences across the Services in perceived post-service benefits, we find the starkest differences in Service members' perceptions of in-service benefits. Given that the vast majority of respondents feel that education does not directly contribute to military occupational skills, we conclude that differences in promotion benefits are the primary difference in in-service benefits to Service members. While TA use improves promotion potential for Soldiers, Marines, and Sailors, continuing education is an explicit requirement for Airmen. This relatively higher importance of education in the Air Force likely contributes to the high use rates among Airmen because Air Force SMEs said that many Airmen pursue continuing education for this reason. In contrast, Marines were the least likely to report promotion benefits and the least likely to be encouraged by a supervisor to use TA. Based on these findings, we conclude that Marines perceive the least benefit of TA use, a difference that may significantly reduce TA utilization in the Marine Corps relative to the other Services.

Service Members' TA Understanding

In this section, we focus on differences in Service members' TA knowledge, including the TA program's existence, what TA covers, and how to get approval for TA use. We also review the perceived *quality* of currently available information on the TA program and summarize recommendations provided by Service members and SMEs to improve the content and delivery of TA messaging. Because TA awareness and understanding could affect the probability that Service members use TA, it is important to address any knowledge gaps, perhaps by increasing TA messaging and/or standardizing both the content and timing of information provided.

TA knowledge

We gauged Service members' TA understanding via "knowledge check" questions on our intake survey. The questions that were asked (and their corresponding correct answers) follow:

- Can TA be used to take any course, regardless of subject matter?[20] (No)
- Can TA be used to take courses at any educational institution?[21] (No)
- Will TA pay the full cost of any approved course? (No/It depends)
- Is there an annual limit on the number of TA-funded courses that you can take? (Yes)
- Is there an annual limit on the dollar amount of TA benefits that you can receive? (Yes)
- Can TA benefits be transferred to your dependents? (No)

Table 5 presents the percentage of Service members answering these questions correctly, by Service and FG population. These numbers reveal significant misunderstanding of TA benefits across both Services and paygrade groups. In most cases, fewer than half of respondents understood that TA will not necessarily cover *any* course or courses taken at *any* institution. In all paygrade groups, less than half of respondents (and often less than a third) answered these questions correctly in the Army, Navy, and Marine Corps; the one exception was that the

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[20] Per Army representatives, Soldiers now are able to take any desired course for their first six credit hours. This was a change made in a November 2019 policy update; it therefore was not reflective of current policy at the time of our installation visits. Soldiers' understanding of TA policy would have been based on the previous policy.

[21] Responses to this question may not be perfectly reflective of Service members' understanding of the types of schools where TA can be used (i.e., the fact that it cannot be used for courses at unaccredited schools). Although we recognize this limitation, the question design was intentional; it was meant to capture how many Service members had enough understanding of TA restrictions to interpret the question correctly.

majority of Army senior enlisted and officers understood that TA cannot be used at *any* institution. That said, we still find that there is insufficient understanding across Service members regarding the TA program's course and institution requirements.

Table 5. Percentages of FG respondents providing correct responses to knowledge-check questions, by Service and FG population

Service	FG population	Cannot use TA for any course	Cannot use TA at any institution	TA does not necessarily pay full cost	Cannot transfer TA benefit to dependents	Annual limit on number of courses	Annual limit to dollar amount of TA benefits
Army	E-1–E-3	13%	27%	27%	27%	33%	47%
	E-4–E-7 users	29%	35%	45%	48%	77%	81%
	E-4–E-7 nonusers	0%	20%	27%	14%	33%	43%
	E-8–E-9/O-1–O-5	47%	53%	67%	86%	100%	100%
Navy	E-1–E-3ᵃ	-	-	-	-	-	-
	E-4–E-7 users	41%	45%	91%	82%	100%	95%
	E-4–E-7 nonusers	0%	17%	43%	43%	71%	71%
	E-8–E-9/O-1–O-5	38%	38%	88%	75%	75%	100%
Marine Corps	E-1–E-3	10%	29%	29%	35%	58%	52%
	E-4–E-7 users	33%	28%	56%	72%	61%	100%
	E-4–E-7 nonusers	19%	30%	44%	37%	67%	67%
	E-8–E-9/O-1–O-5	40%	20%	70%	50%	60%	70%
Air Force	E-1–E-3	33%	17%	22%	56%	67%	78%
	E-4–E-7 users	54%	57%	78%	84%	78%	97%
	E-4–E-7 nonusers	50%	50%	75%	63%	94%	94%
	E-8–E-9/O-1–O-5	46%	48%	96%	72%	68%	96%

Source: CNA analysis of intake form surveys.
ᵃ We do not report average statistics for the Navy E-1–E-3 population since only one person was in this FG.

In most cases, as expected, junior enlisted and mid-grade nonusers of TA were among the least informed. There are striking differences in understanding between these groups and the senior enlisted and officers, as well as the mid-grade TA users. As an example, relatively few FG Army junior enlisted and mid-grade nonusers correctly indicated that TA *cannot* be transferred to dependents as compared with their mid-grade TA user and leadership counterparts. Similarly, junior enlisted and mid-grade non-TA-using Marines were the least likely to know that TA will not necessarily pay the full course cost, followed by mid-grade TA users, and knowledge was highest among leadership. With a few exceptions in the Marine Corps and Air Force, less than half of junior enlisted answered the knowledge-check questions correctly, across the Services.

We also asked junior enlisted and mid-grade nonusers to describe the minimum requirements for TA use (not shown). Notable findings include the following:

- Air Force and Navy mid-grade nonusers of TA often replied that they "do not know" what the minimum requirements are.

- Many Air Force and Marine Corps junior enlisted were uncertain whether command approval is necessary.

- Army and Marine Corps junior enlisted were confused as to whether there is a minimum time-in-service requirement.

It is important to address the confusion prevalent among junior enlisted and mid-grade nonusers of TA. Poor understanding of TA may decrease the likelihood of TA use or negatively affect users' experiences if they are unaware of the program's limitations.

As noted, we expected TA understanding to be highest among senior enlisted and officers who are responsible for mentoring and advising Service members, as well as among mid-grade TA users who have personal experience with the TA program. We were surprised, therefore, that many within these two populations were unable to answer many of the knowledge-check questions correctly. For example, relatively few Army mid-grade TA users correctly indicated that TA cannot be used for *any* course or that it cannot be used at *any* institution. Similarly, most Navy senior enlisted and officers answered these questions incorrectly. In addition, half of Marine Corps senior enlisted and officer participants incorrectly indicated that the TA benefit can be transferred to dependents. These knowledge gaps among mid-grade TA users and senior leadership are particularly worrisome. Service members considering using TA may consult those currently using TA or their leadership for information on program specifics and how the process works; in fact, as we later report, many Service members learn of the TA program via word of mouth. Knowledge gaps among leadership and mid-grade TA users can create misinformation that ripples throughout the Service populations.

Although our survey findings indicate relatively consistent misunderstandings and lack of TA knowledge across the Services,[22] the installation SMEs' perspectives on Service member awareness did vary by Service. Army and Marine Corps SMEs agreed that there is misinformation as well as a simple lack of information regarding TA. Army SMEs noted, for example, that (a) some Soldiers pay for classes out of pocket without realizing that TA benefits are available, (b) many do not use TA because they think it incurs an additional service obligation, and (c) many mistakenly believe that the per-FY tuition cap is the maximum tuition TA will cover over their entire career. They also explained that many leaders are unaware of

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[22] We differentiate these terms as follows: a misunderstanding can be characterized as a Service member having incorrect information (which he or she thinks is correct); a lack of knowledge, also referred to elsewhere as confusion, simply reflects that the Service member *lacks* information or is uninformed.

or misinformed about TA—a fact that becomes apparent during the leaders' own out-processing. In these cases, the information void affects junior Soldiers as well. Marine Corps SMEs noted that the policy's verbiage and concepts can be challenging for those with no prior college experience. The primary information disconnects they cited included a lack of information on the TA approval process (such as understanding all the required steps and documentation) and Marines' mistaken belief that they qualify for TA only if they complete a degree in service. Marine Corps SMEs also noted that information regarding TA policy changes does not seem to reach many Marines. Many are not aware, for example, that the two-year minimum time-in-service restriction was lifted in March 2019.

Navy and Air Force SME responses stand in stark contrast to those provided by the Army and Marine Corps. Navy SMEs said that Sailors' TA awareness varies greatly and depends most on Sailor proactivity and interest. They did not identify any particular gaps in Sailors' knowledge or any widespread misinformation. Finally, Air Force SMEs were the only ones to assert that their Service members are not only aware of the TA program but are sufficiently informed to navigate the process and use TA independently. Thus, there seems to be a disconnect between Service members' TA knowledge and these Services' SMEs' *perceptions* of that knowledge. It is important that these Services' leadership and education SMEs be made aware of current TA knowledge gaps because efforts to improve Sailors' and Airmen's TA understanding cannot be made until these gaps are recognized.

How Service members learn about TA

In this subsection, we summarize when (and how) Service members learn about the TA program because we expect that the Services' current approaches to providing program information may be partially responsible for current knowledge gaps. We first present findings on whether Service members were aware of TA at enlistment and whether this knowledge affected their enlistment decisions, both of which could contribute to junior Service members' likelihood of using TA. We then discuss the other ways in which Service members have learned about the TA program; we expect that the source of their information could influence its accuracy and further affect their likelihood of using the benefit.

Figure 6 presents the percentage of FG Service members who were aware of the TA program when they enlisted, by Service and FG population. A few interesting findings emerge:

- TA awareness prior to enlistment was noticeably higher for junior enlisted, in all Services, than for their mid-grade enlisted counterparts.[23] This may suggest that

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[23] Here, and elsewhere, Navy junior enlisted are removed from the analysis due to insufficient FG participation. For this population, when we refer to "all Services," we in fact mean "the Army, Marine Corps, and Air Force."

recruiters have begun to incorporate the TA program in their review of military benefits.

- Counterintuitively, a higher percentage of Army and Navy mid-grade nonusers of TA were aware of the TA benefit at enlistment than mid-grade TA users. This indicates that TA information is being provided in service; we discuss specific mechanisms for TA information dispersion later in this subsection.

- Navy mid-grade Service members were least aware of TA at enlistment. This is true for both TA users and nonusers.

Figure 6.   Percentage of FG Service members aware of TA at enlistment, by Service and FG population
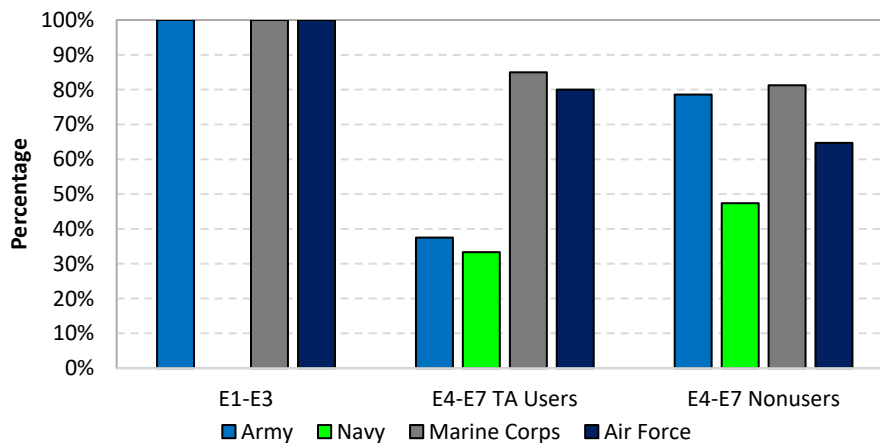
Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

Due to variation in Service members' awareness of TA at enlistment, we found it important to ask those who *were* aware of the TA benefit whether TA was among the benefits that encouraged them to enlist. Figure 7 displays these results. It reveals that TA benefits had the largest effect on enlistment decisions in the Marine Corps, Air Force, and Navy. With the exception of TA nonusers in the Air Force, roughly 50 percent or more of Marines, Airmen, and Sailors in all three FG populations indicated that TA affected their enlistment decisions. Among the most notable exceptions are the low percentages of mid-grade nonusers in the Air Force, mid-grade TA users in the Army, and junior enlisted in the Army citing an effect. Conversely, in the Marine Corps, nearly half of mid-grade TA users and nonusers indicated that TA affected their enlistment decisions, as well as nearly all junior enlisted. These differences may indicate

that those attracted to each Service differ in terms of what they value most or how they intend to incorporate military service into their longer term objectives. However, they also could reflect differences both over time and by Service in the emphasis recruiters are placing and the specific information that they are providing on TA benefits. Standardizing recruiter-provided TA information, therefore, might both improve Service members' understanding of TA policy and make TA more influential in enlistment decisions. In both cases, we would expect an increase in TA use.

