RESEARCH REPORT

Implementation Evaluation of the Veterans' Employment and Training Service (VETS) Apprenticeship Pilot

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Executive Summary

Military service members and their spouses face challenges when making the transition from military life to civilian life. These transitioning service members (TSMs) and their spouses can benefit from expanded access to apprenticeship, a model of training and workforce development that combines structured work-based training, jobs with wages, and related classroom instruction. In early 2020, the U.S. Department of Labor's (DOL's) Veterans' Employment and Training Service (VETS) launched the VETS Apprenticeship Pilot ("Apprenticeship Pilot" or "pilot") that aimed at creating additional pathways to civilian careers for TSMs and their spouses by increasing the number hired into apprenticeship programs prior to separation from the military through the support of a dedicated Apprenticeship Placement Counselor (counselor).

BOX ES.1: Research Questions and Study Design

The implementation evaluation of the VETS Apprenticeship Pilot was aimed at addressing the following research questions:

1. How was the program model operationalized, and what factors affected design and implementation?

2. What were the approaches to outreach and recruitment into the pilot, and what were the characteristics of participants?

3. What activities, strategies, and resources were used under the pilot to assist participants to learn about, search for, and secure apprenticeships?

4. What were the patterns of placement in apprenticeship opportunities?

5. What were the lessons learned, and what strategies can be considered moving forward to inform TSMs of available apprenticeship opportunities and to assist them in securing apprenticeships?

To answer these questions, the study team conducted 46 semistructured remote interviews with national pilot staff, counselors, VETS administrators, TSMs, and partners (employers, programs serving veterans, and military base staff); participated in Apprenticeship Pilot work group meetings;[a] analyzed TAP4ME[b] program data; and reviewed relevant documents.

[a] To launch the pilot, Serco established the following working groups: Communications; Digital, Data, and Policy; Employer Connections; and Placement Services.
[b] TAP4ME is the case management system developed by Apprenticeship Pilot staff to capture participant characteristics, engagement, services, and outcomes.

In 2020, the DOL Chief Evaluation Office, in collaboration with VETS, commissioned an implementation evaluation of the Apprenticeship Pilot as described in box ES.1. Results of the study are intended to inform future efforts by DOL and the U.S. Department of Defense to provide effective support to assist TSMs and their spouses as they leave active military service to access

apprenticeships and civilian sector jobs, with the goal of improving their employment outcomes. The term "TSM" is used throughout to refer to transitioning service members and their spouses.

About the Apprenticeship Pilot

In fiscal year 2019, Congress authorized $3.5 million in funding for VETS to implement the Apprenticeship Pilot, which deployed counselors at eight military installations across the country[1] to inform TSMs about apprenticeships and connect them with apprenticeship opportunities).[2] DOL contracted with an organization (Serco, Inc.) to design and implement the pilot. Pilot staff included a pilot manager, 16 counselors, a communications coordinator, employer outreach coordinators, and a quality control coordinator. Additional people who supported the pilot included Serco administrators and staff, VETS staff, military base staff, and other external partners.

After a three-month planning period, the one-year pilot began on April 1, 2020, and concluded on March 31, 2021, with a six-month extension phase through September 29, 2021. In the month before the pilot launched, the spread of COVID-19 was declared a global pandemic, and the focus of the pilot shifted from serving TSMs at the eight military bases to providing services remotely, which allowed recruitment from bases across the United States, Europe, and Asia.

Counselors primarily recruited participants through the DOL VETS Transition Assistance Program (TAP) workshops, which offer TSMs resources and information to prepare for civilian employment. After an initial assessment of qualifications and experience, job and career interests, and location preferences, counselors assisted TSMs in identifying apprenticeship opportunities, submitting applications, and securing apprenticeships. Serco national staff supported participant recruitment, engagement of employers, identification of apprenticeship opportunities, and provided other operational support. Counselors entered participant data into a data system called TAP4ME that was developed for the pilot to track participant characteristics, program engagement, and outcomes. Figure ES.1 shows the flow of participants through the program.

A participant is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. Registered Apprenticeship Programs meet federal and state standards and are registered with DOL or with a DOL-approved state apprenticeship agency. Unregistered apprenticeships use the same earn-and-

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[1]   The eight military bases were Fort Bragg (North Carolina), Fort Bliss (Texas), Marine Corps Station Cherry Point (North Carolina), Marine Corps Air Station Miramar (California), Naval Station Norfolk (Virginia), Naval Station San Diego (California), Nellis Airforce Base (Nevada), and Travis Airforce Base (California).

[2] Department of Defense and Labor, Health and Human Services, and Education Appropriations Act of 2019, Pub. L. No. 115-245, 132 Stat. 360 (2018).

learn model as a Registered Apprenticeship Program but they do not go through the same registration process and they may not meet all the requirements of the regulations governing apprenticeships.[3]

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[3] See CFR 29A29, https://www.ecfr.gov/current/title-29/subtitle-A/part-29.

FIGURE ES.1: Apprenticeship Pilot Participant Flow through Key Pilot Services
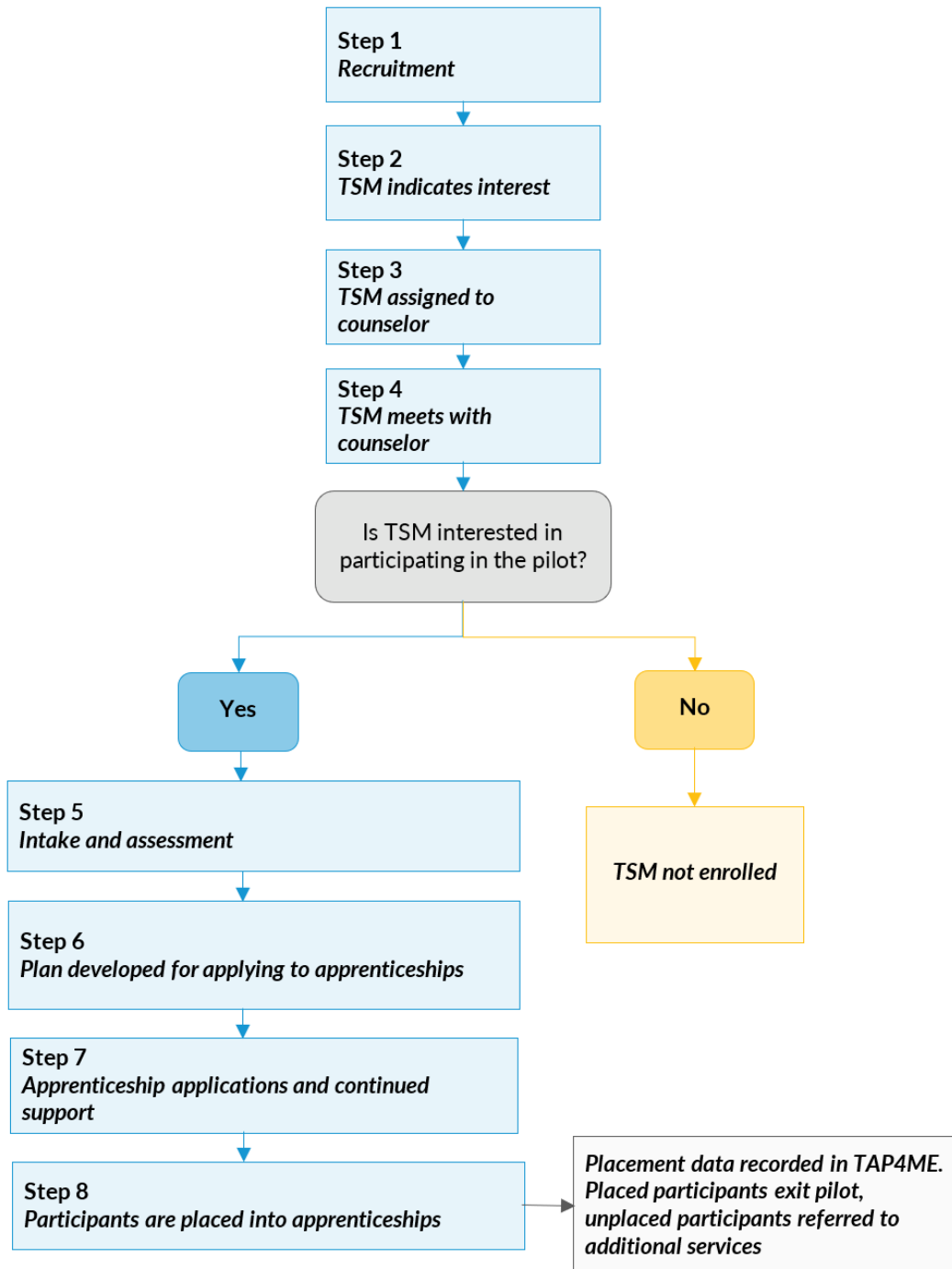
Source: Authors' analysis of interviews and review of internal documents.
Note: TSM refers to a transitioning service member or spouse. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. TAP4ME is the case management system developed by Apprenticeship Pilot staff to capture participant characteristics, engagement, services, and outcomes.

Findings

The report includes findings in three areas as follows.

Recruitment of Pilot Participants

36,979
TSMs briefed in TAP workshops worldwide

The shift to remote briefings following the onset of the pandemic greatly increased the number of TSMs informed about the Apprenticeship Pilot from what had initially been anticipated. Nearly 37,000 TSMs were briefed at TAP workshops during the pilot. Briefings at TAP workshops were the most common source of recruitment, although counselors also used other communication channels to engage TSMs. Counselors worked with TAP facilitators and other base staff to coordinate TAP workshop briefings, and additional partners (including base staff, VETS administrators, and the DOL Office of Apprenticeship) also supported counselors with pilot outreach.

There were challenges in promoting the Apprenticeship Pilot to TSMs, including the lack of understanding about and interest in apprenticeship prior to their transition, the initial content and short format of the briefing, and competing alternatives presented to prospective participants. TAP workshop briefings were revised over time to allow more time to describe the pilot and convey key and consistent messages that would sell the pilot to TSMs, including emphasizing careers with high demand for apprentices.

1,492
participants in the Apprenticeship Pilot

As a result of recruitment efforts, the program served 1,492 participants. The number of new participants recruited into the program each month grew over time, from 30 participants in April 2020 to a peak of 330 participants in February 2021. Participants were nearly all transitioning service members (97.7 percent) as opposed to spouses (2.3 percent) and were predominantly male (78.2 percent). They were 30.3 years old on average, 56.8 percent had a high school diploma as their highest level of education, and 39.3 percent were first termers (level E1 to E4).

Service Delivery

4.1
engagements on average with counselors

Planning and support for participants took into account their qualifications and experience, job and career interests, and location preferences, and were often connected to a participant's expected transition date. On average, participants engaged with counselors 4.1 times. However, about 60 percent of participants had three or fewer engagements with their assigned counselor, with a small group of participants having a larger number of engagements, which raised the average overall.

The Apprenticeship Pilot initially identified apprenticeship opportunities for participants using Apprenticeship.gov, a DOL website with a tool for finding apprenticeship openings. Pilot staff then shifted the approach to relying on employer outreach coordinators hired to directly engage employers in identifying opportunities that better matched occupational, locational, and other requirements of participants. The pilot also adopted other strategies to support its goals, including remote employer presentations and remote job fairs, along with additional work by counselors to engage employers and support applications to apprenticeships.

> **35**
> individuals filled 16 counselor positions in first six months of the pilot

Staff turnover was a challenge to expanding the caseload and maintaining continuity of service delivery. Through October 2020, 35 individuals held 16 counselor positions. Four individuals held the pilot manager position. The final pilot manager instituted new training and support counselors to improve outcomes.

Pilot Outcomes

> **276**
> applications
> **79**
> placements

Two primary goals of the Apprenticeship Pilot were to support application to apprenticeship programs and placement into registered or unregistered apprenticeships. During the official period of the pilot, there were 276 applications and 79 apprenticeship placements. A relatively small proportion of those briefed (36,979) subsequently provided a counselor with their contact information and expressed an interest in the pilot (2,024). Even fewer engaged with a counselor and became participants (1,492), applied for apprenticeships (276), and were eventually placed in apprenticeships (79; figure ES.2). Fewer than 1 percent of all TSMs that were briefed applied for or were placed in an apprenticeship.

Figure ES.2: Number of Briefed TSMs Completing Each Step of Recruitment Process for Apprenticeship Pilot, April 2020 to March 2021

Source: Authors' analysis of TAP4ME data and review of internal documents.
Notes: TSM refers to a transitioning service member or spouse. TAP is the Transition Assistance Program, which provides information, tools, and training to ensure that service members and their spouses are prepared for their transition to civilian life. A *recruit* is defined as a TSM or spouse who expressed interest in the pilot and provided contact information to a counselor, who created a record for the TSM in TAP4ME. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. *Apprenticeship applicants* are those who applied to at least one registered or unregistered apprenticeship (applicants to pre-apprenticeship programs were not counted). A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant.
[a] About 20 percent of this group was recruited through sources other than the TAP workshops.

Initially, participation, apprenticeship applications, and apprenticeship placements grew slowly with the pandemic affecting recruitment and the demand for apprentices. Numbers then increased in the last six months of the pilot. Figure ES.3 shows the growth in placements during the pilot. Although the six-month extension period was not a focus of this study and was not included in data collection for this report, it is important to note that placements were made during this extended period of service delivery. Reports show pilot placements nearly doubled during the extension period, increasing from 79 placements to 152 total placements through the end of September 2021.[4]

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[4] According to the Department of Labor, VETS, "Apprenticeship Pilot Monthly Briefing", October 6, 2021, page 3 (prepared by Serco).

FIGURE ES.3: Participant Apprenticeship Placements, April 2020 to September 2021
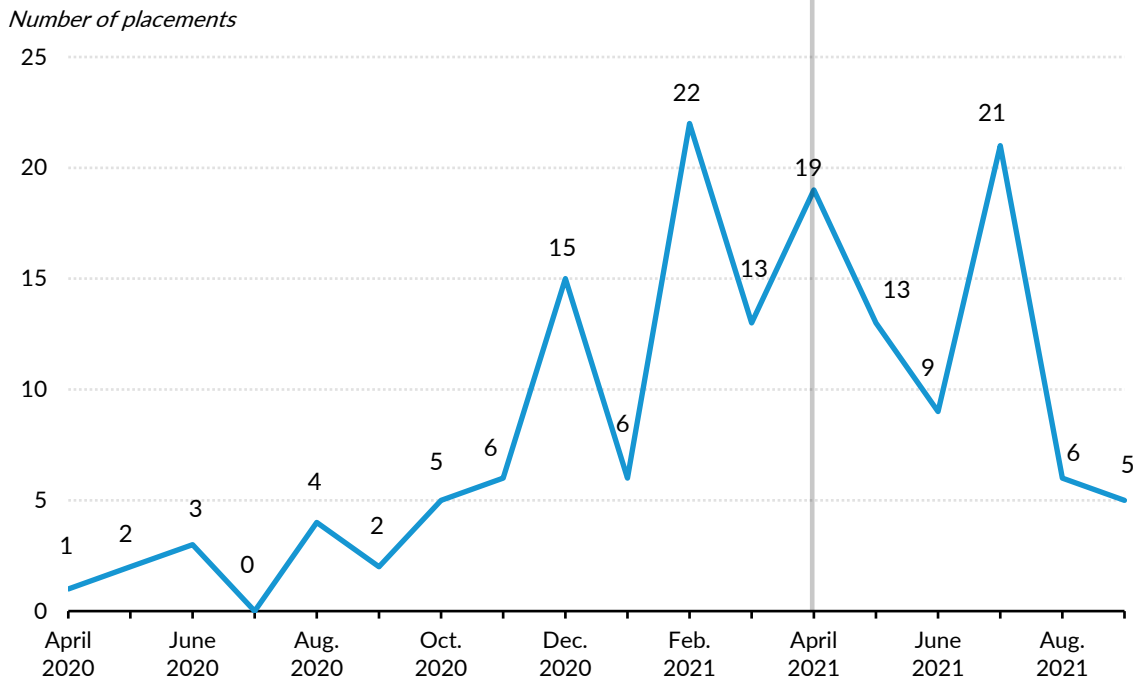
Number of placements

Source: Authors' analysis of TAP4ME data.

Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. *N* = 152 apprenticeship placements. Gray line indicates pilot ending on March 31.

> ## 3.8
> percentage-point increase in probability of placement with each additional application

On average, participants who were placed into apprenticeships were like nonplaced participants in many respects. Both groups had similar demographic characteristics and educational attainment and similar preferences for working in the region or locality where they lived prior to military service (their "home state"). However, a higher share of placed participants had a security clearance and were much closer to their transition dates than nonplaced participants. Regression analyses of the factors associated with apprenticeship application and placement rates suggest that applications and placements do not vary with individual participant characteristics such as gender, educational attainment, or locational preference. Shorter time to transition is associated with higher placement rates, although the relationship is not meaningfully large. Application and placement rates vary with base, all else equal. These differences between bases and the number of applications were the most significant factor associated with placement. Each additional application was associated with a 3.8 percentage point increase in the placement rate, which is significant relative to the baseline placement rate of 5.3 percent.

> **90%**
> of placements were into Registered Apprenticeship Programs

Ninety percent of accepted apprenticeship offers were for Registered Apprenticeship Programs rather than unregistered programs. Over one-third of accepted offers were for information technology and cybersecurity apprenticeships (a relatively new apprenticeship field), followed by electricians (a traditional field for apprenticeship training).

Lessons Learned

A primary goal of this implementation study was to elevate insights that could inform future efforts to assist TSMs as they leave active military service to access apprenticeships and civilian-sector jobs. The Apprenticeship Pilot was implemented during a health pandemic and resulting high levels of unemployment. Notwithstanding the fact that the results of this study are descriptive and that the pilot was implemented under unique circumstances, the experience of the pilot offers several lessons for program administrators in the implementation of strategies to expand access to apprenticeship for TSMs.

- **Lessons for Promoting Apprenticeships to TSMs**: Remote briefings made it possible to reach large numbers of TSMs, but attracting TSMs to apprenticeship suggests the need to promote it as an option throughout the transition process and to refine communications to more effectively communicate the benefits of apprenticeship. Program administrators may be able to learn from efforts outside the military to expand interest in apprenticeship among job seekers and workers.

- **Lessons for Increasing Placement of TSMs into Apprenticeships**: Key considerations in designing programs aimed to place TSMs into apprenticeship include (1) organizing the sequence of activities to promote apprenticeship in the period immediately before and even after transition; (2) putting in place strategies for employer engagement that build off lessons from the pilot such as having staff dedicated to this role, taking a collaborative approach to employer engagement across staff and with internal and external partners, and using remote job fairs to connect participants to employers; (3) aligning available apprenticeship opportunities with the skills, experiences, and preferences of TSMs; and (4) encouraging the submission of multiple applications by TSMs.

- **Other Lessons from the Apprenticeship Pilot**: Insights from pilot and VETS administrators and the growth in placements during the extension period indicate that one year may not have been enough time to implement the program. Key challenges included the pandemic, as well as high rates of turnover among staff, which point to the need to effectively hire, train, retain, and support staff of all levels. Future research should collect additional data to fully assess outcomes and impacts to improve understanding of what strategies are most effective in expanding access to apprenticeship for TSMs.

Chapter 1: Introduction

Military service members and their spouses face challenges when making the transition from military life to civilian life. These transitioning service members (TSMs) and their spouses have the potential to benefit from expanded access to apprenticeship, a model of training and workforce development that combines structured work-based training, jobs with wages, and related classroom instruction. In early 2020, the U.S. Department of Labor's Veterans' Employment and Training Service (VETS) launched the VETS Apprenticeship Pilot ("Apprenticeship Pilot" or "pilot") that aimed at creating additional pathways to civilian careers for TSMs and their spouses by increasing the number hired into apprenticeship programs prior to separation from the military. **(The term "TSM" is used throughout to refer to transitioning service members and their spouses.)**

The Apprenticeship Pilot was part of a broader federal effort to expand access to apprenticeship opportunities to help more Americans secure family-sustaining jobs and to meet the needs of employers for a trained workforce. The Apprenticeship Pilot deployed 16 counselors at eight military installations from across the country[5] to inform TSMs about apprenticeship and connect them with apprenticeship opportunities. The U.S. Department of Labor (DOL) contracted with an organization (Serco, Inc.) to design, start up, and implement the pilot.[6] After a three-month planning and early start-up period, the one-year pilot began on April 1, 2020, and concluded on March 31, 2021, with a six-month extension phase through September 29, 2021.[7] In the month before the pilot launched, the spread of COVID-19 was declared a global pandemic and the focus of recruitment and subsequent delivery of services under the Apprenticeship Pilot shifted from serving TSMs at the eight military bases to recruiting and serving TSMs from military bases worldwide.[8]

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[5] The eight bases were Fort Bliss (Texas), Fort Bragg (North Carolina), Marine Corps Air Station Miramar (California), Marine Corps Station Cherry Point (North Carolina), Naval Station Norfolk (Virginia), Naval Station San Diego (California), Nellis Air Force Base (Nevada), and Travis Air Force Base (California).

[6] Serco, Inc. is the North America division of Serco Group, Plc, an international government services company. More information is available at https://www.serco.com/na.

[7] Some initial planning occurred in late 2019, but planning activities primarily occurred from January to March 2020. Later, as the official period of performance came to an end, DOL added a six-month wind-down phase for the pilot (through September 29, 2021), during which time limited recruitment occurred and the focus was on placing participants who were already enrolled in the pilot into apprenticeships.

[8] Pilot data indicate recruitment from additional bases within the United States and territories (Alabama, Alaska, Arizona, California, Colorado, Connecticut, the District of Columbia, Florida, Georgia, Hawaii, Iowa, Idaho, Illinois, Indiana, Kansas, Kentucky, Louisiana, Massachusetts, Maryland, Missouri, Mississippi, Montana, North Carolina, North Dakota, New Jersey, New Mexico, Nevada, New York, Ohio, Oklahoma, Puerto Rico, South Carolina, South Dakota, Texas, Virginia, and Washington) and abroad (Bahrain, Germany, Italy, Japan, South Korea, Turkey, the United Kingdom, and other unnamed international locations). Throughout the report, when referring to "worldwide" recruitment, we are including bases in the US and abroad.

In 2020, the DOL Chief Evaluation Office, in collaboration with VETS, commissioned an implementation evaluation of the Apprenticeship Pilot. To understand implementation of the pilot, the study addressed the following research questions:

1. How was the program model operationalized, and what factors affected design and implementation?

2. What were the approaches to outreach and recruitment into the pilot, and what were the characteristics of participants?

3. What activities, strategies, and resources were used under the pilot to assist participants to learn about, search for, and secure apprenticeships?

4. What were the patterns of placement in apprenticeship opportunities?

5. What were the lessons learned, and what strategies can be considered moving forward to inform TSMs of available apprenticeship opportunities and to assist them in securing apprenticeships?

This report presents the findings from the implementation evaluation of the Apprenticeship Pilot. The results of this descriptive study are intended to inform future efforts by DOL and the U.S. Department of Defense to provide effective support to assist TSMs as they leave the military and move into civilian-sector jobs. Early insights from the pilot were shared with DOL VETS in January 2021 to inform the design, start up, and early implementation of the Employment Navigator and Partnership Pilot,[9] which aims to provide one-on-one career counseling assistance for TSMs to help them secure meaningful and lasting postseparation careers, largely through referrals to outside partners.[10]

Background

Apprenticeship is a model of training and developing the workforce that combines structured work-based training, jobs with wages, and related classroom instruction (see box 1.1). In part, the Apprenticeship Pilot grew out of the DOL's commitment under both the Obama and Trump administrations to expand apprenticeship and to research evidence pointing to the value of

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[9] For more information on the Employment Navigator and Partnership Pilot, see the website of the US Department of Labor, https://www.dol.gov/agencies/vets/programs/tap/employment-navigator-partnership.

[10] Launched in April 2021, the Employment Navigator and Partnership Pilot is a one-year pilot providing one-on-one career assistance to interested TSMs at 13 selected military installations. The effort is focused on placement of TSMs into jobs, which may or may not include apprenticeships. Assistance is provided outside of the classroom instruction offered under the DOL Transition Assistance Program. The research team wrote a memo in January 2021 that was aimed at elevating early lessons from the Apprenticeship Pilot to inform implementation of the Employment Navigator and Partnership Pilot. For more information on the Employer Navigator and Partnership Pilot, see the US Department of Labor's website, https://www.dol.gov/agencies/vets/programs/tap/employment-navigator-partnership.

apprenticeship for workers and for employers. It also built on experience the military had with apprenticeship. This section provides background on the impact of apprenticeship generally and a summary of current military apprenticeship and related programs.

BOX 1.1: About Apprenticeship

Apprenticeship is an industry-driven approach to training and career advancement that combines paid work experience; classroom instruction; and a nationally recognized, portable credential. Key components include the following:

- Paid job: Apprentices earn a wage from employers during training.
- Work-based learning: Programs provide structured on-the-job learning.
- Mentorship: Apprentices receive on-the-job learning under the instruction of a more experienced mentor.
- Classroom learning: Apprentices are provided classroom instruction related to the development of skills and knowledge for the specified job or career.
- Credentials: Apprentices earn a portable, nationally recognized credential in their industry.

Apprenticeships can be registered or unregistered. A Registered Apprenticeship Program meets federal and state standards and is registered with DOL or with a DOL-approved state apprenticeship agency. An unregistered apprenticeship uses the same earn-and-learn model as a registered apprenticeship but does not go through the same registration process or DOL review process and may not meet the requirements of the regulations governing apprenticeships. In compiling this report, we sought to understand placement in both Registered Apprenticeship Programs and unregistered apprenticeships that were considered high quality because they met the criteria above.

Source: "Discover Apprenticeship Fact Sheet," U.S. Department of Labor, updated September 2020.
Note: For the regulations governing apprenticeships, see 29 C.F.R. § A29, https://www.ecfr.gov/current/title-29/subtitle-A/part-29.

Benefits of Apprenticeship to Workers and Employers

There is a substantial body of research documenting the benefits of apprenticeship for both employers and workers. Extant literature using rigorous quasi-experimental designs that provide reliable inferences about causal impacts finds that undergoing an apprenticeship is associated with increases in lifetime earnings. For example, a 2012 study of more than 20,000 registered apprentices in 10 states found that participants earned, on average, $5,839 more than comparable nonparticipants in the ninth year after enrollment, the equivalent of $98,718 more over a lifetime (Reed et al. 2012). Another study, in Washington state, that used a nonexperimental design to assess the impacts of apprenticeship on more than 7,000 participants found an even more dramatic boost in lifetime earnings, totaling over $235,000 (Hollenbeck and Huang 2014).