Figure 7.   Percentage of FG participants whose enlistment decisions were affected by TA benefits, by Service and FG population
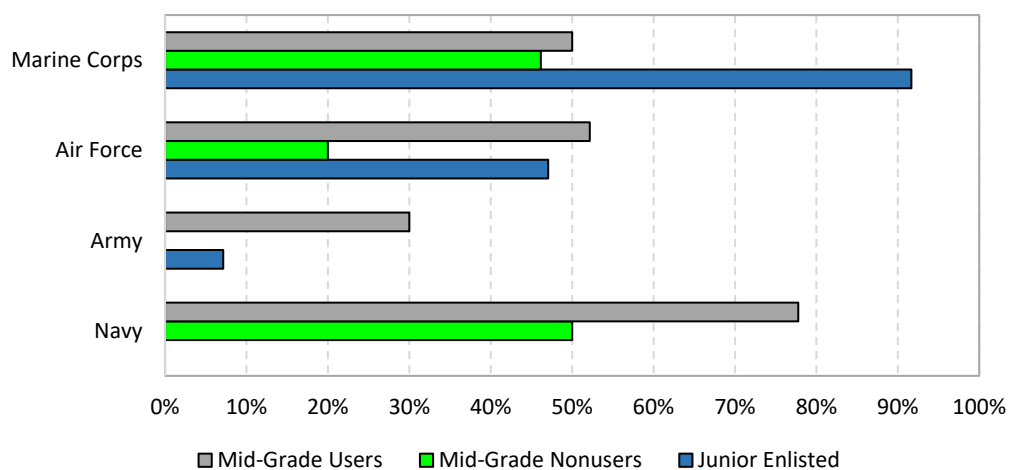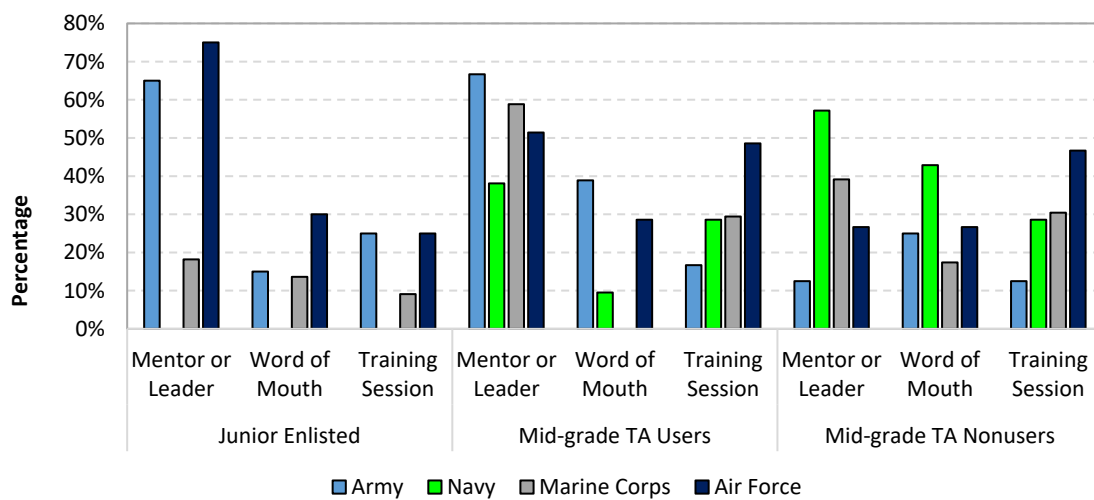

Source: CNA analysis of FG data.
Note: Navy junior enlisted and Army mid-grade nonusers of TA are excluded from this figure due to insufficient observations.

We asked mid-grade Service members who were not aware of the TA program at the time of enlistment when they first learned about TA. The most common response in the Navy and Air Force was that TA was presented during in-processing when they arrived at their first duty stations. Notably, this response was provided by half of the Navy TA nonusers, but relatively few Air Force and Marine Corps TA nonusers, and *no* Army TA nonusers. Another common (and concerning) response was that half of Army mid-grade nonusers of TA indicated first learning about the TA program "in this session today." These Service-level differences in awareness of and exposure to the TA program could certainly contribute to Service-level differences in TA use. Differences in when Service members first learn about the TA benefit also could influence when they establish educational goals, engage with education counselors,

or seek information on the overall process, potentially slowing any educational progress that they can make via the TA program while in service.

In addition to *when* Service members learn about the TA program, it is important to highlight differences in *how* they learn about TA. For example, was the program introduced to them by a mentor or leader, as part of a training session, or by other Service members via word of mouth? Figure 8 summarizes these findings. These categories are not mutually exclusive; for example, a Service member could have learned about the TA program both from a training session *and* via word of mouth.

Figure 8.   Primary ways in which FG Service members are learning about TA, by Service and FG population

Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

As the figure reveals, learning about TA from a mentor or leader is relatively common, with some exceptions. Among junior enlisted, a clear majority of Army and Air Force FG respondents were introduced to TA by their leadership. The preponderance of mid-grade enlisted TA users indicated learning about TA from a leader or mentor in all Services except the Navy, though this response was more common among Navy enlisted mid-grade nonusers than other Navy paygrade groups. Similarly, although many junior enlisted and mid-grade TA users in the Army indicated that they learned about TA from a leader or mentor, very few Army mid-grade nonusers said so. Such differences across populations *within* each Service confirm that TA exposure often is command dependent, as voiced by Army and Navy education SMEs. For those learning about TA from mentors or leaders, the precise *timing* of this exposure also varies

among Service members because they may not learn about the TA program until being assigned to a TA-supportive command. Being introduced to TA later in their careers will, of course, limit possible educational progress that they can make in service. Introduction to TA by leadership also is notably low among Marine Corps junior enlisted. This lack of encouragement from leadership could influence Service members' propensity to use TA, especially if they infer that leadership views TA and the pursuit of higher education as a relatively low priority.

The remaining two primary methods by which Service members learn about TA—word of mouth and training sessions—are less prominent, except for mid-grade nonusers of TA in the Army and Air Force. Fewer than half of respondents learned about TA via word of mouth, across Services and paygrades. That said, we do find the higher prevalence of respondents learning about TA via word of mouth to be worrisome in certain cases, particularly among Air Force junior enlisted, Army mid-grade TA users, and Navy mid-grade TA nonusers. Given the relatively widespread misunderstanding of the TA program and policies previously shown, word of mouth transmission carries risks of disseminating incorrect information.

Finally, Figure 8 shows the percentage of respondents who learned about TA in a training session, either at entry-level training or during unit in-processing. Mid-grade enlisted Air Force respondents were most likely to have learned about TA in a training session, regardless of prior TA use. This is likely due to the Air Force requirement (at least at the Air Force installation we visited) that Airmen attend a TA brief before applying to use TA; based on this, however, we would expect this percentage to be higher. Conversely, this was true of less than a third of mid-grade enlisted in the other Services. This suggests that these Services may favor TA program introduction via mentors or leaders over training. This, of course, will increase the variation in the information provided as well as its accuracy, given the TA misunderstandings among leadership previously shown. Given the importance of disseminating consistent and accurate TA information, the differences revealed here may be problematic. We recommend that the Services prioritize training sessions with predeveloped and consistent curricula over other methods of information dissemination.

Quality of TA information and recommendations for improvement

As we have illustrated, many Service members in our FGs do not have an accurate understanding of the TA program, and many have misconceptions about what the program covers, how to use the benefit, or the necessary requirements or prerequisites for TA use. We suspect that the information they are receiving about TA is at least partially responsible for

these knowledge deficiencies, not only in terms of how and when the program is introduced to them (as previously shown), but also in terms of the *quality* of the information provided.[24]

We therefore asked Service members whether they felt that the information provided—in either quantity *or* quality—was sufficient to provide a basic understanding of the TA program and a "starting point" for those interested in using the benefit. High numbers of Service members responded in the negative, as shown in Figure 9, indicating that current TA information was *insufficient.* There are notable differences both by Service and by paygrade. With the exception of junior enlisted, Air Force FG participants were least likely to feel that TA information provided was insufficient.

Figure 9.   Percentage of FG respondents indicating that TA information provided is insufficient, by Service and FG population
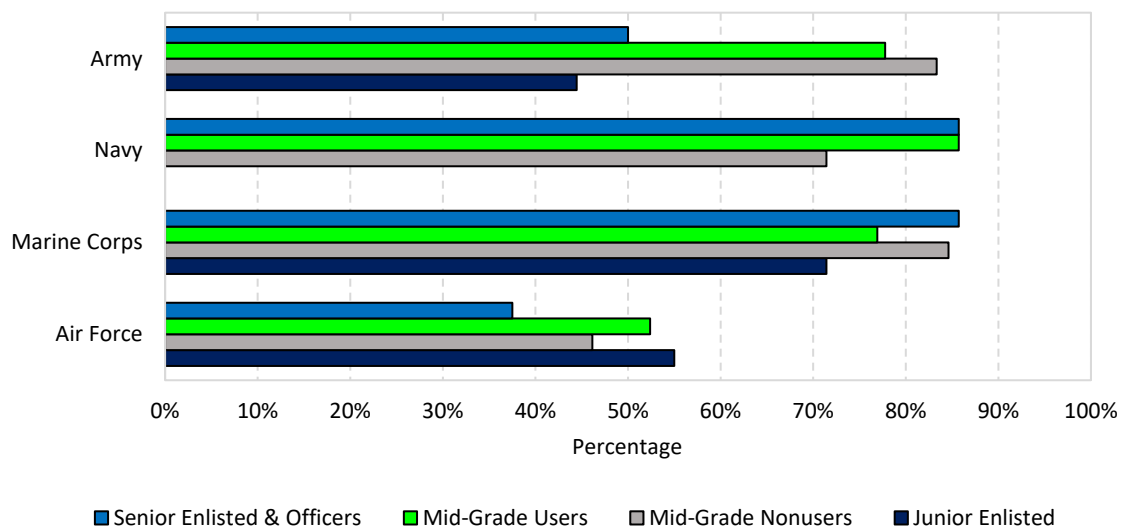
Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

Across the Services, the relative consistency of mid-grade TA users' opinions that TA information was insufficient, regardless of previous TA use, suggests that information quality may not significantly affect TA use since mid-grade users and nonusers felt similarly informed. Alternatively, it could be that mid-grade TA users were sufficiently self-motivated to seek

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[24] Service members' misunderstandings about the TA program suggest that they are not consulting education counselors as a primary information source because the counselors can provide in-depth (and accurate) information.

additional information, while the mid-grade nonusers of TA were insufficiently informed to even consider using the benefit.