Other research has documented the value of apprenticeships to employers, including increased worker productivity, reduced turnover, and improved workplace culture and production processes. For example, one study examined the return on investment of apprenticeship for 13 businesses. Analysis of quantitative and qualitative data reported by one employer offering a medical assistant apprenticeship program revealed that costs borne by the employer were offset, nearly entirely, in the program's first year, and that the employer received a 40 percent internal rate of return on the program (Helper et al. 2016). That study also found that a large employer—with more than 300,000 employees worldwide—received a 50 percent rate of return on its apprentices compared with workers hired through other avenues. A 2020 study of the return on investment of apprenticeship for six apprenticeship sponsors found that industrial manufacturing technician apprenticeship programs saw 26 to 72 percent returns on investment for employers (Payne 2020). In one survey of a stratified sample of about 1,366 employers, 9 out of 10 of the 974 respondents (71.3 percent response rate) indicated they would strongly recommend apprenticeship as a strategy to other employers (Lerman, Eyster, and Chambers 2009).

Apprenticeship, when structured intentionally to meet the needs of underrepresented groups, can be an important vehicle for closing equity gaps in the workforce. One study found that an apprenticeship expansion effort in South Carolina saw a significant uptick in women's representation in apprenticeship (Kuehn 2017). There have also been efforts to close racial equity gaps by expanding access to apprenticeship through pre-apprenticeship programs (Tieszen et al. 2020).

Apprenticeship and the Military

Historically, apprenticeship within the military has been an option for TSMs through several different programs:

- **United Services Military Apprenticeship Program (USMAP)**. USMAP is the largest apprenticeship program in the country. It operates in the same way as a civilian registered apprenticeship, except that the apprentices are on active duty and working in military occupations. USMAP accounted for nearly 17 percent of registered apprentices in the U.S. as of 2018 (Congressional Research Service 2019). The program has registered about 100 occupations related to civilian fields with the DOL Office of Apprenticeship. USMAP is managed by the Navy and enables active-duty members of the U.S. Army, Navy, Air Force, Marines, Coast Guard, and Reserve and National Guard components to participate in apprenticeships in military occupations that meet the standards of civilian registered apprenticeships (Lerman, Eyster, and Chambers 2015).

- **SkillBridge Program.** SkillBridge is a Department of Defense program for TSMs that offers employment training, internship, and apprenticeship opportunities at more than 1,000 public and private organizations across the country. TSMs of all ranks can participate in SkillBridge if they meet eligibility requirements, which include (1) completion of at least 180 continuous days on active duty, (2) ability to complete the program within the final 180 days of their

active military service, and (3) approval from chain of command. Each military service branch may have other requirements for its active-duty members and members of its National Guard or Reserve.[11]

▪ **Post-9/11 Veterans Education Assistance Act of 2008 (Post-9/11 GI Bill).** After exit from the military, veterans can use their benefits under this federal law to receive a tax-free stipend while enrolled in college or a training program, including apprenticeships. The program offers education benefits to military service members, and it is one of the largest education benefit programs in the United States. Individuals who served in the military after September 10, 2001, can receive assistance with tuition and fees, as well as money for housing, books and supplies, and relocation expenses.[12]

▪ **Transition Assistance Program (TAP).** TAP provides information, tools, and training to ensure that service members and their spouses are prepared for their transition to civilian life. TAP includes a mandatory one-day employment preparation workshop for all TSMs, titled "Employment Fundamentals of Career Transition," and two optional two-day workshops, "DOL Employment Workshop" and "Career and Credential Exploration." Most of the TAP workshop material is geared toward helping TSMs land a full-time civilian job. Before the Apprenticeship Pilot, TAP workshops would discuss apprenticeship, but it constituted a small portion of the curriculum and workshop attendance time. TAP instruction on apprenticeship stresses the "earn and learn" aspects of apprenticeship, as well as the various industry sectors and occupations in which TSMs might find apprenticeship opportunities, how to go about finding such opportunities, and how GI Bill benefits might be used to pay for housing, books, and supplies while involved in an apprenticeship.[13]

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[11] SkillBridge, US Department of Veterans Affairs, updated March 11, 2022, https://benefits.va.gov/transition/skillbridge.asp. During SkillBridge participation, TSMs continue to receive military compensation and are covered by military benefits. However, release for SkillBridge is always mission-dependent, and the TSM's unit commander must authorize participation before the TSM may enter into any agreement with interested industry employment partners. There are many industry partners with opportunities in a variety of fields, such as energy, information technology, manufacturing, retail, transportation, and civil service (see "Military Members," DOD SkillBridge program, US Department of Defense, updated March 11, 2022, https://skillbridge.osd.mil/military-members.htm).

[12] The Post-9/11 GI Bill stipend is equivalent to the Monthly Housing Allowance of an E-5 with dependents. Approved employers can use this benefit as a recruiting tool by using wages plus the stipend to attract veterans for apprenticeship positions. Post-9/11 GI Bill recipients can also receive up to $83 per month for books and supplies. In 2018, the Department of Veterans Affairs spent about $10.7 billion on 700,000 beneficiaries. "On-the-Job Training and Apprenticeships," US Department of Veterans Affairs, updated January 13, 2022, https://www.va.gov/education/about-gi-bill-benefits/how-to-use-benefits/on-the-job-training-apprenticeships/.

[13] TAP, provided for under 10 U.S.C. 1411, is a cooperative effort of DOL, the Department of Defense, the Department of Education, the Department of Homeland Security, and the Department of Veterans Affairs, as well as the Small Business Administration and the Office of Personnel Management. The US Department of Labor's *DOL Career and Credential Exploration: Participant Guide* emphasizes key aspects of how apprenticeships can be a pathway for TSMs making the transition to civilian employment (US DOL 2021). For

Study Design

To understand the implementation of the Apprenticeship Pilot, the study team conducted 46 remote semistructured interviews, participated in Apprenticeship Pilot work group meetings,[14] analyzed program data, and reviewed relevant documents. See appendix B for how these sources of data were used to answer research questions.

Interviews were conducted at two points in time, as shown in appendix C. The first set of interviews was conducted with nine respondents—including Serco and DOL VETS staff—in the fall of 2020 to fulfill the following goals: (1) document start-up and early progress of the Apprenticeship Pilot in meeting program goals, (2) inform DOL as it made final adjustments to the Apprenticeship Pilot, and (3) inform the planning efforts that were underway for the Employment Navigator and Partnership Pilot and other future efforts. The second round of interviews was conducted in the spring of 2021 to gain different perspectives and insight on implementation, and as a primary source of information for this report. The 37 interview respondents included national pilot staff, counselors, VETS administrators, partners (employers, military base staff, other apprenticeship partners), and pilot participants. A participant is defined throughout this report as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. We analyzed these interviews around a set of key themes that were identified early in the study period and then further refined them on the basis of themes that emerged during coding of interview notes.

In addition to conducting interviews, members of the research team attended working group meetings and internal briefings at DOL. Early in the study, the purpose of this participation was to understand early implementation of the Apprenticeship Pilot and to help inform the design of the TAP4ME case management system that was developed by pilot staff and used by counselors to collect data on participant characteristics, program engagement, and outcomes. Ongoing participation in these meetings provided the research team with additional understanding of pilot design, implementation, and progress toward meeting participation and outcome goals; it also informed plans for analysis of TAP4ME data.

The study team also analyzed data collected by counselors and entered in the TAP4ME data system. The data allowed us to analyze pilot participation trends, participant characteristics, service receipt, and two participant outcomes: whether a participant submitted one or more apprenticeship applications and whether a participant accepted an apprenticeship position. The research team also

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more information on the three workshops, including the participant guide and the presentation slides used by workshop presenters, see "Transition Assistance Program," US Department of Labor, accessed December 10, 2021, https://www.dol.gov/agencies/vets/programs/tap.

[14] To launch the pilot, the following working groups were established: Communications; Digital, Data, and Policy; Employer Connections; Placement Services; and the Senior Strategic Level Working Group.

estimated two noncausal multivariate regression models to better understand the association between TSM characteristics and apprenticeship outcomes to answer Research Question 4.

Finally, the study team conducted a review of relevant documentation used to plan, implement, and monitor progress of the pilot, including pilot progress reports, work group meeting notes, and materials used by counselors when briefing TSMs on the pilot.

Study Limitations

This study of the Apprenticeship Pilot has several limitations. The study was conducted during a global pandemic, a time of high unemployment, turbulence, and uncertainty. It is important to recognize this context in assessing the implementation of the pilot and drawing lessons for future efforts.

There are also several limitations on the study's ability to assess participant outcomes. First, hourly wage data at the time of placement in apprenticeships were often missing from the TAP4ME data system managed by pilot staff, making it difficult to assess the earnings of placed participants.

Second, the study did not have information on employment outcomes beyond initial placement in an apprenticeship, including whether participants completed their apprenticeships and data on employment and earnings during and after completion of apprenticeships.[15] In addition, it would be valuable to track the degrees and credentials that participants earn during apprenticeships, and whether the apprentices stayed with their employers and advanced along a career pathway.

Third, the study outcome analysis is limited to the period of the pilot, from April 1, 2020, through March 31, 2021. After March 31, 2021, pilot staff continued to provide placement support to TSMs through a modified service delivery model and limited recruitment of new TSMs through September 29, 2021.[16] Although this report does provide aggregate data on placement during the extended period, the detailed participant-level analysis is restricted to the year for which we have these data.

Last, it is important to note that this study was not designed to assess the impacts of the program. That is, this study does not answer the question of whether participant outcomes were the result of the Apprenticeship Pilot or the participants would have obtained apprenticeships without the assistance of the pilot.

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[15] In 2020, the average length of a registered apprenticeship was 5,890 hours, or just under three years, with many apprenticeship programs lasting five years; therefore a reasonable follow-up period would track apprentices for at least three to five years following pilot participation.

[16] As the official period of performance came to an end, DOL added a six-month wind-down or transitional phase for the pilot (through September 29, 2021), during which time limited recruitment occurred and the focus was on placing participants who were already enrolled in the pilot into apprenticeships.

Organization of the Report

The remainder of this report is organized into the following chapters:

- **Chapter 2: The Pilot Model.** This chapter discusses the Apprenticeship Pilot goals and model and provides context on the impact of the COVID-19 pandemic on the pilot model.

- **Chapter 3: Recruiting TSMs into the Pilot.** This chapter describes the outreach process to inform TSMs about the pilot and encourage participation, including initial recruitment methods, early changes to use remote recruitment methods, and challenges encountered in recruiting participants. The chapter also describes the results of the recruitment efforts, including patterns of participation and characteristics of participants.

- **Chapter 4: Service Delivery Approach.** This chapter discusses the structure and delivery of services to pilot participants, including basic flow of participants through key pilot services, how participants were assessed, how pilot staff and participants identified available apprenticeship openings, and how pilot staff assisted participants in applying for and securing apprenticeships.

- **Chapter 5: Pilot Outcomes.** This chapter analyzes Apprenticeship Pilot participants' outcomes (i.e., their applications to apprenticeship positions and whether they accepted apprenticeship offers), changes in participant outcomes over time, and the characteristics of pilot participants securing apprenticeship (in comparison with pilot participants that did not secure apprenticeships).

- **Chapter 6: Lessons Learned.** This final chapter describes the overall lessons learned from this implementation study, including strategies for promoting apprenticeship to TSMs and increasing their placement into apprenticeships, and other lessons to inform future efforts.

Chapter 2: The Pilot Model

This chapter addresses Research Question 1: *How was the program model operationalized, and what factors affected design and implementation?* It describes the Apprenticeship Pilot goals and model, as well as changes made to the pilot design in response to the COVID-19 pandemic.

Apprenticeship Pilot Goals and Context

In fiscal year 2019, Congress authorized $3.5 million in funding for VETS to implement the Apprenticeship Pilot.[17] The pilot operated from April 1, 2020, to March 31, 2021. As stated in a one-page overview of the program issued by VETS, the pilot's overall goal was to "identify, track, and increase the number of transitioning service members (TSMs) and their spouses hired prior to separation from the military into Registered Apprenticeship Programs."[18] The pilot also aimed to engage with current and potential apprenticeship employers and sponsors to expand apprenticeship opportunities for transitioning service members and military spouses.

During implementation, the focus of the pilot expanded to include placement of TSMs into high-quality unregistered apprenticeships.[19] High quality was determined by the presence of a paid job, work-based learning, mentorship, classroom learning, and an opportunity to earn credentials.

At the center of the Apprenticeship Pilot was the role of an Apprenticeship Placement Counselor ("counselor"), whose job it was to educate TSMs about apprenticeship and provide support in applying for apprenticeships. These dedicated counselors were to provide information on apprenticeship within TAP workshops (described earlier) and give interested TSMs one-on-one assistance to access apprenticeship opportunities. Before the Apprenticeship Pilot, TAP workshops would discuss apprenticeship, but it constituted a small portion of the curriculum and workshop attendance time.

The onset of the COVID-19 pandemic just before the official start-up of the pilot affected some aspects of the Apprenticeship Pilot design. Initially, in collaboration with the Department of Defense, eight military bases were selected to participate in the pilot (table 2.1), with two bases representing

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[17] Consolidated Department of Defense and Labor, Health and Human Services, and Education Appropriations Act of 2019, and Continuing Resolution (Div. A), Pub. L. No. 115-245, 132 Stat. 360 (2018), https://www.congress.gov/115/plaws/publ245/PLAW-115publ245.pdf.

[18] US Department of Labor, accessed December 1, 2021 https://www.abc.org/Portals/10/DOL%20VETS%20Apprenticeship%20Pilot%20High%20Level%20Summary.pdf.

[19] Prior to the official April 1, 2020, start of the pilot, VETS decided that while registered apprenticeships should be the focus of placement efforts under the pilot, if suitable registered apprenticeships were not available it was acceptable to place pilot participants into unregistered apprenticeships.

each of four military branches (i.e., Army, Marine Corps, Navy, and Air Force).[20] As the pandemic unfolded, the assignment of counselors to the individual military bases became less of a priority because counselors shifted from serving TSMs in person on their bases to providing services remotely to TSMs at other military bases worldwide through remote TAP workshop presentations and remote meetings for counseling. Later, a shift to a hybrid model occurred at some bases (i.e., involving both in-person and remote service delivery between the counselor and pilot participants), which is discussed in more detail later in the report.

Table 2.1: Original Eight Military Installations Participating in the Apprenticeship Pilot

Base	State	Branch	Number of counselors
Fort Bliss (Bliss)	TX	Army	3
Fort Bragg (Bragg)	NC	Army	3
Marine Corps Air Station Cherry Point (Cherry Point)	NC	Marine Corps	1
Marine Corps Air Station Miramar (Miramar)	CA	Marine Corps	1
Naval Station Norfolk (Norfolk)	VA	Navy	3
Naval Station San Diego (San Diego)	CA	Navy	3
Nellis Air Force Base (Nellis)	NV	Air Force	1
Travis Air Force Base (Travis)	CA	Air Force	1

Source: Internal documents obtained from VETS and Serco, Inc.

Pilot Model

Figure 2.1 provides a logic model describing the Apprenticeship Pilot, including inputs, project activities, intended outputs, intermediate and long-term outcomes, and contextual factors that could affect pilot implementation and TSM outcomes.[21]

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[20] No Coast Guard installations were included in the Apprenticeship Pilot, although a few TSMs from the Coast Guard were served through the pilot.

[21] For additional information on use of logic models in program evaluation, see McLaughlin and Jordan (2015).

Figure 2.1: Apprenticeship Pilot Logic Model

Inputs →	Activities →	Outputs →	Outcomes →	Goals

» TSMs in need of skills and credentials to access high-wage, high-demand jobs
» Business and industry in need of skilled workers
» Eight pilot sites (installations from four branches of military)
» Military bases worldwide
» Counselors
» Serco administrators and national pilot staff
» VETS administrators
» Partners
	▪ Services
	  » TAP workshop briefings
	  » Initial meetings with TSMs
	  » Matching participants to apprenticeship opportunities
	  » Assistance with apprenticeship applications
	▪ Serco support
	  » Recruitment and training of counselors
	  » Employer
	  » engagement
	  » Quality control
	  » Data tracking in TAP4ME
	  » Development of partnerships
		» Number of participants briefed
		» Number of participant engagements
		» Number of participants who submitted an application
		» Number of participants placed in apprenticeship
		» Number of employers engaged
			» Increase awareness of apprenticeship among TSMs
			» Internal target of placing 385 TSMs in apprenticeship via the Apprenticeship Pilot
				» More TSMs placed in apprenticeship
				» More employers offering apprenticeships to TSMs

Contextual factors: COVID-19; environmental factors including base dynamics and resources; timing and industry of apprenticeship opportunities; broader economic and labor market trends

Notes: TSM refers to transitioning service members and their spouses. Counselors refers to Apprenticeship Placement Counselors. Serco is the contractor hired to administer the pilot. TAP refers to the Transition Assistance Program. A *participant* is defined as a TSM who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. COVID-19 was declared a pandemic in March 2020 and continued for the duration of the pilot and extension period (April 2020 through September 2021).

Pilot Inputs

A key input for the initiative is the TSMs who are served under the program. Other inputs to the pilot included the following:

- **Apprenticeship Pilot staff,** including the following:

  » **Serco pilot administrators** responsible for overseeing the initiative, including the pilot's design, start-up, and ongoing operation
  » **National pilot staff** employed by Serco, including
    » the pilot manager, who was the primary staff person responsible for the management of the pilot at the national level;
    » the communications coordinator, whose role was to help promote the pilot to businesses that might hire TSMs as apprentices;
    » the employer outreach coordinators, whose role was to engage employers and help identify apprenticeship openings to send to counselors; and
    » the quality assurance coordinator, a position added later in the pilot with the goal of improving and standardizing the role of counselors and improving data tracking
  » **Counselors**, who conducted outreach to TSMs and helped TSMs to assess their interests, abilities, and skills, and place them in apprenticeships

- **Business and industry,** especially employers with active apprenticeship programs that could provide the openings to which TSMs could apply during their participation in the pilot

- **Other stakeholders and partners,** who played roles in supporting the rollout and ongoing operation of the pilot, including TAP workshop coordinators; military base commanders and staff who served as primary contacts for counselors and other pilot staff (officially referred to as Designated Government Representatives[22]); and a range of other partners that could help with identifying and securing apprenticeship opportunities for TSMs, including the federal Office of Apprenticeship and apprenticeship state directors, SkillBridge program personnel, staff at American Job Centers, Jobs for Veterans State Grants staff, and state VETS directors

- **DOL VETS staff**, who played an active role in supporting implementation of the pilot by providing connections to employers, partners, and resources; knowledge about apprenticeships; and oversight of the Apprenticeship Pilot.

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[22] "The DGR Role and Responsibilities Student Guide," Center for Development of Security Excellence, accessed December 1, 2021, https://www.cdse.edu/Portals/124/Documents/student-guides/shorts/ISS0072-guide.pdf.

Apprenticeship Pilot Activities

During DOL TAP workshops, counselors gave short briefings about the Apprenticeship Pilot and apprenticeship opportunities, followed by a question-and-answer period. After the briefing, TSMs would follow up with counselors to get more information or to set up an initial meeting to assess TSM needs to be able to tailor support. Counselors would work with TSMs to identify apprenticeship openings that were a match to their capabilities, experience, interests, and geographic preferences. They would then assist TSMs in applying for and securing apprenticeship positions.

Counselors were also responsible for maintaining data in the case management data system (TAP4ME), including data on TSM characteristics, services received, and outcomes. National pilot staff also played an important role in the Apprenticeship Pilot, including recruiting and training counselors, monitoring pilot activities and outcomes, making adjustments and refinements to the design to enhance services and participant outcomes, and encouraging employers to get involved.

Outputs

The outputs identified in the logic model (figure 2.1) are intended to capture results of services provided under the Apprenticeship Pilot, including the number of TSMs briefed; the number of TSMs who expressed interest in the pilot and provided contact information to a counselor, who created a record for the TSM in TAP4ME (defined as "recruits"); and the number of TSMs who continued working with counselors and became participants. In addition, as the pilot evolved, a key activity and resulting output was conducting outreach to employers to make them aware of the initiative and the opportunity to hire participants from the pilot into open apprenticeship positions.

Pilot Outcomes and Goals

The Apprenticeship Pilot focused on two key outcomes: the submission of applications to apprenticeship positions and placement in apprenticeship positions—defined as an accepted offer of an apprenticeship position. These outcomes translated into an internal target for placements. VETS set an initial target of placing 385 TSMs in apprenticeships during the one-year pilot. This was based an estimate that 16 counselors working out of eight military bases could potentially each place about two TSMs in apprenticeships per month over the course of 12 months. In early 2021, VETS revised the internal target from 385 placements to 70 placements, based on an assessment of progress to date and anticipated placements during the final three months of the pilot.

These targets were aligned with the primary goals of the pilot: to increase the number of TSMs placed in apprenticeships and to increase the number of employers offering apprenticeships to TSMs.

Contextual Factors

As shown at the bottom of the logic model (figure 2.1), a host of external factors can affect the design, implementation, and participant outcomes of the pilot, including the COVID-19 pandemic; military base dynamics and resources; location, timing, and industry of apprenticeship opportunities; and broader economic and labor market trends.

Chapter 3: Recruiting TSMs into the Pilot

Recruitment into the Apprenticeship Pilot was the first step in expanding access to apprenticeships for TSMs. This chapter addresses Research Question 2: *What were the approaches to outreach and recruitment into the pilot, and what were the characteristics of participants?* The chapter also details changes made to the Apprenticeship Pilot model as pilot staff adjusted to challenges created by the COVID-19 pandemic. Key findings are as follows:

- The shift to remote briefings, following the onset of the pandemic, greatly increased the number of TSMs informed about the pilot. Nearly 37,000 TSMs were briefed about the pilot at TAP workshops during the pilot.

- Briefings at TAP workshops were the most common source of recruitment, although counselors also used other communication channels to engage TSMs.

- There were challenges in promoting the Apprenticeship Pilot to TSMs, including a lack of understanding about apprenticeship, the content and format of the briefing, and competing alternatives presented to TSMs. TAP workshop briefings were revised and lengthened over time to describe the pilot in greater detail and convey key and consistent messages that would sell the pilot to TSMs, including putting an emphasis on careers with high demand for apprentices.

- The Apprenticeship Pilot served 1,492 participants. Rapid growth in participants in the last five months of the pilot reflects the shift to worldwide recruitment, outreach through remote briefings, and large numbers of TSMs briefed.

- Participants were nearly all service members (97.7 percent) as opposed to spouses (2.3 percent), were predominantly male (78.2 percent), were 30.3 years of age on average, and tended to be in the early to middle stage of their Armed Forces career.

Recruitment Sources and Activities

When the COVID-19 pandemic emerged in mid-March 2020—just before the official launch date for the pilot—TAP workshops at the eight military bases were suspended along with Apprenticeship Pilot outreach efforts. In July 2020, VETS determined that with the ability to deliver briefings remotely and a desire to increase recruitment into the pilot, there was no longer a rationale for pilot outreach activities and services to be limited to eight military bases. Therefore, any eligible TSM could participate in the pilot, regardless of base location. Counselors began conducting remote briefings via videoconference during DOL TAP workshops at military bases worldwide (see figure 3.1).

Figure 3.1: Military Base Locations of Recruits in the United States and Abroad, April 2020 to March 2021

Legend:
- Original pilot military bases
- Additional military base locations by remote briefing

Map labels: Travis, CA; Nellis, NV; Miramar, CA; San Diego, CA; Bliss, TX; Norfolk, VA; Bragg, NC; Cherry Point, NC; AK; HI

Abroad labels: United Kingdom; Italy; Germany; Bahrain; Turkey; Japan; South Korea; Puerto Rico
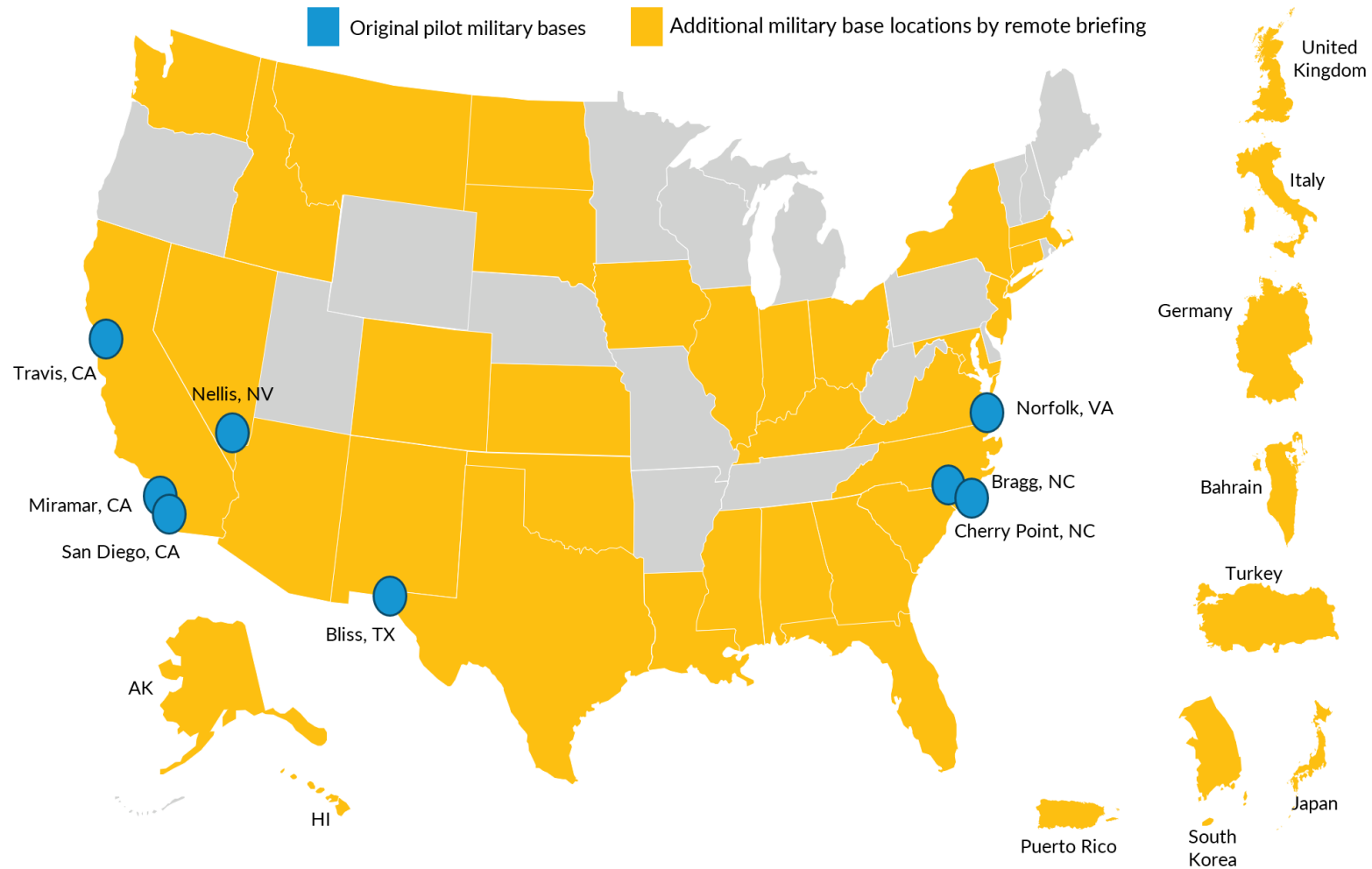
Source: TAP4ME Data.
Notes: Recruits are defined as a TSM or spouse who expressed interest in the pilot and provided contact information to a counselor, who created a record for the TSM in TAP4ME. TAP4ME is the data system developed by pilot staff to capture participant characteristics, engagement, services, and outcomes.

- **The shift to remote briefings greatly increased the numbers of TSMs informed about the pilot from what was initially anticipated**.

Over the course of the pilot, counselors conducted more than 1,500 briefings informing nearly 37,000 TSMs about apprenticeship. In addition to responding to challenges created by the pandemic, the shift to remote briefings furthered the goals of pilot staff to expand recruitment and outreach efforts related to apprenticeship. As one VETS staff member interviewed said, "Switching to remote briefings was a challenge that ended up being an opportunity. . . . I do think that face-to-face would have been better, but we turned [the circumstances surrounding the pandemic] into an opportunity to broaden the [recruitment] pool."

An average of about 24 TSMs attended each briefing, although attendance at DOL TAP workshops varied considerably, from fewer than 15 to more than 100 attendees. Counselors conducted over four-fifths (83 percent) of their TAP workshop briefings remotely, and briefings reached TSMs beyond the eight bases where the counselors were originally assigned.

- **Briefings at TAP workshops were the most common source of recruitment, although counselors also used other communication channels to engage TSMs.**

The DOL TAP workshops provided an opportunity for counselors to regularly and directly present information about the Apprenticeship Pilot to TSMs and served as the most important source and pipeline of new recruits to the pilot. By presenting information about the pilot at TAP workshops, counselors were able to raise awareness of apprenticeship as one option (and an additional career pathway) among the various education, training, and employment opportunities available to TSMs following active military service. One counselor characterized the briefings at TAP workshops as a "forced bottleneck" that proved to be an opportune time for TSMs to learn about apprenticeship and the pilot as they approached their transition from active military service to civilian life.

As shown in figure 3.2, the three TAP workshop courses—Employment Fundamentals of Career Transition (1,053 recruits), DOL Employment Workshop (101 recruits), and Career and Credential Exploration (52 recruits)—were the largest source of referrals; including both remote and in-classroom course offerings, they accounted for nearly four-fifths of recruits (1,656 out of 2,024 recruits). The remaining recruits came from a variety of other sources, including word of mouth, email, referrals from transition counselors (staff helping TSMs with all aspects of transition), and other miscellaneous sources (i.e., seeing a flyer or attending a job fair). Only 45 recruits (2.3 percent of the total) were spouses, and most spouses did not hear about the pilot through the DOL TAP workshops. Of the 45 spouses recruited, 19 were recruited by word of mouth and 8 were recruited from "Other" sources.

Figure 3.2: Referral Sources and Number of Recruits for the Apprenticeship Pilot, April 2020 to March 2021
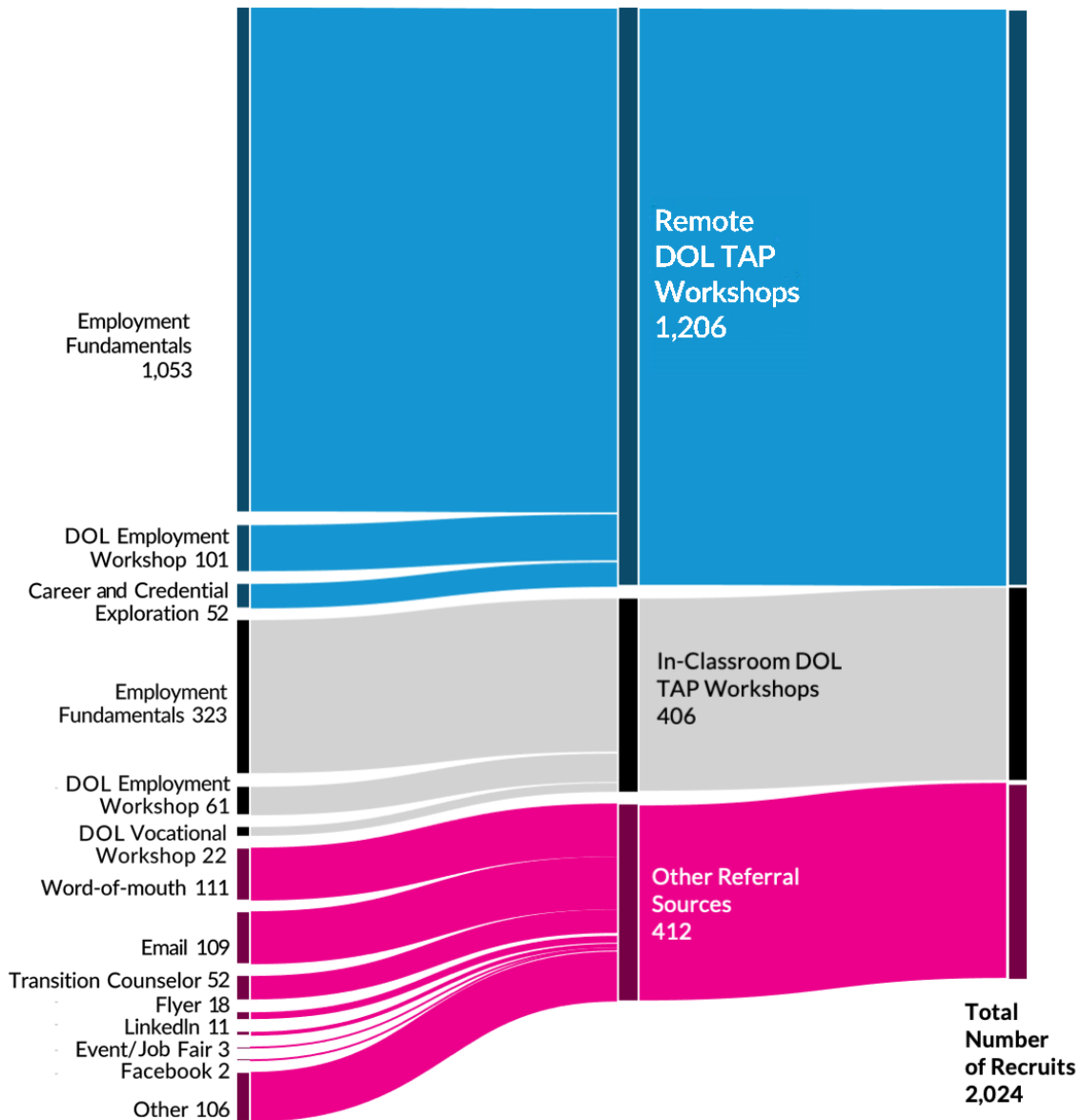
Source: TAP4ME data.

Notes: Employment Fundamentals = Employment Fundamentals of Career Transition Course. The "Other" category includes all other referral sources not already categorized in the figure and includes, for example, TAP Center tabletop presentations, walk-ins, and SkillBridge referrals. Recruits are defined as a TSM or spouse who expressed interest in the pilot and provided contact information to a counselor, who created a record for the TSM in TAP4ME. TAP4ME is the data system developed by pilot staff to capture participant characteristics, engagement, services, and outcomes.

- **There were challenges in promoting the Apprenticeship Pilot to TSMs, including a lack of understanding about apprenticeship, the initial content and format of the briefing, and competing alternatives presented to TSMs.**

Out of all TSMs briefed, 2,024 were recruited, which meant they had an engagement with a counselor and expressed interest in the pilot. This represented 5 percent of the number briefed about the pilot.

The low numbers of TSMs that followed up and expressed interest in the pilot after the briefing points to several challenges. Apprenticeship Pilot briefings were initially about five minutes in length, supported by a brief slide presentation and followed by questions and answers. One counselor observed that counselors tried to keep the presentations short, engaging, and focused, in part because the facilitators of the one- and two-day workshops have much to cover in their workshops, and because TSMs are loaded with lots of information related to employment, training and education, and entrepreneurship opportunities that compete with apprenticeship opportunities. A pilot staff member acknowledged, "Apprenticeship isn't part of the messaging at the beginning or during the military life cycle. We parachuted in during their last few months of services and mentioned apprenticeship, but they've been thinking for years about other options, so it wasn't a norm . . . It was never a primary option and was really only introduced to TSMs at transition."

Four counselors shared that few TSMs had familiarity with apprenticeship as a career pathway, its advantages, and what entering apprenticeship entailed. For example, one counselor indicated that many TSMs did not understand the basics of the "earn and learn" underpinnings of apprenticeship, with its combined classroom and on-the-job training requirements that are conducted over one or more years. There was also a lack of understanding that apprenticeships extend well beyond traditional fields (such as construction trades) to a variety of dynamic and high-growth/high-paying occupations.

One military base staff person described that it might have been useful to include employers in the briefings to talk about tangible apprenticeship opportunities. "Having these companies come in to explain what they do and what they're looking for in a person is a big plus. It's not until a TSM gets a chance to really be involved with the company that they get a chance to get a good feel [for] a career they may enjoy doing after they get out [of the military]."

- **The content of Apprenticeship Pilot briefings was refined to allow more time to describe the pilot and convey key and consistent messages that would sell the pilot to TSMs, including putting an emphasis on careers with high demand for apprentices.**

In October 2020, in consultation with counselors, the pilot manager made changes to the briefing approach. While previously counselors had introduced key aspects of apprenticeship and an overview of how the pilot could help the TSM secure an apprenticeship, the revised briefing included information on 16 career clusters with labor market demand. It was also lengthened from about 5 minutes to be 15–20 minutes, including questions (see appendix D).

The pilot manager also instituted new training on how to present the material, which emphasized the need to "stick to the script." Three counselors indicated that they still made slight modifications during their presentations or included examples of specific apprenticeship openings, to tailor briefing content to the TSMs attending the workshop. For example, one counselor described including examples from recent employer interactions as part of the TAP workshop briefing and including internet links to current apprenticeship opportunities to spur TSM interest. The counselor noted that although the revised script and training were very helpful and a standardized approach across counselors was important for disseminating consistent information to TSMs, it was still important to tailor the briefing material to make better personal connections with TSMs.

- **The shift to remote briefings increased the onus on TSMs to reach out for additional information given less in-person access to counselors during or immediately after TAP workshops.**

The shift to remote briefings also changed how TSMs followed up with counselors to learn more about the pilot following TAP workshops. With in-person briefings, counselors had the opportunity to meet with interested TSMs during or directly following the TAP workshop. In some instances, for example, counselors would set up a table outside the conference room, where TSMs could drop by during a break or immediately after the TAP workshop to discuss their interest. With the shift to remote briefings, the onus shifted to the TSM to follow up (generally via email) with the presenting counselor or national pilot staff. In some instances, TSMs followed up directly with the counselor that conducted the briefing they attended. In other instances, the pilot manager was notified by email about a TSM's interest in the pilot following the TAP workshop briefing and assigned the TSM to a particular counselor.[23] One counselor shared that the remote briefings could make it more difficult for TSMs to connect with the pilot, requiring "additional effort on [the part of] a TSM who is interested in participating, because they can't just walk into the office . . . they have to find the person, find their email, phone number, etc. Being remote just adds additional barriers."

Results of Recruitment Efforts

In this section, we describe the results of the recruitment efforts and the characteristics of pilot participants. The Apprenticeship Pilot served 1,492 TSMs during the period from March 2020 through April 2021. Recruitment efforts yielded a group of participants with diverse characteristics and experiences (see appendix E). Most participants were service members themselves, and approximately 2 percent were spouses.

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[23] The assignment of the TSM to a particular counselor depended, in part, on preferences of the TSM, the counselor that made the original presentation to the TSM, and where the TSM planned to relocate after transition.

- **Rapid growth in participants in the last five months of the pilot reflects the shift to worldwide recruitment, increased briefings, and large numbers of TSMs briefed.**

The number of new participants added each month grew slowly between April 2020 and September 2020, from 30 to 91. After a slight dip in October 2020, the monthly number of new participants grew rapidly, to a high of 330 new participants in February 2021 (figure 3.3).

Figure 3.3: Numbers of Apprenticeship Pilot Participants, April 2020 to March 2021
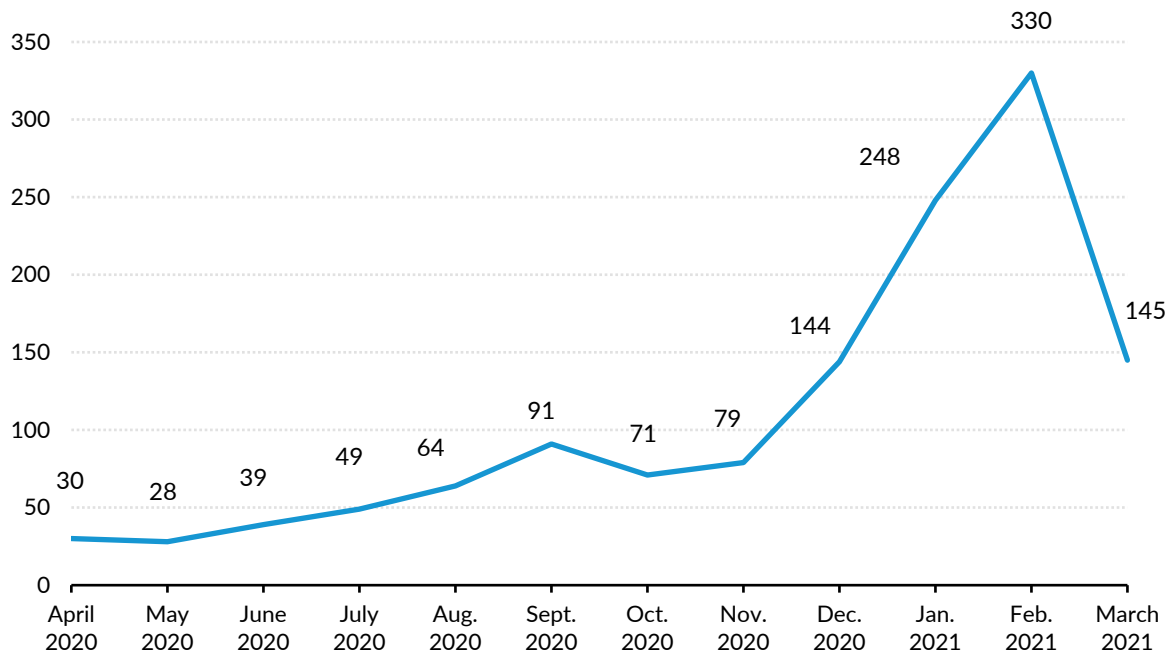
Source: Authors' analysis of TAP4ME data.

Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. The figure excludes 167 participants who had a recorded engagement before the beginning of the pilot (April 1, 2020) and 7 participants for which the recruitment date was missing. N = 1,492 participants.

- **Most participants were younger than 30, and fewer than one-quarter had a combined education level of a bachelor's degree or higher.**

The average age of participants was 30, but more than half of participants were 27 or younger, and the most frequently reported age was 23 years old (not shown in figure). Counselors were therefore predominantly working with younger TSMs, although they also served several older TSMs. Participants were largely male (78.2 percent).

More than 50 percent of participants reported their highest level of education as a high school diploma or equivalent, and nearly 40 percent indicated they had more than a high school diploma (figure 3.4).

- **Most participants were early in their career to midcareer versus more experienced.**

Figure 3.4 shows the seniority and pay grade among Apprenticeship Pilot participants. Participants reflected varying levels of seniority, with most (78.3 percent) being early in their career or midcareer. "First termers," those at the lowest pay grades, represented 39.3 percent, and midcareerists represented 39 percent of participants overall. A smaller percentage (21.7 percent) were more experienced or higher-ranking TSMs (16 percent were long-term enlisted, 4.4 percent were commissioned officers, and 1.3 percent were warrant officers).

Figure 3.4: Characteristics of Apprenticeship Pilot Participants, April 2020 to March 2021
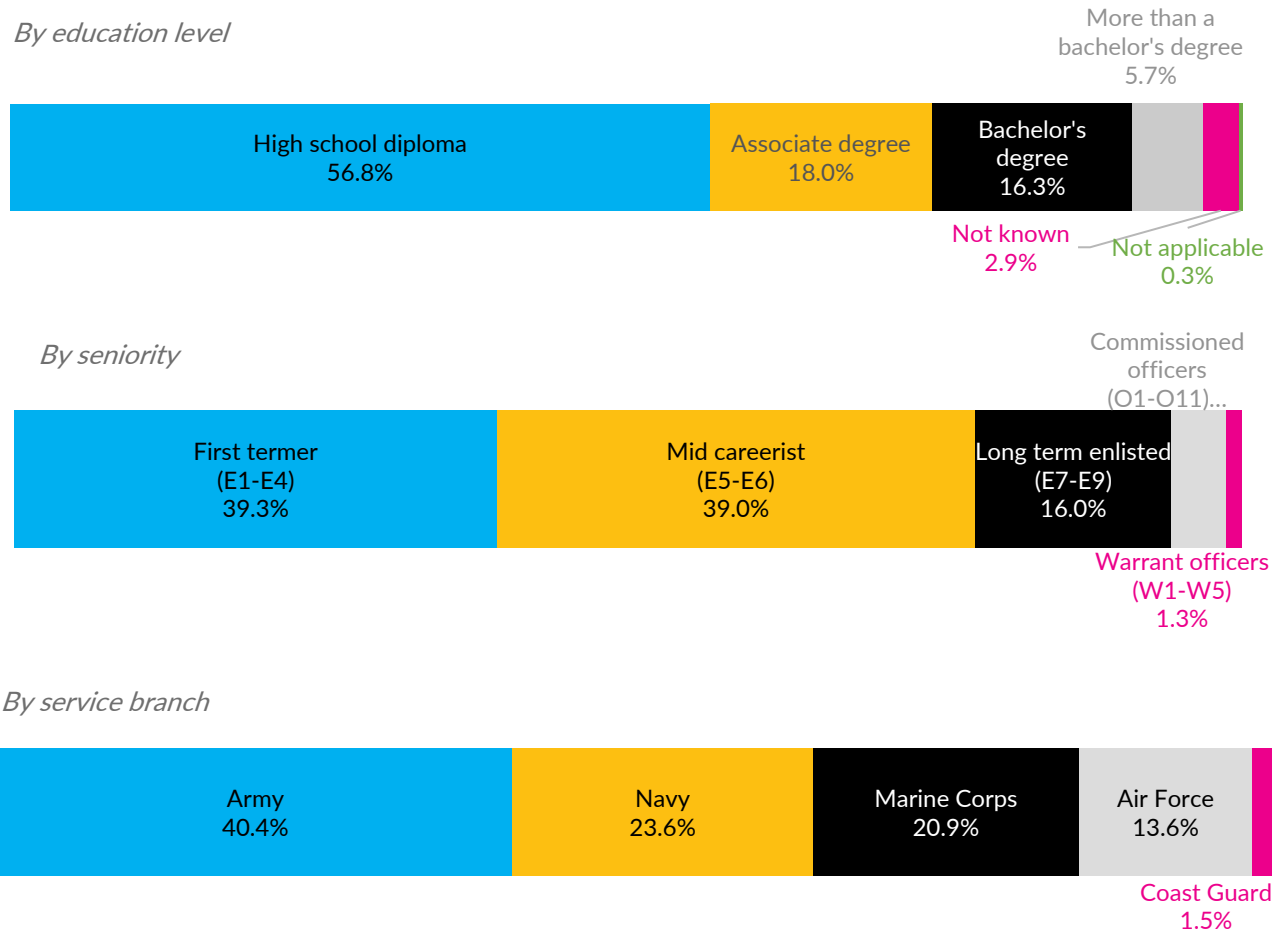
By education level

High school diploma 56.8%	Associate degree 18.0%	Bachelor's degree 16.3%		

More than a bachelor's degree 5.7%

Not known 2.9%

Not applicable 0.3%

By seniority

First termer (E1-E4) 39.3%	Mid careerist (E5-E6) 39.0%	Long term enlisted (E7-E9) 16.0%		

Commissioned officers (O1-O11)...

Warrant officers (W1-W5) 1.3%

By service branch

Army 40.4%	Navy 23.6%	Marine Corps 20.9%	Air Force 13.6%	

Coast Guard 1.5%

Source: Authors' analysis of TAP4ME data.
Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. Information on highest educational attainment is missing for 294 participants. N = 1,492 participants.

- **Participation also varied by military branch and base, with most participants from the Army, and Fort Bragg serving the largest percentage of pilot participants.**

As shown in figure 3.4, most participants were drawn from the Army (40.4 percent), with the Navy (23.6 percent) and Marine Corps (20.9 percent) having the next-highest representations. Table 3.1 shows the patterns of services provided by counselors at each military base, not where participants were located. Norfolk and Fort Bragg counselors served the largest percentages of pilot participants, at 26.8 percent and 16.0 percent, respectively (see table 3.1).

Table 3.1: Apprenticeship Pilot Participants Assigned to and Served by Counselors at the Eight Military Bases, April 2020 to March 2021

Base	Number of counselors	Pilot participants	Percentage by base
Norfolk	3	400	26.8%
Bragg	3	239	16.0%
San Diego	3	210	14.1%
Bliss	3	159	10.7%
Miramar	1	157	10.5%
Nellis	1	131	8.8%
Cherry Point	1	108	7.2%
Travis	1	76	5.1%
Total	**16**	**1,492**	**100.0%**

Source: Authors' analysis of TAP4ME data.

Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. Twelve TSMs included in the total count of participants were not identified as being assigned to a counselor at any of the eight installations. *N* = 1,492 participants.

Chapter 4: Service Delivery Approach

This chapter describes key elements of the Apprenticeship Pilot service delivery approach once individuals express interest in participating in the pilot. It also addresses how the pilot staff identified apprenticeship opportunities for participants. It addresses Research Question 3: *What activities, strategies, and resources were used under the pilot to assist participants to learn about, search for, and secure apprenticeship?*

Key findings include the following:

- Planning and support for participants aimed to account for their qualifications and experience, job and career interests, and location preferences, and were often connected to participant's expected transition date.

- About 60 percent of participants had three or fewer engagements with their assigned counselor, and on average, they engaged with counselors 4.1 times.

- The initial approach to identifying apprenticeship opportunities for participants using Apprenticeship.gov shifted to relying on employer outreach coordinators hired to directly engage employers in identifying apprenticeship opportunities that would better match occupational, locational, and other requirements of participants.

- Other strategies were also adopted, including remote employer presentations and remote job fairs, along with additional work by counselors to engage employers and support application to apprenticeships.

- Staff turnover was a challenge to expanding the caseload and maintaining continuity of service delivery throughout much of the pilot.

Participant Intake, Assessment, and Service Delivery

Although there was variability for individual TSMs, figure 4.1 provides a participant flow diagram that captures the typical steps TSMs went through as they progressed from learning about the Apprenticeship Pilot to being placed into an apprenticeship. Following TAP workshop briefings or other referrals to the program, a TSM would signal interest in the program, meet with the assigned counselor for the first time, and then, if still interested in apprenticeship, work with a counselor to identify and secure an apprenticeship opening. Counselors took steps to provide individualized support to participants by collecting information at the start of the process and then using this information to guide their work with TSMs.

Figure 4.1: Apprenticeship Pilot Participant Flow through Key Pilot Services

Step 1
Recruitment through TAP workshop or other sources

Step 2
TSM indicates interest in learning more about the pilot

Step 3
TSM assigned to counselor and scheduled for an initial meeting

Step 4
TSM meets with counselor to learn more about the pilot

Is TSM interested in participating in the pilot?

Yes

No

Step 5
Intake and assessment of TSM interests related to apprenticeship placement and service delivery preferences

Step 6
Plan developed for applying to apprenticeships that is agreed upon by TSM and counselor

TSM not enrolled and may be referred to other transition assistance

Step 7
Apprenticeship applications and continued support, including meetings, correspondence, and application assistance

Step 8
*Participants are placed into apprenticeships (*registered or unregistered)

Placement data recorded in TAP4ME; placed participants exit pilot; unplaced participants referred to additional services, including other service providers and assistance to support their transition

Source: Authors' analysis of interviews and review of internal documents.
Notes: TSM refers to transitioning service members and their spouses. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. TAP4ME is the case management system used to capture participant characteristics, engagement, services, and outcomes.

Under the pilot, counselors were primarily responsible for providing services directly to participants. As one VETS staff member put it, "We wanted TSMs to have someone to guide them through the process, navigate them through apprenticeships, and help them get things in order. We felt that a personal touch would be the best way to get people placed." At the four military bases with three counselors, one counselor was designated as the lead, with additional responsibilities of overseeing work by the other two counselors and taking the lead on quality control for data submitted

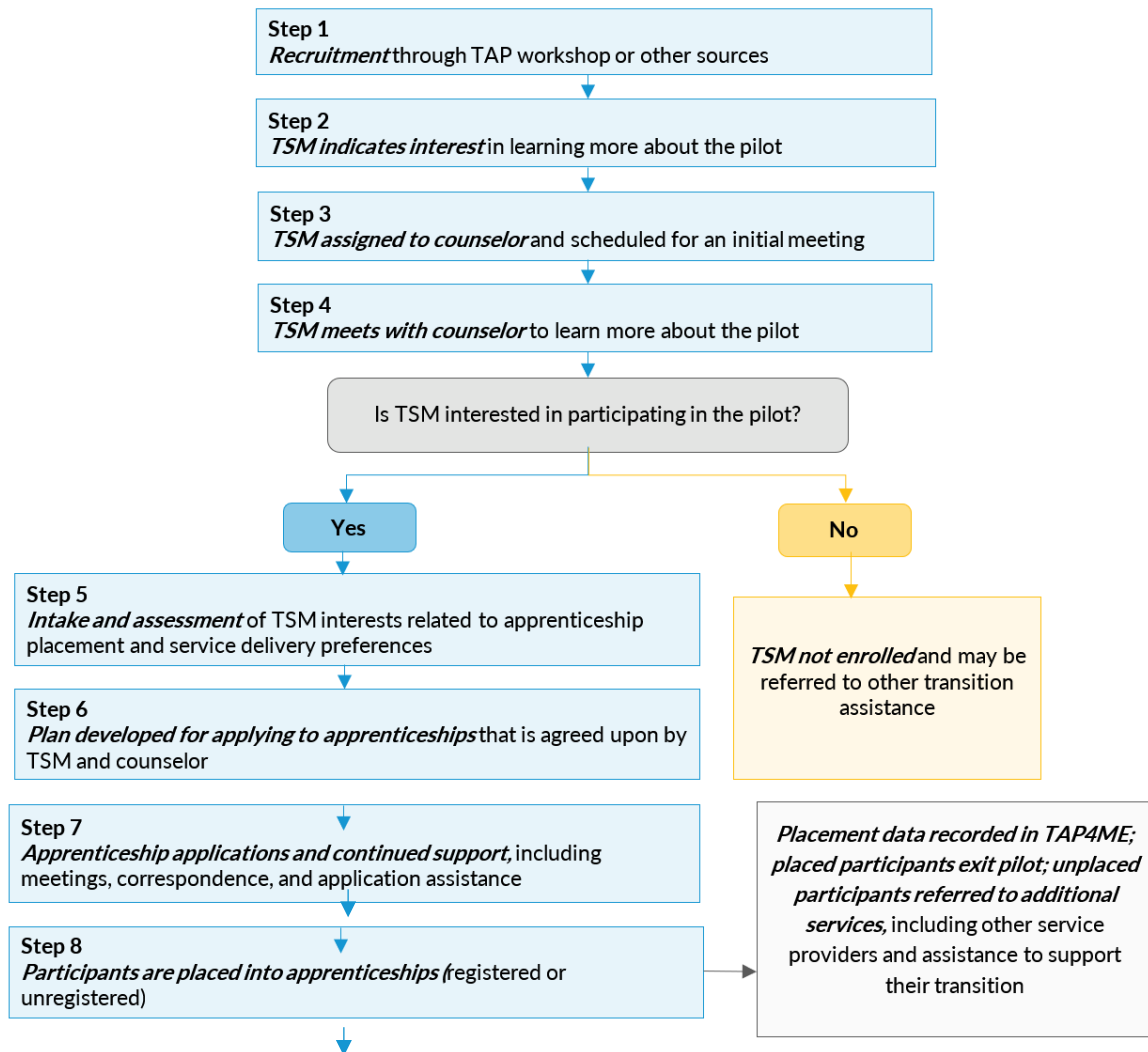to the TAP4ME data system. Throughout the pilot, the pilot manager provided direction, oversight, and guidance for the counselors.[24]

- **Planning and support for participants aimed to account for their qualifications and experience, job and career interests, and location preferences.**

An initial meeting with the counselor provided an opportunity to inform the TSM about the pilot, determine interest in participating in the pilot, and if interested, gather background information to assess service needs and tailor support. As one TSM noted, "Getting out is scary, especially having done it for 10 years of my life, and I feel I'm an adult now, can't just go back home, so it was nice for them to listen to my wants and needs and fill in where I was looking for an advancement. I am so thankful she gave me so many options to look at, it made me feel less bottlenecked and that I didn't have to choose something I didn't like."