Other FG populations also believed that TA information was insufficient. Notably, among senior enlisted and officers, the majority of Army respondents and most Navy and Marine Corps respondents suggested that current TA information was insufficient. If leadership finds the available information to be insufficient, the leaders may be unable to appropriately mentor their Service members on TA use or answer their questions. Marine Corps and Air Force junior enlisted felt similarly uninformed, with the majority of these respondents also suggesting that information was insufficient. We find it striking that Army junior enlisted FG respondents were the least likely, among all Army FG populations, to indicate being dissatisfied with the available information. This could suggest that TA information in the Army has been improving over time, or it could suggest that most current junior enlisted are not pursuing TA, thereby making them ambivalent to the quality of available information. If the Army has made efforts to improve TA information, this suggests that they are effective and should be continued. That said, these findings suggest that all Services could benefit from improved TA information campaigns.

Service members' TA information recommendations

Given FG participants' responses that information available on the TA program is insufficient, we asked for their recommendations on how to improve the information and its dissemination. Figure 10 displays the three most cited recommendations—that TA information be provided early, reinforced frequently, and standardized across commands—separately by Service and FG population. Our question here was broad: "If you think that the amount of information and quality of information Service members are receiving regarding the TA program is insufficient, what recommendations would you make for [TA information] improvement?" That is, it was a freeform question for which participants had the opportunity to list any recommendations they had; it was not a list of recommendations from which to choose. As a result, the fact that a participant did not make a particular recommendation does not necessarily reflect that he or she would not agree with that recommendation were it directly presented. It simply means that it was not among the primary recommendations that came to mind.

The most striking finding is the high percentage of respondents across Services who suggested that TA program information be provided early (whether by recruiters, at entry-level training, or when Service members are in-processing at their first unit). In all Services, the majority of mid-grade enlisted participants made this recommendation, as did the majority of Navy junior enlisted, the majority of Marine Corps senior enlisted/officers, and the plurality of Army senior enlisted/officers. Many participants also indicated that TA information should be reinforced at

numerous points throughout Service members' careers, though this response was most prominent among Army and Navy FG participants. Finally, a number of mid-grade enlisted in the Army, Navy, and Marine Corps noted the importance of providing consistent information across commands—that is, that neither the quantity nor the quality of information provided should differ by command, as is currently the case.

Figure 10. **Primary information recommendations from FG participants, by Service and FG population**
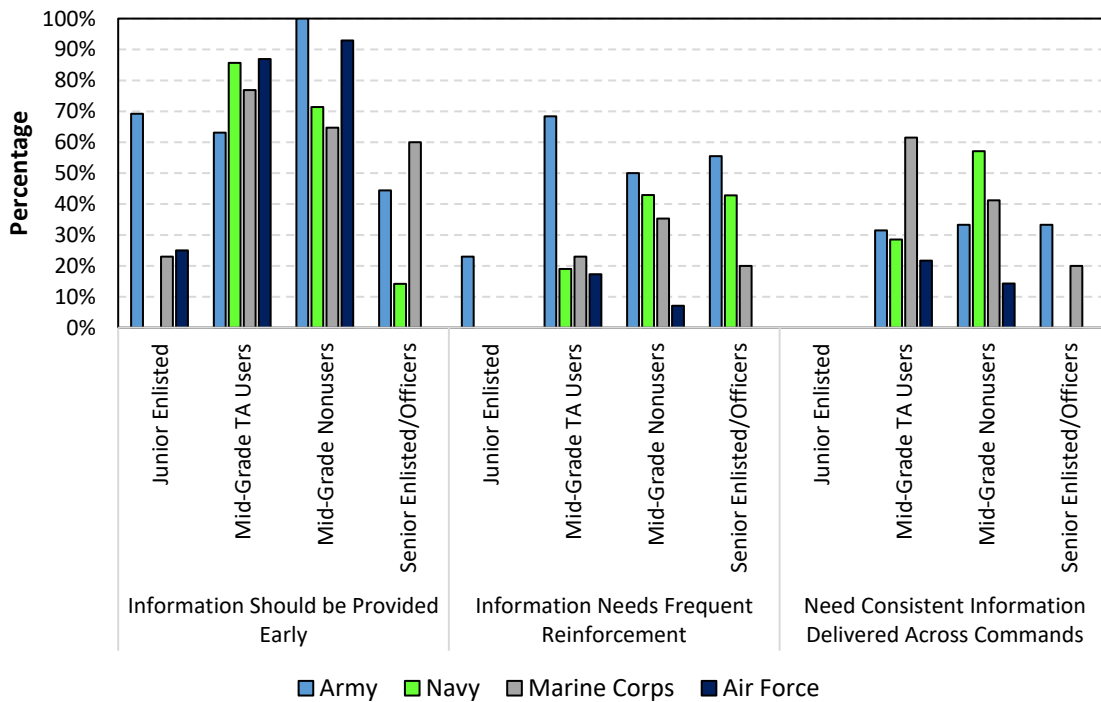
Source: CNA analysis of FG inputs.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size. Other instances of missing bars (e.g., Air Force junior enlisted for "Information Should be Provided Early") indicate that no FG participants in that population cited that particular recommendation.

The Services' SMEs also spoke about the importance of disseminating information early and often as well as the current lack of (and need for) consistent information across commands. Army and Navy SMEs both noted that this is largely dependent on commanders and leaders. As one Army SME noted, "TA awareness is as good as the leader chooses to make it." Army counselors have numerous avenues for distributing TA information to Soldiers (e.g., education fairs, visiting the units to present a TA overview, and assigning an education counselor to each

unit). That said, they are only able to effectively increase Soldiers' TA awareness when they have leadership buy-in and are supported by commanders who make time for their Soldiers to visit the education center and invite the counselors to come brief their units.

Similarly, at the Navy installation, SMEs noted that *some* commanders bring counselors or other education center representatives to their units to brief Sailors; in other cases, Sailors who are not independently motivated or proactively seeking TA information do not receive it. Air Force SMEs also noted leadership's role in fostering TA program understanding and commented that they consistently and repeatedly work to build this understanding. They stated that "leadership puts [this information] forward in a variety of ways," such as in-processing briefs, education fairs, and education center briefs given at *numerous* points throughout Airmen's careers. This approach of not only presenting and reinforcing TA information at numerous points throughout the career but also, critically, having the leadership buy-in to do so effectively was unique to our Air Force discussions.

We suggest that the Services consider each recommendation, regardless of which populations were most likely to voice them. Providing TA information early, reinforcing it throughout Service members' careers, and providing consistent program information are efforts that will come with little additional cost or effort and can only serve to increase overall understanding of the TA program, thus allowing all Service members to make more informed decisions.

Summary

There are significant knowledge gaps regarding what the TA program will cover, the program's limitations, and the minimum requirements for TA use. We found notable variation by Service in whether Service members were aware of the TA benefit at enlistment (for mid-grade FG participants only—all junior enlisted were aware) as well as in *when* and *how* they first learned about the TA program. These cross-Service differences likely contribute to differences not only in program understanding but also in propensity to use TA. Based on these findings, it is not surprising that most Service members find the currently available TA information to be insufficient for making informed decisions regarding TA use. The primary recommendations for improving TA understanding and TA awareness are to present TA information *early* in Service members' careers, reinforce TA information *throughout* Service members' careers, and ensure that the same information is made available to all Service members (and is not command dependent).

TA Use Challenges

In this section, we review the challenges FG participants have faced in using TA, including challenges that may have prevented them from using TA at all, as well as those that made their experiences using TA difficult. We highlight how these challenges differ across Services and, where applicable, across FG populations within a Service.

TA approval

When asked what the primary challenges were in navigating the TA process, many Service members noted issues in getting TA approval; however, most FG participants had never had a request for TA use denied. In all Services, very few junior enlisted FG participants and a third or less of mid-grade TA users had been denied TA use after applying. The primary reasons provided for TA denial were administrative or policy constraints, such as having already reached FY limits, the Service running out of TA funds, or proximity to end of active service (EAS). A few Service members provided more operational reasons, such as the nature of their upcoming assignments, including the incompatibility of TA use with field operations or training schedules. That said, some Service members may be discouraged from applying for TA because of challenges either in being approved for TA use or in using TA successfully. If such challenges discourage some Service members from considering TA use at all, and some of those who decided not to apply would have been denied, then these denial rates may be artificially low.

The most frequently cited TA approval challenges included administrative process challenges and getting command approval. This question was asked only of mid-grade TA users since they had been through the approval process relatively recently. As Figure 11 shows, the majority of mid-grade TA-using FG respondents in the Army, Marine Corps, and Air Force experienced administrative challenges in the TA approval process. The Navy is a clear outlier, suggesting that its process may be more streamlined. Among the challenges most commonly voiced in the other Services were that the approval process is confusing (including that it is often unclear how to start the process) and that they struggled to obtain command approval.

Given the importance of command approval—that is, it is not an impediment that can be overcome—we asked mid-grade TA users if they found receiving it to be especially

challenging.[25] When asked about command approval, no Navy or Air Force mid-grade TA-using participants said it was an issue. Conversely, roughly a third of Army and Marine Corps TA-using respondents indicated that obtaining command approval was a challenge.[26] Such differences are consistent with our findings indicating that TA use is not only more encouraged in the Navy and Air Force but expected. Therefore, it is not surprising that their command culture is more supportive of TA use.

Figure 11. Percentage of mid-grade TA-using FG respondents indicating administrative challenges in the TA approval process, by Service
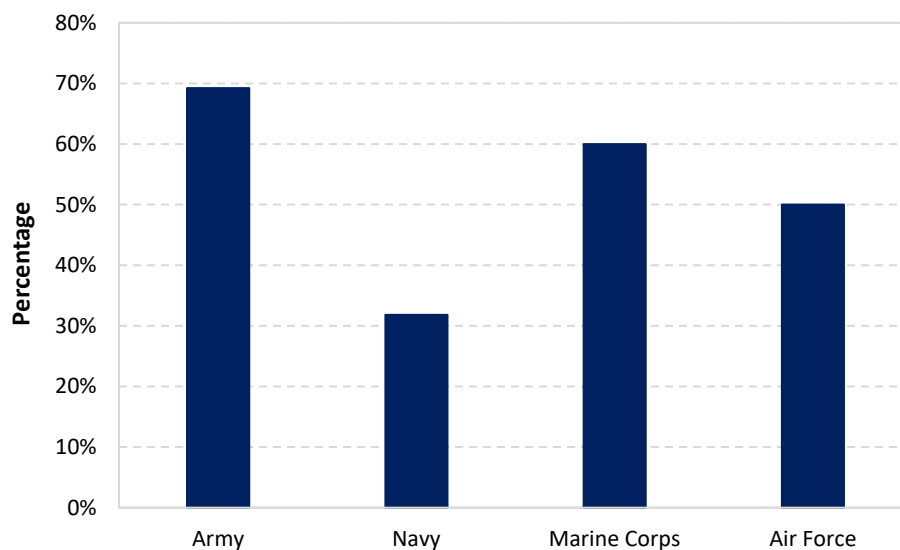
Source: CNA analysis of FG inputs.

Army and Marine Corps SMEs' inputs were consistent with these findings and highlighted potential long-term impacts on educational attainment. Marine Corps counselors noted that some commanders consider the pursuit of civilian education to be incompatible with mission prioritization. Although duty stations (and, thus, commanders) change over time, Marine Corps

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[25] In addition to having the opportunity to list command approval as among the primary TA use challenges in the free-form question, these Service members were directly asked if command approval was a challenge for them personally.