The duration of initial meetings depended upon TSM interest in apprenticeship and whether the TSM wanted to participate. If the TSM was not interested in participating, the meeting could be only 5 to 10 minutes in duration. If the TSM was interested, the meeting could range from about 30 minutes to an hour or more, including the time needed to gather information for the TAP4ME system as well as begin the process of assessing the participant and planning next service steps.[25]

Discussion during the initial meeting varied by TSM, but typically it focused on the following areas aimed at assessing apprenticeship interests and identifying assistance that could lead to successful placement of the TSM into an apprenticeship:

» **Industry sectors, career pathways, and occupations of interest.** Often, discussions focused on industry sectors and occupations of greatest interest to the TSM, based on the previous experience, educational attainment/degrees, and skill sets developed during military service. Discussions also addressed TSMs' willingness or desire to make a career change and undertake training, and their wages/earnings needs and expectations after transition.

» **Relocation plans following transition.** Counselors often asked TSMs about post-transition relocation plans, including flexibility to relocate anywhere, desire to stay in the region where their transitioning military base was located, or desire to return to the region or locality where

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[24] As the pilot progressed, Serco added several administrative staff members to support the pilot manager and to provide additional guidance and technical support to the placement counselors. For example, in August 2020, a quality control coordinator was hired with the goal of improving and standardizing the role of counselors. The quality control coordinator observed briefings during TAP workshops and direct delivery of services by counselors, then provided coaching to counselors aimed at enhancing service delivery and, ultimately, achieving the key goal of placing TSMs into apprenticeships. In addition, the quality control coordinator reviewed case files and data collected by counselors that had been recorded in the TAP4ME data system.

[25] The data elements collected in the TAP4ME system were particularly useful for the counselors to familiarize themselves with each TSM's individual needs and preferences, including the TSMs' top occupation, industry, and location preferences; military occupational code; transition time frame; and contact information (e.g., civilian email address, contact phone number).

they lived before active military service (their "home state"). Identifying specific geographic areas of interest was important to identify viable apprenticeship openings for TSM consideration.

» **Nature of apprenticeships and approaches to searching for apprenticeships.** Counselors also used the initial meeting to help TSMs become familiar with apprenticeships more generally. TSMs often did not have a solid understanding of apprenticeships, and counselors provided explanations of what an apprenticeship entails and cleared up possible misconceptions.[26] Counselors also typically discussed how they could help TSMs identify apprenticeship opportunities and how TSMs could search for such openings using the Apprenticeship Finder tool on Apprenticeship.gov and other online resources. If using videoconferencing, counselors sometimes shared their screens to introduce the Apprenticeship Finder tool and walk through a sample search of apprenticeship opportunities in the industry sector or occupation of interest and by the TSM's post-transition geographic location of interest (if applicable). Using videoconferencing for the initial calls with TSMs was helpful for sharing screens and showing them the websites of different companies, rather than simply referencing such resources verbally.

▪ **Planning and support for participants were often connected to their expected transition date.**

An important factor in planning next steps was the TSM's transition date. Employers were usually looking to fill apprenticeship openings quickly (e.g., within several weeks to a month) and were often reluctant to consider applications for apprenticeship positions unless the TSMs were within 30 to 60 days of transition.

As shown in figure 4.2, the expected transition date varied substantially across TSMs participating in their initial meetings. The median time to transition for participants at their first engagement was 163.4 days. Some participants (26.6 percent) were close to their transition date, and 5.3 percent of all participants had their first engagement after transition. These participants may have been close to transition when they were referred to the counselor but did not have a first meeting until shortly after their transition. A few participants first met with their counselor two years before transition.[27]

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[26] For example, some TSMs thought apprenticeships were the same as internships.

[27] The study team reassigned as "missing" any value that implied an implausibly high number of days between the first counselor meeting and the transition date, including those that appeared to show participants with a first meeting more than two years before their transition date.

Figure 4.2: Time to Transition at Participant's First Meeting with Counselor, April 2020 to March 2021
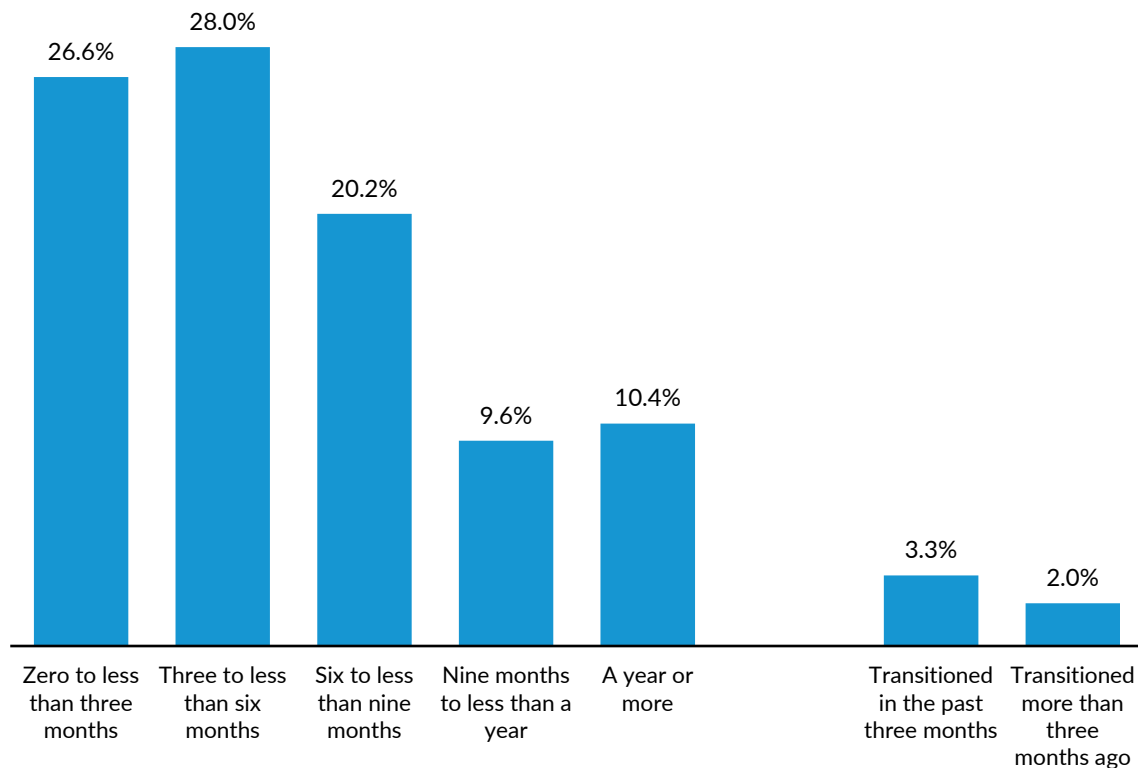
Source: Authors' analysis of TAP4ME data.
Notes: Information on time to transition is missing for 269 participants, not included in the figure. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. *N* = 1,492 participants.

In planning and conducting next steps with participants, counselors triaged their caseload largely based on the TSMs' anticipated transition date, intensifying contact and assistance as participants approached their transition dates. Counselors tended to work more closely with participants in the 45 days prior to transition. If participants were not placed by their transition date, counselors continued to work with them after their transition date. Box 4.1 shows guidance that Serco provided to counselors in December 2020 to help guide the timing and types of assistance provided to TSMs. Meetings and other contacts between counselors and their assigned participants were to increase and intensify as they progressed closer to their transition dates. If a participant was more than 180 days from transition, the expected pattern of contact with the counselor was to be at least once a month, whereas in the 46- to 180-day period, contact was supposed to be every other week. Inside of 45 days, contact was expected to be at least weekly.

BOX 4.1: Serco Guidance on Prioritizing TSMs for Services Based on Their Transition Date

- **Priority #1: TSM already transitioned from military to up to 45 days from transition**
  - » Assist TSMs in submitting applications to apprenticeship programs not less than 30 days out.
  - » Encourage multiple applications to multiple positions—three applications at a minimum.
  - » Contact and provide support **at least weekly** to these TSMs until placed or separated.

- **Priority #2: TSMs 46 to 180 days from transition**
  - » Collaborate with the TSM to network and customize their résumé and employment applications.
  - » Assist the TSM in applying for any SkillBridge program or the Army CSP, or completing any prerequisites that may be required for their target apprenticeship to make them a competitive candidate for placement.
  - » Contact and provide support **at least every other week** until 45 days out.

- **Priority #3: TSMs more than 180 days from transition**
  - » Provide the TSM with AJC referral info.
  - » Present to the TSMs SkillBridge programs or the Army CSP or any other pre-apprenticeship program and discuss any prerequisites that may be required for their target apprenticeship to make them a competitive candidate for placement.
  - » Assist the TSM in starting the applications for any of these programs as necessary.
  - » Assist the TSM in finalizing and customizing their résumé; a TSM without a résumé will be referred to the appropriate TAP resource to develop a basic résumé.
  - » Contact the TSM **at least once a month**.

Source: Serco guidance provided to counselors in December 2020.
Note: TSM refers to a transitioning service member or spouse. AJC refers to the American Job Center, which provides services under the Workforce Innovation and Opportunity Act. SkillBridge is the U.S. Department of Defense program that offers employment training, internship, and apprenticeship opportunities to service members, including eligible TSMs. Army CSP refers to the Army Career Skills Program, which provides soldiers the opportunity to participate in skills training during their transition period (see "U.S. Army Career Skills Program Brochure," Army.mil, accessed April 1, 2022, https://home.army.mil/campbell/application/files/1215/7323/4943/CSPs_Tri-fold_brochure.pdf). TAP refers to the Transition Assistance Program, a service of the U.S. Department of Labor that provides information, tools, and training to ensure that service members and their spouses are prepared for their transition to civilian life.

Activities also differed for participants as they approached their transition date. For example, if the transition date was distant (e.g., 180 days or more in the future), then the counselor discussed next steps that the participant could take to prepare to search and apply for apprenticeship openings. These next steps included developing/refining résumés, encouraging participation in programs such as SkillBridge, and beginning to identify potential types of apprenticeships of interest. In addition, the counselor would indicate that the participant should feel free to contact the counselor at any time, and that the counselor would send along apprenticeship opportunities that fit the individual's career interests and plans.[28] Typically, if the participant's transition date was more than 45 days out, it was

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[28] It was originally envisioned that the pilot staff, including the counselors and employer outreach coordinators, would engage a range of other external partners that were connected with apprenticeships and/or served

too early for the participant to apply for an apprenticeship opening unless an employer was willing to hold an opening for them until their transition.

If the participant was within 46 to 90 days of transition, the counselor would help them start the process of reaching out to employers and applying for apprenticeships, as well as answer any questions or concerns and offer advice. One participant shared that "the support, explanation of things, [and] breaking it down into layman's terms" were some of the most helpful components of this conversation with the counselor. Around the last 45 days prior to transition, the counselors and participants typically intensified their contact, and counselors pushed participants to identify apprenticeship openings and submit applications. When asked about the timing of services, one counselor shared, "Some would say [the best time to initiate service delivery is] right away, a year out, as soon as [TSMs] start the process. I'd say maybe four to six months out, and even then it'd be light . . . just gathering their interests, starting to look [at apprenticeship openings], maybe showing them some websites. But I don't know I'd start the heavy lifting until three months out. . . . In my mind it's not smart to start the application process until even 45 days out."

- **About 60 percent of participants had three or fewer engagements with their assigned counselor, and on average, engaged with counselors 4.1 times.**

As shown in figure 4.3, 6 in 10 participants[29] (60.1 percent) had three or fewer engagements with a pilot counselor, which could include an in-person meeting, telephone or videoconference call, email, or text. On average, participating TSMs engaged with counselors 4.1 times, which meant there was a small group of participants who had a larger number of engagements raising the average overall. Typically, the TSM would have at least one in-depth discussion with a counselor either in person or by telephone or videoconference call. Subsequent engagements were typically shorter in duration. Slightly less than one-fifth (18.3 percent) of participants had seven or more engagements with counselors. Case notes in the TAP4ME data indicated that many of those engagements were short

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TSMs and veterans, particularly within the public workforce system. These external partners included American Job Centers, Disabled Veterans Outreach Program specialists (often located at American Job Centers), state directors for veterans' employment and training, apprenticeship intermediaries, and a range of other partners that could help identify and secure apprenticeship opportunities for TSMs or provide transitional support to TSMs in other ways. Interviews with counselors indicated that such contacts with partners were sporadically undertaken regarding serving individual TSMs, and that such efforts resulted in little (if any) increase in the number of apprenticeship opportunities available for TSMs or placements under the pilot.

[29] To be considered a participant, a TSM had to have two or more engagements with a pilot counselor or submitted an apprenticeship application. The two-engagement threshold was set because some TSMs made a single inquiry—perhaps a quick call or an email—but once they heard about the initiative, they disengaged without a single meeting. In analyzing the data, however, it was found that a very small number of those TSMs with either one engagement or no engagements had submitted applications or been placed. Because these individuals had applied or been placed, they were added to the analysis as participants even though they had just one or no engagements.

phone calls or texts between the counselor and the participant, demonstrating that some participants had frequent brief contacts with their counselors.

Figure 4.3: Total Number of Engagements with Counselors per Apprenticeship Pilot Participant, April 2020 to March 2021
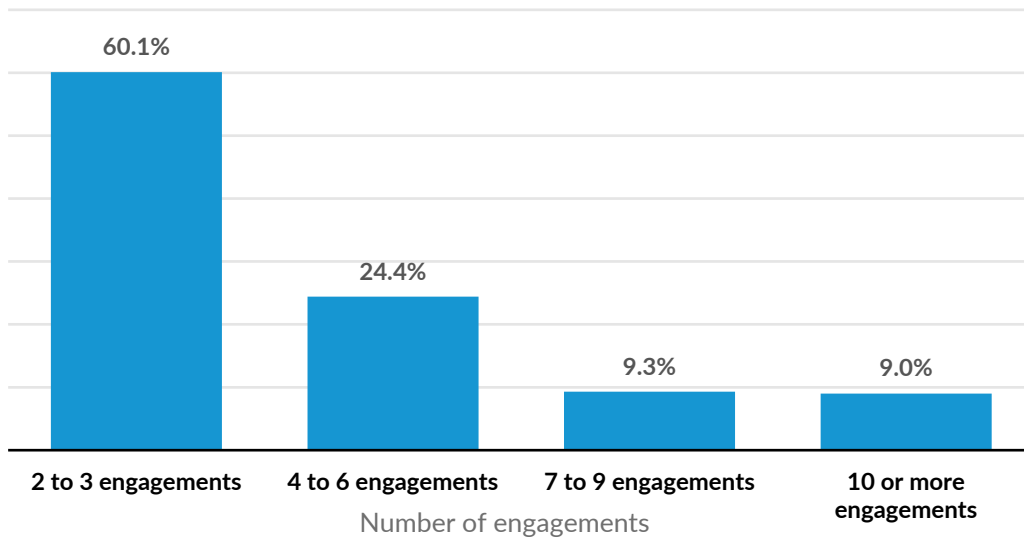
Source: Authors' analysis of TAP4ME data.
Note: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. *N* = 1,492 participants.

▪ **In the final three months of the pilot, the pilot manager introduced a more active case management approach for serving participants.**

The pilot manager who took the helm in the late fall of 2020 implemented several changes to increase engagement between counselors and TSMs. Changes included "higher-touch service" and an emphasis on selling apprenticeships to TSMs. One participant noted, "They did a real good job of being a counselor and mentor" and shared that they "cared about the military and made me feel like I'm not alone—they're here to support me." These changes required counselors to more actively pursue the TSMs whose cases they were managing by contacting them multiple times, offering them a wider variety of apprenticeship opportunities to apply for, and following up with participants and employers on progress made in applications. As one participant said, "To me, if you're calling me to check in about issues [and] to see if I'm contacting people to try to get an apprenticeship, that's great support. [The counselor] checks in every few days to check up on me if I need help—I think that's wonderful." In addition, counselors encouraged TSMs to consider apprenticeship opportunities outside of their initial location and occupational preferences. As one national pilot staff member noted, "The hands-off approach didn't work out like we thought; these TSMs need to be guided and

have their hands held. They're mostly junior, 22 to 24 years old. . . . Now we're actively presenting them opportunities and following up, but it's a different mindset."

Identifying Apprenticeship Opportunities for Participants

Once TSMs were actively engaged in the pilot and as they neared their transition from the military, a key focus of service delivery was identifying apprenticeship openings that matched participants' requirements in terms of industry sector, occupation, locational preference, earnings requirements, and other considerations.

- **The pilot's initial approach to identifying apprenticeships centered on using Apprenticeship.gov, which did not provide sufficient numbers or types of openings to meet varied requirements of participating TSMs.**

The original pilot design did not envision employer outreach as a key activity. Early in the pilot, counselors and participants largely relied on a list of apprenticeship openings that came directly from the Apprenticeship Finder tool on the DOL Office of Apprenticeship's Apprenticeship.gov website. If good matches were not available using this tool, then the counselor worked with the participant to search for suitable matches through other sources such as internet searches, contacts with veteran-friendly employers, and the like.

Pilot staff indicated that initial reliance on the Apprenticeship Finder tool to search for openings was not successful in identifying suitable apprenticeship openings. According to interviews, the Apprenticeship Finder tool (1) included few active or appropriate openings relevant to the occupational, timing, and locational preferences of participants, and (2) was missing some apprenticeship openings that were potentially relevant for TSMs.[30]

An additional challenge early in the pilot that complicated efforts to identify appropriate apprenticeship openings was the onset of the COVID-19 pandemic in March 2020, which led apprenticeship openings to dry up abruptly.[31]

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[30] One limitation in this database noted by interviewees was that the data appeared to be populated (i.e., scraped) from other job posting websites and did not provide a complete, up-to-date listing of apprenticeship openings by location, occupation, and employer. In addition, several interviewees indicated that some listings in the system did not appear to be apprenticeship-type openings (e.g., some appeared to be openings for entry-level jobs with little or no training that did not match the kinds of high-skill jobs that TSMs were interested in entering).

[31] For example, according to one interviewee, the main impact of COVID-19 for employer outreach was more difficulty connecting with employers (e.g., no one was in the office) and syncing up calendars, in addition to the loss of apprenticeship openings.

- **Employer outreach coordinators were hired to connect with employers to identify and expand available apprenticeship opportunities that would better match the occupational, locational, and other requirements of participants.**

An employer outreach coordinator was hired in February 2020 and charged with the responsibility of identifying apprenticeship openings to which participants could be matched.[32] To begin developing this employer listing, VETS and the national Office of Apprenticeship assisted by sending out emails and newsletters to employers and other stakeholders to garner interest in participating in the pilot.[33] The emails provided employers with background information about the pilot and contact information for the employer outreach coordinator (see appendix F for an example of email outreach). In addition, DOL promoted the program through social media with 16 posts on Twitter from June 2020 through February 2021.[34]

Following each email blast, interested employers reached out to the employer outreach coordinator (usually by email) to express interest in the pilot. The employer outreach coordinator followed up by telephone with each employer to gather additional information about the company, interest in participating in the pilot, and number and types of apprenticeships offered. If the employer had apprenticeship openings and interest in hiring TSMs into available positions, the employer outreach coordinator added the employer to a list of employers with apprenticeship openings for distribution to counselors.[35] By the end of the pilot (March 2021), the list had reached about 150 employers with active apprenticeship openings to which participants could be matched.

Throughout the pilot, this list of employers was distributed to each of the counselors as an up-to-date source of apprenticeship openings to which counselors could refer participants. Some employers on the list had just one apprenticeship vacancy, but others had multiple openings. The industry sectors represented on the list were those of particular interest to TSMs, including information technology/cybersecurity, health care, manufacturing, transportation and warehousing, and business management/administration.

In November 2020, two new employer outreach coordinators were added (bringing the number of staff in this position to three) to expand and strengthen employer outreach and engagement. The additional employer outreach coordinators generated openings following methods similar to those of

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[32] One pilot staff person held this role through October 2020; a replacement was brought into the position in late October or early November 2020.

[33] VETS sent an email to all their email subscribers and shared information about the pilot in the HIRE Vets Medallion Program, which goes to 77,000 people. VETS also worked with the Office of Apprenticeship (OA) to send out information via its OA Public Newsletter, which goes to 84,000 subscribers, and OA communications reached 24,000 Registered Apprenticeship Sponsors.

[34] Based on documents provided by DOL VETS.

[35] This listing was an Excel spreadsheet containing the following data on each employer: employer name, a point of contact, whether the apprenticeship opening(s) were registered, occupation(s) of apprenticeships, number of openings, and notes on other relevant features of the apprenticeship.

the initial employer outreach coordinator. One national pilot staff member reflected on the new approach as follows: "Now that we have multiple outreach coordinators, we've given them regions to maintain [an] employer database [and to] go out and find immediate short-term and longer-term needs of employers. Anything that's [an] immediate need, we push down to the [counselors] to match to TSMs so we can get them placed. The outreach coordinators find out that info and push it to counselors."

- **Regular remote presentations to employers were held to spur interest in the pilot and generate additional placement opportunities.**

The employer outreach coordinators used employer presentations to expand apprenticeship opportunities. The presentations were organized initially by the first employer outreach coordinator but were expanded and made routine under the leadership of the new pilot manager in late 2020. Twice weekly, the employer outreach coordinators held a presentation for interested employers (usually hosting between four and six employers per presentation) describing the pilot, issues specific to working with TSMs, and how employers could benefit by placing TSMs in their apprenticeship openings. One employer outreach coordinator said, "The goal of the presentation is to educate employers on the pilot, [and to] show them [the return on investment] for participating and how we will support them with marketing and getting the TSMs to apply to their positions." Additional goals of the presentations were to increase employer awareness and understanding of the features of the pilot, to underscore the employer return on investing in apprenticeships and participating in the pilot, and to make employers aware of the ways in which pilot staff could support them by providing a steady supply of qualified TSMs to fill apprenticeship openings. The presentations also provided a venue for employer outreach coordinators to ask employers about their apprenticeship openings to gauge their needs and the appropriateness of their apprenticeship openings for participants.

- **Throughout the pilot, counselors identified apprenticeship openings for participants and contributed openings to the list maintained by the employer outreach specialists.**

To supplement the list of apprenticeship openings that the employer outreach coordinators maintained, counselors searched the internet on their own for apprenticeship opportunities and made direct contact with employers to inquire about available apprenticeship openings. Counselor efforts to identify apprenticeship openings were typically focused on a specific participant looking for an apprenticeship opening in a specific occupation (e.g., software developer) or geographic location. As one national pilot staff member described, "[Counselors] also interface with employers, but it is more of a following up on submitted applications or advocating for specific TSMs who are interested—a more direct TSM-to-employer link is what the [counselors] were doing as opposed to [employer] outreach coordinators, who were doing more overall pilot-to-employer linkage." Counselors would check back periodically with employers with which they had placed pilot participants in the past to see if new apprenticeship opportunities had emerged (and to ensure that recent placements were thriving in their apprenticeship positions). One counselor reported talking to potential employers who did not currently offer apprenticeships about the benefits of apprenticeship and creating apprenticeship programs. Counselors also encouraged participants to search for apprenticeship opportunities on their

own, most often by using the Apprenticeship Finder tool on Apprenticeship.gov and individual employer websites in sectors of interest.

VETS also played an active role in connecting pilot staff with recipients of DOL apprenticeship investments, such as apprenticeship intermediary contractors and apprenticeship grantees.[36] In addition, counselors and employer outreach coordinators were encouraged by the pilot manager (and other pilot staff) to interact with state apprenticeship offices and Office of Apprenticeship regional/state apprenticeship staff as appropriate in serving individual participants and identifying apprenticeship opportunities. Interviews with counselors and other pilot staff did not reveal that there was much ongoing interaction with these external partners or that they were a source of apprenticeship openings for participants.

Counselor Assistance to Support TSMs in Securing Apprenticeships

The final step in serving TSMs under the pilot involved counselors helping support participants in applying for and securing apprenticeship openings. Counselors provided assistance at various stages during the application and placement process—helping to sift through available openings and match them to TSMs, helping with developing or fine-tuning résumés and applications, and monitoring and troubleshooting challenges that might arise in the placement process.

- **Counselors played a key role by matching TSM preferences to available apprenticeship openings—and notifying TSMs of specific openings for which to apply.**

On an ongoing basis, counselors would review the listing of apprenticeship openings developed by the employer outreach coordinators, and if needed, identify additional openings, to match their caseloads of participants to available openings. Counselors would call or email participants with openings that matched their preferences and encourage participants to submit applications if they were interested in an opening. One participant stated, "[My counselor] helped me find out which programs fits what I want to do in my career. . . . I wouldn't have heard about these opportunities without [the counselor]." Another participant shared that the counselor helped by "giving me the insight that it's never too late to change what you want to do. [I've] wanted to work in the Intel Community since I was a kid [and] cybersecurity is sort of close to that—getting those skills [from an apprenticeship] will help me." A third participant described how their counselor had helped them to figure out what they wanted to do, "[My counselor] gave me an opportunity to really get some clarity

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[36] For examples of these investments, see "Apprenticeship Expansion and Modernization Fund," Apprenticeship.gov, May 28, 2019, https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/apprenticeship-expansion-and-modernization-fund#awardee_list and for more information see "Active Grants and Contracts," Apprenticeship.gov, https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/active-grants-and-contracts.

on what I wanted. Even if I didn't pursue those opportunities, it gave me a chance to figure out what I wanted . . . They gave me about 5 positions to consider applying to."

- **Remote career fairs were introduced as the pilot came to an end to directly connect participants with employers that had apprenticeship openings.**

Beginning in February 2021, pilot staff began using an online remote job and career fair platform (through the Premier Virtual software application) to conduct remote job fairs and connect interested participants and employers that had apprenticeship openings. At these web-based sessions, employer representatives (typically about five employers at each session) had an opportunity to provide participants background about themselves, positions they employed, and specific apprenticeship openings. Following the initial presentations (about five minutes per employer), participants could remotely visit the "booths" of employers in which they were interested. Once they entered an employer booth, the participant could ask questions about apprenticeship openings and either interview on the spot or schedule a follow-up interview.

- **As appropriate, counselors assisted TSMs with résumé development and refinement, and as needed, with navigating the apprenticeship application process.**

Submission requirements for apprenticeship openings varied, sometimes involving a completed application only, sometimes an application accompanied by a résumé, and sometimes only a résumé. Counselors were available at any time during TSMs' involvement in the pilot (and increasingly as participants got involved in the application process) to help with developing, fine-tuning, and reviewing their résumés.[37] If a participant already had a résumé, counselors were readily available to review the résumé and make suggestions for improvement, particularly in relation to tailoring the document to the requirements of a specific apprenticeship opening. Some counselors would also send links of résumé templates and include attachments of sample résumés. Several participants expressed how helpful this assistance was. As one noted, "I felt [my rough draft from the TAP workshop] became a really good résumé. My [counselor] fixed it, and I sent exactly that to [the apprenticeship program]."

Counselors were readily available to help with completing or reviewing the participants' applications, as well as to help them prepare for interviews and anticipate questions that employers might ask. Counselors were also readily available to troubleshoot challenges that participants ran into in submitting their applications. Sometimes participants took advantage of this application assistance, but often they moved ahead by completing submissions on their own. In some instances, counselors more actively engaged with employers on specific apprenticeship openings to gather details on how

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[37] Participant-level data from the TAP4ME data system indicated that one-third (33 percent) of TSMs had completed a résumé by their first engagement, though this data item was not recorded for more than two-fifths (41 percent) of TSMs participating in the pilot. In addition, the data system did not capture whether TSMs that had résumés subsequently revised them during their participation in the pilot or with assistance provided by the counselor.

applications should be submitted, what requirements or backgrounds were needed for certain programs, when deadlines were, and what form of communication was best.

In addition, counselors who were familiar with an employer, perhaps by having placed a participant previously, could provide a "warm handoff" of a participant to improve chances of a successful placement. If needed, once the application was submitted, the counselors were available to contact employers on behalf of participants to improve the chances of hiring, to address delays in hiring, or to troubleshoot other obstacles to placement. For example, one participant shared that a counselor intervention with an employer worked because the employer "got back to me that same day." Another participant expressed feeling uncomfortable with sending personal information online for an application, so the counselor worked with the employer to navigate this challenge. One employer interviewed described this collaborative approach: "I really enjoyed the teamwork from [counselors], just the way they follow up on candidates. It was important for them to place those TSMs into the program—if we weren't going to be able to place them, they were going to find a place for them. . . . I've seen a lot of programs and I think they did a really good job of communicating."

- **Counselors were available as needed to help participants make a final decision on acceptance of an apprenticeship offer and to track placement success.**

Counselors regularly checked in with participants once they applied, both to see if any additional help was needed and to monitor offers and acceptances. If offered an apprenticeship, counselors were available to assist participants in deciding whether to accept the offer. If a participant either rejected an offer or was not extended an offer for an apprenticeship position, the counselor continued to work with the participant to identify additional apprenticeship openings and to encourage the participant to apply for other openings. For those TSMs who did not move forward with submitting apprenticeship applications or lost interest in apprenticeship as a path forward, counselors were available to help with referrals for other assistance. Counselors often made referrals to American Job Centers or to other transitional services available at the military base for employment and training assistance, as well as to other supportive services needed.[38]

Typically, service delivery ended with the documentation of a successful apprenticeship placement or, alternatively, when TSMs indicated they no longer were interested in receipt of services or there was a lengthy period of inactivity due to participants' lack of engagement or leaving the military. Pilot staff members regularly reviewed participant caseloads to identify inactive cases. If participants became inactive or disengaged in initiating services, a counselor would contact them by email or phone to check on their status and their need for additional services.

Finally, with regard to successful placements, the counselor documented, through contacts with the participant or the employer or both, the participant's acceptance of the offer, the nature of the apprenticeship occupation, the entry wage, and the expected start date. Counselors remained available to either the participant or the employer to troubleshoot issues that might crop up before or

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[38] Analysis of TAP4ME data reveals that about one-third of the TSMs were referred to American Job Centers.

during the early stages of the apprenticeship. As one participant shared, "I had several problems with the apprenticeship . . . [My counselor] reached out to the company—the company was going to terminate me [from the apprenticeship] . . . [My counselor] helped to resolve the problem and I was not terminated from the apprenticeship."

Staff Training and Turnover

Over the course of the Apprenticeship Pilot, the approach to training counselors was modified however the pilot faced considerable staff turnover in the pilot manager and counselor positions.

- **Training, expectations, and support for counselors evolved over the course of the pilot.**

Counselors came from a variety of different backgrounds. All eight of the counselors interviewed had familiarity or direct personal experience with the military. Several counselors also had prior career counseling experience in the military, but none of the counselors interviewed indicated they had extensive experience with apprenticeship or with counseling TSMs on considering apprenticeship as a potential pathway to a high-skill job.

Serco pilot administrators put newly hired counselors through online video training (estimated by counselors to be about 80 hours), which counselors moved through at their own speed. They participated in three modules: the Level 1 module included basic onboarding information for the Apprenticeship Pilot; the Level 2 module was the TAP workshop facilitators' course, offered to counselors to familiarize them with the first environment in which they would be interacting with TSMs; and the Level 3 module focused exclusively on the skills needed to conduct briefings on the Apprenticeship Pilot and the nature of services delivered under the pilot by counselors.

In October 2020, a new (and final) pilot manager was hired. The new pilot manager restructured the training of counselors to emphasize a "recruiter" approach to service delivery, which involved a more assertive approach to serving and placing TSMs in apprenticeship positions. The new strategy was to more actively place participants into available positions that employer outreach coordinators had identified, as well as to encourage participants to make multiple applications and attend remote job fairs.

An additional new strategy introduced by the new pilot manager was the development of weekly placement targets per military base and associated monetary incentives for the counselors. To work toward reaching the pilot's placement goal, counselors were encouraged to make one placement per week during the final three months of the pilot. One counselor interviewed acknowledged both the improvements in the later stages of the pilot and the challenges of being asked to hit numeric targets. "The expectation of hitting certain numbers is one of the biggest flaws of the whole program, as far as I can see. That's coming from . . . actually working with service members who have decisions to make, choices they have to decide upon, and this should be one of many services—not the one they have to choose because we've got to hit these numbers."

Finally, counselors had the potential of earning monetary incentives for placing participants. Incentives were offered to counselors who stayed through the end of the pilot in March 2021 as the project ended because of concerns that counselors would leave their positions to take other jobs.

- **A challenge to expanding the caseload and maintaining continuity of service delivery was staff turnover.**

Seven individuals interviewed, including both VETS and Serco staff members, described turnover in senior leadership positions and at the counselor level as a substantial issue that affected start-up and ongoing implementation throughout much of the pilot. During the pilot, four different individuals served in the pilot manager position.[39] There were also challenges with turnover of counselors (and in some instances, difficulty filling vacant counselor positions), who were the key front-line staff serving and interacting with TSMs on a day-to-day basis. For example, through the first six months of the pilot (i.e., through the end of October 2020), a total of 35 staff filled the 16 counselor positions across the eight military bases (table 4.1).

Table 4.1: Counselor Turnover, April 2020 to October 2020

Base	Number of assigned counselor positions	Number of counselors through October 2020	Number of counselors per assigned position
Miramar	1	2	2
Bragg	3	6	2
San Diego	3	6	2
Nellis	1	3	3
Norfolk	3	9	3
Cherry Point	1	2	2
Bliss	3	3	1
Travis	1	4	4
Total	16	35	2.2

Source: Internal Serco document shared with the study team.

VETS staff and pilot administrators identified several factors that contributed to turnover of counselors, starting with the relatively short duration of the pilot (one year). At the time of their hiring, counselors were made aware of the duration of the pilot and, hence, may have viewed the position as a relatively temporary posting, with the need to seek out a new job when the pilot ended.[40] Uncertainties and changes in service delivery related to the COVID-19 pandemic (e.g., the change to remote delivery, including the inability to provide services on the respective military bases) may have

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[39] The original pilot manager was replaced by the communications coordinator in May 2020, about a month after the official start of the pilot. The second pilot manager was replaced after several months by an interim (temporary) pilot manager, who resigned after several months. The final pilot manager was brought on in October 2020—bringing stability to that position through the end of the official pilot (in March 2021) and staying on in that position through the phase-down transition period (through the end of September 2021).

[40] Services continued with 10 counselors (of the 16) for a six-month transitional period (through September 2021) following the official end of the pilot in March; counselors were encouraged to apply for a position with the Employment Navigator and Partnership Pilot, which Serco was starting up in April 2021.

contributed to staff turnover as well as difficulty in bringing on new staff. Other reasons for staff turnover conveyed during interviews included attrition of staff, especially counselors, who were often TSMs themselves, for other positions that offered more attractive salaries; changing duties associated with the counselor position (i.e., in briefing and serving TSMs); an increasing focus on achieving numeric targets; and a lack of sufficient resources or guidance on executing the job duties.

Chapter 5: Pilot Outcomes

This chapter describes the key outcome of the Apprenticeship Pilot: the placement of participants into registered and unregistered apprenticeships. It addresses Research Question 4: *What were the patterns of placement in apprenticeship opportunities?* Results are from the study team's analysis of TAP4ME data.

Key findings on apprenticeship application and placement outcomes are as follows:

- Participation, apprenticeship applications, and apprenticeship placements grew slowly for the first six months of the pilot but then grew rapidly in the last six months of the pilot. Overall, out of the 2,024 TSMs who provided contact information to a counselor, 1,492 TSMs went on to participate in the pilot. In total, 276 participants submitted at least one application and 79 were placed into registered or unregistered apprenticeships.

- On average, participants who were placed into apprenticeships were similar to nonplaced participants in many respects. The two groups had similar demographic characteristics and educational attainment, and similar preference for working in their home state. A higher share of placed participants had security clearance, and overall, placed participants were much closer to their transition dates than non-placed participants.

- Regression analyses of the factors associated with apprenticeship application and placement suggest that applications and placements varied significantly across military bases, but not according to individual characteristics such as gender, educational attainment, or locational preference. Shorter time to transition and higher numbers of applications per participant were associated with higher placement rates.

- Ninety percent of the accepted apprenticeship offers were for Registered Apprenticeship Programs, rather than unregistered programs. More than one-third of the accepted offers were for information technology apprenticeships (a relatively new apprenticeship field), followed by electrician apprenticeships (a traditional field for apprenticeship training).
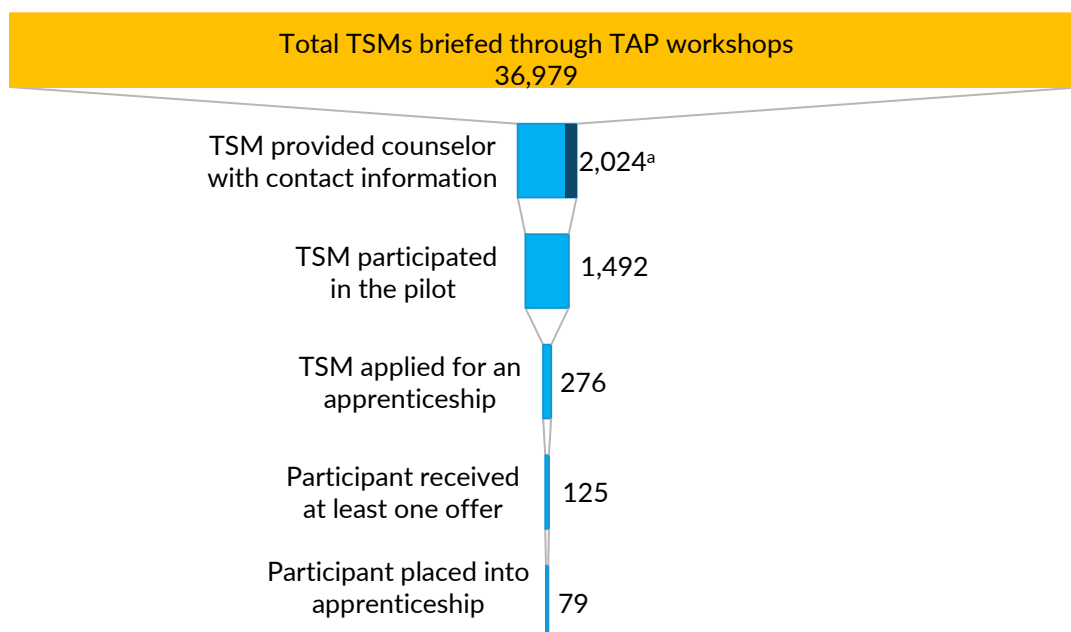
Although the six-month extension period was not a focus of this study and was not included in data collection for this report, it is important to note that placements were made during this extended period of service delivery. Data reports prepared by the pilot staff indicate a surge of placement activity during this additional six-month period. Reports show pilot placements nearly doubled during this period, increasing from 79 placements at the end of March 2021 to 152 total placements through the end of September 2021.[41]

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[41] Department of Labor, VETS, "Apprenticeship Pilot Monthly Briefing," page 3, October 6, 2021 (prepared by Serco).

Overview of Pilot Outcomes

As reported in chapter 3, briefings reached many TSMs (36,979). A relatively small proportion of those briefed subsequently provided a counselor with their contact information and expressed an interest in the pilot (2,024). Even fewer engaged with a counselor and became participants (1,492), applied for apprenticeships (276), and were eventually placed in apprenticeships (79; figure 5.1). Less than 1 percent of all TSMs briefed applied for or were placed in an apprenticeship.

Figure 5.1: Number of Briefed TSMs Completing Each Step of Recruitment Process for Apprenticeship Pilot, April 2020 to March 2021

Source: Authors' analysis of TAP4ME data and review of internal documents.
Notes: TSM refers to a transitioning service member or spouse. TAP is the Transition Assistance Program, which provides information, tools, and training to ensure that service members and their spouses are prepared for their transition to civilian life. A *recruit* is defined as a TSM or spouse who expressed interest in the pilot and provided contact information to a counselor, who created a record for the TSM in TAP4ME. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. *Apprenticeship applicants* are those who applied to at least one registered or unregistered apprenticeship (applicants to pre-apprenticeship programs were not counted). A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant.
a. About 20 percent of this group was recruited through sources other than the TAP workshops.

The difficulty in translating briefings into a TSM's expression of interest, attendance at a meeting with a counselor, or application for an apprenticeship led pilot staff to adopt several changes or midcourse corrections in acknowledgment of recruitment challenges, as described previously in chapters 3 and 4.
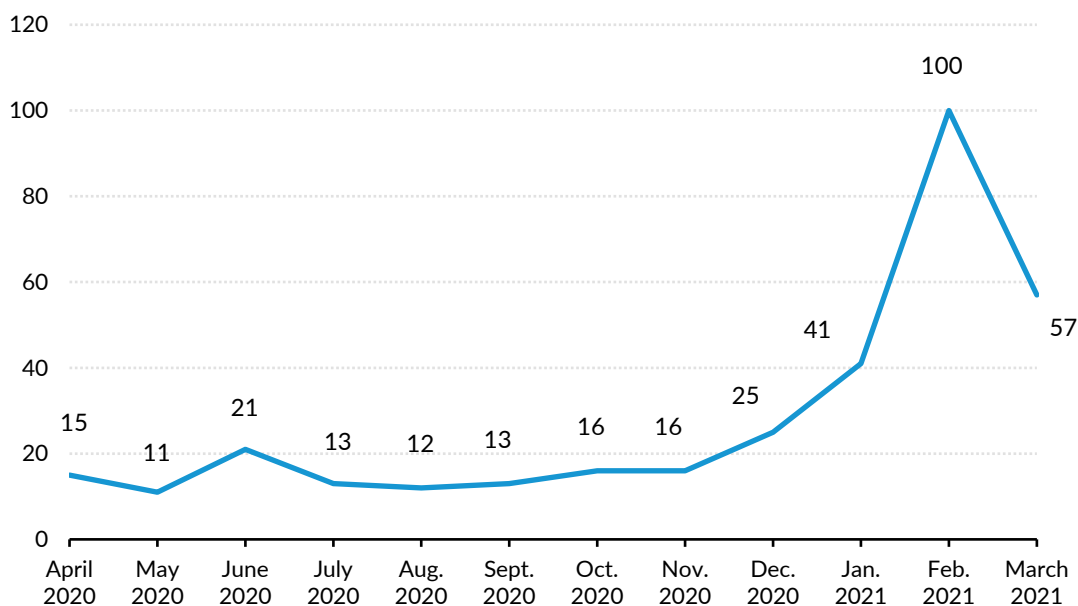
Apprenticeship Applications

The TAP4ME data indicate that 276 participants submitted at least one application for a registered or unregistered apprenticeship during the pilot. Fewer applications were submitted to SkillBridge (described in chapter 1) or other pre-apprenticeship programs (33) or to some other (nonapprenticeship) program (22).[42] Although these types of programs are not counted toward the pilot targets, they were recorded in the TAP4ME system because they are related to the goal of promoting work-based learning and could lead to a future apprenticeship placement.

- **The number of applications for apprenticeships submitted per month increased over time.**

As shown in figure 5.2, between 11 and 21 participants applied for apprenticeship positions per month between the beginning of the pilot and November 2020. This level of applications reflects the activities of the counselors and participants, as well as the number of apprenticeship openings available. Applications grew dramatically from November 2020 through February 2021, increasing more than sixfold, from 16 to 100 apprenticeship applications submitted per month. Application activity dropped by more than one-third in the last month of the pilot, from 100 applications to 57 applications.

Figure 5.2: Apprenticeship Applications Submitted by Apprenticeship Pilot Participants, April 2020 to March 2021

Source: Authors' analysis of TAP4ME data.

Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video

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[42] Counselors we interviewed viewed SkillBridge as a pre-apprenticeship opportunity, making it unlikely that placements categorized as "SkillBridge or pre-apprenticeship" were apprenticeship placements.

meeting, telephone call, email, or text. *Apprenticeship applicants* are those who applied to at least one registered or unregistered apprenticeship (applicants to pre-apprenticeship programs were not counted). Only apprenticeship applications with an application date reported during the pilot are included. *N* = 276 apprenticeship applicants. Gray line indicates pilot ending on March 31.

- **Most participants submitted only one application during the pilot. The share of participants submitting only one application did not substantially change over the course of the pilot.**

Just under three-quarters (74.3 percent) of all participants submitting applications submitted only one application during the pilot (figure 5.3).[43] After November 2020, VETS leadership emphasized the importance of submitting multiple apprenticeship applications. As one administrator observed there was "a better likelihood of hitting bulls' eye with 5 darts rather than 1." Despite new guidance, submission of multiple applications did not increase for participants recruited after November 2020. Even though the number of applications per applicant did not substantially increase, placements improved after November 2020 because the number of individuals submitting applications increased.

Figure 5.3: Share of Apprenticeship Pilot Participants Submitting Only One Apprenticeship Application During the Pilot, April 2020 to March 2021
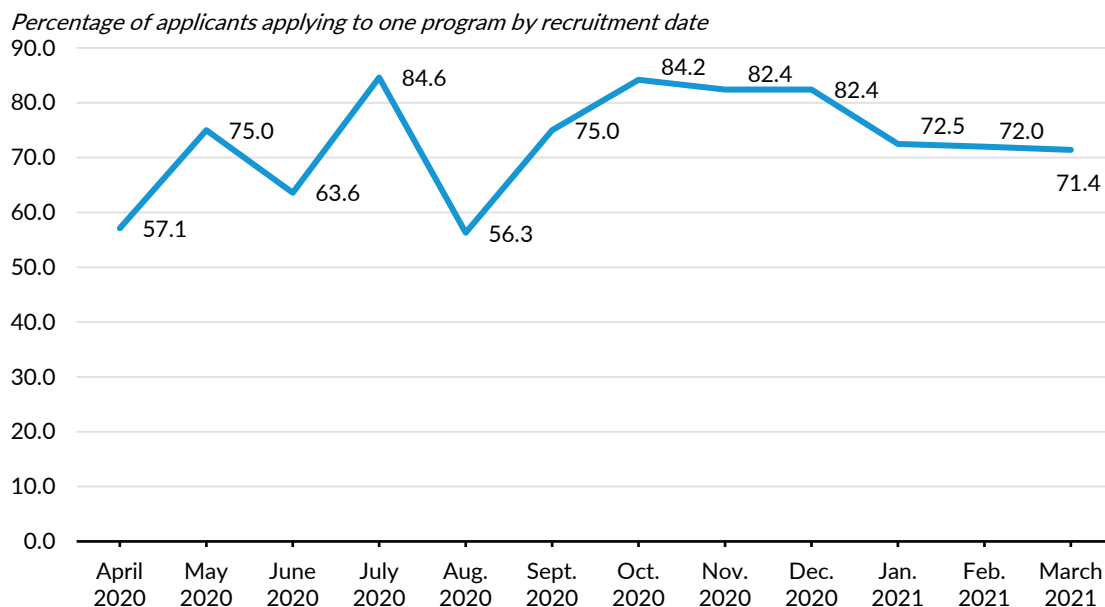
Percentage of applicants applying to one program by recruitment date

Source: Authors' analysis of TAP4ME data.
Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. *Apprenticeship applicants* are those who applied to at least one registered or unregistered apprenticeship (applicants to pre-apprenticeship programs were not counted). Percent of applicants applying to

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[43] It is possible that some of these participants submitted more than one application after the end of the pilot, or that additional participants submitted only one application after the pilot. Individual level data on these postpilot applications were not available in the TAP4ME data.

one program is reported by the month of their recruitment into the pilot for all applicants, to avoid double counting participants who submit multiple applications. *N* = 276 apprenticeship applicants.
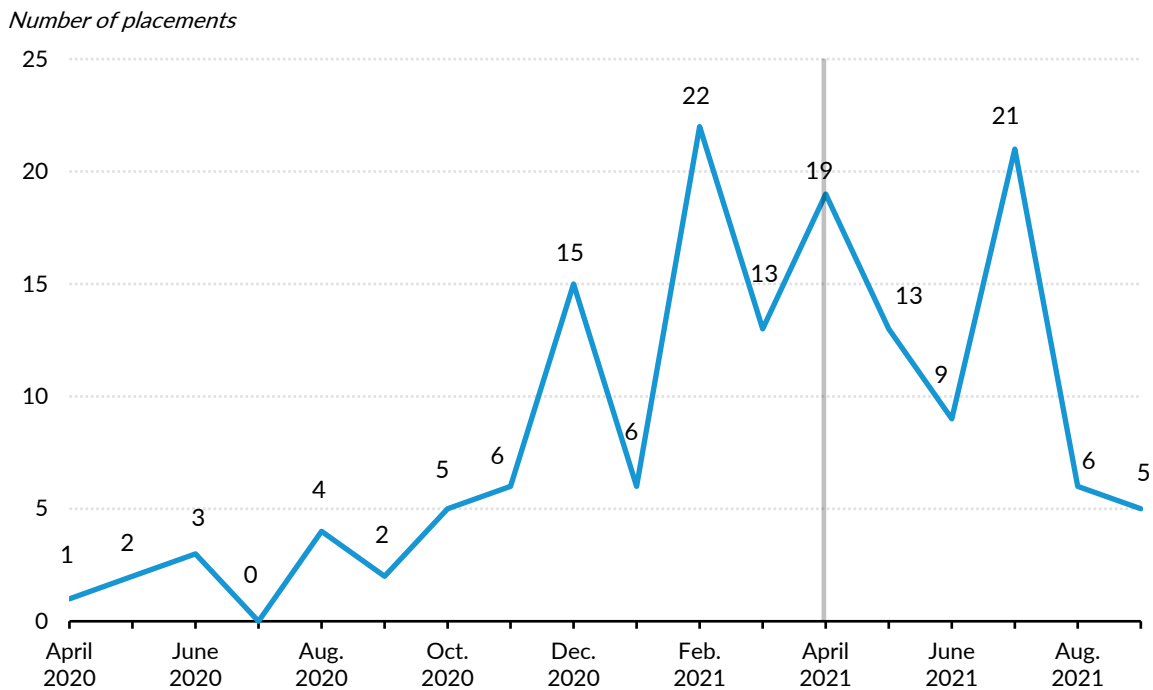
Apprenticeship Placements

By the end of the pilot in March 2021, 79 participants had been offered a job as either a registered (71) or unregistered (8) apprentice and had accepted the job offer. Thus, the pilot exceeded the revised VETS goal of 70 placements but reached just under one-fifth (18 percent) of the original internal estimate of being able to make 385 placements during the pilot. It is important to note that as stated earlier, placement activity continued after March 31, 2021, and the aggregate data from pilot reports on these additional placements are included in the following section.

The TAP4ME data system has only limited information about the characteristics of the apprenticeships in which participants were placed. The data do not track outcomes for apprentices who are not placed or for placed apprentices after they have accepted their offer, so no information is available on outcomes for the 197 applicants who were not offered an apprenticeship.

- **Although the COVID-19 pandemic created challenges, apprenticeship placements grew steadily over the course of the pilot.**

In April 2020, at the beginning of the COVID-19 pandemic, there was only one apprenticeship placement. This number increased to a monthly high of 22 placements in February 2021 (figure 5.4). Of the 276 participants who applied for at least one apprenticeship, 79 participants were placed in either a registered or unregistered apprenticeship during the pilot. Almost 43 percent of placements were after the TSM's transition date—many of them within a few weeks of the transition date. Placements continued after the end of the pilot in March 2021, for a cumulative total of 152 placements by September 2021. Monthly placements after the end of the Apprenticeship Pilot never exceeded the February 2021 high of 22 placements. Taking into consideration placements during the six-month extension period, the 152 placements reported by the Apprenticeship Pilot were still well under half (39 percent) of the original internal target of 385.

Figure 5.4: Participant Apprenticeship Placements, April 2020 to September 2021


Source: Authors' analysis of TAP4ME data.
Notes: A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. *N* = 152 apprenticeship placements. Gray line indicates end of pilot on March 31.

Counselors and other pilot staff cited the pressures of the pandemic as one of the principal barriers to successfully placing TSMs, including both the disruptive transition to remote service delivery and the reduced demand for apprentices by employers. One pilot staff member emphasized that while counselors could perform their assigned duties remotely, an apprenticeship placement was "dependent on the economy," and in that sense the pilot faced "variables out of our control." Federal unemployment data from January 2020 to June 2021 illustrate the challenge the Apprenticeship Pilot faced early in the initiative, with the unemployment rate increasing from just 3.5 percent in February 2020 to a high of nearly 15 percent when the pilot started in April 2020 (figure 5.5).