[26] Upon reviewing this document, Army representatives noted that, in fact, command approval is not required in the Army. Although not a hardline requirement, the fact that one-third of mid-grade Army TA users cited this as a challenge to TA use suggests that they are, in fact, getting command pushback when attempting to use TA.

SMEs explained that, if a junior Marine's command does not support TA use, there could be long-term consequences. Because "young Marines do what they are told," if denied TA use at an early assignment, they are unlikely to question that decision (even internally) and may be unlikely to request TA at subsequent commands. In addition, given that most enlisted Marines serve only one term (i.e., the Marine Corps is more of a first-term force than any other Service), any delay in enrolling in TA-funded classes can significantly limit the degree progress a Marine can make before separation.[27] This concern is particularly pertinent at present because not all commanders are aware that the restriction that prevented Marines from using TA in their first two years of service has been lifted. As a result of the variation in command support for TA use *and* in command knowledge regarding this policy change, not all Marines are equally able to use their TA benefits.

Army SMEs expressed similar sentiments on the role of command support. Many commanders, they noted, simply do not view TA as relevant to their missions and therefore do not encourage TA use. While all commanders will prioritize the mission and occupational proficiency over TA use, the determination of whether a Soldier is sufficiently contributing to the mission, or is proficient in his or her skills, can be subjective. Thus, unit commanders' perspectives may unduly influence Soldiers' TA access. Although counselors noted significant senior-level support for TA use, there often is a gap between these senior leaders and how their messages and intentions filter down to the unit level.

Finally, given the importance of command support in approving TA requests, we asked senior enlisted and officers what factors they consider in making these decisions. These responses, summarized in Figure 12, reveal important differences across Services,[28] such as the following:

- In all Services, senior leaders note Service members' performance as an important consideration, though mid-grade enlisted are significantly less likely to perceive their performance as important.

- Most Navy, Marine Corps, and Air Force senior leaders noted that they consider whether Service members are likely to succeed academically when determining TA approval. This response was least common in the Army.

- Only Marine Corps and Air Force senior leaders cited the importance of OPTEMPO and work responsibilities. They also voiced its importance notably more frequently than mid-grade participants did.

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[27] In fairness, it is unclear how early is "too early" for TA use because it is important for Marines to be fully trained and to have adjusted to the military lifestyle before using TA.

[28] We do not present the complete set of responses given to the question of which factors are most important in determining whether a given TA request is approved. These bullets represent only the three most commonly voiced responses.

Figure 12. Primary factors that leadership considers in supporting TA use, by Service
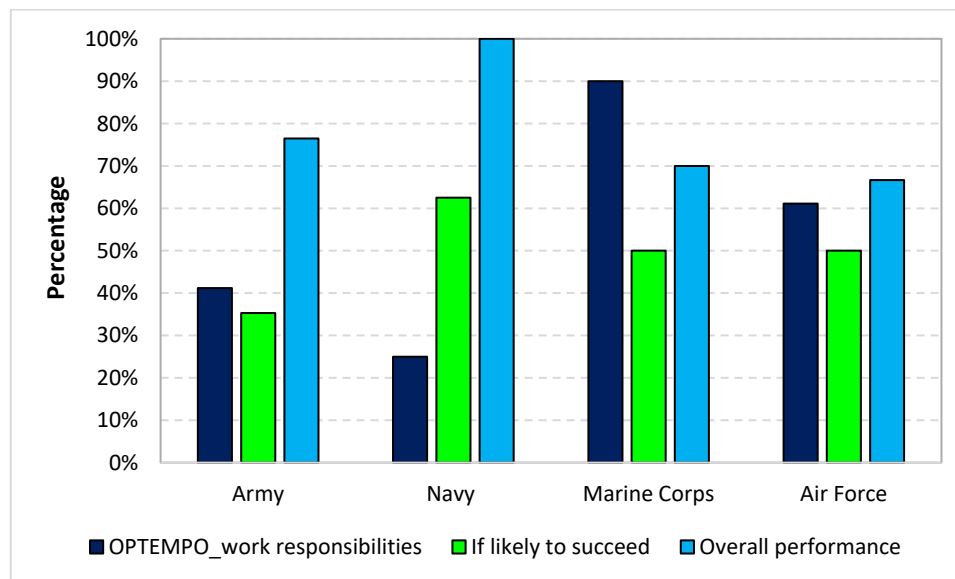
Source: CNA analysis of FG inputs.

Occupational OPTEMPO and deployments

As part of our discussion of TA use challenges, we asked FG participants whether their occupation's day-to-day responsibilities (or frequency of deployments) ever impeded their ability to use TA or affected their course completion rates or other measures of TA success. Across Services and FG populations, the majority of (and, in many cases, nearly all) respondents either replied "yes" or "it depends" to this question, indicating that Service members' occupations are important in determining both their ability to use TA and their overall TA success. Those indicating that it depends mainly stated that TA success depends on the following:

- Whether Service members have predictable schedules or work long and inconsistent hours

- The amount of time spent in the field, whether in training, on exercises, or deployed

- The amount of downtime that Service members have and whether they are able to complete coursework during their workday (administrative or other "desk jobs" are ideal for this)

All Services' SMEs agreed that Service members' ability to use TA varies by assignment and occupation. Navy SMEs, for example, stated that TA use largely depends on whether a Sailor's

duty schedule is conducive to completing coursework (and attending classes, for those enrolled at brick-and mortar institutions). Similarly, Army SMEs noted that it is not feasible for Soldiers working long or intense hours to pursue off-duty coursework, especially considering their competing responsibilities, including family. OPTEMPO further affects Service members' ability to successfully use TA. According to Air Force SMEs, although it is technically feasible for Airmen to use TA while deployed, TA use is not feasible on all deployments. Airmen who excel in the classroom (but not the virtual environment) will be especially challenged. In addition, those who deploy often find it difficult to establish an educational "battle rhythm." Since TA access and the ability to successfully complete TA courses vary greatly by duty station and assignment, many Service members become discouraged about trying to use TA. As Marine Corps and Air Force SMEs explained, uncertainty regarding upcoming assignments and deployment schedules—and the resulting uncertainty surrounding internet connectivity and time for coursework—leads many Service members to not use TA for fear of not being able to successfully complete a course and having to repay those funds.

Navy, Marine Corps, and Air Force SMEs all concurred that TA use is most challenging for those in occupations requiring Service members to deploy frequently or be in the field for extended periods. Navy SMEs noted that submariners likely are those least able to use TA, since they have no internet connectivity without surfacing. Air Force counselors specifically stated that Airmen in the security forces and those with Explosive Ordnance Disposal or Tactical Air Control Air Force Specialty Codes (AFSCs) deploy frequently, making it difficult to complete coursework and communicate with professors. Marine Corps SMEs agreed that those frequently in the field or deployed lack internet connectivity and the necessary schedule predictability—not only to attend classes in person, but also to ensure that they will be able to complete assignments on time. They noted that TA use is especially challenging for infantry and artillery Marines.

As part of our discussion on the effect of occupational demands, we asked FG participants if using TA while deployed introduced any unique challenges. Responses to this question varied notably by FG population. Among junior enlisted, Marine Corps and Air Force participants often said that deployments always present additional challenges, whereas Army respondents indicated that it varies by deployment. The majority of mid-grade nonusers of TA, in all Services, indicated that they expect TA use to be challenging on deployments; strikingly, this answer was provided by the vast majority of Air Force respondents, and *all* Army and Navy respondents. Of course, these Service members have not actually *used* TA. These responses, as well as those provided by junior enlisted, are based entirely on perceptions and suggest that it might be fruitful to provide Service members with information on how to successfully use TA on deployments. Among mid-grade TA users (i.e., those most likely to have used TA while deployed), deployments were cited as a challenge primarily among Sailors, likely because of connectivity issues and the inability to complete coursework when at sea.

Many other Service members indicated either that it is *easier* to use TA when deployed or that the difficulty of using TA on deployments depends on the particular circumstances. Mid-grade enlisted TA users were the most likely to say that TA use is easier on deployments and noted that, when deployed, there are fewer distractions and fewer demands on their time. In addition, there is often significant downtime and few options for how to spend this time; taking a course is a productive way to fill that gap. Those reporting that ease of TA use depends on the deployment stated that it depends on the following factors:

- Deployment length (easier for longer deployments)
- Whether it is a unit-level deployment or an individual augment (TA use is nearly impossible in the latter case)
- The deployment's mission and, as a result, how much downtime there is
- Whether there is a space to sit and complete coursework
- Internet connectivity
- Whether the deployment is to a main base, a forward-operating base (FOB), or a ship because FOBs and ships likely will not have the necessary internet bandwidth or physical space

As in other cases, SMEs' inputs were largely consistent with FG participants' responses. SMEs noted that, although deployments can be an ideal time to use TA, they also can present insurmountable challenges. Army SMEs noted, for example, that deployed Soldiers often have a lot of downtime. They also are removed from their families and other personal responsibilities, and coursework can provide a productive way to fill the time and a distraction from focusing on the home life that they are missing. For these reasons, many Soldiers wait until they are deployed to start using TA. Coursework also can help to minimize misbehavior; TA-using Soldiers will have less time to get into trouble. The feasibility of TA use on deployment, however, does vary by occupation. Some Service members are too busy and lack sufficient time to successfully complete their courses on deployment, while others are limited by internet connectivity. Counselors noted that, for those in occupations that deploy frequently—such as Airmen in the EOD community, Sailors in the submariner community, or Marines in infantry or artillery—TA use is simply infeasible. In addition, last-minute mission changes can present a challenge, primarily if the new location lacks internet connectivity, because deployed Service members take online courses only.

The fact that deployed, TA-using Service members are limited to online courses presents unique challenges beyond those associated with internet connectivity. Although they were roughly evenly split on whether they prefer to take their courses online or at a brick-and-mortar institution, mid-grade enlisted TA-users largely agreed that there are unique benefits from taking classes in person—namely, (1) it is harder to get distracted in the classroom, making students more engaged in the subject matter, (2) it is easier to get additional help from

the instructor, and (3) there are benefits from in-person discussion and collaboration with other students. They noted that different students learn best in different ways and that not all can thrive in an online environment. They also noted that online courses and institutions often provide lower quality education. That said, online courses often are the only option available. Commanders are less likely to approve TA use at brick-and-mortar schools because of their predetermined and inflexible course times and because schedule uncertainty (whether in terms of day-to-day work hours or deployments and field time) often makes brick-and-mortar courses nearly impossible to attend. Air Force junior enlisted FG participants as well as Marine Corps junior enlisted and mid-grade TA users agreed that scheduling limitations—whether because commands will only approve courses offered in the evening or on weekends or because of general course availability—were a TA use challenge. Such scheduling limitations, of course, are what restrict many TA users to online courses, regardless of their preferences or how they learn best. Once again, SMEs agreed, noting that uncertainty in assignments and deployment schedules serves as an additional impediment for those taking classes in brick-and-mortar institutions, not only because they may not remain in the same geographic location for enough time to complete their courses, but also because of concerns about whether accrued credits will transfer to another institution.

Time management

Throughout our FGs, time management was frequently mentioned as a primary barrier to TA use. FG participants were asked if they ever found it difficult to juggle their TA work with their personal or professional responsibilities. They also often provided time management issues as a response to the free-form question of primary challenges to TA use. We combine these responses in Figure 13; it therefore represents, by Service and FG population, the percentage of respondents who indicated that time management was a primary TA challenge. In all Services, the majority of junior enlisted and mid-grade nonusers of TA, who are speaking mostly to their *perceptions* of TA use rather than from experience, indicated that balancing TA work with other commitments would be a challenge. Strikingly, this also was noted by most mid-grade TA-using respondents in the other Services (and all of those in the Navy). That said, although they noted time management as a challenge, mid-grade TA users also indicated that it was a challenge that could be overcome; that is, they "buckle down" and figure out a way to meet all responsibilities, even if it means sacrificing sleep or personal time.

Figure 13. Percentage of participants saying that time management is a primary TA challenge, by Service and FG population
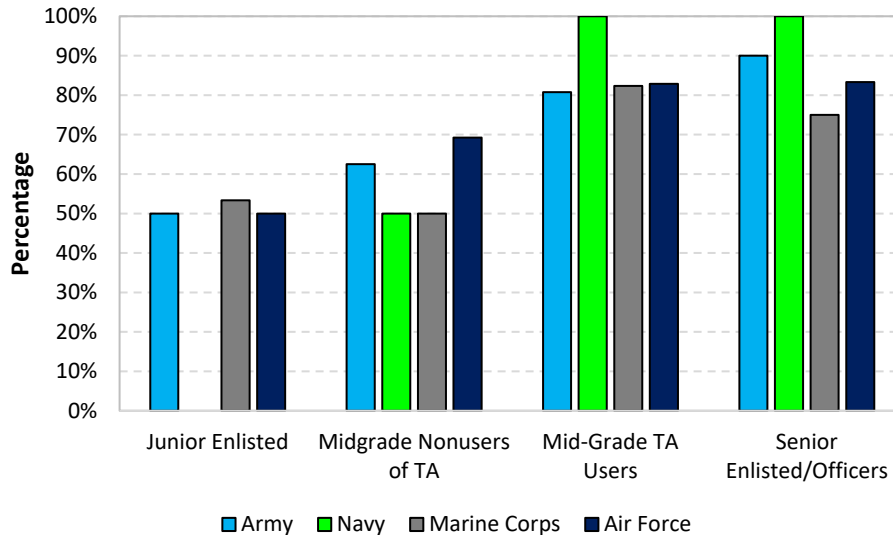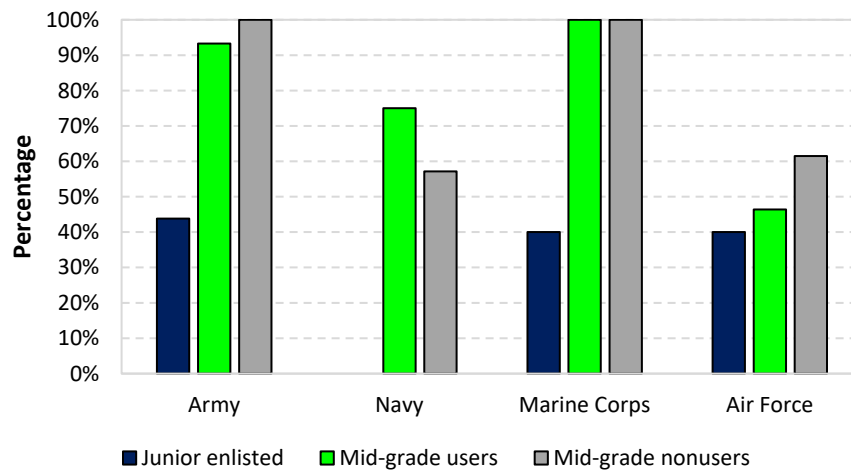

Source: CNA analysis of FG inputs.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

It also is important to evaluate whether time management concerns affect Service members' TA use decisions, so we asked our FG participants if there had ever been a time when they considered using TA but ultimately did not apply, and we asked them to explain the factors that led to this decision. Figure 14 reveals that over half of all mid-grade non-TA-using FG participants in each Service had considered using TA at some point but did not apply, including *all* such participants in the Army and Marine Corps. A significant number of mid-grade enlisted TA users also had not applied at some point when they were considering using TA (nearly all in the Army and Marine Corps); the same is true of many junior enlisted across the Services. Among the primary reasons given for why they did not ultimately apply for TA were not having enough time, family or personal responsibilities, operational commitments, work responsibilities, and uncertainty regarding the ability to complete coursework. All of these relate to juggling multiple responsibilities and, thus, time management. Based on these responses, it seems that Service members—in particular, junior Service members and those who have not yet used TA—could benefit from guidance or counseling on how to balance their military careers with other opportunities and responsibilities. Reinforced messaging on effective time management from commanders, education counselors, and perhaps successful

TA users likely would increase Service members' confidence in their ability to juggle multiple responsibilities and thereby would increase their likelihood of successfully using TA.

Figure 14.   Percentage of FG participants who ever considered using TA but did not apply, by Service and FG population

Source: CNA analysis of FG data.
Note: Navy junior enlisted are excluded from the analysis due to insufficient sample size.

Policy impediments

In this subsection, we discuss policies that interfere with TA use. FG participants indicated that TA policies present their own unique challenges because they frequently impede the educational progress that Service members can make while in service. This is supported by our synthesis of existing policy documents and SME inputs. We start by reviewing Service-specific policies that restrict when Service members are first able to use TA. We then combine FG participants' and SMEs' inputs on additional policy restrictions that slow Service members' educational progress.

Policies limiting first-time TA use

Service-level policies differ along several dimensions, including when Service members are first able to use TA. From September 2013 through March 2019, the Marine Corps required all first-time TA applicants to have at least 24 months of service before applying for TA and limited

them to only one course in their first quarter or semester [17].[29] Although this restriction has been lifted, SMEs report that not all commanders are aware of the change. Thus, many Marines who would like to use their TA benefits within their first two years of service are not doing so. As of October 1, 2019, the Navy imposed a 2-year minimum time-in-service requirement on TA use [19]. On one hand, minimum time-in-service policies clearly delay TA use, thereby restricting the number of credits that Service members are able to acquire and the degree progress that they are able to make while in service. On the other hand, this policy likely also prevents first-time TA users from taking on more commitments than they can handle, thereby increasing overall course completion rates and decreasing the prevalence of TA repayment among first-time users.

The Army, Navy, and Marine Corps further restrict first-time TA use via established TA prerequisites. The Marine Corps requires all first-time TA users to complete a "TA orientation (college 101)" course, as well as the Marine Corps Institute Personal Financial Management Course [17, 20]. The Navy requires its Service members to complete WebTA training and a DOD higher education preparation training course [12]. Sailors also are "strongly encouraged to complete warfare and professional qualifications prior to pursuing education courses….First assignments are challenging and rigorous as Sailors learn their professional responsibilities" [14, p. 6]. In addition, there are minimum General Technical (GT) score requirements for TA use in the Army and Marine Corps [20].[30]

Army and Marine Corps SMEs noted that their Services' GT-score prerequisites for TA use and (more important) the inability to retake the GT in service eliminate the *possibility* of TA use for a number of Soldiers and Marines. Some Soldiers, Army counselors noted, read at the 7th or 8th grade level when they enlist but, if given the opportunity, could raise these scores via basic skill classes. They expressed, however, that there is no way for them to attend such classes, partly because they are not part of a "degree plan" and therefore are not TA funded, and also because commands will not give them the necessary time to attend such classes.[31] They felt

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[29] MARADMIN 255/18 [17] reduced this 24-month time-in-service requirement to 18 months for those with a waiver, and MARADMIN 150/19 [18] eliminated it.

[30] The GT score is one of the composite scores from the Armed Services Vocational Aptitude Battery (ASVAB). It is calculated by combining the Verbal Expression and Arithmetic Reasoning scores. Though these minimum GT score requirements were noted by the Army's education counselors, Army representatives reviewing this document stated that, in fact, there is no minimum GT score requirement for TA use. This suggests that the counselors may not have had the most up-to-date information and were advising Soldiers accordingly, thus creating a de facto GT requirement.

[31] Per Army representatives, Soldiers are in fact able to take preparatory courses via the Army's Basic Skills Education Program. It is problematic that the education counselors with whom we spoke thought that preparatory courses could only be taken via the TA program and would be advising Soldiers accordingly.

that, given the ability to attend such classes and then retake the GT test, these Soldiers could join the TA-eligible population. In addition, higher GT scores could enable lateral changes in military occupational specialty (MOS) for those who love the Army but are unhappy with their MOSs. Marine Corps SMEs concurred that GT retesting should be allowed, especially since many Marines took the GT as teenagers, perhaps with little motivation or incentive to fully apply themselves to the test. One SME told us that "the GT score does not accurately reflect the Marines sitting at my desk." It is important to realize that these statements are based on misconceptions. According to OSD, college preparatory and remedial courses are, in fact, acceptable uses of TA funds. This suggests that there may be broader misunderstandings or misinterpretations of TA policy, beyond those voiced at the installations we visited.

Although the policies reviewed here have delayed some Service members' TA use, they likely were implemented to decrease the risk of course failure. The Marine Corps' course number limits—one for first-time TA users and two for all other Marines—reduce the likelihood that any Marine's course load will become too arduous and lead to course failure and TA repayment, a potential consequence that weighs heavily on Service members. We expect that there were similar intentions in establishing TA prerequisites, which are designed to better prepare Service members for college coursework, and minimum time-in-service requirements, which help to ensure that Service members fully adjust to military life and fulfill occupational requirements before taking on additional obligations.

Policies slowing overall educational progress

Both FG participants and education SMEs cited TA policies that they found to slow Service members' educational progress, often restricting their ability to attain a degree in service. Figure 15 illustrates the primary policy impediments voiced by mid-grade TA users as well as the senior enlisted and officers across the Services. As the figure reveals, both FG populations primarily expressed feeling limited by the $4,500 annual funding cap per Service member, the $250 cap per semester credit hour, and the fixed amount of annual TA funding afforded to each Service, all of which fall under the theme, "FY cap slows degree progress." A few Service-level differences regarding the most restrictive caps did emerge, although not shown in the figure. These include that the annual Service-level cap on TA funding is primarily a concern in the Navy and that the $4,500 annual funding cap was of notable concern in the Army and Navy (as well as in the Air Force for senior enlisted and officers).

When asked whether any TA policies (at either the DOD or the Service level) impeded Service members' progress toward their educational goals, the most common responses cited by Army, Navy, and Air Force SMEs were annual limits—both funding amounts and number of credit hours. Army SMEs noted that the 16-hour credit limit severely limits the progress that Soldiers can make in a given year. This is especially problematic for those trying to concentrate their TA use during assignments or periods (based on personal life responsibilities) when they are

most able to dedicate sufficient time to their TA courses. They also find the annual funding limit restrictive, given the Army's annual limit of $4,000 per Soldier per year (versus the $4,500 DOD limit). Army SMEs felt that this policy, along with the fact that TA does not cover academic fees, encourages Soldiers to take courses at for-profit schools, which may be of lower quality. Soldiers are incentivized to attend for-profit schools because they "operate on a flat-rate tuition schedule that directly correlates to the $250 per semester-hour cap, [whereas] the vast majority of state-funded (public) colleges and universities operate on tuition plus academic fee costing" [21]. For-profit schools also are less likely to grant credits that are transferable. Navy SMEs similarly noted a new Navy policy limiting annual TA funds to $3,000 per Sailor and limiting Sailors to 120 credits over a career [19]. They pointed out that this change will decrease the number of courses that Sailors can take, thus decreasing the educational progress that Sailors can make in service. It is especially limiting for those already using TA when the policy was implemented. They may not have optimized their educational "path" to complete their degree within 120 credit hours, and the policy does not exempt those already using TA. Air Force SMEs stated that they found the $4,500 DOD-imposed cap to be insufficient.