Figure 5.5: United States Unemployment Rate, January 2020 to September 2021

Unemployment rate (percent)
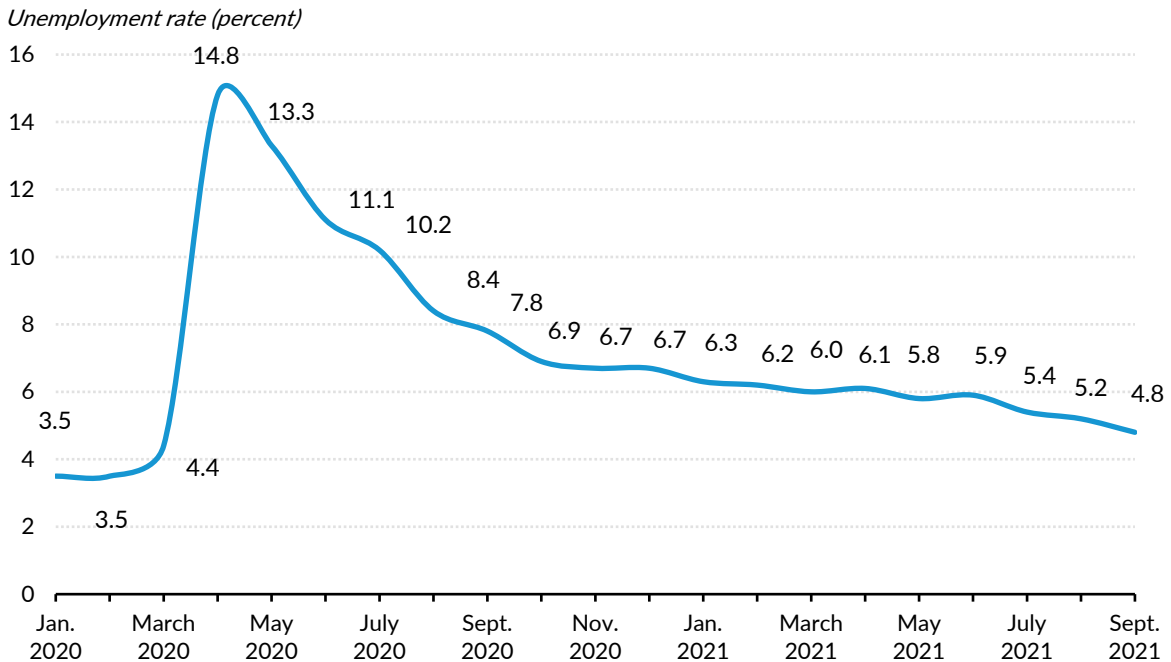
Source: U.S. Bureau of Labor Statistics, "Labor Force Statistics from the Current Population Survey," January 2020 to September 2021, https://www.bls.gov/charts/employment-situation/civilian-unemployment-rate.htm#.

Although the pandemic influenced the implementation of the pilot, it proved not to be an insurmountable barrier. Placement growth increased steadily after September 2020, and even stronger growth in placements into apprenticeships occurred at the beginning of the nationwide winter wave of COVID-19 in December 2020 (figure 5.4). Monthly placements tripled from 5 in October 2020 to 15 in December 2020.

Interview respondents provided various potential explanations for the increase in placements, including improvements in the economy and increased apprenticeship openings following the initial economic shock due to the pandemic; changes in pilot leadership, with the new pilot manager, who was hired in mid-October 2021, instituting numerous changes to improve outcomes (see chapter 4); and the working out over time of many of the challenges that often are typical in the start-up of a new program.

In addition, the original pilot period was relatively short (one year), and placements were a lagging indicator of the success, with many placements coming in the latter stages of the pilot and after it had ended. For example, according to the pilot reports, nearly the same number of placements occurred during the official pilot period from April 2020 to March 2021 (79 placements) as occurred during the extension period from May to September 2021 (73 placements). The lags in placement were in part a reflection of TSMs' being recruited into the pilot six months or more before their transition date and, as a result, not being able to secure an apprenticeship until after they had transitioned.

- **The success rate of applications grew over time.**

Although successful placement in an apprenticeship program was the primary desired outcome of the pilot, another important metric was the number of placements achieved per application submitted. Higher rates of placement per application indicate a more successful application process. From April 2020 through July 2020, fewer than 20 percent of applications resulted in an apprenticeship placement. The success rate of applications grew to 60 percent by December 2020. After December, the success rate of applications declined, which may be attributable to the growing volume of applications (figure 5.2). It could also be because employers had not yet responded to applications submitted later in the pilot at the time these data were reported in March 2021.

- **Most placements (almost 90 percent) were in Registered Apprenticeship Programs.**

A total of 338 applications submitted were to registered apprenticeship programs, or more than two-thirds of the total (table 5.1), with 105 applications submitted to unregistered apprenticeship programs. Applications for registered and unregistered apprenticeships targeted the same types of occupations, including high-demand occupations in the information technology sector.

Table 5.1: Applications and Placements by Type of Apprenticeship Program, April 2020 to March 2021

	Applications[a]	Percentage of total applications	Applicants[a]	Placements	Placement rate by application type	Percentage of total placements
Registered apprenticeships	338	76%	231	71	21%	90%
Unregistered apprenticeships	105	24%	61	8	8%	10%
Total	443	100%	276	79	16%	100%

Source: Authors' analysis of TAP4ME data.

Notes: A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. N = 276 applicants.

[a] Column does not sum to total because some participants applied to both registered and unregistered programs and appear in both counts.

[b] Column does not sum to total because some participants applied to both registered and unregistered programs and appear in both counts.

The placement rate for Registered Apprenticeship Program applications was higher than for unregistered apprenticeship applications. Of the 338 Registered Apprenticeship Program applications submitted, 71 resulted in placements—or 21 percent of applications. Only 8 percent of the applications to unregistered apprenticeships resulted in placements. Jacoby and Lerman (2019) estimated that there are approximately as many unregistered as registered apprentices in the United States. Many analysts and policymakers prefer to focus apprenticeship expansion efforts on registered

programs only, on the assumption that registered programs are higher in quality than unregistered programs (Kuehn and Lerman 2021).[44]

▪ **Counselors at a few bases accounted for most of the apprenticeship placements during the pilot.**

More than one-quarter of total placements (27 percent) were of participants assigned to counselors at San Diego, and almost one-fifth (19 percent) were of participants assigned to counselors at Bliss (table 5.2). Norfolk, Bragg, and Miramar each had nine placements. The last column of table 5.2 uses the number of assigned counselors per military base to calculate placements per counselor. Although it had only a modest number of total placements, Miramar had the most placements per counselor (nine), followed by Nellis (eight) and San Diego (seven).

Table 5.2: Apprenticeship Placements, Number of Counselors, and Placements per Counselor by Military Base, April 2020 to March 2021

	Placements (accepted apprenticeship job offers)	Placement percentage of total	Counselors assigned per base	Placements per counselor position allocated to the base
Location				
San Diego (Navy)	*21*	*26.69%*	*3*	*7*
Bliss (Army)	*15*	*19.0%*	*3*	*5*
Norfolk (Navy)	*9*	*11.14%*	*3*	*3*
Bragg (Army)	*9*	*11.14%*	*3*	*3*
Miramar (Marine Corps)	*9*	*11.14%*	*1*	*9*
Nellis (Air Force)	*8*	*10.1%*	*1*	*8*
Cherry Point (Marine Corps)	*6*	*7.6%*	*1*	*6*
Travis (Air Force)	*2*	*2.5%*	*1*	*2*
Total	79	100%	16	4.9

Source: Authors' analysis of TAP4ME data.

Notes: A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. *N* = 79 placements.

▪ **The most common apprenticeship placements were in information technology and cybersecurity apprenticeships.**

Apprenticeship programs provide training in specific occupational competencies, so an important part of the counseling provided to TSMs is related to identifying their occupational strengths and interests and targeting applications toward apprenticeship positions in related fields. Certain sectors

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[44] No research currently exists that conclusively demonstrates that unregistered apprenticeship programs are lower in quality than Registered Apprenticeship Programs. This assumption is typically based on the regulatory standards applied to and the monitoring of registered programs. Jacoby and Haskins' (2020) analysis of a prominent unregistered apprenticeship program in Kentucky suggested that unregistered apprenticeship programs can also significantly improve employment and earnings outcomes for participants.

and occupations may require prospective apprentices to pass assessments that TSMs may not be prepared for or to have qualifications that TSMs may not have. One pilot staff member indicated that some technology-related jobs had requirements for certifications that some TSMs could not meet. On the other hand, as noted earlier, TSMs may bring security clearances to information technology and cybersecurity jobs that give them a leg up on their civilian counterparts. Apprenticeship also offers the opportunity to change fields. As one participant put it: "For me, being a mechanic, it's really great that I can move into cybersecurity through an apprenticeship without prior experience [in this field] in the military. Even with HVAC I did not have a background, but apprenticeship made it possible to enter the occupation."

Occupations of the apprenticeship placements accepted by participants are reported in table 5.3. More than one-third (35 percent) of placed TSMs were placed in some type of information technology apprenticeship, including 13 in cybersecurity and 15 outside of cybersecurity. Nine participants were placed in electrician apprenticeships (11 percent), the most common apprenticeship occupation nationally.[45] Other common occupations in the pilot included service technician,[46] financial adviser, and automotive technician. Three of the occupations of TSMs placed in apprenticeships were among the 10 most common occupations for apprentices nationally: electrician, carpenter, and driver.[47]

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[45] According to data reported by the US Department of Labor on the occupations with the most apprenticeships, electricians represented the highest number with 44,547 active apprentices reported in this occupation. "Registered Apprenticeship National Results Fiscal Year 2020: 10/01/2019 to 9/30/2020," Employment and Training Administration, US Department of Labor, https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2020.

[46] Service technicians can work in a variety of industries, so these apprentices may in practice be trained in very different occupational skills. Insufficient detail is provided to determine the type of service technician position specified.

[47] The most common occupations that are a good fit for apprenticeship are provided on the Office of Apprenticeship's website, https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2020.

Table 5.3: Occupations of Apprenticeship Offers Accepted by Participants, April 2020 to March 2021

	Placed TSMs	Percentage of placed TSMs
Occupation of accepted apprenticeship		
Information technology, except cybersecurity	*15*	*19%*
Cybersecurity	*13*	*16%*
Electrician	*9*	*11%*
Service technician	*6*	*8%*
Financial adviser	*4*	*5%*
Automotive technician	*4*	*5%*
Equipment operator	*4*	*5%*
Maintenance technician	*4*	*5%*
Digital marketer	*3*	*4%*
Line worker	*3*	*4%*
Carpenter	*2*	*3%*
Driver	*2*	*3%*
Pharmacy technician	*2*	*3%*
Telecommunications installer	*2*	*3%*
Engineering technician	*1*	*1%*
HVAC technician	*1*	*1%*
Inventory specialist	*1*	*1%*
Occupation not reported	*3*	*4%*
Total	79	100%

Source: Authors' analysis of TAP4ME data.

Notes: A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. Occupations were reported by counselors, in some cases in more detail than presented in the exhibit. When appropriate, reported occupations were aggregated into larger categories. *N* = 79 placements.

The list of employers with apprenticeship openings, which was built and maintained by national pilot staff, reflected many of the occupational and locational preferences of TSMs. For example, 19.5 percent of the 149 employers on the list offered information technology apprenticeship opportunities. Many employers also provided TSMs with locational flexibility. Almost 15 percent of employers on the list indicated that they operated nationwide, and another 26.2 percent indicated that they were operating in multiple states. One reason that the employer list reflected the interests of TSMs is that it was built in conjunction with pilot counseling activities. Employers of interest to TSMs and those who had a history of hiring TSMs were added to the list for future reference by other counselors.

Apprenticeship is unique as a training model because apprentices are paid employees throughout their training. Unfortunately, the TAP4ME data on starting wages for apprentices are incomplete. Of all recorded applications, 92.9 percent are missing information on starting wages, as are 75.7 percent of all job offers.

Characteristics of Placed Apprentices

This section presents the characteristics of participants who were placed into apprenticeships. For comparison, we also examine the characteristics of nonplaced participants and test whether the differences between the two groups are statistically significant. Understanding the characteristics of those participants who are placed in apprenticeships can inform efforts to target and design services. Key findings, as also shown in table 5.4, include the following:

- **A greater share of placed participants were male (87.3 percent) than nonplaced participants (77.7 percent).** Although women were substantially underrepresented among placed participants, the share of women among placed participants was still greater than the share of apprentices nationally who are female, which has been approximately 10 percent since 2015.[48]

- **Placed participants tended to have their initial meeting with a counselor closer to their transition date than nonplaced participants.** Placed apprentices and nonplaced participants differed significantly in the time between their first meeting with a counselor and their transition date. Placed apprentices first met with their counselor, on average, 88.7 days, or about three months, before their transition date. In contrast, nonplaced participants first met with their counselor 168.5 days before their transition, on average. As one counselor put it, "It's just always a matter of timing. If they're six to eight months out, there are so many variables and questions in their lives. Submitting an application too early is not okay with employers. The only obstacle is timing. That's been the missing element: . . . understanding just because they're transitioning out doesn't mean [they're] ready to be placed into a program. You can apply all day long, but no one's going to talk to you eight months from being able to even get out of the military. It's not practical or feasible."

- **More placed participants had a Secret security clearance than nonplaced participants.** More than one-half (58.2 percent) of placed participants had a Secret clearance, compared with 42.7 percent of nonplaced participants, and 8.9 percent of placed TSMs had a Top Secret/Sensitive Compartmented Information clearance, which is slightly lower than the 9.7 percent of nonplaced participants with that clearance. Significantly fewer placed participants had an unknown clearance level, compared with nonplaced participants (25.3 percent compared with 41.8 percent). These data are consistent with one participant's experience that information technology apprenticeship programs "want experience, and most want you to have a Top Secret clearance," and a counselor's insight that lack of clearance "filters a lot of people out from applying."

- **Most placed and nonplaced participants had a high school diploma but no postsecondary degree.** More than one-half (59.2 percent) of placed participants had earned only a high

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[48] The calculation of the share of women among apprentices nationally uses Registered Apprenticeship Partners Information Data System (RAPIDS) data on all US apprentices registered in states reporting to RAPIDS.

school diploma, 21.1 percent had earned an associate degree, 14.5 percent had earned a bachelor's degree, and 5.3 percent had earned more than a bachelor's degree by the time of their transition. The educational attainment was similar for pilot participants overall.

- **Most placed participants preferred to find a job in their home state after transitioning out of the military.** About half of both placed participants (51.9 percent) and nonplaced participants (53.1 percent) listed their first preference for a job location as their home state. Although fewer placed participants preferred to work in their home state than nonplaced participants, the difference was not statistically significant. In conversations with pilot staff, TSMs' flexibility regarding relocation was a considered factor that broadened apprenticeship opportunities available to a participant and, ultimately, prospects for a successful placement.

- **Most individuals who accepted an apprenticeship offer were transitioning service members themselves (96.2 percent) rather than spouses.** Counselors reported working with few spouses. One counselor indicated that the military could improve its strategies for targeting outreach to this population.[49]

Table 5.4: Characteristics of Participants Placed in Apprenticeships and Non-placed Participants, from April 2020 to March 2021

	Placed participants	Nonplaced participants
Type of client		
Transitioning service member	*96.2%*	*97.8%*
Spouse	*3.8%*	*2.2%*
Gender		
Male	*87.3%***	*77.7%*
Female	*12.7%***	*18.5%*
Other or did not disclose	*0.0%**	*3.8%*
Average days between first meeting and transition	**88.7*****	**168.5**
Average age at transition	**29.2**	**30.4**
Security clearance		
None	*5.1%*	*4.5%*
Yes, type unknown	*2.5%*	*1.3%*
Yes, Secret	*58.2%****	*42.7%*
Yes, Top Secret / Sensitive Compartmented Information	*8.9%*	*9.7%*
Not known	*25.3%****	*41.8%*
Highest education attained		
More than a bachelor's degree	*5.3%*	*5.7%*
Bachelor's degree	*14.5%*	*16.4%*
Associate's degree	*21.1%*	*17.8%*

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[49] Some placed individuals are classified as "veterans" if they are placed after their transition date. Such individuals are combined with TSMs in table 5.4 because there is no way to ensure that the transition status of nonplaced individuals was updated to reflect their transition to being veterans.

	Placed participants	Nonplaced participants
High school diploma	*59.2%*	*56.7%*
Not known	*0.0%*	*3.1%*
Not applicable	*0.0%*	*0.3%*
First preferred state is the same as home state	**51.9%**	**53.1%**
Total	79	1,413

Characteristics of Participants Placed in Apprenticeships and of Nonplaced Participants, April 2020 to March 2021**Source:** Authors' analysis of TAP4ME data.

Notes: * = *p* < 0.10; ** = *p* < 0.05; *** = *p* < 0.01. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. Reported transition dates had some implausibly extreme values, so time to transition was assigned as "missing" if it was less than −365 days (indicating that the TSM had already transitioned more than a year before enrolling in the pilot and was seeking counseling) or greater than 730 days. Information on race and ethnicity was not collected in the TAP4ME data. Participants were asked for up to three states where they preferred to find employment, and they were asked their "home state," the region or locality where they lived prior to active military service. "First preferred state is the same as home state" indicates that the location preference ranked first matches the home state. *N* = 1,492 participants.

- **Placed participants were drawn largely from the same military pay grades as nonplaced participants who received counseling (table 5.5).** A greater share of placed participants than nonplaced participants were first termers (43.4 percent compared with 39.1 percent). A smaller share of placed participants than nonplaced participants were commissioned officers (0.0 percent compared with 4.7 percent).

Table 5.5: Military Pay Grades of Participants Placed in Apprenticeships and Non-placed Participants, from April 2020 to March 2021

	Placed participants	Nonplaced participants
Pay grade		
First-termers (pay grades E1–E4)	*43.4%**	*39.1%*
Mid-careerists (pay grades E5–E6)	*38.2%*	*39.1%*
Long-term enlisted persons (pay grades E7–E9)	*17.1%*	*15.9%*
Commissioned officers (pay grades O1–O11)	*0.0%**	*4.7%*
Warrant officers (pay grades W1–W5)	*1.3%*	*1.3%*
Total	76	1,146

Source: Authors' analysis of TAP4ME data.

Notes: * = *p* < 0.10; ** = *p* < 0.05; *** = *p* < 0.01. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text. A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. Pay grade was not recorded for 270 participants, including three placed TSMs. *N* = 1,492 participants.

According to two counselors interviewed, participants who were early in their military careers (first-termers at pay grades E1-E4) were not only numerically more commonly transitioning and therefore more often the focus of pilot enrollments, but also more often interested in considering apprenticeship positions. The counselors indicated that higher-ranking officers who had been in the military longer often had higher-level educational attainment and higher post-transition salary requirements that made them less of a good match for apprenticeships.

Characteristics Associated with Applications and Placement

Rich participant-level TAP4ME data provide an opportunity to understand the participant and program characteristics that are associated with submitting apprenticeship applications and accepting an apprenticeship offer. It is important to note that this analysis is not designed to determine the causal effect of counseling on outcomes for pilot participants. However, table 5.6 reports two multivariate regressions to demonstrate factors associated with, respectively, submitting apprenticeship applications (column 1) and accepting apprenticeship offers (column 2). Mathematical specifications for the models are provided in Appendix G.[50]

The first column of table 5.6 provides an ordinary least squares regression that describes the association between participant characteristics and the number of apprenticeship applications submitted by the participant. Most participants did not submit any applications, and some submitted several. The second column of table 5.6 provides the marginal effects of a probit model that describes the association between participant characteristics and acceptance of an apprenticeship offer. The regression results are discussed next.

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[50] Accepting an apprenticeship offer is a binary outcome analyzed using a probit model. The table presents probit marginal effects, which are interpreted as the percentage change in the outcome associated with a unit change in the independent variable. The number of applications submitted is a continuous outcome and is analyzed using ordinary least squares regression.

Table 5.6: Regression Models of Factors Associated with Apprenticeship Applications and Placements, April 2020 to March 2021

	Number of apprenticeship applications submitted (ordinary least squares)	Placed in an apprenticeship (probit marginal effects)
Constant	-0.011	—
Male	0.079	0.003
Location (Norfolk, reference)		
San Diego	*0.140***	*0.077****
Bliss	*0.410****	*0.112****
Bragg	*0.013*	*0.047***
Cherry Point	*0.193***	*0.060**
Miramar	*−0.044*	*0.042*
Nellis	*0.076*	*0.074***
Travis	*−0.220***	*0.043*
Highest education attained (high school diploma, reference)		
More than a bachelor's degree	*0.067*	*0.004*
Bachelor's degree	*0.014*	*−0.003*
Associate degree	*0.070*	*−0.006*
Not known or not applicable	*0.026*	*—*
First preferred state is the same as home state	−0.010	0.000
Age at transition	−0.002	−0.000
Weeks between first meeting and transition	−0.001***	−0.000***
Discussed résumé in counselor meeting	0.043	0.009
Number of engagements with counselor	0.070***	0.003**
Number of apprenticeship applications	—	0.038***
Sample size	1,163	1,129
Adjusted *R*-squared	0.128	0.291

Source: Authors' analysis of TAP4ME data.

Notes: * = $p < 0.10$; ** = $p < 0.05$; *** = $p < 0.01$. Each regression sample is restricted to the participants who had complete data on the outcome variable and all covariates included in the regression. A *participant* is defined as a TSM or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. A *placement* is defined as an acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant. An engagement is defined as an in-person meeting, video meeting, telephone call, email, or text. Participants were asked for up to three states where they preferred to find employment, and they were asked their home state—the region or locality where they lived prior to active military service. "First preferred state is the same as home state" indicates that the location preference ranked first matches the "home state," the region or locality where they lived prior to active military service. Information on age, time to transition, and highest educational attainment is missing for 291 participants and three placements. Where reported time to transition had implausibly extreme values, the variable was assigned as "missing" if it was less than −365 days (indicating that the participant had already transitioned more than a year before joining the pilot and was seeking counseling) or greater than +730 days. Marginal effects for the probit model evaluated at the mean of the independent variable are reported, so the marginal effect of the constant term for the probit model is undefined.

- **Assignment to counselors at different pilot military bases is associated with different application rates and different acceptance levels for apprenticeship offers.**

Participants assigned to a counselor at Fort Bliss submitted significantly more applications compared with participants assigned to Norfolk (the reference group for the regressions). After controlling for other characteristics, participants assigned to a counselor at Fort Bliss submitted over 0.4 more applications than those participants assigned to a counselor at Norfolk. As an example, this means that if participants assigned to a counselor at Norfolk submitted one application on average, then participants with the same characteristics would have submitted 1.4 applications on average if they were assigned to a counselor at Fort Bliss. Participants assigned to a counselor at Cherry Point and San Diego also submitted more applications than those assigned to a counselor at Norfolk, whereas participants assigned to a counselor at Travis submitted 0.2 fewer applications.

After controlling for other participant characteristics, assignment to a counselor at Bliss is associated with an 11.2 percent higher apprenticeship placement rate than is assignment to a counselor at Norfolk (the military base used for reference). Participants assigned to counselors serving San Diego and Nellis had about a 7 to 8 percent higher placement rate than participants at Norfolk, after controlling for other characteristics. These base-level differences may reflect the efforts and successes of counselors at individual military bases, but they could also reflect other base-specific characteristics, such as employer connections.

- **A longer time until transition from the first meeting with a counselor is associated with a reduced likelihood of applications submitted and placement.**

The number of weeks between a TSM's first engagement with a counselor and the TSM's transition date was negatively associated with submitting applications, although the association was relatively small in magnitude. As an example, using the coefficient for weeks between the first meeting and transition, a participant whose first engagement was six months from transition submitted 0.012 fewer applications than a TSM three months away from transition.

The number of weeks between a TSM's first meeting with a counselor and the TSM's transition was negatively associated with accepting an apprenticeship offer. However, the magnitude of this association was not large. A one-week increase in the time to a TSM's transition was associated with a 0.015 percent reduction in the probability of placement, a magnitude so small that it is not reported in the regression table, which restricts coefficients to three significant digits. This result implies that a participant six months from transition has a 0.2 percent lower probability of placement than a participant three months away from transition. Although statistically significant, the differences in time to transition were not as closely associated with placement as the differences between military bases of the assigned counselor described earlier.

- **The number of engagements between a TSM and a counselor was less closely associated with placement than the number of apprenticeship applications submitted by a TSM.**

Additional engagements between TSMs and counselors had a positive association with application rates. Each engagement with a counselor was associated with 0.07 more applications submitted by a TSM. However, the association between counselor engagements and placements was relatively weak; each additional engagement was associated with a 0.3 percent higher probability of placement.

The association between placement and apprenticeship applications was stronger. Each additional application submitted was associated with a 3.8 percent higher probability of placement. Together, the participant characteristics and activities included in the regression in table 5.6 explain 29.1 percent of the variation in placement.

These regressions are not causal, so they do not directly show any impact of the pilot on TSM application or placement outcomes. However, they do indicate important associations between TSM characteristics and these outcomes. Placements and applications varied across military bases and had consistent associations with key pilot activities. In contrast, individual TSM characteristics, including gender, educational attainment, and locational preference, did not have a clear or close association with placements and applications.

Chapter 6: Lessons Learned

The Apprenticeship Pilot was implemented during a health pandemic and high levels of unemployment.[51] As reported by the US Department of Labor, the pandemic also is believed to have impacted the availability of apprenticeships, with a 12 percent decline in the number of new apprentices in fiscal year 2020 compared with fiscal year 2019.[52] The pandemic created a massive disruption that put pressure on staff, TSMs, and employers and created challenges for placement of TSMs into apprenticeship, especially during the first six months of the Apprenticeship Pilot. Notwithstanding these unique circumstances, the experience of the pilot offers several lessons for program administrators in the implementation of strategies to expand access to apprenticeship for TSMs. This chapter addresses Research Question 5: *What were the lessons learned, and what strategies can be considered moving forward to inform TSMs of available apprenticeship opportunities and assist them in securing apprenticeships?*

It is important to note that findings are confined to the current study, and their generalizability to other contexts may be limited in the absence of an experimental design to examine impacts. In addition, the pilot was conducted for just one year, and although it was possible to collect data on placement rates, it was not feasible to explore longer-term outcomes for participants (such as whether they completed their apprenticeship and their earnings during and after the apprenticeship). Despite those limitations, findings from this descriptive implementation study may be immediately useful in informing the Employment Navigator and Partnership Pilot,[53] which launched in April 2021, as well as other future efforts to better connect TSMs with apprenticeship opportunities so that they can access family-sustaining jobs as they transition to civilian life.

In the following sections, we offer considerations and lessons in three areas: (1) lessons on promoting apprenticeship among TSMs, (2) lessons on increasing TSMs' placement into apprenticeship, and (3) other general lessons from the pilot.

Promoting Apprenticeships to TSMs

A key underlying goal of the Apprenticeship Pilot was to make TSMs more aware of and to generate their interest in applying for apprenticeships. With the expansion of briefings remotely to include TAP

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[51] See the US Bureau of Labor Statistics data on the civilian unemployment rate at https://www.bls.gov/charts/employment-situation/civilian-unemployment-rate.htm.