Figure 15. Primary policy impediments, by Service and FG population
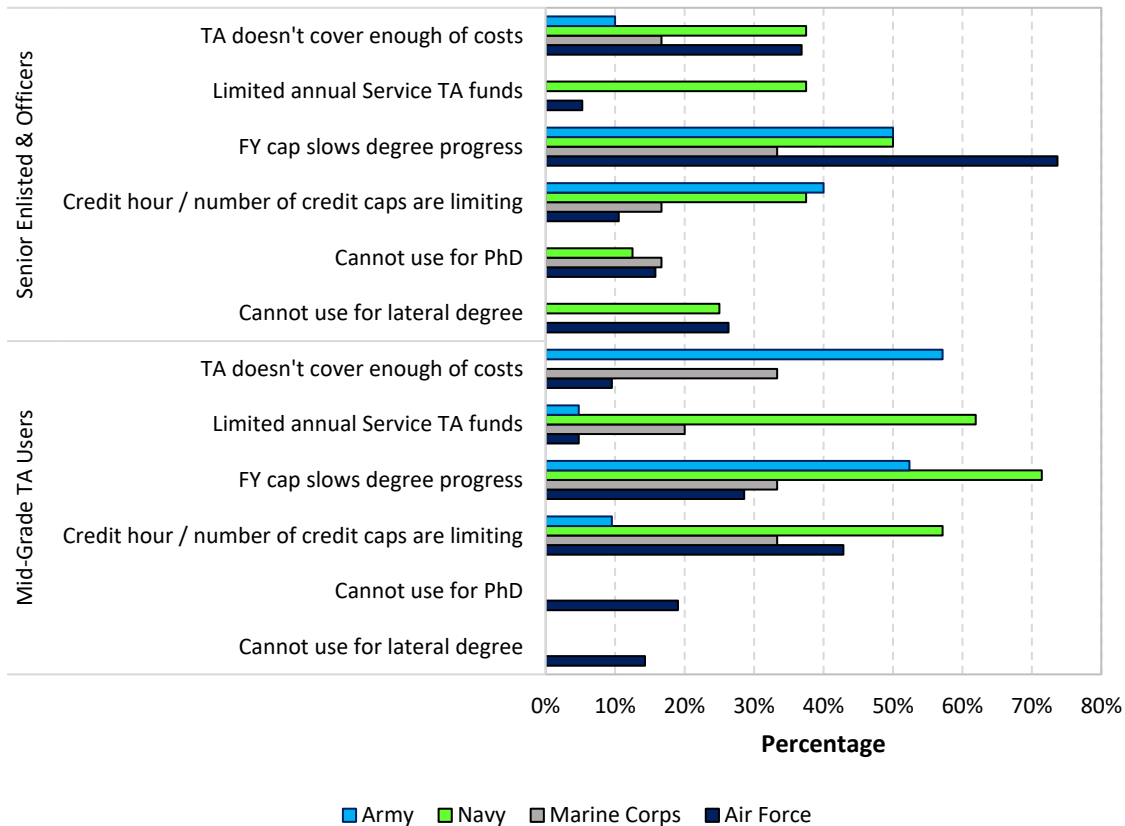
Source: CNA analysis of FG inputs.
Note: A considerable percentage of FG participants, in all populations, said that they did not feel that any policy was impeding their educational progress. Many of those who made this statement, however, also later listed specific policy impediments. Due to the contradictory nature of these comments, we are not able to accurately present the percentage indicating that there were no policy impediments.

Many FG participants noted that TA doesn't cover enough of total course costs, often leaving Service members with significant out-of-pocket expenses, such as books, lab fees, and any tuition or credit-hour cost that exceeds the program's limits. These concerns were most prominent among Army mid-grade enlisted TA users but also were voiced by at least a third of Marine Corps mid-grade TA users as well as the Navy and Air Force leadership (i.e., senior enlisted and officers). Army SMEs concurred that TA funding per Service member is insufficient and stated that, although many Soldiers would *prefer* to take courses at brick-and-mortar institutions—and might learn better in an in-class environment—the additional fees and other associated costs make these schools seem unaffordable to the average Soldier. As a suboptimal

alternative, they attend for-profit or online schools, which reduces the quality of their education, or they choose not to use TA at all if they know that they are not likely to be successful in the virtual environment. For these reasons, the Army installation has proposed that the Army simply provide Soldiers with their annual funding allocation and let the Soldiers manage their individual TA resources—that is, give them greater agency in how those funds are distributed and in determining the courses and schools that are affordable to them [21].

As Figure 15 shows, Navy and Air Force Service members also lamented the inability to use TA for lateral degrees. Similarly, Air Force education counselors said that they found the restriction on lateral degrees to be unnecessarily limiting. Many Airmen, they explained, enter the Service with a bachelor's degree and want to attain another bachelor's, in a different field, to better prepare themselves for the military-to-civilian transition. It is not possible, however, to pursue such degrees using TA. It is unclear to them why Service members enlisting with a degree should not be eligible for the same educational benefits as their counterparts—whether to ultimately prepare themselves for transition or to acquire education (and skills) that will make them more productive in their military occupations. The fact that Airmen often enlist with bachelor's degrees likely explains why the only mid-grade TA users who listed the inability to use TA for lateral degrees or doctoral degrees were in the Air Force.

Air Force and Marine Corps SMEs discussed two other limiting policies. First, Air Force SMEs found the ability to change degree plans only once to impede educational progress, although they did note hearing that this policy would change soon.[32] Air Force SMEs felt that Service members should not be limited to a one-time change in degree plan, which can include a change in either major or university. In some cases, Airmen commit to a particular major and then, after taking some classes, realize that it is not where their interests lie or that they are unlikely to succeed in that field, making a degree plan change necessary. The prevalence of degree plan (or major) changes is not unique to TA-using Service members. A 2017 report by the National Center for Education Statistics revealed that 30 percent of undergraduates enrolled in either associate's or bachelor's degree programs change majors at least once in the first three years of enrollment [22]. Given this national trend, revisiting this restriction may be warranted, especially if there is no substantiated reason to expect Service members to change their degree plans less frequently than other students. There also are cases in which Airmen associate with one university—usually an online university—and then realize that they are unable to learn effectively in that environment. Education counselors felt that they should be empowered to make this determination.

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[32] From the perspective of DOD, this policy actually aids Service members because it increases the likelihood that they will complete a degree in service and also reduces the overall cost, since additional coursework is required any time a degree plan or major is changed.

Second, Marine Corps education counselors felt that TA should apply to certifications. In particular, they noted the disconnect between Marines' educational goals and the program types that TA will cover. They noted that not all Marines are degree driven, and that they have seen increasing demand for certifications, which TA will not fund. They noted, as examples, that certifying as a welder or emergency medical technician can lead to high-paying civilian jobs, setting Marines up for post-transition success. It seems counterintuitive that TA funds cannot be used to cover such programs—especially in an era in which, at a national level, higher education is shifting away from traditional degree paths and toward specific skills training and certifications (per Marine Corps SMEs, and substantiated by [14]). Many Marines' interest levels dwindle once they learn that TA will not fund certifications. SMEs noted that "TA needs to evolve with the population." The TA program at present excludes those Service members interested in pursuing occupations requiring certifications (e.g., information technology, program management, and many blue-collar occupations) from beginning their educational trajectory while in service.

Summary

FG participants and the Services' education SMEs agreed that there are three primary challenges to Service members' successful TA use:

1.   Barriers in the TA approval process
2.   Variation in Service members' occupational OPTEMPO and responsibilities
3.   Policies that often slow educational progress

Both Service members and SMEs noted significant variation in commands' support of TA use, making it challenging for some Service members to obtain command approval. As our results show, there are some disconnects between what senior leadership views as important in making TA approval decisions and what junior enlisted and mid-grade enlisted *suspect* are the most important factors in these decisions. It seems that better communication regarding the overall TA process is needed.

There was general agreement on the importance of occupational responsibilities and overall OPTEMPO (to include deployments) in determining Service members' ability to use TA as well as their likely TA success. Nearly all agree that work-schedule predictability and the amount of downtime vary by occupation, making some assignments more amenable to TA use than others. FG participants noted that their ability to use TA while deployed depended largely on the nature of the deployment. It is particularly striking that nearly all mid-grade nonusers of TA expected deployments to be a significant challenge, whereas those who had used TA were more likely to state that it depends. Increased counseling and mentorship potentially could reduce nonusers' hesitation in using TA while deployed. It also could provide time

management strategies for successful TA use since this was a primary reason noted as to why Service members had considered using TA but ultimately had not applied.

Finally, the primary policy impediments noted by both FG participants and SMEs were the imposed caps—both on total TA funding and costs per credit hour. SMEs noted that the credit-hour caps often incentivize Service members to attend lower quality (often online) schools and slow overall educational progress. They suggested that Service members be given an annual TA allocation but then be provided the discretion to spend those funds as they see fit—which could include applying some funds to academic fees (which are higher at high-quality schools and not currently covered by TA) or taking fewer courses with higher costs per credit hour. This would allow Service members to optimize their TA use to meet their specific educational goals.

Conclusions and Recommendations

In this report, we qualitatively analyzed policy documents, SME discussions, and FGs to identify possible reasons for cross-Service differences in TA use and TA outcomes, as found in a previous CNA report. Our findings reveal that variation across the Services in TA policy, TA understanding, occupational responsibilities and OPTEMPO, and support from senior leaders and immediate supervisors are likely the primary drivers of these differences.

TA policy is standardized across the Services; however, each Service is provided leeway in how it administers its respective TA programs. The most important differences are those that limit Service members' TA use, including when they are first able to use TA. Prominent among these are time-in-service restrictions: the Marine Corps *previously* required Marines to have served two years before using TA, whereas the Navy recently implemented the same restriction (as of October 2019). Although the Marine Corps policy has been changed, SMEs indicated that not all commanders are aware of this. Thus, for many Marines, the two-year TIS requirement is effectively still in place. Other important policy differences include the following:

- The Army's and Navy's FY funding limits—$4,000 and $3,000 per Service member— are lower than DOD's $4,500 maximum.
- Three Services impose credit-hour limits (16 per FY in the Army; 120 over the course of the career in the Navy; 124 for a bachelor's and 42 for a master's in the Air Force).
- The Army and Marine Corps require minimum GT scores.[33]
- The Air Force *requires* additional educational attainment and degrees for promotion, whereas it is simply an extra benefit for promotion in the other Services.

There is also significant variation in Service members' understanding of the TA program. Although substantial program knowledge gaps were found in all FG populations and across all four Services, most concerning were those among mid-grade TA users, whose TA experiences should make them more informed, as well as among senior enlisted and officers, who will be advising those in their chains of command. Notable differences include that (a) relatively few FG Army mid-grade TA users correctly indicated that TA cannot be used for any course and cannot be used at any institution, respectively, and (b) the majority of FG Navy senior enlisted and officers answered these questions incorrectly. In addition, only half of the Marine Corps' senior enlisted and officer FG participants were aware that the TA benefit cannot be

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[33] Army representatives reviewing this document stated that there are no minimum GT score requirements for TA use. This suggests that the counselors were misinformed and were advising Soldiers accordingly, thus creating a de facto GT requirement.

transferred to dependents. We also find differences in whether Service members were aware of the TA benefit at enlistment as well as in when and how they first learn about the TA program. With the exception of Airmen, who primarily learned about TA in a training session, most Service members learned about the program from mentors or by word of mouth. Given the prevalence of misinformation regarding the TA program, there are risks of further dissemination of incorrect information when program knowledge is being spread via word of mouth or by misinformed leaders.