[52] "Registered Apprenticeship National Results Fiscal Year 2020: 10/01/2019 to 9/30/2020," Employment and Training Administration, US Department of Labor, accessed February 28, 2022 https://www.dol.gov/agencies/eta/apprenticeship/about/statistics/2020.

[53] For more information on the Employment Navigator and Partnership Pilot, see the US Department of Labor website, https://www.dol.gov/agencies/vets/programs/tap/employment-navigator-partnership.

workshops provided to other military bases in the U.S. and worldwide, the counselors briefed 36,979 TSMs about apprenticeship and the services available under the pilot. Despite the high number of briefings, recruitment efforts yielded 2,024 recruits (TSMs who expressed interest in the pilot and provided contact information to a counselor) and 1,492 participants (TSMs that had at least two engagements with a counselor or submitted an apprenticeship application), approximately 5 percent of the total number of TSMs briefed. The experience of the pilot can inform strategies to better connect with TSMs about apprenticeship as an opportunity. The study team's early observations and considerations are as follows:

- **Remote briefings made it possible to reach large numbers of TSMs, but attracting TSMs to apprenticeship suggests the need for additional integration into transition services.** Initially, briefings were about 5 minutes in length, but they were revised in the fall of 2020 to be longer (up to 20 minutes in duration). The briefing included a counselor presentation about the pilot, followed by a brief question-and-answer period. This briefing about the pilot represented a small portion of the curriculum presented to TSMs during the one- or two-day workshops. Educating TSMs about apprenticeship as an option may necessitate multiple touch points throughout the transition process, for example, during individual counseling sessions and other transition services. This would require educating key military base staff about apprenticeship and expanding marketing opportunities throughout the transition process. There may also be benefits to combining remote and in-person education about apprenticeships. In-person engagements may offer opportunities to build trusting relationships that can make TSMs more receptive to the new concept of apprenticeship as a post-transition opportunity. Finally, the DOL VETS Employment Navigator and Partnership Pilot, with its focus on providing TSMs one-on-one career counseling assistance, offers an opportunity to advise TSMs on the benefits of apprenticeship and provide them with referrals to apprenticeship programs.

- **There are opportunities to craft a message that better communicates the benefits of apprenticeship.** Lack of interest in the pilot may reflect that the messaging about apprenticeship as a viable alternative to other employment or education pathways was not resonating with TSMs and could be improved. In some interviews, counselors noted that TSMs rarely had much of a grasp or nuanced understanding of apprenticeships prior to attending the TAP workshop briefing, and for many, an apprenticeship was not viewed as a preferred option upon transition. Late in the Apprenticeship Pilot, adjustments were made to the key messages included in the presentation to convey a clear and consistent message about the pilot; however, some counselors noted the benefits of a more flexible approach that allowed them to provide specific relevant examples of current apprenticeship opportunities and to tailor the session to participants. Being able to explain the opportunity to "earn and learn," to share information on the prospects for increasing their long-term earnings and obtaining civilian credentials, and to help TSMs see apprenticeship as an avenue for moving into a high-skill job different from their work in the military were described as key components.

- **Program administrators may be able to learn from efforts outside the military to expand interest in apprenticeship among job seekers and workers.** Attracting individuals to apprenticeship is a common challenge, not unique to the Apprenticeship Pilot. With efforts to expand apprenticeship underway in the public workforce system, there are opportunities to learn from these efforts. For example, DOL apprenticeship grantees and contractors may provide insights on effective recruitment strategies, including incentives such as college credit granted as a part of an apprenticeship program. One workforce development board that was awarded an American Apprenticeship Initiative grant in 2015 encouraged potential candidates to pursue apprenticeships by inviting employers who sponsored apprenticeship programs to group sessions where they conducted one-on-one interviews (Gardiner et al. 2021). In their study of successful strategies used by State Apprenticeship Expansion grantees, Rosenberg and Dunn (2020) learned that some state workforce boards expanded participation in apprenticeship by adding Registered Apprenticeship Programs to the list of training providers eligible to receive Workforce Innovation and Opportunity Act funds. A similar approach could be to actively recruit apprenticeship programs as partners in the SkillBridge program to connect more TSMs to apprenticeship opportunities.[54]

- **There may be opportunities to leverage and improve the Post-9/11 GI Bill to attract TSMs to apprenticeship.** The Post-9/11 GI Bill[55] gives TSMs access to financial assistance to support participation in education, training, or work-based learning (including apprenticeship). However, because apprentices are paid a wage and usually do not have to pay for the classroom-based elements of apprenticeship programs, those pursuing apprenticeship receive less financial assistance overall . The Post-9/11 GI Bill does provide a monthly housing allowance to veterans, and these benefits could support TSMs considering an apprenticeship program. Modifications to the Post-9/11 GI Bill that allowed for additional financial incentives for apprenticeship could prove attractive to prospective TSMs. For example, individuals who choose apprenticeship could potentially be offered a stipend to cover other expenses. It is important to note that such a change would require congressional action.

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[54] For more information on SkillBridge, see the US Department of Veterans Affairs website, https://benefits.va.gov/transition/skillbridge.asp.

[55] The Post-9/11 GI Bill stipend is equivalent to the Monthly Housing Allowance of an E-5 with dependents. Approved employers can use this benefit as a recruiting tool by using wages plus the stipend to attract veterans for apprenticeship positions. Post-9/11 GI Bill recipients can also receive up to $83 per month for books and supplies. In 2018, the Department of Veterans Affairs spent about $10.7 billion on 700,000 beneficiaries. "On-the-Job Training and Apprenticeships," US Department of Veterans Affairs, updated January 13, 2022, https://www.va.gov/education/about-gi-bill-benefits/how-to-use-benefits/on-the-job-training-apprenticeships/.

Increasing Placement of TSMs into Apprenticeships

Achieving the objective of increasing placement of TSMs into apprenticeships suggests the need for an effective approach to identifying apprenticeship opportunities and matching TSMs to those opportunities. The Apprenticeship Pilot model evolved over time to include a stronger focus on employer engagement and more active case management by counselors to facilitate matching and placement. This experience offers considerations and key lessons as follows:

- **Consider ways to organize the sequence of activities and assistance provided to maximize chances of TSM placement into apprenticeship openings.** The timing of TSM separation from the military creates challenges for matching TSMs with apprenticeship openings, especially when they are months away from transitioning. Apprenticeship openings are often competitive and fill quickly, especially with leading companies in an industry. Employers often have apprenticeship positions they want to fill within weeks (and even days). Six of the eight counselors interviewed in spring 2021 shared that it is very challenging (if not impossible) to convince employers to hold an apprenticeship opening for a TSM that has a month or more to go before separation. Counselors indicated in interviews that planning for an apprenticeship placement (i.e., identifying possible types of apprenticeship openings of interest and helping TSMs to develop a solid résumé) is important in the six months leading up to transition. However, it is in the final 45 to 60 days that more intensive interaction between the counselor and the TSM occurs, with a focus on submitting multiple apprenticeship applications. In addition, for participants that are not placed into an apprenticeship by their transition date, it is important to check back with them in the 90 days after transition to see if they have found an apprenticeship or job because those that exit the military and have not successfully found a job may be interested in reengaging about apprenticeship. Hence, in considering ways to organize the sequence and timing of services, an option to consider is how to promote apprenticeship in the period immediately before and even after transition, when service members are not constrained (i.e., by their transition date) to accept an apprenticeship offer.

- **New efforts to expand entry into apprenticeships can draw on lessons learned from the pilot about strategies for employer engagement.** The increase in placements over the course of the Apprenticeship Pilot was probably associated with multiple factors, including an improved job market, working through early implementation challenges, programmatic changes put in place by a new project manager, and lagging outcomes. However, the improved approach to employer engagement may have played a role as well. Promising elements included the following: (1) having a staff role dedicated to employer engagement and identifying apprenticeship opportunities, (2) taking a collaborative approach to employer engagement that included regular communication between employer engagement staff (working with employers) and counselors (working directly with TSMs), (3) engaging partners that could expand connections to potential employers with apprenticeship openings, and (4) connecting employers that have available apprenticeship opportunities with TSMs using remote job fairs.

New efforts to expand TSM entry into apprenticeships, including through the Employment Navigator and Partnership Pilot, can draw on these experiences.

- **Partnerships were underutilized in the Apprenticeship Pilot and could be important in further developing future efforts.** Early in the pilot, with pressing challenges related to a shift to remote services, staff turnover, and a weak job market, efforts to engage potential partners were limited. Over time, partnership engagement expanded, yet there may be additional opportunities to leverage partnerships to support expanded access to apprenticeship. Partners that can help identify employers include federal and state offices of apprenticeship; trade associations; employers that frequently hire or have special programs to recruit veterans; community, technical, and other colleges, as well as other technical instruction providers that might have close links to employers; American Job Center staff; DOL apprenticeship grantees and contractors; and other apprenticeship intermediaries, which are organizations that help develop, register, and provide support to apprenticeship programs to relieve the administrative burden on employers.[56] In addition, counselors indicated that they often checked back regularly with employers at which they had already placed a TSM in an apprenticeship, as new openings would become available (sometimes in the same or different occupations)—and employers that had hired a TSM into an apprenticeship in the past were inclined to hire additional TSMs when other openings became available.

- **SkillBridge could offer an expanded pathway to apprenticeship.** During implementation of the pilot, staff recognized the potential of SkillBridge and sought to strengthen the Apprenticeship Pilot's connection with this program. SkillBridge offers TSMs access to employment training, internship, and apprenticeship opportunities in the 180 days before their transition to civilian life. Some SkillBridge placements are internships or pre-apprenticeships, and thus can offer TSMs the chance to develop skills that will help them qualify for apprenticeships or will facilitate connections to employers offering apprenticeships. Some SkillBridge placements are apprenticeships, thus providing another avenue for access. Expansion of SkillBridge apprenticeships could further open apprenticeship for TSMs.[57]

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[56] Apprenticeship intermediaries often are focused on particular sectors, as in the case of DOL's industry intermediary contracts (Lerman and Kuehn 2020). In other cases, apprenticeship intermediaries focus on particular populations such as youth (Katz and Elliott 2020) or people with disabilities (Kuehn et al. 2021). Intermediaries such as VetsInTech and Hiring Our Heroes work to make apprenticeship accessible to veterans and they help program sponsors recruit veterans into their programs. See "Registered Apprenticeship Opportunities," Hiring Our Heroes, US Chamber of Commerce Foundation, accessed April 7, 2022, https://www.hiringourheroes.org/resources/registered-apprenticeship-opportunities/; VetsInTech, https://vetsintech.co/; and "Apprenticeship Expansion and Modernization Fund," Apprenticeship.gov, US Department of Labor, accessed April 7, 2022, https://www.apprenticeship.gov/investments-tax-credits-and-tuition-support/apprenticeship-expansion-and-modernization-fund#awardee_list.

[57] For example, DOL's Office of Apprenticeship and VETS could collaborate with the Department of Defense to increase the number of SkillBridge programs that offer registered apprenticeships, as well as expand the industry sectors and the occupations for which SkillBridge registered apprenticeships are offered. Ultimately, expansion of the numbers and diversity of registered apprenticeships within SkillBridge could increase

- **It is important to align apprenticeship opportunities with the skills, experiences, and preferences of service members, which communicating the benefits of flexibility given the actual apprenticeships available.** Considerations for TSMs applying for and accepting apprenticeships include location, timing, and availability of apprenticeships in occupations and at salaries meeting TSMs' requirements. Counselors, like those assisting TSMs in the Apprenticeship Pilot, can play an important role in shaping expectations and the willingness of TSMs to consider slots that may not exactly meet initial requirements or expectations. For example, as the pilot progressed, a strategy employed by counselors increasingly stressed the available pool of apprenticeship openings that the employer outreach coordinators had developed. While counselors sought to understand TSMs' occupational and locational preferences, they discussed available openings with TSMs to determine whether there were openings that TSMs would consider applying for that might not exactly fit their original preferences. When made aware of actual openings to which they could apply immediately, often TSMs were willing to make some adjustments to their preferences, especially as they approached and passed their transition date (without securing a job or an apprenticeship).

- **Submitting multiple applications may improve prospects for apprenticeship placement.** Participants submitted slightly more than one application on average (of those who submitted applications). As the Apprenticeship Pilot was in its final stages, pilot staff emphasized the importance of getting participants to submit three applications, but the number of applications submitted (per TSM applying) remained close to just one. Because apprenticeship slots are competitive, submitting multiple applications enhances the chances of placement. Results of the regression analysis showed that submitting higher numbers of applications per participant was associated with higher placement rates. This suggests that additional encouragement of TSMs to submit multiple applications is needed as was encouraged in the latter stages of the Apprenticeship Pilot.

Other Lessons from the Apprenticeship Pilot

In addition to lessons related to the recruitment of TSMs, the identification of apprenticeship opportunities, and matching TSMs with opportunities, the Apprenticeship Pilot offers lessons for other pilot initiatives:

- **For future VETS pilots, a longer pilot period should be considered.** One pilot staff member characterized the start-up and initial implementation of the pilot as "building the plane while flying it." Interview respondents noted the constraints of a short start-up period and not enough time to address early implementation challenges. In addition, a longer period—two or

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participation of TSMs in registered apprenticeships both during active military service and after their transition from active military service (especially given that registered apprenticeships are typically one to four years in duration).

three years—would provide additional time to recruit and serve participants and for participants to achieve pilot goals (i.e., in the case of this pilot, placement into an apprenticeship).[58] With regard to a pilot focused on apprenticeship, a longer pilot period could also provide greater opportunity for pilot staff to collect data on additional participant outcomes, such as wages at six months and at one year (and possibly later), and potentially, whether the apprenticeship was successfully completed.

- **How to effectively hire, train, retain, and support staff of all levels should be considered.** The counselors often were recent TSMs themselves and some had prior experience serving TSMs (either as part of their job within the military or after they had transitioned from the military). Those experiences helped counselors to understand the transition process, the needs of TSMs as they transition to the civilian workforce, and how to encourage TSMs to consider apprenticeship as an option. However, few (if any) of the counselors came to the project with background knowledge about apprenticeship or how to work with TSMs to enhance their prospects of apprenticeship placement. Over the course of the pilot, pilot staff refined the training and monitoring of the placement counselors and set forth new strategies for working with and providing case management support to TSMs. Counselors were also provided with other types of support to encourage successful placement of TSMs into apprenticeships, including observation by and regular feedback from the quality control coordinator, and monetary incentives to achieve placement goals. The redefinition of the counselor role, the retraining, and the added supports were accompanied by an increase in the pace of placements in the latter part of the pilot. One counselor noted that the pilot would have benefited from more clearly defined roles and expectations for counselors from the start.

- **Future research should collect additional data to fully assess outcomes and impacts.** Although it was possible to examine the short-term outcomes of application and placement, it would be preferable to study a fuller range of outcome measures over a longer period. Tracking for future apprenticeship-focused efforts should collect not only data on whether a TSM is placed in an apprenticeship and the type of position but also data on hourly wage at placement and at completion of the apprenticeship, whether the TSM completes the apprenticeship, degrees and credentials obtained, and quarterly wages earned during the apprenticeship and several years following (e.g., three to five years after completion). In addition, to estimate impacts of intervention services, it would be useful to employ a random-assignment or comparison-group study design.

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[58] Recognizing lag time for placing TSMs who either enrolled in the pilot during its last few weeks or months or enrolled with a lengthy period to go before their transition date, VETS added a six-month phase-down period (from the end of March 2021 to September 2021) to provide additional time for enrolled TSMs to receive services and be placed. As discussed earlier, the result was that pilot placements nearly doubled during this period, increasing from 79 placements at the end of March 2021 to 152 total placements through the end of September 2021.

Veterans face many challenges in their reentry to civilian life, and apprenticeship has the potential to have positive impacts on their economic well-being and future careers. Understanding how best to connect TSMs and veterans to apprenticeship is important for supporting improved outcomes for this population.

Appendix A. Glossary

Apprenticeship: An industry-driven approach to training and staff development that combines paid work experience; classroom instruction; and a nationally recognized, portable credential. In this report, the term *apprenticeship* includes both registered apprenticeships (those registered with the U.S. Department of Labor or a State Apprenticeship Agency) and high-quality unregistered apprenticeships (see later in this appendix for definition of "unregistered apprenticeship").

Apprenticeship Placement Counselor: An individual embedded at each installation of the Apprenticeship Pilot to provide personalized assistance to transitioning service members interested in exploring apprenticeship as a postseparation career pathway.

Engagement: An in-person meeting, video meeting, telephone call, email, or text between a TSM and a counselor.

Employment Navigator and Partnership Pilot: A pilot sponsored by the U.S. Department of Labor Veterans' Employment and Training Service that provides one-on-one career assistance to interested transitioning service members and their spouses at 13 selected military installations worldwide. Provided outside of the formal Department of Labor Transition Assistance Program classroom instruction, the Employment Navigator assists these people in securing meaningful and lasting postseparation careers.

Participant: A transitioning service member or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship.

Placement: Acceptance into a registered or unregistered apprenticeship by an Apprenticeship Pilot participant.

Pre-apprenticeship program: Training designed to prepare individuals of any age for entry into an apprenticeship program or, in some cases, into other job opportunities. It may last anywhere from a few weeks to a few months, and may or may not include a paid, work-based experience. Pre-apprenticeship programs have varied components; however, at the core, they place an individual on a pathway to employability that is intended to include an apprenticeship program.

Recruit: A TSM or spouse who expressed interest in the pilot and provided contact information to a counselor, who created a record for the TSM in TAP4ME.

Registered Apprenticeship Program: A type of apprenticeship that meets federal and state standards and is registered with the U.S. Department of Labor or with a Department of Labor–approved State Apprenticeship Agency. Both the Department of Labor Office of Apprenticeship and State Apprenticeship Agencies register programs after verifying that they meet certain standards, which include detailed plans for at least 2,000 hours of on-the-job training and a recommended minimum of 144 hours of related technical instruction that result in an industry-recognized credential.

Remote: Delivery of services via phone or through virtual platforms (e.g., videoconferences, virtual job fairs) rather than in person at a common shared location.

SkillBridge program: U.S. Department of Defense program that offers employment training, internship, and apprenticeship opportunities at more than 1,000 public and private organizations across the country. Service members of all ranks may be eligible to participate in SkillBridge. Transitioning service members are eligible for SkillBridge if they meet eligibility requirements.

TAP4ME: Case management system developed by Apprenticeship Pilot staff to capture participant characteristics, engagement, services, and outcomes.

Transition Assistance Program: A service of the U.S. Department of Labor that provides information, tools, and training to ensure that service members and their spouses are prepared for their transition to civilian life. Provided under 10 U.S.C. 1411, the program is a cooperative effort of the U.S. Department of Labor, Department of Defense, Department of Education, Department of Homeland Security, and Department of Veterans Affairs, as well as the U.S. Small Business Administration and Office of Personnel Management.[59]

Transitioning service member (TSM): An individual on active-duty military status (including separation leave) who registers for employment services and is within 24 months of retirement or 12 months of separation. Throughout the report, "TSM" is used to encompass service members as well as their spouses, who were also a target of the Apprenticeship Pilot.

Unregistered apprenticeship: A program that uses the same earn-and-learn model as a registered apprenticeship but does not go through the same registration process or U.S. Department of Labor review process for apprenticeship standards. Unregistered apprenticeships can include a wide variety of approaches for upskilling an employee with occupation-specific training. In this evaluation of the Apprenticeship Pilot, entries into unregistered apprenticeships are counted as "placements" only if the programs contained the following elements indicating high quality: a paid job, work-based learning, mentorship, classroom learning, and an opportunity to earn credentials.

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[59] For more information on these three workshops, see the US Department of Labor website, https://www.dol.gov/agencies/vets/programs/tap.

Appendix B. Research Questions and Data Sources

Table B.1: Research questions and Data Sources

Research question	Semistructured interviews	Attendance at working group meetings	Analysis of TAP4ME data	Document review
1. How was the program model operationalized, and what factors affected design and implementation?	X	X		X
2. What were the approaches to outreach and recruitment into the pilot, and what were the characteristics of participants?	X	X	X	X
3. What activities, strategies, and resources were used under the pilot to assist participants to learn about, search for, and secure apprenticeships?	X	X	X	X
4. What were the patterns of placement in apprenticeship opportunities?			X	X
5. What were the lessons learned, and what strategies can be considered moving forward to inform TSMs of available apprenticeship opportunities and assist them in securing apprenticeships?	X	X	X	X

Appendix C: Interviews Conducted

Table C.1: Interviews Conducted

Respondent type	Description	No. of interviews, fall 2020	# of interviews, spring 2021
Serco, Inc.			
Pilot administrators	Serco staff overseeing the pilot or supporting data collection	3	3
National pilot staff	Pilot manager, employment outreach coordinators, quality control coordinator	2	4
Counselors	Pilot apprenticeship placement counselors	3	8
U.S. Department of Labor (DOL)			
Office of Apprenticeship staff	Representatives from the Office of Apprenticeship, which oversees registered apprenticeships in the U.S. and provides support regarding employer outreach and identification of apprenticeships	0	2
DOL Veterans' Employment and Training Service (VETS) administrators	VETS staff that oversaw and provided support during implementation of the pilot	1	4
Regional Veterans Employment coordinators	People responsible for connecting employers with federal, state, and local resources to facilitate veteran employment (see U.S. Department of Labor, https://www.dol.gov/agencies/vets/employers/rvec)	0	2
Partners			
Employers	Employers who hired participants into apprenticeships	0	3
Staff from office of state apprenticeship director	Staff from a state agency responsible for apprenticeship, which oversees apprenticeship programs and is involved in registration	0	1
Designated Government Representatives	Military base staff who served as primary points of contact for pilot	0	2
Pilot participants	A transitioning service member or spouse who had at least two engagements with a counselor in the Apprenticeship Pilot, or who applied to a registered or unregistered apprenticeship. Interviews were conducted with participants who met with a counselor but did not apply for an apprenticeship, who applied for an apprenticeship but were not placed, and who were placed in an apprenticeship.	0	8
Total interviews		9	37

Notes: Some individuals were interviewed twice: once in the fall to inform an initial memorandum and once in the spring to inform the final implementation study.

Appendix D: Revised Briefing Slides and Talking Points

Figure D.1: Slide 1

SLIDE 1

Hello, my name is _____, your Apprenticeship Placement Counselor.

I'm here because you are transitioning out of the military and most, if not all, of you will need a job in the near future. As you plan your exit from military service, an important question for you is "what do I want to do and how do I get there?"

This is where I come in. It is my job to help place you in a good job through an apprenticeship program as part of a Department of Labor's VETS Apprenticeship Pilot.

I can help connect you to a job in the occupation and location of your choice. I am working with apprenticeship programs nationwide who want to hire and train you through apprenticeship.

I want to ask you a question –

Who do you think makes a higher salary - a bachelor's degree holder or a brand-new apprenticeship graduate?

It's the apprenticeship graduate!!! The average starting apprenticeship graduate salary is $70,000 annually as compared to a bachelor's degree holder who averages $64,900.

<<<<NEXT SLIDE>>>>

Figure D.2: Slide 2

SLIDE 2
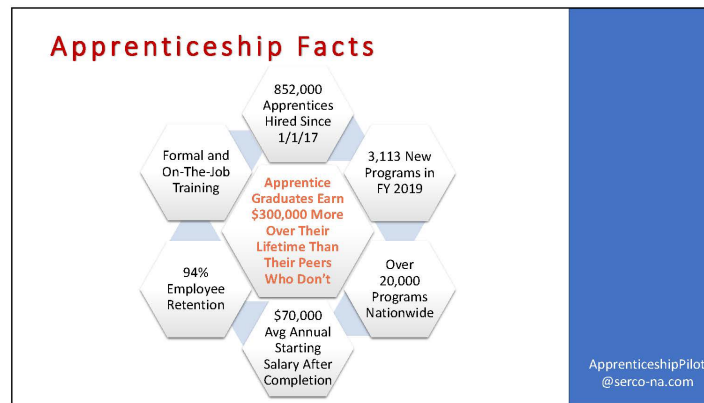
Did you know that apprenticeships are "earn while you learn" jobs? Unlike college, you get paid with benefits on day one of your training!

Plus, you can use your GI Bill Benefits and receive a housing allowance during an apprenticeship that's been approved by the Department of Veterans' Affairs, or VA. This assists with matching or exceeding your current pay and benefits.

Here are some important facts to consider.

There have been over 852,000 new apprentices hired since Jan 1, 2017 and 3,113 new apprenticeship programs were established in fiscal year 2019 alone, with a total of over 20,000 programs nationwide.

We know 94% of apprentices retain employment after program completion, AND you've already learned after an apprenticeship is completed, the average starting salary is $70,000 annually nationwide.

One more statistic, apprenticeship graduates earn $300,000 more over their lifetime compared to their peers who don't complete a program.

This is why I'm excited about apprenticeships and placing you into a great program!

<<<<NEXT SLIDE>>>>

Figure D.3: Slide 3

SLIDE 3
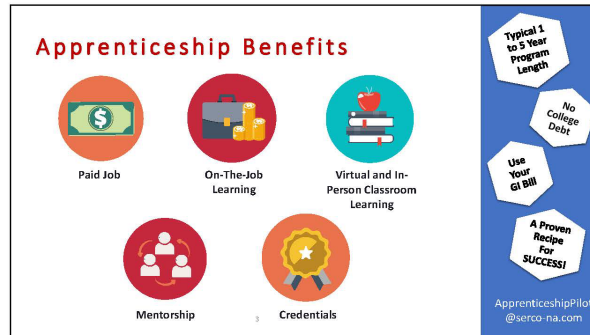
An Apprenticeship is an industry-driven, high-quality career pathway where employers develop their future workforce while employees obtain paid work experience, education, and a nationally-recognized credential. Apprenticeship programs are a powerful and proven recipe for employment success.

Here's five key apprenticeship benefits that differentiate apprenticeships from traditional employment.

First, it's a PAID JOB! You are getting paid as you develop new skills. Apprenticeship programs typically last between one to five years, depending upon the occupation chosen, and can lead to a long-lasting career. That's just one reason to consider apprenticeship when you leave military service.

Next, it gets you ON-THE-JOB LEARNING and CLASSROOM LEARNING, giving you workplace-relevant skills.

All high-quality apprenticeship programs include virtual or in-person classroom instruction, and many apprentices earn college credits. Employers typically pay for this formal education meaning no financial burden on the apprentice – so no college debt! Some apprenticeships are VA approved for GI Bill benefits use. If approved by the VA, the apprentice can receive a monthly housing stipend tax free while earning their apprentice wages. The ability to tap into GI Bill benefits has attracted many veterans to apprenticeship.

MENTORSHIP is a valuable part of apprenticeship. You get to connect with people who help you sharpen your skills in the field of your choice.

The fifth benefit is a CREDENTIAL. Upon completion of an apprenticeship program, you will receive an industry recognized and nationally-portable credential.

You may have heard of SkillBridge before. SkillBridge programs allow Servicemembers to complete industry training, pre-apprenticeships, or internships within your last 180 days of military service. Some SkillBridge opportunities even lead to an apprenticeship position after your military transition. I can help connect you with these programs as well.

<<<<NEXT SLIDE>>>>

Figure D.4: Slide 4

SLIDE 4

Consider these jobs: ManTech Cyber Security Support Technician, CVS Pharmacy Technician, Amazon Web Service Software Engineer, and Wells Fargo Financial Advisor. Which of these do you think are paid apprenticeship programs?

<<<Virtual Instruction: State **Please type your answer into the chat**.
Give participants some time to respond. Read some of their answers aloud.>>>>

<<<In-Person Instructions: Call on 1-2 participants to share their answer.>>>>

The correct answer is ALL these occupations may be pursued through a paid apprenticeship. Some may think of apprenticeships as "trades only" or "blue collar" jobs. That certainly is not true.

I work with employers who have apprenticeship programs in IT, healthcare, construction, transportation, energy, and many others.

Remember, there's over one thousand very diverse apprenticeship occupations for you to consider!

<<<<NEXT SLIDE>>>>

Figure D.5: Slide 5

SLIDE 5

Every job falls under a Career Cluster. Career Clusters are groups of occupations in the same field of work that require similar skills. Each cluster contains several smaller groups called career pathways that connect to educational programs, industries, and careers.

The career clusters highlighted in orange are garnering the most interest from our pilot participants.

Now I want each of you to identify YOUR personal Career Cluster based upon your civilian goals. Take a moment to think about your industry of interest. What Career Cluster would that fall under? It could be more than one.

<<<<<<*VIRTUAL BRIEFING SCRIPT - STATE:* Type your career cluster in the chat. >>>>>>

<<<<<<*IN-PERSON BRIEFING INSTRUCTION: CALL ON A COUPLE OF CLASS PARTICIPANTS TO SHARE THEIR IDENTIFIED PRIMARY CAREER CLUSTER.*>>>>>>

Great! You've already completed the first step in finding an apprenticeship! I can help you connect with employers in your identified career clusters and explore others that may interest you.

<<<<NEXT SLIDE>>>>

Figure D.6: Slide 6

SLIDE 6

As an Apprenticeship Placement Counselor, my job is to provide assistance to YOU and YOUR spouse, in exploring apprenticeship and place YOU in an apprenticeship program.

I work with you to identify opportunities within your desired industry and location.

Apprenticeship.gov is a great resource to use where you can learn more about apprenticeship and access helpful tools such as an Apprenticeship Job Finder, a Partner Finder, and an Occupation Finder. These tools allow you to search for apprenticeship programs based on location, industry and occupation.

Most importantly, you don't have to do this on your own! I am here to help you prepare your resume, find an apprenticeship, apply for the job, and follow up with the employer.

I want to place you in an apprenticeship that provides you with a unique and rewarding pathway to developing in-demand skills, while you earn a paycheck in the career of your choice.

<<<<NEXT SLIDE>>>>

Figure D.7: Slide 7

SLIDE 7

Here are some personal testimonials from fellow veteran who have pursued apprenticeships.

Hector shares that he would have started looking into apprenticeship programs earlier while he was on active duty.
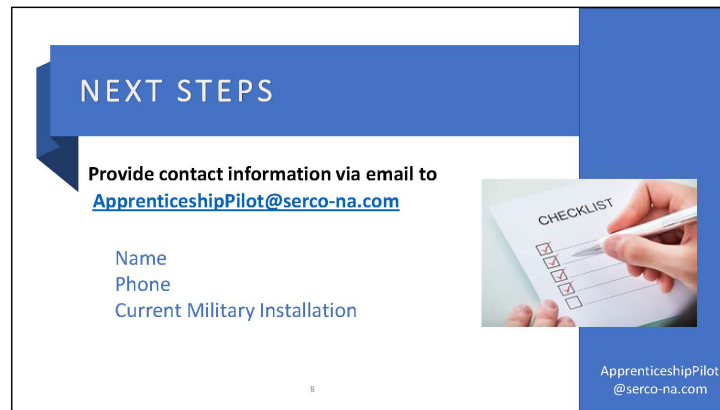
Kade, a Marine Corps veteran, is actualizing his dream of farming through an apprenticeship with the U.S. Department of Agriculture.

Nick, a Transitioning Service Member from Fort Sill Oklahoma, was accepted into an apprenticeship within weeks of participating in the pilot. Nick has now finalized his civilian employment plan through apprenticeship and is looking forward to his post-military career in manufacturing.

<<<<NEXT SLIDE>>>>

Figure D.8: Slide 8

SLIDE 8

Next step - let's get you placed into an apprenticeship program! Please email your name, phone number and where you are currently stationed to apprenticeshippilot@serco-na.com.

I will reach out to you to follow up so I can help you understand what an apprenticeship is and if it's the right fit for you. I look forward to getting you employed!

I will pause here so you can write down the email address or take a screen shot of this information.

<<<FOR VIRTUAL BRIEFINGS, APC TYPES IN THEIR NAME AND BUSINESS PHONE NUMBER IN THE CHAT>>>
<<<FOR IN-PERSON BRIEFINGS, APC WRITE NAME AND BUSINESS PHONE NUMBER ON BOARD/BUTCHER BLOCK IN CLASSROOM>>>

<<<<NEXT SLIDE>>>>

Figure D.9: Slide 9

SLIDE 9

Are there any questions?

(speaking note – the following script is OPTIONAL if time permits and provides you common questions and responses to use) Do not exceed 15 minutes of briefing time.

Common questions include:

- Aren't apprenticeships for entry level jobs only? *No. Apprenticeship programs can include training for entry level positions; however, there are many programs that include higher skilled opportunities for individuals with more experience and skill.*

- Are there apprenticeship programs in IT, cybersecurity, and other white-collar positions? *Yes, there are many programs that include occupations such as cybersecurity support technician, IT generalist, cloud computing, bank branch manager, etc.*

- What is the difference between an apprenticeship and an internship?

1. *Length of Time: Internships are usually short term (1-3 months) and apprenticeships are longer (1-5 yrs.). You may be able to shorten the time in an apprenticeship as the employer can give you credit for prior experience.*
2. *Structure: Apprenticeships include a structured training plan, with a focus on mastering specific skills an employer needs to fill an occupation within their organization. Internships aren't structured and often focus on entry-level general work experience.*
3. *Mentorship: Apprentices receive individualized training with an experienced mentor who walks them through their entire process. Internships don't always include a mentor.*
4. *Pay: Apprenticeships are paid experiences that often lead to full-time employment. Internships are often unpaid and may not lead to a full-time job.*
5. *Credential: Apprenticeships lead to an industry-recognized credential. Internships typically do not lead to a credential.*
6. *College Credit: Internship and apprenticeship experiences may both lead to college credit, although some apprenticeship programs will lead to a debt-free college degree.*

Thank you for your time and have a great day! <<<End of Brief>>>

Appendix E: Characteristics of Apprenticeship Pilot Participants

Characteristics of Apprenticeship Pilot Participants, April 2020 to March 2021

Characteristic	Percent of all pilot participants
Type of client	
Transitioning service member	97.7%
Spouse	2.3%
Gender	
Male	78.2%
Female	18.2%
Other or did not disclose	3.6%
Average days between first meeting and transition	163.4
Average age at transition	30.3
Security clearance and level, if applicable	
None	4.6%
Yes, type unknown	1.3%
Yes, Secret	43.5%
Yes, Top Secret Sensitive Compartmented Information	9.7%
Not known	41.0%
Highest education attained	
More than a bachelor's degree	5.7%
Bachelor's degree	16.3%
Associate degree	18.0%
High school diploma	56.8%
Not known	2.9%
Not applicable	0.3%
First preferred state is the same as home state	53.0%
Total	1,492

Source: Authors' analysis of TAP4ME data.

Notes: *Participants* are TSMs or spouses who had at least two engagements with a counselor or applied to a registered or unregistered apprenticeship program. An *engagement* is defined as an in-person meeting, video meeting, telephone call, email, or text message. Information on age, time to transition, and highest educational attainment is missing for 292 participants. Participants were asked for up to three states where they preferred to find employment, and they were asked their home state—the region or locality where they lived prior to active military service. "First preferred state is the same as home state" indicates that the location preference ranked first matches the home state. *N* = 1,492 participants.

Appendix F: Example DOL Outreach Email

Figure F.1: Email Screenshot Part 1

Figure F.2: Email Screenshot Part 2

Note: This is an example of an email sent to subscribers to the HIRE Vets Medallion Program, which goes to 77,000 people.

Appendix G: Multivariate Regression Model Specifications

The specification of the ordinary least squares model in table 5.6 is:

$$A = \beta_0 + \beta_1 m + \boldsymbol{\beta_2 L} + \boldsymbol{\beta_3 E} + \beta_4 s + \beta_5 a + \beta_6 w + \beta_7 t + \beta_8 r + \beta_9 e + \varepsilon$$

Where A is the number of applications submitted, m is an indicator for whether the participant is male, L is a vector of location indicators, E is a vector of educational attainment indicators, s is the participant's preferred state, a is age at transition, w is weeks between first meeting and transition, r is an indicator for whether the participant discussed their resume with the counselor, e is number of engagements with the counselor. The coefficients of the model are estimated using ordinary least squares.

The specification of the probit model in table 5.6 is:

$$P(p=1 \mid \mathbf{X}) = \Phi(\beta_0 + \beta_1 m + \boldsymbol{\beta_2 L} + \boldsymbol{\beta_3 E} + \beta_4 s + \beta_5 a + \beta_6 w + \beta_7 t + \beta_8 r + \beta_9 e + \beta_{10} A)$$

Where p is an indicator for whether the participant was placed in an apprenticeship and all other variables have the same values as described above. In a probit model, the relationship between the covariates and the probability of placement is modeled using a cumulative normal distribution function, $\Phi(.)$. Coefficients reported in table 5.6 are marginal effects reported at the mean rather than probit model coefficients.

Appendix H: Description of Report Images

This appendix provides a text description of images in the report that cannot be rendered into text.

Figure ES.1 Apprenticeship Pilot Participant Flow through Key Pilot Services

A flow chart. Step 1 Recruitment leads to Step 2 TSM indicates interest. Step 2 leads to Step 3 TSM assigned to counselor. Step 3 leads to Step 4 TSM meets with counselor. Step 4 leads to the question "is TSM interested in participating in the pilot?" If the answer is No then the TSM is not enrolled. If the answer is Yes then Step 5 is intake and assessment. Step 5 leads to Step 6 Plan developed for applying to apprenticeship. Step 6 leads to Step 7 Apprenticeship applications and continued support. Step 7 leads to Step 8 Participants are placed into apprenticeship. Step 8 leads to Placement data recorded in TAP4ME. Placed participants exit pilot, unplaced participants referred to additional services.

Figure 3.1 Military Base Locations of Recruits in the United States and Abroad, April 2020 to March 2021

This is a map of the United States, the United Kingdom, Italy, Germany, Bahrain, Turkey, South Korea, and Japan. Original pilot bases are indicated as being located in Travis, CA; Miramar, CA; San Diego, CA; Nellis, NV; Bliss, TX; Bragg, NC; Norfolk, VA; and Cherry Point, NC. Additional military base locations by remote briefing are indicated as being located in Washington, Idaho, Montana, North Dakota, South Dakota, Iowa, Illinois, Indiana, Ohio, New York, Massachusetts, Connecticut, New Jersey, Maryland, Kentucky, Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, Texas, Oklahoma, Kansas, Colorado, New Mexico, Arizona, Nevada, California, Alaska, Hawaii, Puerto Rico, the United Kingdom, Italy, Germany, Bahrain, Turkey, South Korea, and Japan.

Figure 3.2 Referral Sources and Number of Recruits for the Apprenticeship Pilot, April 2020 to March 2021

A diagram indicating the sources of Apprenticeship Pilot recruits. 1,206 recruits come from Remote DOL TAP Workshops. Of these, 1,053 come from Employment Fundamentals workshops, 101 come from DOL Employment workshops, and 52 come from Career and Credential Exploration workshops. 406 recruits come from In-Classroom DOL TAP Workshops. Of these, 323 come from Employment Fundamentals workshops, 61 come from DOL Employment workshops, and 22 come from DOL

Vocational workshops. 412 recruits come from other referral sources. Of these, 111 come from word of mouth, 109 form email, 52 from a Transition Counselor, 18 from flyers, 11 from LinkedIn, 3 from an event or job fair, 2 from Facebook, and 106 from some other source. The total number of recruits is 2,024.

Figure 4.1 Apprenticeship Pilot Participant Flow through Key Pilot Services

A flow chart. Step 1 Recruitment through TAP workshop or other sources leads to Step 2 TSM indicates interest in learning more about the pilot. Step 2 leads to Step 3 TSM assigned to counselor and scheduled for an initial meeting. Step 3 leads to Step 4 TSM meets with counselor to learn more about the pilot. Step 4 leads to a question, Is TSM interested in participating in the pilot? The question has two branches, yes and no. No leads to one endpoint of the flowchart, TSM not enrolled and may be referred to other transition assistance. Yes leads to Step 5, intake and assessment of TSM interests related to apprenticeship placement and service delivery preferences. Step 5 leads to Step 6, Plan developed for applying to apprenticeships that is agreed upon by TSM and counselor. Step 6 leads to Step 7, Apprenticeship applications and continued support, including meetings, correspondence, and application assistance. Step 7 leads to Step 8, Participants are placed in apprenticeships (registered or unregistered). Once step 8 is completed, the flowchart ends with a note that placement data are recorded in TAP4ME, placed participants exit the pilot, and unplaced participants are referred to additional services including other service providers and assistance to support their transition.

Figure D.1, Slide 1, in "Appendix D: Revised Briefing Slides and Talking Points" says:

DOL VETS Apprenticeship Pilot Overview

Assist Transitioning Service Members in taking their talents gained through military service and pursue apprenticeship opportunities.

Below the slide is a script, as follows:

"Hello, my name is [states name], your Apprenticeship Placement Counselor,

I'm here because you are transitioning from out of the military and most, if not all, of you will need a job in the near future. As you plan your exit from military service, an important question for you is "what do I want to do and how do I get there?"

This is where I come in. It is my job to help place you in a good job through an apprenticeship program as part of a Department of Labor VETS Apprenticeship Pilot.

I can help connect you to a job in the occupation and location of your choice. I am working with apprenticeship programs nationwide who want to hire and train you through apprenticeship.

I want to ask you a question…

Who do you think makes a higher salary – a bachelor's degree holder or a brand new apprenticeship graduate?

It's the apprenticeship graduate!!! The average starting apprenticeship graduate salary is $70,000 annually as compared to a bachelor's degree holder who averages $64,900."

Figure D.2, Slide 2, in "Appendix D: Revised Briefing Slides and Talking Points" says:

Apprenticeship Facts

852,000 apprentices hired since 1/1/17

3,113 new programs in FY 2019

Over 20,000 programs nationwide

$70,000 average annual starting salary after completion

94% Employee retention

Formal on-the-job training

Apprentice graduates earn $3000,000 more over their lifetime than their peers who don't.

The script continues from the previous slide, as follows:

"Did you know that apprenticeships are "earn while you learn" jobs? Unlike college, you get paid with benefits on day one of your training!

Plus, you can use your GI Bill Benefits and receive a housing allowance during an apprenticeship that's been approved by the Department of Veterans' Affairs, or VA. This assists with matching or exceeding your current pay and benefits.

Here are some important facts to consider:

There have been over 852,000 new apprentices hired sing January 1, 2017 and 3,113 new apprenticeship programs were established in fiscal year 2019 alone, with a total of over 20,000 programs nationwide.

We know 94% of apprentices retain employment after program completion, AND you've already learned after an apprenticeship is completed, the starting salary is $70,000 annually nationwide.

One more statistic, apprenticeship graduates earn $300,000 more over their lifetime compared to their peers who don't complete a program.

This is why I'm excited about apprenticeships and placing you into a great program."

Figure D.3, Slide 3, in "Appendix D: Revised Briefing Slides and Talking Points" says:

"Apprenticeship Benefits:

Paid job

On-the-job learning

Virtual an in-person classroom learning

Mentorship

Credentials"

The script continues from the previous slide, as follows:

"An Apprenticeship is an industry-driven, high-quality career pathway where employers develop their future workforce while employees obtain paid work experience, education, and a nationally-recognized credential. Apprenticeship programs are a powerful and proven recipe for employment success.

Here's five key apprenticeship benefits that differentiate apprenticeship from traditional employment.

First, it's a PAID JOB! You are getting paid as you develop new skills. Apprenticeship programs typically last between one to five years, depending upon the occupation chosen, and can lead to a long-lasting career. That's just one reason to consider apprenticeship when you leave military service.

Next, it gets you ON-THE-JOB-LEARNING and CLASSROOM LEARNING, giving you workplace-relevant skills.

All high-quality apprenticeship programs include virtual or in-person classroom instruction, and many apprentices earn college credits. Employers typically pay for this formal education meaning no financial burden for the apprentice – so no college debt! Some apprenticeships are VA approved for GI Bill Benefits use. If approved by the VA, the apprentice can receive a monthly housing stipend tax free while earning their apprentice wages. The ability to tap into GI Bill benefits has attracted many veterans to apprenticeship.

MENTORSHIP is a valuable part of apprenticeship. You get to connect with people who help you sharpen your skills in the field of your choice.

The fifth benefit is a CREDENTIAL. Upon completion of an apprenticeship program, you will receive an industry recognized and nationally-portable credential.

You may have heard of SkillBridge before. SkillBridge programs allow Servicemembers to complete industry training, pre-apprenticeships, or internships within your last 180 days of military service. Some SkillBridge opportunities even lead to an apprenticeship position after your military transition. I can help connect you with these programs as well."

Figure D.4, in "Appendix D: Revised Briefing Slides and Talking Points" says:

Apprenticeship opportunities:

ManTech Cyber Security Support Technician

CVS Pharmacy Technician

Amazon Web Service Software Engineer

Wells Fargo Financial Advisor

Which of these are paid apprenticeships?

The script continues from the previous slide, as follows:

"Consider these jobs: ManTech Cyber Security Support Technician, CVS Pharmacy Technician, Amazon Web Service Software Engineer, and Wells Fargo Financial Advisor. Which of these do you think are paid apprenticeship programs?

<<<Virtual Instruction: State Please type your answer into the chat. Give participants some time to respond. Read some of their answers aloud.>>>>

<<<In-Person Instructions: Call on 1-2 participants to share their answer.>>>>

The correct answer is ALL these occupations may be pursued through a paid apprenticeship. Some may think of apprenticeships as "trades only" or "blue collar" jobs. That certainly is not true. I work with employers who have apprenticeship programs in IT, healthcare, construction, transportation, energy, and many others.

Remember, there's over one thousand very diverse apprenticeship occupations for you to consider!"

Figure D.5, Slide 5, in "Appendix D: Revised Briefing Slides and Talking Points" says:

16 Career Clusters

TSMs Top Desired Career Clusters

Agriculture, food, and natural resources

Architecture and construction [highlighted orange]

Arts, audio/video technology, and communications

Business management and administration

Education and training

Finance

Government and public administration

Health science [highlighted orange]

Hospitality and tourism

Human Services

Information Technology [highlighted orange]

Law, public safety, corrections, and security

Manufacturing

Marketing

Science, technology, engineering, and mathematics

Transportation, distribution, and logistics

The script continues from the previous slide, as follows:

"Every job falls under a Career Cluster. Career Clusters are groups of occupations in the same field of work that require similar skills. Each cluster contains several smaller groups called career pathways that connect to educational programs, industries, and careers. The career clusters highlighted in orange are garnering the most interest from our pilot participants.

Now I want each of you to identify YOUR personal Career Cluster based upon your civilian goals. Take a moment to think about your industry of interest. What Career Cluster would that fall under? It could be more than one.

<<<<<<VIRTUAL BRIEFING SCRIPT - STATE: Type your career cluster in the chat. >>>>>>

<<<<<<IN -PERSON BRIEFING INSTRUCTION: CALL ON A COUPLE OF CLASS PARTICIPANTS TO SHARE THEIR IDENTIFIED PRIMARY CAREER CLUSTER.>>>>>>

Great! You've already completed the first step in finding an apprenticeship! I can help you connect with employers in your identified career clusters and explore others that may interest you."

Figure D.6, Slide 6, in "Appendix D: Revised Briefing Slides and Talking Points" says:

What can we do for you:

Personalized apprenticeship placement assistance

Find apprenticeships through our Employer Database and other Digital Search Tools

Provide information on Skill bridge or similar job training programs

Assist with developing resumes, submitting applications and employer follow up

The script continues from the previous slide, as follows:

"As an Apprenticeship Placement Counselor, my job is to provide assistance to YOU and YOUR spouse, in exploring apprenticeship and place YOU in an apprenticeship program. I work with you to identify opportunities within your desired industry and location. Apprenticeship.gov is a great resource to use where you can learn more about apprenticeship and access helpful tools such as an Apprenticeship Job Finder, a Partner Finder, and an Occupation Finder. These tools allow you to search for apprenticeship programs based on location, industry and occupation.

Most importantly, you don't have to do this on your own! I am here to help you prepare your resume, find an apprenticeship, apply for the job, and follow up with the employer. I want to place you in an apprenticeship that provides you with a unique and rewarding pathway to developing in-demand skills, while you earn a paycheck in the career of your choice."

Figure D.7, Slide 7, in "Appendix D: Revised Briefing Slides and Talking Points" says:

Proven Results

"An Apprenticeship Specialist helped me research online and look through companies and schools with available apprenticeships where I then picked the right one for myself. If I were to do things differently, I would look into starting apprenticeship programs while I was active duty and seek assistance earlier than I did." -Hector, USMC Veteran

"I was able to get an apprenticeship working with Agriculture and Livestock Teams via USDA Training Opportunities. I have begun my own operations raising livestock and hope to have a full-fledged farm soon. My advice to my fellow veterans and Service Members is to branch out to every possible avenue you can to make your dreams come true." -Kade, USMC Veteran

"I was able to connect with an apprenticeship company rather quickly and received an acceptance letter within weeks." -Nick, Transitioning Service Member at Fort Sill, OK, and future Webco Tube Mill Operator

The script continues from the previous slide, as follows:

"Here are some personal testimonials from fellow veteran who have pursued apprenticeships. Hector shares that he would have started looking into apprenticeship programs earlier while he was on active duty. Kade, a Marine Corps veteran, is actualizing his dream of farming through an apprenticeship with the U.S. Department of Agriculture. Nick, a Transitioning Service Member from Fort Sill Oklahoma, was accepted into an apprenticeship within weeks of participating in the pilot. Nick has now finalized his civilian employment plan through apprenticeship and is looking forward to his post-military career in manufacturing.

Figure D.8, Slide 8, in "Appendix D: Revised Briefing Slides and Talking Points" says:

Next Steps

Provide contact information via email to ApprenticeshipPilot@serco-na.com

Name

Phone

Current Military Installation

The script continues from the previous slide as follows:

"Next step - let's get you placed into an apprenticeship program! Please email your name, phone number and where you are currently stationed to apprenticeshippilot@serco-na.com. I will reach out to you to follow up so I can help you understand what an apprenticeship is and if it's the right fit for you. I look forward to getting you employed! I will pause here so you can write down the email address or take a screen shot of this information.

<<<FOR VIRTUAL BRIEFINGS, APC TYPES IN THEIR NAME AND BUSINESS PHONE NUMBER IN THE CHAT>>>

<<<FOR IN-PERSON B RIEFINGS, APC WRITE NAME AND BUSINESS PHONE NUMBER ON BOARD/BUTCHER BLOCK IN CLASSROOM >>>"

Figure D.9, Slide 9, in "Appendix D: Revised Briefing Slides and Talking Points" says:

Questions?

The script continues from the previous slide as follows:

"Are there any questions?

(speaking note – the following script is OPTIONAL if time permits and provides you common questions and responses to use) Do not exceed 15 minutes of briefing time.

Common questions include:

• Aren't apprenticeships for entry level jobs only? No. Apprenticeship programs can include training for entry level positions; however, there are many programs that include higher skilled opportunities for individuals with more experience and skill.

• Are there apprenticeship programs in IT, cybersecurity, and other white-collar positions? Yes, there are many programs that include occupations such as cybersecurity support technician, IT generalist, cloud computing, bank branch manager, etc.

• What is the difference between an apprenticeship and an internship?

1. Length of Time: Internships are usually short term (1-3 months) and apprenticeships are longer (1-5 yrs.). You may be able to shorten the time in an apprenticeship as the employer can give you credit for prior experience.

2. Structure: Apprenticeships include a structured training plan, with a focus on mastering specific skills an employer needs to fill an occupation within their organization. Internships aren't structured and often focus on entry-level general work experience.

3. Mentorship: Apprentices receive individualized training with an experienced mentor who walks them through their entire process. Internships don't always include a mentor.

4. Pay: Apprenticeships are paid experiences that often lead to full-time employment. Internships are often unpaid and may not lead to a full-time job.

5. Credential: Apprenticeships lead to an industry-recognized credential. Internships typically do not lead to a credential.

6. College Credit: Internship and apprenticeship experiences may both lead to college credit, although some apprenticeship programs will lead to a debt-free college degree.

Thank you for your time and have a great day!"

Figures F.1 and F.2, Email Screenshots Part 1 and 2, read as follows:

Apprenticeship can be part of your HIRE Vets Medallion Award Program

United States Department of Labor sent this bulletin at 09/24/2020 07:30 AM EDT

VETS Apprenticeship Pilot Opportunity

Apprenticeship can be part of your HIRE Vets Medallion Award Program

The U.S. Department of Labor's groundbreaking Apprenticeship Pilot for transitioning service members can help employers meet the HIRE Vets Medallion Award criteria through the use of apprenticeship programs. Employers can take advantage of this pilot to start an apprenticeship program or connect their existing apprenticeship program with transitioning service members.

For this pilot, the Veterans' Employment and Training Service (VETS) has embedded 16 Apprenticeship Placement Counselors at eight military installations across the United States to work with transitioning service members and their spouses interested in exploring apprenticeship as a post-separation career pathway. During the pilot, apprenticeship counselors are assisting transitioning service members as the select, locate, and apply for apprenticeships that are located across the nation.

If you have an apprenticeship program and would like to connect your program with this pilot, or if you would like to learn how you can develop an apprenticeship program that can attract, train, and retain veterans, please email VETSapprenticeship@dol.gov.

Join the Apprenticeship Pilot

Tap into a ready and skilled workforce

Do you want to hire an employee with proven leadership skills, an ability to work well under pressure, and a strong work ethic? Learn how you can engage with transitioning service members and their spouses who are interested in joining an Apprenticeship Program in your industry after they separate from the military.

DOL VETS is offering an apprenticeship pilot that will connect transitioning service members at eight military installations with resources and counseling services to explore apprenticeship as a career pathway. 94% of apprentices retain employment after program completion. Attract veterans to your organization by getting approved to accept GI bill benefits. Source: apprenticeship.gov.

For more information and to meet with an Apprenticeship Placement Counselor to learn more about how you can connect with potential hires, please contact VETSapprenticeship@dol.gov.

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