Differences in TA use across the Services may be significantly influenced not only by leaders' understanding of the TA program, but also by their TA buy-in. That is, leadership support for and encouragement of TA use also will be key determinants of Service members' TA use. Although many Service members learn about TA from a supervisor, this experience varies widely across commands. In some cases, supervisors use their one-on-one counseling sessions as opportunities to encourage TA participation and stress the benefits of continued education to young Service members. In other cases, particularly in the Army and Marine Corps, leaders are less supportive of Service members' TA use. Army and Marine Corps SMEs noted that some commanders do not consider the pursuit of civilian education as mission relevant and, therefore, do not encourage TA use. Relatedly, when asked about command approval, roughly a third of Army and Marine Corps FG respondents indicated that obtaining command approval was a challenge, whereas no Navy or Air Force mid-grade TA-using FG participants said it was an issue.

Finally, occupational requirements—and the resulting OPTEMPO and deployment frequency—also significantly influence TA use and help to explain cross-Service differences. Service members noted that those in different occupations have varying amounts of downtime, which determines whether they are able to complete any coursework while at work without compromising their occupational responsibilities. Service members in different occupations (and Services) also spend varying amounts of time in the field on exercises, in training, or deployed. Although many noted that deployments can be an ideal time to use TA owing to the absence of family responsibilities, they also introduce unique challenges, including internet connectivity and communication with professors. Thus, the ability to successfully use TA while deployed largely depends on whether the deployment is to a main base, a FOB, or a ship because, in the latter two cases, Service members most often will lack the necessary resources. Since the frequency of FOB and ship deployments varies by Service, TA use will vary as well.

Taken together, our analysis provides a number of explanations for cross-Service TA differences. If DOD seeks to make Service members' TA understanding and TA use more equitable, we recommend that it take the following actions:

- Standardize the content and delivery of TA messaging across the Services to eliminate misinformation and ensure that all Service members learn about TA early in their careers.

- As part of this standardization, present TA information *early* and reinforce TA messaging *throughout* Service members' careers.

- Mandate that all commands include TA training as part of in-processing, ideally by having education counselors brief the units.

- Provide a mechanism—perhaps a survey—for Service members to offer feedback on their interactions with education counselors and their recommendations for how counselors could be more effective in helping them to meet their educational goals.

- Ensure that education counselors are available to all Service members—this will require reinstating these counselors in the Navy.

- Provide junior Service members and first-time TA users with guidance on how to effectively juggle TA use with other responsibilities and how to use TA while deployed.

- Counsel TA users on the trade-offs between online versus brick-and-mortar courses, helping to prepare them for online-specific challenges.

- Work to ensure leadership buy-in across commands, perhaps by implementing standardized leadership training on the benefits—to the individual Service member as well as to the command—from increased educational attainment.

If implemented, these recommendations will make both the ability of Service members to use TA and their overall TA success rates more equitable across the Services. Of course, some Service- and command-level differences will persist since successful use of TA will vary by Service member and by circumstance. That said, these recommendations should decrease the magnitude of the differences that currently exist. If not implemented, these differences likely will persist, maintaining the status quo of unequal access to TA (and differences in TA outcomes) not only across Services, but also across Service members within a Service. With lower TA use in some Services, TA funding may eventually be at risk since unused funds can be viewed as low demand for the benefit. Differences in TA use (and outcomes) *within* a Service could ultimately have negative impacts on morale and thereby on retention.

In closing, we remind readers that, since we visited only one installation per service and the FGs were based on convenience samples, the generalizability of our findings is questionable; findings regarding any one Service may not necessarily apply to Service members *throughout* the Service but rather may be representative of those on that specific installation. However, since our FGs within each Service comprised diverse groups of individuals (in terms of demographic and military characteristics), we are confident in those findings that emerged consistently, summarized here. The volume and diversity of our participants allow us to overcome some of the limitations of convenience sampling. By conducting multiple FGs per

installation—and, when sample size allowed, multiple groups *per* population (e.g., mid-grade TA users)—we replicate the diversity in participants' experiences and opinions that would have been achieved had we visited multiple installations per Service. We are therefore confident that those findings that emerged consistently across the FGs are reflective of how TA policies, TA practices, and Service member perceptions about TA differ across Services.

Appendix A: Service-Level Differences from Our 2017 Estimations

In this appendix, we provide detailed findings from our 2017 report revealing numerous Service-level differences in Service members' likelihood to use TA (as well as the manner in which they use TA) and in their TA outcomes, such as course completion and degree attainment. That study was conducted in response to the 2014 DOD Appropriations Bill, mandating a study tracking TA users' outcomes [2]. The analysis focused not only on identifying the characteristics of those Service members who use TA (compared with their non-TA-using counterparts) but also on identifying which TA-using Service members were most likely to experience positive outcomes (i.e., completing their TA-funded courses, attaining any degree using TA, and/or attaining a bachelor's or graduate degree using these funds).

In those estimations, after controlling for Service members' military and demographic characteristics, a number of sizable and statistically significant differences were found across the Services, not only in whether and how Service members used TA, but also in their TA-related outcomes. These differences are summarized in Table 6 and Table 7, respectively.[34]

Enlisted

Among enlisted Service members, Airmen were notably more likely than their other-Service counterparts to use TA; specifically, Airmen were 11.4 percentage points more likely than Marines, 9.5 percentage points more likely than Soldiers, and 6.5 percentage points more likely than Sailors to use TA. Airmen and Marines were notably more likely to both be "super users" (defined as taking at least the median level of credits or the median level of courses in their Service for a given year) and to use TA in at least two consecutive years. Airmen were 12.7 and 21.1 percentage points more likely to be super users than their Army and Navy counterparts, respectively, whereas Marines were 7.2 and 15.6 percentage points more likely. In terms of consecutive use, Airmen were 6.5 percentage points more likely than Soldiers and 7.9 percentage points more likely than Sailors to use TA in at least two consecutive years.

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[34] The full set of estimation results can be found in our November 2017 report [2].

Table 6. Differences in TA use, by enlisted/officer status and Service

	Enlisted				Officers			
	Army	**Navy**	**Marine Corps**	**Air Force**	**Army**	**Navy**	**Marine Corps**	**Air Force**
Probability of TA use								
As compared to:								
Army	N/A	+3	-1.9	+9.5	N/A	+13.5	+10	+7.1
Navy	-3	N/A	-4.9	+6.5	-13.5	N/A	-3.5	-6.4
Marine Corps	+1.9	+4.9	N/A	+11.4	-10	+3.5	N/A	-2.9
Air Force	-9.5	-6.5	-11.4	N/A	-7.1	+6.4	+2.9	N/A
Probability of TA super use								
As compared to:								
Army	N/A	-8.4	+7.2	+12.7	N/A	-4	+10.2	+15.1
Navy	+8.4	N/A	+15.6	+21.1	+4	N/A	+14.2	+19.1
Marine Corps	-7.2	-15.6	N/A	*5.5*	-10.2	-14.2	N/A	+4.9
Air Force	-12.7	-21.1	*-5.5*	N/A	-15.1	-19.1	-4.9	N/A
Probability of consecutive TA use								
As compared to:								
Army	N/A	-1.4	+0.8	+6.5	N/A	*+2.2* [a]	+3.1	+15.4
Navy	+1.4	N/A	*2.2* [a]	+7.9	-2.2	N/A	*0.9* [a]	+13.2
Marine Corps	-0.8	*-2.2* [a]	N/A	+6.6	-3.1	*-0.9* [a]	N/A	-12.3
Air Force	-6.5	-7.9	-6.6	N/A	-15.4	-13.2	+12.3	N/A

Source: CNA analysis from [2].
Note: Within each subsection, the differences in the upper and lower diagonals are the inverse of each other. In the first column, for example, we note that enlisted Soldiers are 3 percentage points *less* likely than their enlisted Sailor counterparts to use TA. Similarly, in the first row, we see that enlisted Sailors are 3 percentage points *more* likely than their enlisted Soldier counterparts to use TA.
[a] Italicized differences are *not* statistically significant, based on the F-test; all others are statistically significant.

Officers

A number of striking TA-use differences emerged among officers, including the following:

- Navy officers were 13.5 percentage points more likely than their Army officer counterparts to use TA.

- Air Force officers were 15.1 percentage points more likely than Army officers and 19.1 percentage points more likely than Navy officers to be TA super users.

- Air Force officers were 15.4, 12.3, and 13.2 percentage points more likely to consecutively use TA than Army, Marine Corps, and Navy officers, respectively.

The Air Force emerges strongly as the Service with not only the most TA-using members (among enlisted) but also the most actively and persistently TA-using members, among both officers and enlisted. Sizable differences emerge in terms of TA-related outcomes as well; notably, compared to their Army and Navy officer counterparts, we found both Air Force and Marine Corps officers to be roughly 20 percentage points less likely to attain any degree (and to attain a bachelor's or graduate degree) using TA. In addition, enlisted Marines, Sailors, and Airmen had average course completion rates that were 10.1, 8.1, and 6.7 percentage points higher, respectively, than their Marine Corps, Navy, and Army counterparts. There were no statistically significant differences in officers' course completion rates.

Table 7.   Service member differences in TA-related outcomes

	Enlisted				Officers			
	Army	**Navy**	**Marine Corps**	**Air Force**	**Army**	**Navy**	**Marine Corps**	**Air Force**
Probability of any degree								
As compared to:								
Army	N/A	+7.8	-4.5	-1.6	N/A	-2.2	-21.5	-22.9
Navy	-7.8	N/A	-12.3	-9.4	+2.2	N/A	-25.1	-23.7
Marine Corps	+4.5	+12.3	N/A	+2.9	+21.5	+25.1	N/A	*+1.4* [a]
Air Force	+1.6	+9.4	-2.9	N/A	+22.9	+23.7	*-1.4* [a]	N/A
Probability of BA/BS or higher								
As compared to:								
Army	N/A	-2.8	-1.9	+2.2	N/A	-5.1	+22.2	+21.2
Navy	+2.8	N/A	-5.0	-0.9	+5.1	N/A	-17.1	-16.1
Marine Corps	+1.9	+5.0	N/A	+4.1	-22.2	+17.1	N/A	*+1.0* [a]
Air Force	-2.2	+0.9	-4.1	N/A	-21.2	+16.1	*-1.0* [a]	N/A
Course completion rate								
As compared to:								
Army	N/A	+8.1	+10.1	+6.7	N/A	*+4.9* [a]	*+4.8* [a]	*+3.8* [a]
Navy	-8.1	N/A	-1.4	+2.0	*-4.9* [a]	N/A	*-1.1* [a]	*-0.1* [a]
Marine Corps	-10.1	+1.4	N/A	+3.4	*-4.8* [a]	*+1.1* [a]	N/A	*+1.0* [a]
Air Force	-6.7	-2.0	-3.4	N/A	*-3.8* [a]	*+0.1* [a]	*-1.0* [a]	N/A

Source: CNA analysis from [2].
Note: Within each subsection, the differences in the upper and lower diagonals are the inverse of each other. In the first column, for example, we note that enlisted Soldiers are 7.8 percentage points *less* likely than their enlisted Sailor counterparts to attain any degree using TA. Similarly, in the first row, we see that enlisted Sailors are 7.8 percentage points *more* likely than their enlisted Soldier counterparts to attain any degree using TA.
[a] Italicized differences are *not* statistically significant, based on the F-test; all others are statistically significant.

Appendix B: FG Population

In this appendix, we provide information on our FG participants. We first show their distribution, by population and Service, and then summarize their demographic characteristics and military occupations. This information was collected through short surveys administered at the beginning of each FG. When possible, we also compare our participants' characteristics with those of other Service members—both within their Service and in the other Services. Such comparisons highlight ways in which our sample differs from the general population and, thus, ways in which our findings may not be representative of the opinions and experiences of *all* Service members. To make these comparisons, we rely on the *Population Representation in the Military Services* (also known as the "PopRep")—a report mandated by the Senate Committee on Armed Services in May 1974 and produced every year since. The most recent version of the study describes the characteristics of US military personnel in FY18 [23].

Participants' demographic characteristics

To understand how representative our FG findings might be of a particular Service as a whole—i.e., if they likely represent the views of each Service versus only the views of our FG participants—we show how our participants' demographic characteristics compare with those of each Service overall. Our objective in presenting these comparisons, both here and in subsequent tables, is to identify ways in which our FG findings may not be representative of overall TA experiences.

In Table 8, we show our FG sample's paygrade distribution and provide the comparative breakdown for each Service. Across all Services, officers are underrepresented in our FG sample. Conversely, E-8–E-9s are consistently overrepresented, particularly in the Army (19 versus 2 percent) and the Air Force (14 versus 2 percent). E-4–E-7s make up the majority of our sample, as well as the majority of each of the Services' overall populations. In addition, the share of these Service members in our FG sample generally aligns with that of each Service's general population, except in the Navy, where there is a significant overrepresentation of E-4–E-7s, likely because of low attendance by junior enlisted Sailors (only 1 FG participant). It is not surprising that our representation of junior enlisted (E-1–E-3) is notably poor in the Navy (3 versus 22 percent), though our FG sample is largely representative of E-1–E-3s in the other Services.

Table 8. FG participants' demographic characteristics, as compared to FY18 Service populations (PopRep), by percentage and number of Service members

Demographic		Army		Navy		Marine Corps		Air Force	
		FG sample	PopRep	FG sample	PopRep	FG sample	PopRep	FG sample	PopRep
Gender	Male	85% 66	85% 330,240	61% 23	80% 220,118	66% 57	91% 151,137	67% 64	80% 210,923
	Female	12% 9	15% 56,097	39% 15	20% 54,619	32% 28	9% 14,510	33% 32	20% 53,047
	Prefer not to identify	4% 3	0% 0	0% 0	0% 0	2% 2	0% 0	0% 0	0% 0
Pay-grade	E-1–E-3	22% 17	23% 103,550	3% 1	22% 71,025	36% 31	41% 74,155	19% 18	23% 72,963
	E-4-E-7	59% 46	58% 262,012	76% 29	59% 190,372	53% 46	46% 84,428	55% 53	56% 178,300
	E-8–E-9	19% 15	3% 14,113	8% 3	3% 9,261	7% 6	3% 5,500	14% 13	2% 7,715
	O-1–O-5	0% 0	16% 73,682	13% 5	16% 49,663	5% 4	10% 18,446	13% 12	19% 59,103
Race	White	55% 43	67% 309,138	58% 22	62% 200,865	72% 63	80% 146,711	78% 75	72% 230,471
	Black	24% 19	21% 98,387	24% 9	17% 55,225	14% 12	11% 19,270	14% 13	15% 46,741
	Asian	9% 7	5% 22,487	11% 4	6% 17,967	5% 4	3% 5,416	4% 4	4% 12,639
	Other	3% 2	0% 10911	0% 0	11% 34,634	2% 2	3% 5,869	0% 0	6% 19,283
	Prefer not to identify	9% 7	4% 18,948	8% 3	5% 14,969	7% 6	3% 5,999	4% 4	4% 12,484
Ethnic-ity	Hispanic	19% 15	16% 71,419	18% 7	16% 50,349	24% 21	22% 39,658	7% 7	14% 46,569
	Not Hispanic	69% 54	84% 384,227	66% 25	69% 221,719	66% 57	78% 143,607	86% 83	81% 261,627
	Prefer not to identify	12% 9	0% 2,075	16% 6	16% 51,592	10% 9	0% 0	6% 6	4% 13,422
Marital status[a]	Single (never married)	38% 29	40% 218,052	16% 6	43% 163,200	45% 39	54% 109,718	29% 28	37% 143,933
	Married	55% 42	55% 304,466	68% 26	53% 200,211	47% 41	43% 88,519	65% 62	57% 218,571
	Divorced/ separated	8% 6	5% 26,691	16% 6	4% 13,932	8% 7	3% 6,273	5% 5	6% 21,495

Source: [23].

[a] The "divorced/separated" category included annulled, divorced, and legally separated.

The gender distributions in Table 8 reveal that, on the whole, the gender composition of our FGs is not representative of DOD. Although the gender composition of our Army FG sample aligns fairly well with that Service's gender composition (85 percent male and 12 to 15 percent female in both cases), female representation in our Navy, Marine Corps, and Air Force FG samples far exceeds that found in each of those Services' FY18 endstrengths. If female Service members are either more or less inclined than male Service members to use TA, or have notably different TA experiences than their male counterparts, our findings from the Navy, Marine Corps, and Air Force may be influenced by those underlying differences. This general overrepresentation of women in our FGs, however, may be advantageous for disentangling our findings from the 2017 report that, compared with their male counterparts, female enlisted Service members are less likely to use TA whereas female officers are more likely to use TA. That is, a greater representation of female Service members will necessarily increase female inputs, thus painting a more complete picture of their experiences. That said, we will need to exercise caution in making generalizable statements regarding DOD-wide differences in male versus female TA experiences.

The race, ethnicity, and marital status of our FG participants closely mirrors the characteristics of Service members overall. There are some exceptions, such as an underrepresentation of white Service members in the Army and Marine Corps FG samples and an overrepresentation of married and divorced/annulled Service members in the Navy FG samples (likely due to the underrepresentation of junior enlisted Sailors in our FGs). That said, the fact that our participant population looks similar to the overall population suggests that our FG findings will not be biased across dimensions of race, ethnicity, or marital status.

In Table 9, we show the age distribution of our FG participants as compared to the distribution within each Service. Because the age ranges from which Service members could choose on our intake form do not exactly match those from the PopRep, we show the most closely aligned age ranges possible. As in the previous table, enlisted and officers are combined in each cell. In general, the numbers in this table suggest a relative underrepresentation of younger Service members in our sample (e.g., 26 percent 18-to-22-year-olds in our Army FG sample versus 40 percent 17-to-24-year-olds in the Army overall). FG participants are relatively concentrated in the 23-to-45-year-old range compared with each Service's general population. They represent, for example, 80 percent of our Navy FG participants and 72 percent of our Army FG participants, compared with 60 percent and 55 percent of their respective Service populations. Despite these differences, no representation of FG participants in a particular age range differs drastically from that of the Services' populations. The only exception is for Navy 18-to-22-year-olds; in this case, our sample significantly underrepresents the overall population because of poor turnout in our E-1–E-3 discussion groups.

Table 9. Participants' age distribution compared to FY18 Service populations (PopRep)

Service	Ages		Percentage		Number	
	FG sample	PopRep	FG sample	PopRep	FG sample	PopRep
Army	18–22	17–24	26%	40%	20	185,280
	23–27	25–29	26%	23%	20	106,208
	28–35	30–34	23%	15%	18	68,346
	36–45	35–44	23%	17%	18	77,718
	46–55	45–55	3%	4%	2	20,165
Navy	18–22	17–24	5%	36%	2	116,393
	23–27	25–29	34%	25%	13	80,849
	28–35	30–34	26%	17%	10	55,557
	36–45	35–44	26%	18%	10	58,423
	46–55	45–55	8%	4%	3	12,432
Marine Corps	18–22	17–24	55%	63%	48	115,698
	23–27	25–29	21%	17%	18	31,228
	28–35	30–34	15%	9%	13	16,899
	36–45	35–44	9%	9%	8	16,410
	46–55	45–55	0%	2%	0	3,030
Air Force	18–22	17–24	16%	33%	15	107,160
	23–27	25–29	20%	25%	19	80,482
	28–35	30–34	36%	19%	35	60,256
	36–45	35–44	24%	20%	23	63,767
	46–55	45–55	4%	3%	4	9,949

Source: [23].

Finally, Table 10 shows our FG participants' average numbers of dependent children. The PopRep does not contain information on dependent children for the Services, so those numbers do not appear in Table 10. Overall, at least 40 percent of the FG participants in each Service have one or more dependents. The Marine Corps has the highest percentage of respondents without children (66 percent), while the Navy has the lowest percentage without children (37 percent). This difference mirrors the relative overrepresentation of junior enlisted in the Marine Corps FG sample and the relative underrepresentation of junior enlisted in the Navy sample; this difference likely is driven by those disparities. If having children affects a Service member's TA use, average Marine Corps and Navy TA use could be influenced by their higher and lower percentages of participants with no children, respectively.

Table 10.   Participants' number of dependent children (no Service population comparison), percentage and number by Service

Number of dependent children	FG sample			
	Army	Navy	Marine Corps	Air Force
0	58%	37%	66%	45%
	45	14	57	43
1-2	23%	42%	21%	42%
	18	16	18	40
3-4	14%	18%	14%	11%
	11	7	12	11
5+	4%	3%	0%	1%
	3	1	0	1
Prefer not to identify	1%	0%	0%	1%
	1	0	0	1

Source: CNA analysis of intake form data.

Overall, we find that our participants' demographic characteristics align with those of the general population, though we have identified a few ways in which our FG populations are not representative of the larger Service populations. Specifically, as the tables reveal, our FG populations have the following characteristics:

- *Over*representative of women in the Navy, Marine Corps, and Air Force
- *Under*representative of officers and *over*representative of senior enlisted, across DOD
- *Over*representative and *under*representative of junior enlisted in the Marine Corps and Navy, respectively
- *Under*representative of younger, junior enlisted in the Navy

These findings simply highlight that, because our analysis is based on FG inputs (not a survey or randomized control trials), the inputs from our participants may not be representative of the experiences/opinions of all Service members. To the extent that TA use or TA experiences vary by gender, paygrade, or years of service, our FG participants' responses may differ from those that would have been provided by a larger and more representative subset of Service members. They do, however, represent inputs from a diverse group of people; therefore, we will place confidence in any themes or findings that emerge consistently across the FGs.

Occupations

In addition to standard demographic information, participants indicated their primary occupational specialty on the intake forms. Because our study spans all four Services, we use DOD occupation codes to provide consistent categorization across Services. Figure 16 shows the total number of participants, by occupational category. "Service and Supply Handlers" were the largest group of respondents, followed by "Communications and Intel" and "Functional Support/Administration." Combined, these three occupational areas make up nearly half of all respondents. As a result, our FG findings rely predominantly on Service members in support roles and may underrepresent the experiences of more operational or commonly deployed occupations. That said, 28 participants did come from "Infantry, Gun Crews, and Seaman" occupations, suggesting that the feedback and experiences of these Service members' inputs will not be an insignificant proportion of total FG responses.

Figure 16. Primary DOD occupational specialties of FG participants

Source: CNA analysis of FG intake form data.

Figures

Tables

Abbreviations

AFGM	Air Force Guidance Memorandum
ASVAB	Armed Services Vocational Aptitude Battery
CCAF	Community College of the Air Force
DOD	Department of Defense
EAS	end of active service
ESO	Education Service Officer
FG	focus group
FOB	forward-operating base
GT	General Technical
HSD/GED	high school degree/tests of General Educational Development (i.e., high school degree or equivalent)
MCO	Marine Corps Order
MOS	military occupational specialty
OPTEMPO	operational tempo
PopRep	Population Representation Report
SH	semester hour
SME	subject matter expert
TA	Tuition Assistance
U.S.C.	United States Code

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